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An Analysis of Risk Management at NCAA Division I-A Football Stadiums

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THE FLORIDA STATE UNIVERSITY

COLLEGE OF EDUCATION

AN ANALYSIS OF RISK MANAGEMENT AT NCAA DIVISION I-A
FOOTBALL STADIUMS

By

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This is for Wanda, Christopher, Nathan, and Kaden.

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TABLE OF CONTENTS

| | |
|---|------|
| List of Tables | viii |
| List of Figures | ix |
| Abstract | x |
| | |
| I. INTRODUCTION | 1 |
| Previous Studies of Risk Management..... | 2 |
| Conceptual Framework | 3 |
| Statement of the Problem | 3 |
| Purpose of the Study..... | 4 |
| Research Questions | 4 |
| Definition of Terms | 5 |
| Assumptions | 6 |
| Limitations..... | 6 |
| Delimitations of the Study..... | 7 |
| Significance of the Study | 7 |
| | |
| II. REVIEW OF LITERATURE..... | 9 |
| Legal Aspects of Stadium Operations..... | 9 |
| Negligence | 10 |
| Duty..... | 10 |
| Invitee | 11 |
| Licensee | 12 |
| Trespasser | 13 |
| Defects | 13 |
| Risk Management and Sport..... | 14 |
| Definition of Risk Management..... | 14 |
| Beginning of Risk Management | 14 |
| Importance of Risk Management..... | 15 |
| Risk Management Plans, Models, or Programs | 16 |
| Carpenter’s (1995) risk management strategy model..... | 16 |
| Clement’s (1989) process..... | 16 |
| Head and Horne’s model..... | 17 |
| Hronek and Spengler’s (2002) risk management cycle..... | 18 |
| Kaiser’s risk management process | 18 |
| Mulrooney & Farmer risk management process model | 18 |
| Berlonghi’s risk management process (1990)..... | 19 |
| Miller’s (1989) risk management phases | 20 |
| Ammon’s (2001) D.I.M. process..... | 20 |
| Why the DIM Process as the Conceptual Framework | 23 |
| Transferring of Risks | 26 |
| Event and Game Operations | 28 |
| Crowd Management..... | 28 |
| Alcohol Policies | 36 |
| Emergency/Crisis and Medical Plans | 38 |

| | |
|--|----|
| Parking and Traffic | 39 |
| Previous Studies of Risk Management and Sport..... | 41 |
| Athletic Directors..... | 41 |
| High School Principals | 42 |
| Coaches..... | 42 |
| Football Operations..... | 43 |
| III. METHODOLOGY | 44 |
| Research Design..... | 44 |
| Study Population..... | 45 |
| Data Collection Method and Procedures | 45 |
| Instrumentation | 47 |
| Validity | 49 |
| Reliability..... | 49 |
| Pilot Study..... | 49 |
| Statistical Analysis..... | 50 |
| IV. RESULTS..... | 52 |
| Risk Management Results | 52 |
| Legal Aspects Results | 54 |
| Alcohol Policies Results..... | 56 |
| Crowd Management Results | 58 |
| Emergency and Medical Plan Results..... | 61 |
| Parking and Traffic Control Results..... | 62 |
| Stadium Demographics Results..... | 64 |
| Manager Demographics Results..... | 66 |
| IV. DISCUSSION | 68 |
| Research Question One | 68 |
| “Developing” the Plan Discussion | 68 |
| “Implementing” the Plan Discussion | 74 |
| “Managing” the Plan Discussion..... | 78 |
| Research Question Two..... | 79 |
| Research Question Three..... | 86 |
| Conclusions | 88 |
| Recommendations..... | 89 |
| Practical Implications..... | 90 |
| Suggestions for Future Research..... | 91 |
| APPENDIX A (Human Subjects Approval Letter) | 93 |
| APPENDIX B (Consent Letter) | 95 |

| | |
|--|-----|
| APPENDIX C (Questionnaire) | 97 |
| APPENDIX D (Permission Letter to Use Instrument) | 107 |
| APPENDIX E (Football Stadium Experts) | 109 |
| REFERENCES | 111 |
| BIOGRAPHICAL SKETCH | 116 |

LIST OF TABLES

| | | |
|----------|---|----|
| Table 1 | Results- Risk Management | 52 |
| Table 2 | Results- Legal Aspects..... | 55 |
| Table 3 | Results- Alcohol Policies..... | 56 |
| Table 4 | Results- Crowd Management..... | 58 |
| Table 5 | Results- Emergency and Medical Plan | 61 |
| Table 6 | Results- Parking and Traffic Controls | 63 |
| Table 7 | Results- Stadium Demographics..... | 64 |
| Table 8 | Results- Manager Demographics..... | 66 |
| Table 9 | Relationships- Capacities..... | 80 |
| Table 10 | Relationships- Night Games | 84 |

LIST OF FIGURES

| | | |
|----------|---|----|
| Figure 1 | D.I.M. Process | 23 |
| Figure 2 | Side-by-Side Comparison of Risk Management Plan | 24 |

ABSTRACT

The purpose of the current study was to report the current risk management practices of NCAA Division I-A football stadiums in relation to Ammon's (2001) D.I.M. Process. Along with this exploratory and descriptive investigation of Division I-A stadiums, relationships among risk management practices and selected stadium demographic data were examined. Relationships were determined using chi-square analysis.

The questionnaire consisted of nine sections with a total of 95 items. The nine sections were risk management, legal aspects, alcohol policies, crowd management procedures, emergency and medical plan, parking and traffic control, demographics of the university's home football stadium, demographics of the stadium manager, and personal information. All items related to the football operations of the subject's football stadium.

The questionnaire was administered via the Internet and the questionnaire hyperlink was e-mailed to the stadium managers of all 117 NCAA Division I-A member football stadiums. Seventy stadium managers returned the completed questionnaire for a 60% response rate. All of the questionnaires were usable.

Overall stadiums that hosted NCAA Division I-A football games in 2004 are following the risk management procedures that are recommended in the literature. Undoubtedly, a major influence on this is the attention that risk management received after the terrorist attacks on United States soil on September 11, 2001. However, many risk management practices are in place, not necessarily to guard against terrorist attacks but for the general safety of patrons from everyday accidents and incidents. The research found that it is very difficult to stereotype stadiums based on demographic features of the stadium. The findings did show that stadium capacity had the most relationships with risk management practices. More sound risk management practices were performed by larger stadiums than smaller stadiums.

Finally, the most notable finding of the research in regards to the stadium manager demographics is the lack of diversity among persons responsible for operating collegiate football stadiums. Stadium managers are mostly Caucasian males. Another

interesting finding was the degrees that stadium managers held. Younger stadium managers were more likely to have a degree in sport management.

CHAPTER 1

INTRODUCTION

Late night television viewers have seen the personal injury lawyer commercials. The commercials with lawyers that ask, “Have you been hurt in an accident?” They work so hard to get people to sue others because the money that can be attained through litigation for personal injuries is astounding. “In a sample of 25 case results, as reported in jury and/or trial reporters from 1993-1998, 76% of the time the injured patron received some type of compensation, either by judgment or settlement. Of the total amount of damages (\$5,474, 202) asked for in these cases, 91% of the damages were awarded (\$4,994,541) with an average damage award of \$262,870” (Mulrooney & Farmer 1998, pp. 269-270).

If the proceeding numbers don’t get one’s attention, then maybe the following will. Consider that in January 2005, the New Jersey Superior Court, ordered the New York Giants’ concessionaire, Aramark, one of the largest such businesses in the world, to pay \$135 million in damages to a girl who was left a quadriplegic by a drunk driver. The \$135 million total was the largest award ever granted in an individual alcohol-liability case (Coffey, 2005).

The damage payouts should be enough to persuade stadium managers to take risk management more seriously. Coupled with the damage payouts, just the sheer number of persons a stadium manager is responsible for is even more reason to make risk management a priority. Consider the fact that Michigan Stadium seats almost 110,000 fans (Stewart, 2000). If Michigan has six home football games in a year, the stadium manager is responsible for the safety of over 660,000 spectators throughout the season. When dealing with such a large number of people, it would be unrealistic to think that no one would ever get hurt and sue the university. Many people view athletic programs, especially those at major NCAA Division I-A institutions with multi-million dollar budgets, as the proverbial “deep pocket” that will cover the costs of injuries no matter who is at fault. Therefore, it is paramount that football stadium managers, as well as any public assembly manager, know the importance of risk management.

Risk management has been defined as controlling the financial and personal injury losses from sudden, unforeseen, unusual accidents and intentional torts (Ammon, 1993). Graham, Goldblatt and Delpy (1995) described risk management in a sport context as the responsibility for identifying and determining which methods to employ against potential threats that may negatively affect the sport event.

Appenzeller (1998) stated that risks are inherent in sport and even the safest programs can never avoid accidents and injuries. The law expects that sport managers develop risk management and loss programs to ensure a safe environment for all who participate in sports.

Previous Studies of Risk Management and Sport

There have been numerous studies on the subject of risk management in sport. Most of the studies examined the risk management behaviors of athletic directors. Anderson and Gray (1994) examined the risk management behaviors of NCAA Division III athletic directors. Gray and Crowell (1993) researched the risk management behaviors of NCAA Division I athletic directors in relation to their athletic programs. Brown and Sawyer (1998) performed the same study, but instead surveyed NCAA Division II athletic directors. Two studies examined risk management behaviors of coaches. Gray and McKinstrey (1994) examined the risk management behaviors of NCAA Division III football coaches. Bodey and Moiseichik (1999) determined the degree to which Southeastern Conference head coaches endorsed regulation of risk management for their particular sport areas. School principals were the focus of Gray (1995), who studied the risk management behaviors of high school principals in relation to their high school physical education and athletic programs. Finally, Ammon (1993) researched risk management as it pertains to the overall operation of municipal football stadiums. The present investigation researching risk management at NCAA Division I-A football stadiums is based on the Ammon (1993) study.

