

SNOWSMART: Communicating snow risk management to Canada's youth

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Abstract: Youth are frequent participants in the winter sports of skiing, snowboarding and snowmobiling. They often lack experience and take more risks, resulting in injuries and even death. The purpose of SNOWSMART is to develop culturally relevant messages for Canadian youth to increase their knowledge and awareness of risk associated with winter sports. Assisting youth to make positive, smart choices and changing behaviours, will help to reduce the number of winter sports related search-and-rescue responses, injuries and deaths in Canada

Data was collected through surveys, one-on-one interviews and focus groups with Canadian youth aged 12 - 18. Youths' existing attitudes towards risk associated with the three sports were identified. Participants in each sport have distinctly different attitudes, risk perception and behaviours. Threat of injury is not a big deterrent for youth. Many believe injuries are cool and lead to progress in the sport. Participants suggested school-based learning from experienced role models in their sport and from people who survived traumatic injuries as an ideal way to reach their population.

Teacher-delivered lesson plans were designed for Grade 7 and 10 physical education and science curricula. A video, public service announcements and facilitation tips/strategies outlining how to deliver SNOWSMART are included. Students' posttests indicate a heightened awareness of smart risk taking and avoidance of injury.

This is the first comprehensive winter sports risk management/awareness program combining a school-based approach with a marketing campaign. SNOWSMART will assist motivated youth to develop the knowledge and skills necessary to prevent personal injury and loss of life while participating in winter sports.

Keywords: education, risk behaviour, social marketing, and avalanche

1. Introduction

In 1999, the Canadian Ski Patrol System (CSPS), Canadian Avalanche Association (CAA), Parks Canada and SMARTRISK formed a partnership under funding received from the Government of Canada from the National Search and Rescue Secretariat New Initiatives Fund (NIF) to design, implement and evaluate SNOWSMART.

SNOWSMART is a communication / education initiative targeted to youth recreating in (mountainous) winter terrain. The intent is to help youth aged 12 – 18 years identify risks associated with snow-related activities, in order to prevent injuries and death.

The vision for this program is one in which people see the risks in their life, and are able to manage those risks in the smartest way possible in order to enjoy life to the fullest. Key messages developed by SMARTRISK, are used to communicate risk management strategies to youth; "Look First", "Wear the Gear", "Get Trained" and "Drive Sober."

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2. Research

Over 2000 youth in Canada who alpine ski, snowboard, cross country ski and snowmobile were interviewed. It was found that males in the beginner to intermediate skill level sustain the most injuries. Snowboarders take the most unprepared risk, going out of bounds and into the backcountry most often. The primary cause of injury is skill related. Participants in each of the four winter related sports reviewed have distinctly different attitudes, risk perception and behaviours. Common injuries in all sports include broken bones, broken necks, bruises and strains and muscle stiffness which occur as a result of collisions (with people and objects), falling, poor landing on jumps, loss of control and inexperience. Out of bounds activity is seen as acceptable and part of the thrill of the sport if one is "prepared" for it. Snowmobilers engage in high-risk activity such as travelling at high speed, over long distances or on ice.

Of the 47% (n=169) of snowboarders who felt they were prepared to go out of bounds, 11% had taken a course and 8% had taken safety equipment with them. In comparison, of the 40% (n=186) of alpine skiers who felt prepared to travel out of bounds, 16% had taken a course and 2% had safety equipment with them.

Snowboarders reported often / sometimes participating without a helmet / protective gear 67% of the time (n=362), compared to skiers at 61% of the time (n=460).

Youth reported peers, role models that are experienced in the sport (ski patrol) and traumatic injury survivors as the most effective medium for delivering safety messages. The least effective messengers are parents and teachers. Participants in the study suggest, however, that school based learning is an ideal way to reach their population.

3. Program Design

Based on the research, programs for grade 7 (aged 13 – 14 years) and 10 (aged 16 – 17 years) were identified as groups we could have the most initial impact with. The 14 – 16 year group is most at risk of injury. Developmentally, they move from their parent's watchful eye, become subject to peer pressure and start to mimic the actions of older teens. Physical Education and Science – (Physics) were selected as the most appropriate subjects for the program. Most outdoor trips, including skiing and snowboarding in this age group, occur through the Physical Education program, similarly competencies related to force, gravity, movement and acceleration

are taught in the context of science. The research findings suggest that snowmobilers have different demographics and perceptions of risk. Accordingly this group was separated from the skiers and boarders in the grade 10 physical education program.

