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Risk Management Behaviors in NCAA Division III Athletic Programs

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INTRODUCTION

In recent years, considerable attention has been given to the prevalence of athletic injuries. This attention has been due, in part, to the increase in litigation stemming from the occurrence of athletic injuries. Coaches and athletic administrators will never be able to prevent all sports-related injuries, but they can contribute to reducing the incidence of these injuries by identifying and managing the risks associated with participation in athletics.

Short (1984) stated that the idea behind risk management is that people must be alerted, protected, and convinced of the importance of analyzing potential hazards. Due to the fact that the athletic director is the administrator most closely associated with the athletic program, he is she is perhaps best able to determine that appropriate risk management practices are developed and implemented. There are a number of program areas which may concern the athletic administrator in terms of managing risks associated with athletics. Such areas include: personnel, facilities, equipment, medical concerns, spectators, and transportation.

Colleges and universities, and more specifically athletic departments, have a responsibility to care for those who might be harmed by hazards that could have been foreseen. According to Grace (1989), if it is found that hazards were foreseeable but instead went undetected, the athletic department may be held liable for injuries that resulted from those hazards. Considerable research has been conducted concerning the relatively new area of measuring the self-reported risk management behaviors of sport leaders in a variety of settings. Gray and Curtis (1991) examined the risk management behaviors of soccer coaches at three levels of varsity competition (NCAA Division I, NAIA, and high school). Gray and Parks (1991) studied the risk management behaviors of high school athletic directors. McKinstrey (1993) examined the risk management behaviors of NCAA Division III head football coaches. Gray and Crowell (1993) measured the risk management behaviors of NCAA Division I athletic directors.

It was, therefore, the purpose of this study to measure the degree to which NCAA Division III athletic directors indicated the consistency with which specific risk management behaviors were performed within their athletic programs. It is important to note that the survey questions did not ask whether the athletic director actually performed the specific risk management behaviors personally. Rather, the survey questions were directed more to the issue of whether the specific risk management behaviors were performed within the athletic program by someone. For example, some of the specific behaviors might be performed by an athletic trainer, an equipment manager, or a facilities manager. However, since the athletic director is the administrator responsible for the overall operation of the entire athletic program, the survey questions addressed the degree to which the athletic director could determine that the specific risk management behaviors were being performed. Included in this study was an analysis of several demographic variables related to the risk management behaviors within the athletic programs.

■ METHODOLOGY

The subjects selected for this study were all NCAA Division III athletic directors within the United States (N=323). A 36-item survey developed by the investigators was used to collect data related to the specific risk management behaviors within each NCAA Division III athletic program as reported by the athletic directors. From a review of sport risk management and sports liability literature, including textbooks, periodicals, and court cases, various risk management behaviors were identified and divided into the six following conceptual areas: 1) personnel, 2) facilities, 3) equipment, 4) medical, 5) transportation, and 6) crowd control and spectator safety.

A 5-point Likert scale was used to indicate the degree to which the athletic director believed that the specific behavior identified in each survey statement was performed by someone within the athletic program. Circling a "1" indicated that the athletic department "never" performed that behavior. Circling 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, circling a "5" indicated that the behavior was "always" performed. This type of scale was selected based upon the idea that consistently performing specific risk management behaviors is important in reducing the likelihood of injury to athletes and spectators. Theoretically, the safer" programs are the ones in which prudent risk management behaviors are consistently performed.

■ RESULTS AND DISCUSSION

Demographic Data

Of the 323 subjects in the population of NCAA Division III athletic directors, 213 chose to participate in the study, accounting for a final return rate of 65.9%. Table 1 shows relevant demographic data collected from the subjects (N=213).

Table 1. Demographic data of subjects (N=213)

	M = 47.712 years (Range = 29 to 71)		
Age	Male	=	80.3%
	Female	=	19.2%
	No data	=	.5%
Gender	Caucasian	=	88.7%
	African-American	=	4.7%
	Asian	=	.5%
	Hispanic	=	.5%
	No data	=	5.6%
Education	Bachelor's degree	=	8.9%
	Master's degree	=	65.3%
	Doctoral degree	=	24.9%
	No data	=	1.0%
Bachelor's degree area	Sport-related (e.g., PE)	=	58.2%
	Nonsport-related	=	39.9%
	No data	=	1.9%
Graduate degree area	Sport-related	=	54.9%
	Nonsport-related	=	35.2%
Athletic experience	College athlete	=	90.1%
	Not college athlete	=	8.9%
	No data	=	.9%
Current coaching status	Currently coaching	=	51.6%
	Currently not coaching	=	47.9%
	No data	=	.5%
Other institutional duties	Yes	=	66.7%
	No	=	31.9%
	No data	=	1.4%
Athletic administration experience	M = 13.439 years (Range = 1 to 42 years)		
Years at present school	M = 8.403 years (Range = 1 to 35 years)		
Athletic dept. staff size	M = 18.545 (Range = 1 to 98)		
Athletic dept. budget	M = $453,626 (Range = $30,000 to $3,000,000)		