Conceptual Framework

The conceptual framework for this study was the D.I.M. Process risk management plan created by Ammon (2001). The D.I.M. Process is a three-step process of risk management. “D.I.M.” represents the three main steps of Ammon’s risk management model. These steps are developing the risk management plan, implementing the plan, and managing the plan. The D.I.M. Process will be discussed in greater depth in the next chapter.

Statement of the Problem

Many stadium managers do not know what other stadiums are doing in regard to risk management. Many football stadium managers at Division I-A universities are responsible for other athletic venues and events on their campuses and are usually not in a position to travel with their respective football teams and visit other football stadiums. Therefore, many collegiate football stadium managers do not know how other stadiums conduct some of their gameday operations as well as risk management practices. There is a lack of knowledge among collegiate football stadium managers on how the other stadiums conduct football events, especially in relation to risk management.

Ammon (1993) conducted a study that investigated the risk and game management practices of municipal football stadiums. Municipal football stadiums are usually city owned stadiums that host professional or minor league football teams. Very few of these stadiums host college football games on a regular basis. There is an absence of research conducted on the risk management practices of college football stadiums, more specifically addressing NCAA Division I-A football stadiums. The objective of the current study was to get a broad picture of what, if any, risk management practices are being performed in America’s collegiate stadiums and to determine any relationships between stadium operations and selected demographic data of the stadium.

Purpose of the Study

The purpose of the current study was to report the current risk management practices of NCAA Division I-A football stadiums in relation to Ammon's (2001) D.I.M. Process. Along with this exploratory and descriptive investigation of Division I-A stadiums, relationships among risk management practices and selected stadium demographic data were examined.

Research Questions

Several research questions were addressed in the study. The study sought to answer the following questions:

- RQ1) Are NCAA Division I-A football stadiums' risk management practices being performed in line with what is recommended by Ammon's (2001) DIM Process?
- RQ2) Is there a relationship in the risk management practices at stadiums and certain demographic factors such as:
 - A. The seating capacities of the stadiums?
 - B. The geographic location of the stadium?
 - C. Whether they are on or off-campus?
 - D. Whether a public or private university plays football in the stadium?
 - E. Who owns the stadium?
 - F. Who manages the stadium?
 - G. The number of night games they have hosted in the past year?
 - H. The number of non-football related events (concerts, graduations, other sports) that have occurred in their stadium the past two years?
 - I. The number of ticket sell-outs that have occurred in the past year?
- RQ3) What is the stadium manager's demographic background?

This exploratory research provides a barometer for current NCAA Division I-A stadium managers to compare and contrast their contemporary practices.

Definition of Terms

Crowd Control: “Includes all measures taken once crowds are beginning to or have gotten out of control: arrests, fights, ejections, etc. These crowds need to be restrained from unlawful and unsafe behaviors” (Berlonghi, 1990, p. 157).

Crowd Management: Includes every element of managing the patrons that attend an event. Crowd management is far more than breaking up fights and ejecting unruly patrons. Every element of an event is part of crowd management. It includes facility design, booking policies, ticketing arrangements, alcohol management, local lawmaking and regulation seating, and setting the tone for events (Antee & Swinburn, 1990).

Game Management: “The policies and procedures utilized by facilities to properly conduct a sporting event. The areas identified by experts include: alcohol policies, crowd management practices, emergency and medical plans, and parking and traffic control” (Ammon, 1993, p. 6).

Liability: “A legal responsibility, duty, or obligation” (Clement, 1998, p. 236).

NCAA Division I-A Football: A classification for intercollegiate football, which the member institution can give a maximum 85 football scholarships, averages attendance of at least 17,000 fans for football games and plays in a stadium that seats at least 30,000 patrons. Examples of I-A member institutions include: Florida State University, Ohio State, UCLA, Boston College, Boise State University, and Tulane University (2004-05 *NCAA Division I Manual*, 2004).

NCAA Division I-AA Football: Another classification for intercollegiate football, that is different than Division I-A. I-AA member schools can give a maximum of 63 scholarships. They generally play in smaller stadiums and average less than 17,000 fans for football games. Examples of I-AA member universities include: Georgia Southern University, Grambling State University, Harvard University, University of Massachusetts, and Samford University (2004-05 *NCAA Division I Manual*, 2004).

Negligence: “The omission to do something that a reasonable man would do, guided by those ordinary considerations, guided by those ordinary considerations which generally regulate human affairs” (Black, 1983, p. 930).

Risk: A peril or the possibility of exposure or harm (Farmer, Mulrooney, & Ammon, 1996).

Stadium Manager: The person responsible for the overall game day operations of the football stadium. The subjects of the study were the stadium managers because they likely had the most knowledge of the stadium as it relates to risk management.

Tort: “A civil rather than a criminal wrong. Some examples of torts are negligence, defamation, civil battery, malicious interference with a contractual right, and false imprisonment” (Carpenter, 1995, p. 39).

Assumptions

1. It was assumed data collected would be an accurate assessment of how a particular university conducted risk management operations at its particular football stadium.
2. It was assumed the most appropriate person responsible for risk management operations of the stadium completed the questionnaire.
3. Since every recipient of the questionnaire had an e-mail address, it was assumed they had access to the on-line survey.
4. It was assumed that the majority of the participants were the facility, event, or football operations director of their respective NCAA member university.

Limitations

1. The responses from the stadium managers were based upon their interpretation of the questions.
2. The stadium manager may not have been familiar with all subject areas requested in the survey.
3. It is possible that differences existed between respondents of the survey and the non-respondents.

Delimitations of the Study

1. The NCAA Division I-A Football Operations Survey was e-mailed to all 117 NCAA Division I-A football stadium managers.
2. The survey was sent to individuals identified as the facility, stadium, or event manager on each institution's athletic website or host stadium website.

Significance of the Study

This study provided valuable information on whether managers of large collegiate stadiums, specifically NCAA Division I-A stadiums, performed certain stadium risk management practices. This study further examined risk management as it pertained to college athletic facilities in greater depth than selected previous studies of athletics risk management.

Studies by Brown and Sawyer (1998), Anderson and Gray (1994), in addition to Gray and Crowell (1993) examined risk management practices as they related to a whole athletic department and all sporting events of the department, not specifically football games and football stadiums. Also, the previously mentioned studies surveyed only athletic directors. Many aspects of risk management as they pertain to stadiums and facilities are the direct responsibility of the institution's facility manager. At many colleges today, the athletic director will not be the person who is directly responsible for risk management duties and really is not the best person to survey for accurate answers to questions regarding risk management at their athletic facilities. This study surveyed the stadium manager rather than the athletic director, thereby seeking to provide a more accurate assessment of the risk management practices at the institution's facility. Lastly, although the previous studies provided general data in the areas of facility inspections, security personnel, emergency procedures, ejections of spectators, alcohol policies, and whether facilities exceeded capacity at events, specific information and follow-up items were lacking in these areas. Additional information pertaining to concessions, ticket operations, legal counsel, contracts, sale of alcohol, signage, specific crowd management

practices, lightning detection, and parking/traffic operations were addressed in the current study.

The current study provided valuable insight into two areas that the study by Ammon (1993) failed to address. Of the 78 stadiums to which Ammon (1993) initially sent questionnaires, only 11 stadiums hosted a collegiate team's home football games. Only 35 of the 78 surveys were returned. In addition, the study never delineated if any of the questionnaires returned were from stadiums that hosted a collegiate football team's home games. The current study examined stadiums that hosted the majority of a college football team's home football games. Also, most of the stadiums Ammon (1993) examined were municipally owned stadiums. Although a few of the stadiums surveyed in the current study were municipally owned stadiums, a vast majority were university owned stadiums. There may have been differences on how the stadiums operated based upon who owned the stadium. The current study is significant because it provides collegiate stadium managers a way to compare their stadium operations with those of other collegiate stadiums. This study identified areas of risk management that stadiums were deficient when compared to peer stadiums.

CHAPTER 2

REVIEW OF LITERATURE

The related literature reviewed for this study pertaining to stadium risk management involved four general areas of discussion. The first section of the literature review detailed legal aspects of facility operation. The second section of the literature addressed the subject of risk management as it pertains to sport. The third section focused on game and event management, which encompasses crowd management, alcohol, emergency and medical plans, and parking and traffic control. The final section of the literature review summarized selected studies conducted on the subject of risk management and sport.

Legal Aspects of Stadium Operation

The safety of facility event attendees, patrons, spectators and event participants is of primary concern to the facility manager (Madden, 1998). If a facility manager does not keep the facility safe, injuries to attendees, patrons, spectators, and event participants are bound to occur. Although there are many areas of law that are important to a facility manager, the greatest numbers of lawsuits brought against a provider (school, municipality, private enterprise, or non-profit association) are based in negligence liability (van der Smissen, 2001). About one-third of the colleges and universities in the NCAA have had such legal actions brought against them (Lea & Loughman, 1993). While lawsuits cannot be prevented they can be minimized when employees understand negligence principles and practice good management (Kaiser, 1986). Therefore, it is essential that a facility manager today understand the elements of negligence (van der Smissen, 2001). The following will briefly examine negligence liability and some law topics related to negligence.

Negligence

Negligence can be defined as carelessly performing a duty or carelessly failing to perform a duty that results in injury to a participant or damage to property (Seidler, 1999). In order to be found guilty of negligence, four elements need to exist: duty, breach, cause, and harm.

There are several elements of negligence. Each of the four negligence elements has to be present for a person to recover under a negligence claim. The four elements are:

1. Owing someone a duty.
2. Breaching that duty.
3. The breach of that duty was the proximate cause of the person's injury.
4. The person was actually injured (van der Smissen, 1990).

