

# Risk Management Behaviors of Collegiate Ice Hockey Coaches

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## Introduction

The increase in litigation of sport related injuries in recent years makes it more important than ever that coaches take the appropriate measures to reduce the likelihood of injuries occurring. While, administrators and coaches cannot prevent all sport-related injuries, they can aid in reducing the risk of injury by identifying the risks involved in sport-related activities and managing a safe program. One sport, where there are many risks involved in playing the game, is ice hockey. In order for the coaches and administrators of ice hockey to stay out of the courtroom and on the ice, it is important for them to understand what the potential dangers are and then take the necessary steps to prevent them. The key, therefore, in preventing sports related lawsuits is to prevent sports related injuries. One of the key to preventing injuries is understanding the dangers involved in certain activities and implementing appropriate risk management practices to lower the risk of injury (Gray & Cromwell, 1993).

In ice hockey, because the coaches are more knowledgeable of the risks involved in the sport, they should be highly involved in formulating these risk management policies. Therefore, the athletic director and the coach must take joint

responsibility for overseeing the sport and preventing foreseeable injuries. This may include routine inspection and maintenance of hockey equipment and ice facilities (Ross, 1985). As well as risk identification, anticipating problem areas, and risk treatment, developing reasonable administrative policies, and the exercise of common sense in their actions and decisions (Moriarty, Holman, Brown & Moriarty, 1993). It is essential that all coaches be trained in general and specific supervision and that they are present at all times of activity and stay in the location where the greatest risks are present. In general, coaches and administrators are responsible for anticipating potential dangers, and taking reasonable precautions to ensure that the dangers are avoided (Creating a Safety Zone 1986).

Risk management is essentially a process of understanding and identifying those circumstances in which accidents are most likely to happen and taking appropriate steps to minimize their occurrence (Dougherty, 1983). Risk management should be proactive. The purpose of a risk management plan therefore is to identify unreasonable risks and then take the necessary steps to prevent any injuries or accidents. Considerable research has been conducted related to risk management in a variety of sport

settings. Gray and Crowell (1993) examined the risk management behaviors within NCAA Division I Athletic Programs. Anderson (1992) focused on the risk management behaviors within NCAA Division III athletic departments. Similarly, McKinsterey (1993) examined the risk management behaviors of NCAA Division III head football coaches. Gray (1995) examined risk management behaviors of high school physical education and athletic programs.

The purpose of this study, therefore, is to determine the degree to which collegiate ice hockey coaches perform various risk management behaviors related to the operation of their collegiate ice hockey programs. Included in this study is an analysis of several demographic variables related to the risk management behaviors within the ice hockey program. Each year, a number of collegiate athletes, including hockey players, sustain injuries as a result of participating in varsity athletics. The development of a sound risk management program, pertaining to ice hockey, will hopefully significantly minimize or eliminate the potential risk of injury and save the school a small fortune in legal fees from defending these lawsuits.

## Methodology

The subjects selected for this study were collegiate ice hockey coaches from various levels of competition (N=236). The schools that were represented in the sample were NCAA Division I, II, and III and ACHA Division I and II institutions. The data was collected using a mailed survey developed by the investigators. This survey was designed to determine the degree to which these collegiate ice hockey head coaches indicated that they, or someone within their programs, (e.g., athletic trainer, equipment manager, assistant coach, etc.) performed various risk management behaviors in an attempt to decrease the likelihood of injury. From a review of sports law literature, 34 risk management behaviors were identified in an effort to assess the degree to which risks are minimized within the program. In addition to data related to risk management behaviors, various demographic data was also collected.

A Likert scale of 1 through 5 was used to

indicate the degree to which each coach believed his ice hockey program performed the various risk management behaviors on the survey. Likert scale choices were recorded in terms of degrees of consistency. A "1" indicated that the coach "never" performed that specific behavior. A "2" indicated that the behavior was "seldom" performed. A "3" indicated that the behavior was "sometimes" performed. A "4" indicated that the behavior was "often" performed. Finally, a "5" indicated that the behavior was "always" performed. The authors used a Likert scale based on the idea that consistently performing a risk management task is important in reducing the likelihood of injury to athletes and spectators (Gray and Crowell, 1993). In addition to the 34 risk management behavior questions, the survey also identifies 24 demographic items; including age, race, educational background, major field of study, years as a head coach, years as a head coach at college, number of volunteer and paid assistants, head coach CPR and/or first aid certified, number of certified trainers, competitive division, teams operating budget, scholarship budget, salary budget, and face shield preference (full and half).

After mailing the original survey, the authors followed it up by one additional mailing to non-respondents which yielded a respond rate of 60% (N=141).

## Results and Discussion

Of the 236 surveys that were mailed to the various collegiate ice hockey coaches, 141 chose to participate by returning their surveys for a final return rate of 60%. Table 1 shows relevant demographic data for the coaches.

The data indicate that all of the coaches were males, with the majority (N=92) having had no educational or professional preparation in a sport related field.