Each of the five curriculum packages is made up of 5-8 lesson plans designed to be delivered by teachers and/or credible volunteers (e.g. ski patrollers, avalanche professionals) in the classroom. Each curriculum discusses the difference between accident and incident, the preventable nature of injuries, the risks inherent in the sport and provides risk mitigation strategies based on the four SMARTRIKS messages. The first lesson incorporates a 13 minute high intensity video in which to facilitate discussion. Supportive collaborative items were developed including posters, collector cards, locker mirrors and a series of radio and print public service announcements.

3.1 Checking the Messages

The base research was a point of departure for all collateral produced. Throughout the design of the program, materials, messages and ideas were reviewed by key stakeholders. All partners participated in regular reviews to ensure the accuracy of the information in the collateral and curricula. Focus group testing occurred with students enrolled in a snow management program of the logos, video content and collateral materials. Snow industry experts were asked a series of questions to determine imaging and messaging. French materials were transcreated in Quebec to ensure all materials were culturally relevant and appropriate.

SNOWSMART relies on social marketing concepts. Social Marketing combines the best elements of the traditional approaches to social change. The concept uses marketing techniques to generate discussion and promote information, attitudes, values and behaviours.

SNOWSMART videos and print collateral have messages strategically placed within age appropriate, fun images. In this way, the message that anything is possible as long as you wear the gear and look first may not be seen at first. Only by drawing the person into the image, do they begin to see the intended messages.

4. Program Delivery

Approximately 300 schools were contacted to participate in pilot testing the SNOWSMART program during the winter of 2001/02. Each of the partner organizations were apart of the school

recruitment campaign. Schools and teachers were contacted to solicit interest in the pilot testing.

Approximately 56 schools ultimately declared an interest. Twenty-six host schools were randomly selected ensuring uniformity of all variables – urban, rural, high school, junior school, physical education, science, grade 7 and grade 10.

Each school received a SNOWSMART kit which included the following: grade specific curriculum package, video, facilitator's brochure, locker size posters and plexy glass mirrors for students, public service announcement, photo ready images for newspaper or year book, set of 6 collector cards and a classroom size poster.

Pilot testing occurred during the winter of 2001/2002. Schools did not need to tie an outing to a snow resort with the teaching of this program, however, they were asked to indicate on their program evaluation if an outing did take place and any effects the program had on the youth's performance / behaviour.

5. Evaluation

Teachers and students were able to provide feedback on SNOWSMART in two ways. A written evaluation form was included in the Kit or teachers and students could complete an on-line electronic survey. Students were surveyed before and after the program. Preliminary analysis of the data shows a standard deviation of 2 on a 5-point scale, between the student's pre and posttests. Students were better able to indicate the importance of wearing the proper gear, getting training, and looking first before undertaking risky behaviour such as going over a jump or out of bounds.

Results from the on-line survey show that 85% (n=55) of teachers and students have a better understanding about risk in winter activities. 80% of respondents indicated having an increased awareness of the concept of smart risk taking after participating in SNOWSMART pilot program. Of all respondents, 59% would agree / strongly agree that SNOWSMART should be recommended to other teachers and students.

Some valuable learning emerged with the additional resources included in the Kit. 44% of students (n=45) were neutral or had no opinion about these resources. Work to improve the usefulness of these resources will take place over the summer of 2002.

Respondents were asked to rank each of the collateral pieces on a four point scale with the option of Not Applicable. An overwhelming number of students picked N/A, which could suggest that they are not receiving these pieces. More effective

communication tools will need to be developed for the teachers Kit describing how to position / distribute collateral materials to the students.

Some anecdotal comments from students included: "I know now that before going on the hill, your responsibility to read the lift ticket is very important", "I didn't know the risk and precautions before, but now I do", and "Through this unit I learned how important the little things are".

6. Next steps

Funding for SNOWSMART under the National Search and Rescue Secretariat New Initiatives Fund (NIF) concluded March 31, 2002. A Business Plan has been developed for next three years, outlining operational and fund development activities.

Promotion and continued marketing of the program within Canada is a high priority. During the pilot phase of this program, SNOWSMART gained attention from Health Authorities and Public Health Units across the country that are interested in the program for the winter 2002/03 season.

Fund development will be a main focus for the next few years as we move into the creation of a self-sustaining program with full financial backing. We are currently soliciting program sponsors and partners.

Alternative means of delivering the program will be addressed and developed throughout 2002. These strategies will serve to strengthen the impact and scope of the program, ensuring a wider audience is reached with its messages, "Look First, Wear the Gear, Get Trained and Drive Sober."

SNOWSMART kits will be available for purchase in the fall 2002 to all persons and organizations interested in promoting safe risk-taking amongst adolescents involved in winter sport.