An injury is defined as a legal wrong that causes damage to someone. An injury does not have to be physically visible. Injuries can include psychological injuries, emotional distress, pain and suffering, and future medical or financial requirements. Loss of consortium is another category of damages, which is available to the injured party, his/her spouse, and other close family members and is designed to compensate for lost love and affection (Fried & Appenzeller, 1999).

Duty

As stated previously, the first element of negligence is owing someone a duty. A duty is a legally sanctioned or societal imposed obligation, which if breached, creates a potential negligent atmosphere. If you owe a duty to an event participant, your actions must be conducted in a manner to avoid exposing the participant to potential hazards that are either known or likely to occur. Examples of the types of duties to be held accountable for include the duty to provide:

1. Adequate instruction/supervision.
2. Proper equipment and/or facilities.
3. Reasonable selection or matching of participants (van der Smissen, 2001).

If these duties are not upheld in a manner that is "adequate," "proper," or "reasonable," then duty would have been breached. Numerous duties are imposed on an event administrator; some of these duties are listed below:

1. Inspect the facilities.
2. Provide safe facilities.
3. Supervise the event.
4. Properly match opponents.
5. Provide proper equipment
6. Provide emergency services in a rapid, effective manner (Appenzeller, 1998).

Clement (1998) stated that duty makes a person responsible or obligated to behave in a certain way, or to owe a duty to conform to a standard of conduct established by law for the protection of others. According to Fried and Appenzeller (1999) a typical duty you will be held accountable for is the duty to inspect and secure all playing or competition facilities that might be used during a practice or event. You have an affirmative duty to inspect the facilities being used and to locate any discoverable defects that could possibly injure an individual at the event. An affirmative duty is a positive duty. This positive duty requires you to take at least a certain minimum amount of precautionary steps to protect the safety of other people. If you find a defect or are informed of a possible defect, then you have an affirmative duty to correct the defect or warn everyone about the defect.

The duty that the owner or possessor of a facility owes varies, depending on the classification of the party who was injured while on the premises. To establish a duty for owners, operators, supervisors, or possessors of land, the status of the person injured must be identified. Generally there are two classes of persons: licensees and invitees (Wong, 1988). Other literature (Nygaard & Boone, 1989; Seidler, 1999; Sharp, 1990) mentions a third classification of person as well, the trespasser.

Invitee

An invitee is a person who goes onto another's premises by the specific or implied invitation of the owner or occupant. A person is an invitee on land of another if he enters by invitation, expressed or implied; his entry is connected with the owner's business or with an activity the owner conducts or permits to be conducted on his land; and there is a mutuality of benefit or benefit to the owner (Black, 1983). An invitee is owed a greater degree of care by the owner, operator, supervisor, or occupier of the property (Wong, 1988). The owner or manager of the property must exercise reasonable

care in providing a safe place for invitees (Nygaard & Boone, 1989). According to Kaiser (1986), a landowner owes the highest duty of care to invitees and must act as a reasonable and prudent operator to make the premises reasonably safe for invitees. The landowner has a duty to:

1. Keep the premises in safe repair.
2. Inspect the premises to discover hidden hazards.
3. Remove the hazards or warn of their presence.
4. Anticipate foreseeable uses and activities by invitees and take reasonable precautions to protect the invitee from foreseeable dangers, and
5. Conduct operations on the premises with reasonable care for the safety of the invitee.

Licensee

Wong (1988) stated that a licensee is one who enters the property of another, with the owner's consent, for the licensee's own purposes. A licensee includes anyone who enters the premises by permission only, without any enticement, allurements or inducement being held out by the owner of the recreation or sport facility (Prosser, 1971). Maloy (2001, p. 107) stated, "A licensee is a person who uses the premises with the bare consent of the operator. Bare consent means permission has been given to the person to use the premises but the operator has no real or expected benefit from the licensee's use. A licensee enters upon the premises for his own purpose. An example would be a hunter who is hunting on land with the owner's permission." The licensee status is also used to describe those who are invited onto a property, not for any business purpose but only for social purposes (Kaiser, 1986). The owner of a property owes only a duty of ordinary care to a licensee. The owner is not obligated to inspect the area to discover unknown hazards, or warn of conditions that should be obvious to the licensee. The owner of a property owes a licensee a duty to warn only when a risk is known or should have been known under the reasonable person standard, which the licensee is unaware of (Wong, 1988). A case of a person being invited onto a property for social purposes only and thus deemed a licensee was in *Vogel v Eckert*, a guest was injured by the collapse of a rotted bench she was sitting on. It was one of several pieces of furniture made by the defendant (person the guest was visiting). The court denied recovery because the guest

was deemed a licensee and the defendant didn't know of the condition of the furniture and had no duty to the guest to acquire such knowledge.

Trespasser

Black (1983) defined a trespasser as a person who intentionally and without consent or privilege enters another's property, a person who enters on the property of another without any right, lawful authority, or an express or implied invitation or license. Nygaard and Boone (1989) stated a manager or owner of a facility owes no duty of care to a trespasser, but if the trespasser is a minor, especially between the ages of three and twelve, liability may result if any of the following conditions exist:

1. There is reason to know or expect that children will trespass there. Also, if steps are not taken to dissuade a trespasser, the trespasser may be regarded as a licensee.
2. Whatever caused the injury could be expected to cause injury, such as an unfenced swimming pool.
3. It is likely that a child would not discover or appreciate the danger.
4. The danger to a trespassing child outweighs the burden of correcting the dangerous condition or protecting children from it (Nygaard & Boone, 1989, p. 43).

Nygaard and Boone (1989) also stated that the owner of a facility has a duty or obligation to only refrain from intentionally injuring a trespasser after his presence is discovered.

Defects

The distinction between patent and latent defects is also important in any discussion of the liability of owners and possessors of sport facilities. Both types of defects are potentially injury causing, but an owner or operator cannot be held liable for undiscovered and undiscoverable defects.

A patent defect is one that is plainly visible or that could easily be discovered upon inspection. An example of a patent defect that a facility owner could be held liable for is garbage and debris on a stairwell that causes injury. A latent defect is a hidden or concealed defect that could not be discovered by reasonable inspection. A latent defect is a defect that a facility owner has no knowledge of, or in practicing reasonable care, the owner should not have knowledge. Owners and lessees are generally not liable for

injuries caused by latent defects (Wong, 1988). An example of a latent defect would be hairline cracks in a metal support beam that supports a section of bleachers.

Risk Management and Sport

The second section of the literature reviewed pertains to risk management and sport. This section will address the definition of risk management, history of risk management, importance of risk management, and risk management theory.

Definition of Risk Management

Risk is a peril or the possibility of exposure or harm (Farmer, Mulrooney & Ammon, 1996). Risk management has been defined as controlling the financial and personal injury losses from sudden, unforeseen, unusual accidents and intentional torts (Ammon, 1993). Graham, Goldblatt and Delpy (1995) described risk management in a sport context as the responsibility for identifying and determining which methods to employ against potential threats that may negatively affect the sport event. Clarke (1998) stated that “risk management” is a term coined by experts for encompassing all the strategies one can consider for dealing with such risk. The primary focus of risk management is reducing exposure to danger, harm, or hazards (Berlonghi, 1990; Kaiser, 1986).

Beginning of Risk Management

Risk management was born of necessity – human, legal, and political. As early as the late 1800’s, the American labor movement started to address the dangers of mining and factory work. Laws were passed and strikes were called as a result of existing mine and factory safety problems. While there are still dangers, the combination of federal and state safety inspections, labor demands, protective equipment, and safety laws have resulted in safer conditions in modern mining operations and factories. The owners and operators of mines and factories now are faced with expensive litigation if an accident occurs (Hronek & Spengler, 2002).

The earliest organizations to practice risk management were insurance companies whose techniques have been modified and applied by a variety of organizations including hospitals, public schools, and universities (Kaiser, 1986). Appenzeller (1998) stated that

risk management has been associated with business and especially the insurance industry for many years. Loss control, exposure to loss, pre- and post- loss objectives, risk management strategies, and risk management techniques were common terms in both the business and insurance industries prior to the 1970s. In the mid-1970s and especially in the 1980s and the 1990s, risk management became a familiar expression of a program designed to meet the sport litigation crisis head-on. In the 21st century, risk management will become a close companion to the sport business industry in its attempt to reduce losses and exposures, while increasing the desire to make the sport business industry safer.

Importance of Risk Management

Van der Smissen (1990) explained the importance of risk management in the sport industry by stating that managers and administrators offering leisure and educational services affirmatively and aggressively give attention to the management of financial and programmatic risks to effectively reduce costs and enable desirable programs and services to continue. Appenzeller (1998) stated that risks are inherent in sport and even the safest programs can never avoid accidents and injuries. The law expects that sport managers develop risk management and loss programs to ensure a safe environment for all that participate in sports.

Sharp (1990) listed three compelling reasons to institute risk management programs in the physical education/athletic setting. The first reason is the American public has assumed a litigious posture relative to athletics. The climate is extremely litigation oriented and lawyers seem to always be in search of a “deep pocket” to cover costs of injury, regardless of who is at fault. The second reason often cited concerns the judicial attitude toward liability and sports. Liability has been expanded to cover those who administer these sport and recreation programs. The usual defense of assumption of risk has been severely eroded over the past few years by judicial interpretation. The third factor is the trend toward abrogation of government immunity. In most states, school districts and state universities may now be sued.