Also, although the subjects were experienced coaches (M=10.6 years) and had been at their current schools for several years (M=8.1 years), the average age of the coaches was only 37.5. It should also be noted that many of the coaches (53%) were considered part time coach with other duties. The fact that the coaches were part time might explain one of the most surpris-

**Table 1. Demographic data of subjects (N=141).**

Surveys mailed	236	
Surveys received	141	
Response rate	60%	
Head Coach Status	Full-time Coach	66
	Part-time Coach with other duties	75
Head Coach highest Degree	No Degree	6
	Bachelor	66
	Masters	59
	Doctorate	3
	Other	7
Bachelor's Degree Major	Sport Related	36
	Non-Sport Related	92
Graduate Degree Major	Sport Related	21
	Non-Sport Related	44
Age	M=37.5	S.D.=9.5
Race	White	134
	Asian	1
	Missing	6
Years Head Coach	M=10.6	S.D.=10.31
Years Head Coach College	M=8.1	S.D.=10.01
No. Of Paid Assistants	M=1.04	S.D.=.869
No. Of Volunteer Asst's	M=1.17	S.D.=1.4
Played Competitive Hockey	Yes	133
	No	6
Currently Coach Other Sports	Yes	20
	No	117
Student Population	M=11,900	S.D.=12,170
	Public/Private School	
	Public	79
	Private	59
Head Coach First Aid Certified	Yes	35
	No	104
Head Coach CPR Certified	Yes	44
	No	95
Have Athletic Trainer	Yes	117
	No	22
No. Of Certified Trainers	M=1.24	S.D.=1.01
No. Of Student Trainers	M=2.14	S.D.=3.53
Competitive Division	NCAA Div. I	36
	NCAA Div. II	6
	NCAA Div. III	39
	ACHA Div. I	19
	ACHA Div. II	35
Team's Operating Budget	M=\$79,252.	S.D.=\$133,057.
Scholarship Budget	M=\$44,100.	S.D.=\$103,615.
Salary Budget	M=\$48,250.	S.D.=\$109,147.
Face Shield Preference	Full Face Shield	64
	Half Face Shield	72

ing findings of the study, which was the relatively low number of coaches who were first aid certified (25%). Also surprising, was the low

number of coaches who were CPR certified (31%).

## Behavioral Data

Table 2 shows the ranked means and their corresponding standard deviations for the self reported risk management behaviors related to the subjects' supervision of their own ice hockey programs. The 34 survey item were scored on a 5 point Likert scale, with 1 being "never" and 5 being "always." Once again, the authors used a Likert scale based on the idea that consistently performing a risk management task is important in reducing the likelihood of injury to athletes and spectators (Gray and Crowell, 1993).

## Summary

According to the data collected in this study, the coaches generally indicated that they were performing most of the risk management behaviors addressed by the survey items. Although, it should once again be noted that the coaches responses were self-reported assessments of their own consistency in performing these risk management behaviors. The ranked means of the survey items indicate that the top 15 items had mean scores greater or equal to 4.0 of the 5 point Likert scale. The top 27 of the 34 items had scores greater then 3.5. In fact, only 3 items scored below a 3.0.

Those items were "inspecting the ice prior to games or practices" (2.943), " warning players in writing of the risks involved in hockey" (2.036)

**Table 2.** Ranked means and standard deviations for each survey item (N=141).

**Ranked Means Of All 34 Risk Management Behaviors**

<u>Rank</u>	<u>Descriptor</u>	<u>Mean</u>	<u>S.D.</u>
1	At least one coach present at practice	4.887	.574
2	Head coach present at games	4.879	.554
3	Quality general supervision provided	4.532	.671
4	Instruction re. Dangerous stick use	4.489	.961
5	Athletic trainer at hockey games	4.440	1.155
6	Medical emergency plan in place	4.397	1.176
7	Specific supervision for drills, etc.	4.393	.802
8	Coach instructs players not to fight	4.390	1.027
9	Drills sequenced with progressions	4.309	.788
10	Injury report form completed	4.241	1.264
11	Coach demonstrates correct techniques	4.149	.843
12	Progressive conditioning program	4.128	1.139
13	Detailed, written practice plans	4.086	1.147
14	School-provided transportation used	4.079	1.514
15	Equipment meets safety standards	4.000	1.315
16	Coach teaches hockey rules and regs	3.986	1.127
17	Players' medical histories documented	3.950	1.565
18	Coach describes common skill errors	3.894	.843
19	Coach present during weight sessions	3.869	1.327
20	Physical exam prior to hockey season	3.842	1.562
21	Coaches encouraged to attend seminars	3.809	1.314
22	Coach supervises locker room	3.780	1.248
23	Facility hazards repaired promptly	3.771	1.305
24	Athletic Trainer at hockey practices	3.752	1.591
25	No defective equipment is used	3.695	1.352
26	Safety equipment properly fitted	3.593	1.388
27	Medical doctor at hockey games	3.582	1.626
28	Safety equipment not altered	3.475	1.312
29	Injury report forms studied for trends	3.464	1.543
30	Equipment inspected regularly	3.312	1.410
31	Safety equipment - Instruction occurs	3.174	1.464
32	Ice inspected prior to practice/games	2.943	1.382
33	Players warned in writing of risks	2.036	1.322
34	Equipment warnings read	1.908	1.183

and reading equipment warning (1.908).

The survey did however point to a few areas where coaches should be more concerned. The first primary area of concern is the failure of

coaches to warn their players of the inherent risks of participating in ice hockey (M=2.036). If hockey players are unaware of certain inherent risks of participating in ice hockey, then it is hard to use an assumption of risk defense in any lawsuits. Also, coaches responded relatively low to behaviors relating to the players' equipment (fitting of this equipment, inspection of equipment, reading warning labels, etc.). Overall, however, it seems that the coaches who chose to participate in the study are very much aware of their legal responsibilities related to the supervision of their ice hockey program.

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