School enrollment	M = 3197.269 (Range = 201 to 10,000)
Number of varsity athletes	M = 310.741 (Range = 5 to 820)
Number of varsity sports	Men's M = 7.885 (Range = 0 to 18) Women's M = 7.447 (Range = 0 to 15)
Division III geographic region	Region 1 = 25.8% Region 2 = 26.8% Region 3 = 20.7% Region 4 = 23.5% Region 5 = 3.3%
Category of institution	Private school = 73.7% Public school = 24.4% No data = 1.9%

Behavioral Data

Table 2 shows the ranked means and corresponding standard deviations for each of the 36 survey items among all subjects (N=213).

Table 2. Ranked means and standard deviations for each survey item (N=213)

Item Descriptor	Rank	Mean	S.D.
The athletic director determines that:			
Comprehensive personnel screening system exists	1	4.808	0.528
Coaches adequately supervise athletes	2	4.629	0.764
Coaches use acceptable coaching methods	3	4.590	0.733
Adequate liability insurance obtained	4	4.569	1.023
Sufficient medical personnel present at events	5	4.557	0.893
Personnel knowledgeable in emergency procedures	6	4.538	0.925
Alcohol policies enforced at events	7	4.498	0.974
Physical exam for athletes before participation	8	4.484	1.062
Appropriate supervision for athletes traveling	9	4.446	0.881
Personnel undergo formal evaluation	10	4.408	0.965
Facilities properly maintained	11	4.401	0.879
Facility hazards correctly promptly	12	4.393	0.846
Defective equipment corrected promptly	13	4.358	0.867
Spectators reasonably safe from injury	14	4.310	0.889
Athletes travel together to and from events	15	4.209	0.968

Adequate security personnel at events	16	4.189	1.072
Athletic equipment meets relevant safety standards	17	4.113	1.104
Unruly spectators removed from events promptly	18	4.075	1.145
Athletes' medical history kept on file	19	4.024	1.402
Coaches have sound knowledge of legal duties	20	4.010	1.035
Athletic equipment inspected regularly	21	3.943	1.113
Coaches warn players of risks in their sport	22	3.919	1.230
Injury report forms completed following injury	23	3.873	1.383
Facility problems are corrected before use	24	3.824	1.179
Athletes provided with properly fitted equipment	25	3.794	1.377
Athletic facility spectator capacity not exceeded	26	3.791	1.395
Injured athletes get doctor approval before return	27	3.673	1.538
Facilities thoroughly inspected before events	28	3.635	1.201
Security personnel briefed on their duties	29	3.584	1.313
Coaches teach proper use of equipment	30	3.493	1.345
No unnecessary travel deviations occur	31	3.414	1.130
Facility evacuations procedures developed	32	3.387	1.471
School-owned vehicles inspected and maintained	33	3.217	1.698
Facility inspections are documented in writing	34	3.165	1.326
Independent contractors transport teams	35	3.142	1.450
Equipment inspections are documented in writing	36	2.929	1.342

Analysis of Grand Composite Means

Subjects' mean scores among all 36 survey items combined (grand composite means) were compared across several variables, including undergraduate major, graduate major, coaching status, and type of institution.

The results showed that no significant difference existed in the degree to which athletic directors who had sport-related undergraduate academic majors (e.g., physical education, sport management, etc.)(M=3.9800) and athletic directors who had nonsport-related undergraduate academic majors (e.g., history, business, etc.) (M=4.0559) indicated that the specific risk management behaviors were performed within their athletic programs (p=.372).

The results showed that no significant difference existed in the degree to which athletic directors who had sport-related graduate academic majors (M=4.0326) and athletic directors who had nonsport-related graduate academic majors (M=4.0702) indicated that the specific risk management behaviors were performed within their athletic programs (p=.647).