In relation to the discussion of the eroding of the doctrine of assumption of risk, Maloy and Higgins (2000) stated that this has been caused mainly by most states’ adoption of comparative negligence. Comparative negligence lets the jury apportion a

percentage of fault between the plaintiff and the defendant in an injury case. Before comparative negligence, assumption of risk had always made recovery for plaintiffs very difficult. The effect of comparative negligence was profound. In sport and physical activity, the adoption of comparative negligence has made risk management a critical concern for facilities previously protected by assumption of risk.

By providing a safe, honest, and efficient environment, a business can reduce legal liability and enhance the positive reputation of the business (Clement, 1998). Effective risk management should identify as many liabilities and risk factors as possible, present alternative solutions, and make cost-effective recommendations.

Risk Management Plans, Models, or Programs

No matter what textbook one reads about risk management and sport, one will undoubtedly read about the process of implementing a risk management plan, model, or program. There are many risk management plans and models that have been created by sport law experts. Nine risk management plans are summarized in the following section. The risk management plans are presented according to the number of steps incorporated in each plan. The three step plans are presented first. The four and five step plans will follow and the D.I.M. Process (Ammon, 2001) will be presented last and in more detail since it will be used as the conceptual framework of the study. An explanation of why the D.I.M. process is being used as the conceptual framework for the study will be provided as well.

Carpenter's (1995) risk management strategy model. Carpenter (1995) mentioned three steps in the risk management strategy model. These steps include 1) identification, 2) evaluation, and 3) management of risks. Five good places to look for risks are facilities and equipment, staffing, participant population, policies and procedures, and program offerings. In the evaluation step, risks are measured in their severity and if a loss were to occur from a risk, how it would affect the organization. The management step involves removing risks, reducing risks, and transferring risks.

Clement's (1998) process. Clement (1998) identified three steps to a risk management system. These include 1) identification of risks 2) evaluation of risks, and 3) controlling the risks. The evaluation of risks involves assessing risks in terms of probability, severity, and magnitude. Probability refers to the likelihood of the risk

causing harm. Severity refers to the severity of the injuries that could be incurred from the risk. Could it be minor discomfort, serious injury, or death? The number of people that could be affected by the risk is the magnitude. Would the risk cause injury to many people or to possibly just one person? Clement also mentioned that the risks involved with activities could be controlled in four ways. These include:

1. Accepting the risk of an activity and assuming the responsibility
2. Retaining the activity and transferring the risk through the use of insurance and private contracts.
3. Altering the activity to reduce the risk
4. Eliminating the activity, therefore eliminating the risk.

Head and Horne model. Head and Horne (1991) risk management model involves four steps: 1) identify potential losses, 2) evaluate potential losses, 3) select the appropriate techniques for treating loss exposures, and 4) implement and administer the program. Potential losses can be identified with risk analysis questionnaires, physical inspection, flowcharts, financial statements, and historical loss data (Head & Horne, 1991).

Evaluating potential losses involves the estimation of the potential frequency and severity of the loss. The estimated loss exposures should then be ranked based on the level of importance. A combination of techniques should be implemented to handle each exposure (Head & Horne, 1991).

The third step of the Head and Horne (1991) risk management model is choosing the most appropriate technique to handle risk exposures. The two main techniques are risk control and risk financing. Risk control attempts to control the frequency and severity of accidents. Risk financing is techniques that provide the funding for losses after an attempt has been made to control them (Head & Horne, 1991). A well-known form of risk financing is purchasing insurance.

The fourth and final step of the Head and Horne (1991) model is implementing and administering the program. Head and Horne (1991) suggest that the implementation stage begins with issuing a policy statement. It outlines the risk management objectives of the organization. Also, a risk management manual should be developed. The risk

management manual provides detailed information regarding the risk management plan of the organization (Head & Horne, 1991).

Hronek and Spengler's (2002) risk management cycle. Four steps make up the model developed by Hronek and Spengler (2002). These steps are 1) risk identification, 2) risk evaluation, 3) risk treatment, and 4) risk implementation. Risks are identified in relation to safety/negligence, property loss, contract, or personnel (fidelity) problems. Risk is evaluated as it relates to the experienced or anticipated frequency and severity of incidents. Risks can be treated by retaining, reducing, transferring, and avoiding them. The actions taken in treatment reflect the results of the evaluation process. Risk implementation takes place when something is repaired, changed, or constructed. It also can involve a policy change, verbal warnings, brochures, and other publications, signage, and mass media releases.

Kaiser's risk management process. Kaiser (1986) stated that the risk management process encompasses 1) identification, 2) evaluation, 3) selection, and 4) implementation. Kaiser (1986) mentioned that the identification stage is crucial because it is not possible to treat risks until they have been identified. Risk evaluation involves determining the probability of a loss in a given period of time, and financial resources available to meet such losses. Kaiser mentioned the example of playgrounds and pools. More accidents occur at playgrounds than at pools. However, the one accident at a pool may result in a drowning while accidents at playgrounds may only result in broken bones. The third step in the process is risk treatment selection. The options of treatment are risk avoidance, risk reduction, risk retention, and risk transference. The method selected is determined by the frequency of the occurrence and the severity of the loss from the risk. The final phase of the process is implementing the risk management plan through the creation of a policy and procedures manual. The manual will help outline the necessary administrative procedures for responding to risks.

Mulrooney & Farmer risk management process model. Mulrooney and Farmer (1998) separated the risk management process into four stages. These are recognition, evaluation, and treatment stages, followed by the creation of standard operating procedures. The recognition stage is simply identifying the risks of your facility. Some common risk sources that must be recognized by facility staff are weather,

event type, patron demographics, and facility location. The evaluation stage involves placing the risk into a risk management matrix. Risks are evaluated based on the number of occurrences and the amount of monetary loss that could arise from the risk. Risks are treated based on where a risk was placed in the risk management matrix during the evaluation stage. Risks can be treated by either avoidance, shifting the risk, or keeping and decreasing the risk. The last stage of the risk management process is the development of standard operating procedures (SOP) or a risk management manual. The SOP is a step-by-step set of instructions that provides detailed directions of action for risks that arise.

Berlonghi's risk management process (1990). Berlonghi (1990) described five steps in the risk management process. These steps are 1) risk analysis, 2) examining risk management techniques, 3) planning effective and appropriate actions and techniques, 4) implementing risk management recommendations, and 5) evaluating and improving the risk management program. Risk analysis is the identification of risks. Risks should be separated into those that are unrealistic, potential, probable, and realistic. There are four questions to be answered during this step. The questions are:

1. What is exposed to loss?
2. What specifically could cause a loss?
3. Who would suffer the loss?
4. What are the financial consequences?

The second step in the process is examining risk management techniques. The two techniques are risk control and risk financing. Risk control involves taking action or establishing procedures to prevent incidents from occurring. Risk financing is the purchasing of insurance to cover losses from risks. The third step in the process is planning effective and appropriate actions and techniques. This step involves selecting the measures that are most effective and feasible. This selection process requires a determination of the frequency and severity of expected losses. The fourth step is implementing risk management recommendations. Staff and cost requirements are key areas that need to be considered in this step. Finally, the last step in the process is evaluating and improving the risk management program. An evaluation should include the effectiveness of the risk management program and the program's feasibility.

Miller's (1989) risk management phases. Miller (1989) divided his risk management plan into five phases. These phases included 1) identification, 2) assessment 3) classification of the risk, 4) risk treatment, and 5) evaluation. Miller (1989) mentioned that the identification phase is probably the most important as well as the most difficult. If a risk cannot be identified, it cannot be dealt with properly. The second phase is the assessment phase. Once risks have been detected, they must be evaluated to determine the probability of associated loss and the impact the loss would have on the organization. They also need to be assessed to consider the probability of the frequency of the loss. Thirdly, risks need to be classified. This phase is based on information from the first and second phases. In this phase, risks are classified according to the magnitude and frequency of the loss from said risk. The fourth phase of the process is treatment of the risk. There are four methods of treating a risk. These methods include 1) avoidance, 2) acceptance 3) transfer, and 4) reduction. The fifth and final phase of the risk management process is evaluation. This phase determines if the risk management tactics you have employed are working or not. The evaluation phase is continuous.

Ammon's (2001) D.I.M. process. The D.I.M. Process created by Ammon (2001), is a three-step process of risk management. The letters "D", "I", and "M" represent the first letters of the first words of each step of the process. The three steps are 1) developing the risk management plan, 2) implementing the risk management plan, and 3) managing the risk management plan.

Step 1: Developing the plan

Ammon (2001) stated that developing the risk management plan involves three steps. These three steps are 1) identifying the risks, 2) classifying the risks, and 3) selecting methods of treatment of the risks. Identifying risks is the most important step in the risk management process. Risk cannot be controlled until risks are identified.

Risks are categorized according to how often they occur and the severity of the potential loss arising from the risk. The frequency of the risks can be categorized as "high", "medium", or "low". The severity of loss can be classified as "catastrophic", "critical", "moderate", or "low" (Ammon, 2001). Risks can be treated in four ways. The risk can be avoided, transferred, retained, or reduced. The category that a risk has been

placed in during the classification stage helps a risk manager determine ways to best treat the risk. If a risk has been categorized as catastrophic or critical loss with medium or high frequency, then that risk or activity should be avoided. Avoiding risks is the easiest risk treatment, but should only be used as a last resort.

Risks should be transferred if the risk of loss is not enough to warrant avoidance, yet the risk is greater than the organization can assume on its own. The most common method of transferring risks is through the purchase of insurance (Ammon, 2001). Ammon (2001) noted that there are several other methods of transferring risks; these methods include the use of waivers, independent contractors, and indemnification clauses. When a person signs a waiver, they are giving up their right to sue someone for negligence. According to Maloy and Higgins (2000, p. 71), many premise operators believe that waivers are not “worth the paper they are written on.” However, that is not true. In fact waivers are a common way of doing business in the world of sports, recreation, and leisure (Maloy & Higgins, 2000). Independent contractors assume their own liability and are separate from the organization that hires them. The organization that hires an independent contractor is not liable for the negligence of the independent contractor. Indemnification clauses are usually written into facility rental contracts. This clause states that the organization renting the facility will reimburse the organization for any damages or losses.

Risks that occur with medium to low frequency and have a low potential for loss are usually retained. The organization assumes the financial responsibility should losses occur. Retaining risks is sometimes called self-insurance; the organization is simply paying the insurance premium to itself (Ammon, 2001).

The fourth treatment according to Ammon (2001) is reduction. Even when risks are retained, every measure must be taken to decrease the occurrence and or monetary losses from said risks. If risks are not managed, the potential for lawsuits rises. Frequent lawsuits usually raise the premiums of an organization’s insurance premium.

Step 2: Implementing the Plan

The second step in the D.I.M. process is implementing the plan. Ammon (2001) mentioned that implementation is synonymous with communication and the risk manager must explain to all employees that communication is important in order for the risk

management plan to be put into practice. Implementing the plan involves three steps. The first step is involving all employees in the risk management process. Allowing and encouraging employees to make suggestions will increase the effectiveness of the risk management plan. The second step is the use of printed material that outlines risk reduction techniques. Examples of items in the printed material may include: the organization layout and operation, rules and regulations, responsibilities of various employees, correct methods of documenting records and reports, and emergency procedures. The third step is utilizing an effective training program. Proper training of employees is key to reducing risks. Every employee should know his/her role and what is expected of him or her to manage risks (Ammon, 2001).

Step 3: Managing the Plan

The final component of D.I.M. is managing the plan. Managing the plan involves three steps. The first step is hiring or selecting a risk manager and/or a risk management committee. Many organizations will not hire a risk manager due to budget constraints. Therefore they may divide the responsibilities of a risk manager among several employees to form a risk management committee. Sometimes a company will assign a person the role of risk manager in addition to their other regular duties (Ammon, 2001). Whichever system is chosen, the responsible party should monitor the risk management plan, implement changes, assist in fostering a genuine risk management attitude among other employees, conduct inspections, review accidents, and supervise in-service training (van der Smissen, 1990). The second step is providing the risk manager or committee with the authority to lead. This authority should be stated in the organization's policy statement. The organization's management staff and ownership must also endorse and support the idea of risk management (Ammon, 2001). A risk management plan will not succeed without the support of upper management. The risk manager and risk management committee must be given the freedom to act independently, but within the philosophy of the sport or recreation organization (Mulrooney, Ammon, & Farmer, 2000). Finally, the third step in managing the plan is to provide employees with the opportunity for continual input into the risk management plan. Since the risk management process is continual, the input from employees can be valuable when changes to the plan are needed. The continual success of the plan mandates that

employees, supervisors, and managers at all levels have the ability to interact with each other. Figure 1 is a diagram of the D.I.M. process (Ammon, 2001).

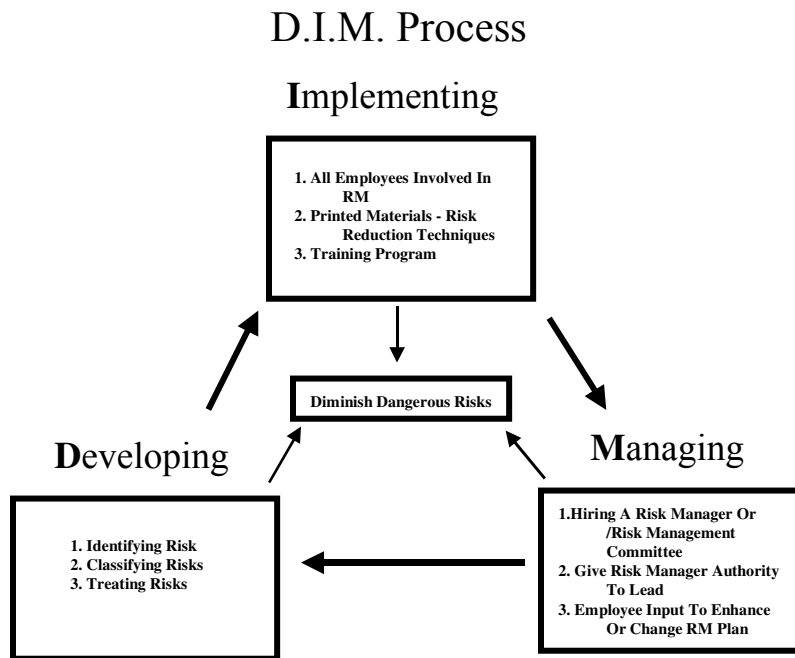


Figure 1: D.I.M. Process

Ammon (2001)

Why the DIM Process as the Conceptual Framework?

The nine risk management plans presented in the previous section are all very similar (see figure 2 for side-by-side comparisons of the nine risk management plans). All of the plans are similar in that they include “identifying risks” as the first step in the risk management plan. All of the plans discuss evaluating, classifying, or assessing risks to determine the probability or frequency of a risk occurring as well as the severity of injuries from the risk whether financial or physical. All of the plans discuss the treatment of risks. There are several methods of treating risks according to the plans. Although some different terms are used to mean the same treatment, generally the plans suggest

Side-by-Side Comparison of Risk Management Plans

| | Step 1 | Step 2 | Step 3 | Step 4 | Step 5 | Context of the plan |
|--|---|---|---|---|---|---|
| Ammon's DIM Process (2001) | <u>Develop Plan</u> 1. Identify Risks 2. Classify Risks 3. Methods of Treatment | <u>Implement the Plan:</u> 1. Involving all employees in process 2. Printed material outlining risk reduction techniques 3. Training Program | <u>Manage the Plan:</u> 1. Hiring risk manager or selecting a risk management Committee 2. Provide risk manager with authority to lead 3. Allow continuous employee input into the plan | | | Athletics & Stadiums |
| Carpenter's Risk Management Strategy Model (1995) | <u>Risk Identification</u> | <u>Risk Evaluation:</u> Which risks are life-threatening or could even bring injury? If liability would incur from a risk, what would be financial risk or risk to reputation to the program? | <u>Management of Risks:</u> Remove, reduce, or transfer risks | | | Athletics, Recreation, & Physical Education |
| Clement's Risk Management System (1998) | <u>Identification of Risks</u> | <u>Evaluation of risks:</u> Based on probability, severity, and magnitude. | <u>Controlling Risks:</u> Accept, transfer, reduce, or eliminate risks | | | Athletics, Recreation, & Physical Education |
| Head & Horne's Risk Management Model (1991) | <u>Identify Potential Losses</u> | <u>Evaluate potential losses:</u> Estimation of frequency and severity of loss. | <u>Treating Loss Exposures:</u> Risk control & Risk Financing | <u>Implement & Administer the Program:</u> Develop a policy statement & risk management manual | | Business Organizations |
| Hronek and Spengler's Risk Management Cycle (2002) | <u>Risk Identification</u> | <u>Risk Evaluation:</u> Experienced or anticipated frequency and severity of incidents | <u>Risk Treatment:</u> Retained, reduced, transferred, and avoid risks | <u>Risk Implementation:</u> When something is repaired, changed, or constructed to address the risk. Policies, warnings, publications. | | Recreation & Leisure |
| Kaiser's Risk Management Process (1986) | <u>Risk Identification</u> | <u>Risk Evaluation:</u> Determining the probability of a loss in a given period of time, and financial resources available to meet those losses | <u>Risk Treatment Selection:</u> Avoidance, reduction, retention, and transference of risks. | <u>Implementing the Risk Management Plan:</u> Creation of a policy and procedures manual. | | Athletics, Recreation, & Parks |
| Mulrooney and Farmer's Risk Management Process (1998) | <u>Risk Recognition-</u> Simply Identifying the risks | <u>Risk Evaluation:</u> Based on the number of occurrences and the amount of monetary loss that could arise from the risk | <u>Risk Treatment:</u> Avoidance, shifting, or keeping and decreasing the risks. | <u>Develop a Standard Operating Procedure (SOP) or a Risk Management Manual</u> | | Athletic Facilities |
| Berlonghi's Risk Management Process (1990) | <u>Risk Analysis:</u> Identifying risks and separating the risks into those that are unrealistic, potential, probable, and realistic | <u>Examining Risk Management Techniques:</u> 1. risk control 2. risk financing. | <u>Planning Appropriate Actions & Techniques:</u> Selecting measures that are most effective and feasible based on frequency and severity of expected loss | <u>Implementing Risk Management Recommendations:</u> Staff and cost requirements need to be considered. | <u>Evaluating & Improving the Risk Management Program:</u> | Event Management |
| Miller's Risk Management Phases (1989) | <u>Risk Identification</u> | <u>Assessment:</u> 1. Assessing the risk to determine the probability of associated losses 2. Evaluate what impact the loss would have on the financial standing of the organization | <u>Classification of the Risk:</u> Risks are classified based on information obtained in first two phases. Risks are classified according to magnitude and frequency of the loss from the risk | <u>Risk Treatment:</u> Avoidance, acceptance, transfer, and reduction of risks | <u>Evaluation:</u> Are the risk management tactics employed working? This phase is continuous. | Athletics & Physical Education |

Figure 2: Side-by-Side Comparison of Risk Management Plans

that methods of treatment are accepting, transferring, reducing, or eliminating risks. Additionally, six of the nine plans (Ammon, 2001; Berlonghi, 1990; Head & Horne 1991; Hronek & Spengler, 2002; Kaiser, 1986; Mulrooney & Farmer, 1998) discussed previously, mention “implementing the plan” as a step in the process. In general, “implementing the plan” means that risk management policies and risk management manuals should be developed. Finally, three of the nine risk management plans (Ammon, 2001; Berlonghi, 1990; Miller, 1989) recommend that the risk management plan be evaluated continuously to determine if it is working or not.