The results showed that no significant difference existed in the degree to which athletic directors who were presently coaching (M=3.970) and athletic directors who were not presently coaching (M=4.0543) indicated that the specific risk management behaviors were performed within their athletic programs (p=.313).

The results showed that no significant difference existed in the degree to which athletic directors employed at public institutions (M=4.0178) and athletic directors employed at private institutions (M=4.0089) indicated that the specific risk management behaviors were performed within their athletic programs (p=.926).

Analysis of the Six Conceptual Areas

Subjects' mean scores among each of the six conceptual areas (i.e., 1) personnel, 2) facilities, 3) equipment, 4) medical, 5) transportation, and 6) crowd control and spectator safety) were compared across several variables, including undergraduate academic major, graduate academic major, coaching status, and type of institution.

The results showed that no significant mean differences existed within any of the six conceptual areas when analyzed by undergraduate academic major (i.e., sport-related v. nonsport-related), graduate academic major (i.e., sport-related v. nonsport-related), and type of institution (i.e., public v. private). Only one significant mean difference existed within any of the six conceptual areas when analyzed by coaching status. The results showed that athletic directors who were not presently coaching (M=3.9696) scored significantly higher than the athletic directors who were presently coaching (M=3.7233) in the conceptual area related to transportation (p=.012).

To examine the relationships between the six conceptual areas, correlation coefficients were computed for the 12 pairs. The highest correlation was between the equipment and medical constructs (.659). Despite the fact that this correlation was somewhat high, 57% of the variance remained unaccounted. The correlation between personnel and medical was the lowest at .414. All correlations were significant at the $p<.01$ level. These results suggest that total independence between conceptual areas does not exist.

Internal consistency of the items within the six conceptual areas was examined using the Cronbach Alpha reliability test (Cronbach, 1951). Internal consistency for five of the six conceptual areas was acceptable, with alpha values ranging from .71 to .83. The alpha value for the transportation construct was .67. This standardized alpha value was very close to the .7 criterion suggested by Nunnally (1978); therefore this conceptual area was retained. Examination of the item-to-total correlation coefficient for each of the six subscales suggests that the survey items in each conceptual area seem to contribute to that subscale's total alpha coefficient.

■ CONCLUSION

The data indicated, according to the self-reported scores of the subjects, that the risk management behaviors being performed in NCAA Division III athletic programs are being performed in a rather consistent manner. The ranked means of the 36 survey items indicated that the top 20 items had mean scores greater than 4.0 on the 5-point Likert scale. The top 29 of 36 items had scores greater than 3.5. In fact, only one survey item (equipment inspections documented in writing) had a mean score of less than 3.0 (M=2.929) among all subjects (N=213).

The subjects who responded to the survey had considerable experience in athletic administration (M=13.439 years) and had been at their present schools for several years (M=8.403 years). The majority of the subjects (58.2%) had earned bachelor's degrees in a sport-related academic major, such as physical education or sport management. Most of the subjects had earned graduate degrees (90.2%), the majority of which were in a sport-related academic major (54.9%). A large majority

of the subjects (90.1%) had participated as athletes in intercollegiate athletics. Therefore, the sample consisted of a rather experienced, well-educated group of administrators who were very familiar with the sporting environment based upon their experience as athletes, coaches, and administrators. It seems logical to expect that many of the subjects would have had specific academic preparation related to liability and risk management within physical education, athletic administration, or sport management courses during their academic preparation.

References

Cronbach, L. J. (1951). Coefficient alpha and external structure of tests. *Psychometrika, 16*, 297-333.

Grace, P. (1989). Risky business. *College Athletic Management, 1*(2), 20, 22-23.

Gray, G. R., & Crowell, S. E. (1993). Risk management behaviors in NCAA Division I athletic programs. *Journal of Legal Aspects of Sport, 3*(2), 64-70.

Gray, G. R., & Curtis, P. F. (1991). Risk management behaviors of soccer coaches at three levels of varsity competition. *Applied Research in Coaching and Athletics Annual*, 149-164.

Gray, G. R., & Parks, S. R. (1991). Risk management behaviors among Iowa high school athletic directors. *Journal of Legal Aspects of Sport, 1*(1), 57-65.

McKinstrey, J. P. (1993). Risk management behaviors of NCAA Division III head football coaches. Unpublished master's thesis, Iowa State University, Ames.

Nunnally, J. C. (1978). *Psychometric theory*. New York: McGraw-Hill.

Short, J. F. (1984). The social fabric at risk: Toward the social transformation of risk analysis. *American Sociological Review, 49*, 711-725.