No one risk management plan is really better than the other. In fact, many seem very similar. The risk management plans presented can all be used in the context of sport and can all be used in implementing a risk management plan in an athletic facility. However, the specific risk management plans do use examples of carrying out the plan in very different contexts. Ammon’s (2001) D.I.M. Process and Mulrooney and Farmer’s (1998) Risk Management Process are written with an athletic facility in mind. The Head and Horne (1991) plan is a general plan for business organizations. Berlonghi’s (1990) plan is geared towards event management. Hronek and Spengler’s (2002) plan tends to focus on recreation and leisure. The remaining plans are written in the general context of athletics, recreation, and physical education.

As mentioned, Ammon’s (2001) D.I.M. process serves as the conceptual framework for the proposed study. Ammon’s (2001) D.I.M. Process was selected as the framework of the study because in the literature, it specifically listed examples that were directly related with managing a stadium. Some of the examples listed were: 1) spectator slips and falls from uneven surfaces, 2) vandalism at the stadium, 3) foul balls damaging cars in the parking lot, 4) spectator struck by lightning, and 5) fan injured in altercation between two rowdy spectators. The examples given clearly show that Ammon (1993) used the D.I.M. Process in the context of facility management. Also, after a discussion with Dr. Ammon, he stated that the D.I.M. Process was indeed written for use in an athletic facility and was born from his 1993 study of risk management of municipal stadiums (personal communication, March 1, 2006). Since the current study on college football stadium risk management is modeled after the Ammon (1993) study on municipal football stadium risk management, the D.I.M. Process is a natural fit to serve

as the conceptual framework of the current study. Also, many of the key concepts of the D.I.M. Process were important concepts of the Ammon (1993) study on risk management of municipal football stadiums. Since the current study is modeled after Ammon's (1993) study of municipal football stadiums, the D.I.M. Process seemed to fit the current study better than the other risk management plans. Stadiums are large venues that involve many different people working together during an event. Therefore, the D.I.M. was also chosen because it emphasizes the importance of getting all of your employees involved in the plan. Many of the concepts within the model relate to topics that the proposed study will investigate. The concepts of the model that are addressed in the study include:

1. Identifying risks through regular inspections - Do stadiums regularly inspect electrical, mechanical, and structural components of the stadium as well as parking lots?
2. Transferring risks through the use of independent contractors, indemnification clauses, and insurance - Are independent contractors used in stadium operations for concessions, security, and ticket operations? Are indemnification clauses used when the stadium is rented to an outside user? Is liability insurance in place to insure against lawsuits?
3. Employing a risk manager- Does the stadium employ a risk manager to advise the operations staff on prudent risk management practices?
4. Printed materials- Does the stadium have written standard operating procedures and written inspection schedules?
5. Training program- Is event staff trained?
6. All employees involved in risk management plan- Are all employees briefed on the meaning of negligence?

Transferring of Risks

A topic discussed briefly in the previous risk management plans is the treatment of risks by transferring them. The transferring of risks is an element of the treatment of risks in the developing phase of the D.I.M. Process (Ammon, 2001). Risks can be transferred in several ways. The methods of transferring risks that are most important in

the context of stadium management are (a) purchasing insurance, (b) using independent contractors, and (c) indemnification clauses and certificates of insurance.

Liability insurance is an indemnity against loss borne by a third party. When the property owner injures a visitor as a result of a negligent act, the third party (insurance company) bears the loss (Hronek & Spengler, 2002). It is wise to have professional liability insurance even if you are protected by other liability-shifting mechanisms such as hold harmless laws (Carpenter, 1995). Nygaard and Boone (1989) stated that an organization must purchase as much insurance as it can afford.

The use of independent contractors is another way to transfer risks. Berlonghi (1990) stated that an organization that performs a particular activity is generally held primarily responsible for any losses generated by that activity. An organization that does not want to undertake the risk of incurring a loss with any given activity can contract with another to perform it. The reasoning behind this is that an independent contractor is not a company employee and not under your control. Hence, his or her acts do not expose you to liability. Remember that this is the general understanding but does not always hold up in court.

Finally, indemnification clauses and certificates of insurance are a necessity when someone other than the owner of the facility uses the facility. According to Madden (1998), a manager of a facility should make sure all lessees of the facility provide insurance, including an indemnity clause that will hold the facility harmless for any losses incurred by the lessee's use of the premises.

Madden (1998) noted that facility managers must obtain a certificate of insurance for each event in the facility. A certificate of insurance is usually required by a facility from its licensee, stating that the licensee has adequate coverage to protect itself and the facility in the event a loss incurs. Losses can be in the form of personal injuries or facility damage.

The importance of insurance certificates and indemnification is demonstrated in the case of *Armstrong v. Ogden Allied Facilities Management Corp. et. al* (Madden, 1998). This case involved a woman who was injured when she tripped over an unfastened cover to an electrical outlet recessed in the floor of the lobby of a facility. Ogden managed the facility and Larkin was the promoter. The woman sued both Larkin and

Ogden, and Larkin sought indemnity from Ogden, while Ogden cross-claimed against Larkin for breach of the license agreement for failing to provide insurance coverage in Ogden's favor. It was found that Larkin had provided a certificate of insurance to Ogden, which was adequate proof that it had insurance coverage for the event. The court held that if the plaintiff recovered money, Larkin and not Ogden would pay it.

Event and Game Operations

All of the legal and risk management knowledge is useless to a stadium or event manager if he or she cannot put it into action during the event and game operations of his or her respective stadium or facility. The event and game operations involve the different aspects of managing a stadium on a game day. Operating a stadium is much easier when no events are taking place in them because there are no people in the stadium. However, the operations become far more complex when people attending a game or event are present in the stadium. They become more complex because when people enter a stadium, the stadium manager is instantly responsible for the safety of those people. This section is separated into the categories of crowd management, alcohol policies, emergency and medical plans, and parking and traffic control; all aspects of game operations.

Crowd Management

One of the most important jobs of a facility manager is crowd management. There are many aspects of crowd management. Crowd management consists of seating policies, signage, security, and accommodating persons with disabilities. This section examines the important aspects of crowd management and the techniques that are incorporated to minimize problems. A history of events where crowd management "disasters" arose is also noted. These "disasters" illustrate the immense importance of crowd management at public events.

Why is crowd management so important? One only needs to look at history to get a clear answer. There have been numerous disasters related to crowd management in the

past. These disasters emphasized the importance of crowd management and the preparation that must be taken to host large spectator events.

Moore (1992) acknowledged that there have been five major disasters inside British soccer grounds. Twenty-five persons were killed in Ibrox Park, Glasgow in 1902. In 1946, 33 people died at a match in Burnden Park, Bolton. Disaster struck again at Ibrox Park, Glasgow 69 years after the first disaster. Sixty-six people died at Ibrox in 1971. Fifty-six people died in Valley Parade, Bradford in 1985. Most recently in 1989, 95 people died at Hillsborough, Sheffield. These disasters stemmed from an assortment of problems. Many simply were from overcrowding of a facility and the rush of spectators on gates. Instances where gates were not shut even after the stadium was full and could hold no more fans were the main reasons people died. In other instances the gates were closed, but people jumped fences and climbed walls to get in and no one was present to stop them. Although no one was killed at Wembley Stadium at the first Football Association (F.A.) Cup Final in 1923, it is said that 250,000 people rushed into the stadium that was built to hold only 127,000. Some of the findings and recommendations stemming from these British soccer disasters were to start the control of crowds far away from the entrances into stadiums. Recommendations were also made to restrict the flow of people into grounds that surround the stadium (Moore, 1992).

Although many crowd disasters in Europe have occurred at soccer matches, disaster is not unknown at American football games in the United States where several incidents have occurred. One of the most notable was the incident at the University of Wisconsin in 1992. Following Wisconsin's first victory over Michigan since 1981, over 12,000 elated fans surged down 72 rows of seats and crushed fans in the front rows. Although there were no deaths, hospitals reported treating 72 people for injuries (Walsh, 1993).

In the United States, crowd management became a serious topic after an incident in Cincinnati. Eleven fans were killed at a Who concert in 1979 at Cincinnati's Riverfront Coliseum. They had been trampled to death by the stampede of fans trying to get into the arena. This incident was the impetus that really caused facility managers to re-think crowd management. In fact, the IAAM (International Association of Assembly

Managers) assembled a task force to analyze this disaster and make recommendations to limit the chances that a disaster like this would happen again (Wertheimer, 1993).

Many venues had to revise their festival seating policies after three teenagers were killed as a result of crowd surge at an AC/DC concert in Salt Lake City in 1991. Also, in 1991, nine individuals were killed when 5,000 people tried to cram into a 2,700-seat facility for a New York City College celebrity basketball game (Parks, Zanger, & Quarterman, 1998). Festival seating is all too often to blame for these disasters. Festival seating really doesn't involve seats at all. It is used to sell space on a floor with no chairs. The patrons do not have assigned seats and are allowed to roam the area freely (Antee and Swinburn, 1990).

One way to alleviate the chance for disaster is to not sell festival seating. Ticket offices can sell tickets as general admission or reserved seating. General admission allows people to get seats on a first come first served basis. They can pick whatever seat they want according to what is available when they come inside the arena. Reserved seating is having an assigned seat. The exact seat listed on the ticket is the exact place where the holder of that ticket must sit. These two methods of seating reduce the chance for disaster because one knows the maximum number of people that can be seated at an event. Festival seating allows more people than seats to enter an arena. An effective crowd manager knows when to utilize these seating arrangements and what types of crowds prefer each. A facility manager needs to know the different reactions concertgoers have to different acts (Enders & Muret, 1994).

According to Bob Quintella, Director of the Oakland Coliseum, well conceived crowd management procedures can eliminate the need for crowd control (Waddell, 1997). Sue Hanna, events manager for Assembly Hall at the University of Illinois stated that the less contact the ushers have to make with the crowd the better. If an usher doesn't have to say anything all night, that person has done his or her job. Crowds can be managed without spoken words by simply setting a tone. Facility staff and security personnel can have a significant influence on crowd behavior beginning in the parking lot, continuing into the facility and back out again after the event. Properly trained and equipped staff and others associated with an event can convey the message that a certain type of behavior is expected in connection with the event. A key element in setting the

appropriate tone is communication among everyone involved, from the facility manager to the parking attendants, ushers, security, concessions staff, local law enforcement agencies, promoters, and producers (Antee & Swinburn, 1990).

Antee and Swinburn (1990) stated that managing a crowd is never easy, but there are techniques to establish that will make the job easier. The most important aspect of crowd control is signage. People need to be directed where to go from the time they start driving toward your arena or stadium parking lot. They need to know where they should go to get tickets, where their seats are, where the restrooms are, where the concessions are, and how to exit the building. Spectators also need to know what they are not allowed to do inside the arena and what they cannot bring inside an arena. If coolers are not allowed in an arena there should be a sign at the entrance that clearly states so. People don't like to be told they cannot do something "because". It is a lot easier to tell a person they cannot do something and then show them the sign that clearly states the reason. This way they don't feel as if they are being singled out. The sign shows them that the policy is for all that enter the venue. The Toledo Sports Arena management team knows the power of signage. On your way inside the Toledo Sports Arena you will notice plenty of signs reading, "Management is serious about crowd control and the safety of its patrons" (Morrison, 1990, p.12). Another sign reads, "If you are asked to be searched and refuse, please go to the box office for a refund" (Morrison, 1990, p.12).

"Crowd management" simply put, "is getting people to do what you want". The easiest way to get someone to do what you want is often the one method people overlook. It simply includes the words "please" and "thank you". Event staff should be friendly with patrons and talk with them in a respectful way. An usher making a non-threatening offer to assist in resolving a problem rather than uttering a sternly worded command is more apt to get a cooperative response from an unruly patron (Swinburn, 1999).

Many facility managers have found that the more physically imposing and friendly a person is the better. Many say that a smiling, rather brawny person whose size is somewhat imposing is more effective than a stern-looking person of average build (Swinburn, 1999). James C. Dunn, director of the Lloyd Nobel Center, University of Oklahoma, Norman says he prefers to hire persons over 200 pounds and often recruits

students from wrestling, powerlifting, and weight training clubs to work on his crowd control staff (Enders & Muret, 1994).

One fact remains the same no matter who is used for crowd management. All crowd management personnel should be trained in how to manage crowds appropriately. Use of excessive force when trying to control a crowd can be dangerous and expensive. A good example of this is the case of *Defulio v. Spectraguard, Inc.* (Madden, 1998). In this case, a man attempted to enter Veterans Stadium in Philadelphia by climbing a fence and grasping a concrete wall above him. When the man grabbed the wall, a security officer employed by Spectraguard, Inc. stepped on his hand causing him to fall 15 feet onto the concourse and break both ankles. Spectraguard was found liable and the man was awarded a net award of over \$200,000. The court stated that although the guard was simply doing his duty of keeping unauthorized persons from entering the stadium, he showed a serious lack of judgment.

Technology is fast becoming a useful tool in helping facility managers better manage crowds. Soccer stadiums in Britain are incorporating closed-circuit television into their crowd management techniques. At Leeds United, one of the best equipped stadiums, police officers sit in a windowless room, facing a bank of video-monitors and operating, by remote control, television cameras which can zoom in on any part of the terraces or stands. The cameras are highly effective; one person was arrested 57 seconds after throwing a bottle (“Hooligans and Hoolivans,” 1989). Similar to Leeds United’s surveillance system, the Corestates Center in Philadelphia concentrates Panasonic color closed-circuit television cameras at key areas: escalators, common landings, ticket windows, and perimeter doors. Additional units, dubbed bowl cameras, record and monitor activity in the playing and staging area of the main floor. Mounted with pan, tilt, and zoom capability, all cameras allow security management to observe crowd patterns. The cameras allow facility managers to recognize problems sooner and to dispatch personnel to the scene to rectify them (“Public Venues,” 1996).

Building designs can either make the job of a crowd manager easier or, often the case, harder. Facility design can contribute significantly to crowd management problems. For example, a facility designed to permit large crowds of patrons to enter in waves is more likely to have problems than a facility that requires patrons to gather some

distance away and enter in narrower lines (Antee & Swinburn, 1990). The Toledo Sports Arena renovated to incorporate the preceding principle. In 1977, the arena erected a unique queue system that extends from the parking lot to the front entrance. It forces patrons to walk single file into the building where they are dispersed through six doors that lead into the seating area (Morrison, 1990). When designing a facility, it should have wide corridors and novelty and concessions locations in the right places. In addition, designers should not put the box office near where people line up to get into the arena or stadium (Waddell, 1997). In *People of State of New York v. U.S.T.A. National Tennis Center, Inc.*, it was the crowd waiting to get seated that caused the City of New York to serve a summons on the USTA tennis center during the U.S. Open Tennis Tournament. The USTA had the ushers prohibit people from entering the stands above the tennis courts until “odd games” when players exchanged ends of the court, to prevent distraction of the players during the game. People often waited up to 25 minutes to be allowed to go to their seats and caused a great number of people to block the exits. The court found the USTA guilty of endangering the lives of spectators if an evacuation had to take place (Madden, 1998).

Another event, which has changed the way facility managers conduct business are the terrorist attacks of September 11, 2001. These attacks destroyed both World Trade Center Buildings in New York City and partially damaged the Pentagon in Washington, D.C. After these disasters, facility managers realized that sporting events could be a prime target for terrorists. Now, more than ever, bags, purses and personal belongings are checked for prohibited or illegal items when fans enter facilities (B. W. Mondell, personal communication, July 20, 2002).

Researchers from Springfield College conducted a study that was spawned by the events of 9/11 (Pantera, 2003). The study examined security measures at NCAA Division I football stadiums and basketball arenas. All NCAA Division I schools were sent a questionnaire. Schools were scored on emphasis they placed on certain security measures. A total of 121 schools responded to the survey for about a 38% return rate. “The participants were asked to rate the frequency with which they implemented each of the 38 security measures on a five-point Likert-type scale: (1) no emphasis (not part of the game day operations); (2) moderate emphasis (used at 50% of the athletic events); (3)

priority (used at 75% of the athletic events); (4) used as part of the standard operating procedure; and (0) no opinion (Pantera, 2003, p. 4).” According to Pantera (2003), the research found that the following concepts separated the highest-scoring universities from the lowest-scoring universities

1. Central command established
2. Venue is locked down
3. Bomb-sniffing dogs utilized
4. Concessions delivered at least 90 minutes before event
5. 24 hour security established
6. Certain areas restricted
7. Employees issued photo IDs
8. Formal risk management plan in place.
9. Pre-event training
10. Coordination with state police
11. Formal evacuation plan in place
12. Awareness of potentially dangerous facilities nearby
13. Undercover surveillance used
14. No-fly zone established
15. Mobile emergency room use
16. No re-entry adhered to
17. One crowd observer per 250 spectators
18. Security patrols used in parking lots
19. Periodic broadcasts regarding security factors
20. No carry-ins/ backpacks
21. Post-event debriefing

Madden (1998) found the extent to which security personnel are allowed to search individuals and what items they may take from individuals has been the subject of litigation for many years. Madden (1998) recommended that when considering instituting guidelines for searching patrons, that the following be regarded:

1. The search should be minimally invasive. In many cases, a simple search without any actual touching is sometimes sufficient.
2. Adequate signage and notice should be given to patrons regarding the search and their right to refuse the search. They should be notified that they need not comply but may be prohibited from entering if the search is not conducted.
3. Patrons must be treated as equally as possible, with everyone being subjected to the same search procedures.
4. Adequate signage and notice should be given to patrons regarding the search and their right to refuse the search. They should be notified that they need not comply but may be prohibited from entering if the search is not conducted (Madden, 1998, p. 264).

A facility that chooses to conduct more invasive searching procedures than those from the preceding guidelines is at serious risk of violating the search and seizure rights of the fourth amendment (Madden, 1998).

One interesting aspect of crowd management is the effectiveness of mounted police. For a number of reasons, mounted police are one of the most effective tools when controlling outside crowds. Mounted police have an advantage due to their 360-degree observation range, height, and the ability to maneuver between parked cars or up and down steep hills. Mounted police are useful in evacuating a crowd and can move in formation to escort a paramedic team into an area. Using horses in crowd management or emergency response situations outweighs other security options such as foot, bicycle, car or motorcycle patrols. It has been estimated that a person on horseback equals 10 to 15 people on foot. Due to height, sheer force and maneuverability, horse-and-rider teams can gently, but effectively, move people from a potentially harmful situation. In addition, mounted patrols command respect due to appearance and the general public's fascination with horses ("Mounted Patrols", 1996).

Finally, the accommodation of persons with disabilities should be a concern of all crowd managers. The Americans with Disabilities Act requires that stadiums and arenas be accessible to people with disabilities so they, their families, and friends can enjoy

equal access to entertainment, recreation and leisure. One percent of the seats in an arena need to be in wheelchair seating locations. Each wheelchair location must have a companion seat for an able-bodied guest accompanying the disabled person (“Accessible venues,” 1998). Among the mandates of The Americans with Disabilities Act is a requirement that physical barriers in existing public accommodations must be removed, if possible. If these architectural changes are financially or structurally impossible, alternative methods of providing service must be provided.

Crowd management is the most important aspect of a facility manager’s job. By controlling the crowd, a facility manager greatly increases the chance that a fan attending an event will have a pleasurable experience and will want to return. By controlling the crowd a facility manager greatly reduces the chance of litigation against the venue (Swinburn, 1999).

Alcohol Policies

According to Antee and Swinburn (1990), facility managers need to address the topic of alcohol when discussing crowd management. Arenas and stadiums across the country wrestle with the decision of whether or not to sell alcohol at events. Although the sale of alcohol is usually a high revenue producer, the problems that alcohol sales can create are sometimes not worth the liability risk. In arenas where alcohol is served, policies regarding the sales and the expulsion of intoxicated patrons must be established. Signs should be posted notifying patrons that public intoxication will not be tolerated and that intoxicated persons will be ejected from the venue. In arenas where alcohol is prohibited, signs should clearly state that alcohol is not allowed and that bags and purses may be checked to inspect for alcoholic beverages. Regardless of whether the arena allows or prohibits alcohol, event staff need to be able to recognize when a patron has abused alcohol and take appropriate action. This is important because in many jurisdictions the facility is subject to liability if a patron leaves an event and is injured or killed as a result of alcohol consumption. Whether the facility served the alcohol or not is often irrelevant; the fact that the patron was inside the facility and was allowed to leave the premises is often enough for juries to find the facility guilty (Antee & Swinburn, 1990).

The potential liability for premise operators that sell or provide alcohol to customers on their property is severe, and largely misunderstood by the operators. Traditionally, Dram Shop (i.e., drinking establishment) laws have focused on operators who sold alcoholic beverages to visibly intoxicated persons on the premises. Under Dram Shop, the operator was liable to third parties who were later injured by the intoxicated person (Maloy & Higgins, 2000). Fried and Appenzeller (1999) stated, “These acts allow a person injured by an intoxicated individual to receive financial compensation from the person or institution that served alcohol to the intoxicated individual. These acts normally prohibit selling alcohol to someone who was already intoxicated before being served another drink” (Fried & Appenzeller, 1999, p.332). Due to “dram shop” laws, Madden (1998) recommended that facilities that serve alcohol at some or all events should seriously consider obtaining “dram shop” or alcoholic beverage distribution insurance coverage.

Since a facility can possibly be liable, it is crucial that training be provided for parking lot attendants, ticket sellers, ushers, concessionaires and vendors in the skills needed to identify and deal with intoxicated individuals. Two examples of alcohol training courses are Techniques for Effective Alcohol Management (T.E.A.M.) and Training for Intervention Procedures (T.I.P.S.). T.E.A.M. is a four-hour course that includes instruction in distinguishing drunks from normal fans and advises employees on how to deal with a potentially defiant drinker, through counseling, courtesy, and a low-key, positive approach (Berlonghi, 1990). Dr. Morris Chafetz, the founding director of the National Institute on Alcoholism and Alcohol Abuse, developed T.I.P.S. in 1982. His goal was to create a program that would give bartenders and waiters the skills and confidence they needed to prevent their customers from becoming intoxicated. By the year 2002, T.I.P.S. had certified over 35,000 trainers and over 1.2 million servers worldwide (“Training for,” 2003).

Many stadiums now cease the selling of alcohol prior to the end of a game. Usually arenas will stop serving alcohol three fourths of the way through an event. This strategy provides two benefits. It shortens the amount of time spectators can drink, thereby hopefully reducing the number of intoxicated persons; and, it lengthens the time

between the last drink and when the spectator climbs behind the wheel of a car (Maraghy, 1998).

Emergency/Crisis and Medical Plans

It is quite ironic to think that a facility manager uses a risk management plan to prevent injuries and crisis, yet also needs to plan for injuries and crisis as well. No activity or event is 100 percent risk-free. Therefore, all programs must have appropriate crisis management plans (Connaughton, 2001). Having an established crisis management plan that is known and regularly practiced by all employees will greatly assist them in the event of an actual crisis.

Seidler (2001) listed examples of emergencies and situations that should be planned for in an emergency action plan or crisis management plan. These include

- 1) Personal injuries of participants, spectators, staff, and visitors.
- 2) Fire.
- 3) Bomb threat.
- 4) Civil disturbance.
- 5) Medical emergencies, including care for the injured.
- 6) Weather related (tornado, hurricane, lightning storm).
- 7) Hazardous material spill.
- 8) Taking action and interacting with participants, family members of victims, lawyers, and the media during crises or emergencies.
- 9) Evacuation procedures.

The Emergency Action Plan is the basic outline of what to do during various types of emergencies. It should list step-by-step instructions for each type of emergency. The purpose of an emergency action plan is to clearly establish authority and responsibility for administrative actions when it becomes necessary to interrupt events, evacuate patrons, or cancel event activities because of disasters, emergencies, inclement weather, or for other reasons. One person must be assigned the responsibility for administering the emergency action plan (Berlonghi, 1996).

Maloy and Higgins (2000) advised that one critical part of the emergency action plan is to contract or employ emergency medical services. The medical services personnel should be trained, certified, and experienced as emergency medical technicians

(EMT). Maloy and Higgins (2000) suggested that the emergency medical service should offer

1. A person employed or contracted that can recognize emergency medical problems and summon the proper assistance.
2. Immediate response to the injured or sick with basic EMT competence.
3. Available radio or phone communication to provide any advanced emergency medical care through the community's EMS system.
4. Available on-site EMS equipment including oxygen, backboard, and neck collars.
5. Available, clean, comfortable first aid area away from the concourse.
6. Provide, in advance; maps to responding emergency vehicles displaying the correct pick-up points for each facility.
7. Backup care and transportation in case of multiple emergencies.
8. Documentation of all incidents containing attention given, and refusals of care.

According to Appenzeller (1985), event managers need to coordinate on-site facilities with the closest permanent medical facilities. They need to develop response codes and assess the emergency medical care needs of patrons.

Parking and Traffic

Attending "big-time" sporting events often is accompanied with the frustration of traffic jams and overcrowded parking lots. Snarled traffic can mean lost revenue in tickets and concession sales (Maraghy, 1998). However, with some planning and foresight, some of the parking and traffic problems can be alleviated or at least diminished.

Berlonghi (1990) stated that any condition or circumstance such as closed streets, other events, and accidents that can create traffic congestion must be anticipated. It is imperative that appropriate traffic authorities (city, county, state, police, highway patrol, bridge and tunnel authorities) be informed in writing of the type, date, location, and projected attendance of an event. Major intersections near the venue may need some type of police or traffic monitoring presence.

Event parking is a risk management concern for three reasons. First, parking is the place where first impressions are made. Confusion in the parking lot may cause accidents and injuries and may set a disorderly tone for the rest of the event. Second, accidents and crimes can occur in parking lots before, during and after an event. Finally, parking can produce profit and should be well planned. No matter how much revenue you expect to generate from parking, no corners should be cut in providing safe and secure parking areas (Berlonghi, 1990).

Parking provides a unique blend of circumstances that at times are under your control and other times open to influence from people both within and external to your event. For example, baseball fans park and watch a game while football fans make a day of the game including tailgate parties. Game time affects the parking lot as day games for football produce crowds for most of the day while afternoon baseball games have a more condensed time window (“Outside the arena, parking is the name of the game,” 1997).

An event manager has a duty to protect individuals in authorized event parking lots from all known or reasonably foreseeable risks. You also owe a duty to inform spectators about risks associated in adjoining lots or facilities if the area is a high crime area (Fried & Appenzeller, 1999).

Parking lots and garages can represent significant opportunities for criminals to hide and attack. The liability for such assaults can be immense. Over 40% of all security claims filed against retail and mall owners involve parking lot related crimes (Pitorri, 1998). Another study indicated that 20% of all facility security claims involve parking facilities and the average award for those cases was \$575,000 (Monahan, 1997). Fried and Appenzeller (1999) addressed the concern for fights between individuals in parking lots and the security that is needed in these lots. Fried and Appenzeller (1999) stated that the “Lets take this outside” mentality often leads to fights in a facility’s parking lot.

Previous Studies of Risk Management and Sport

There have been numerous studies on the subject of risk management in sport. Three of the studies have examined risk management behaviors of collegiate athletic directors (Anderson & Gray, 1994; Brown & Sawyer, 1998; Gray & Crowell, 1993). Another study investigated the risk management behaviors of high school principals (Gray, 1995). Coaches and risk management were the subject of a study by Gray and McKinstrey (1994). Ammon's (1993) study examined risk management as it pertains to the overall operation of a football stadium.

Athletic Directors

Brown and Sawyer (1998) researched the risk management practices of NCAA Division II athletic directors. The study evaluated the risk management performance of athletic directors in NCAA Division II schools based upon demographic characteristics of the institutions, not the athletic directors. A 75% response rate was achieved in this study with 186 athletic directors responding to the surveys. The greatest difference in risk management practices was found between schools that have football as a varsity sport and those that do not. It was also found that emergency response plans are very seldom practiced or rehearsed.

Anderson and Gray (1994) examined the risk management behaviors of NCAA Division III athletic directors. The survey did not ask questions as to whether the athletic directors performed the behaviors personally, but rather if someone in the athletic department was performing the risk management behaviors. The behaviors measured related to personnel, facilities, equipment, medical, transportation, and crowd control and spectator safety and were compared with demographic information of the athletic directors. Two hundred and thirteen athletic directors chose to participate in the study for a response rate of 65.9%. Again, the behaviors were performed on a rather consistent basis. The study also found that the athletic directors were rather experienced, well-educated, and familiar with liability and risk management through their academic preparation.

Gray and Crowell (1993) investigated the risk management behaviors in NCAA Division I athletic programs. The subjects of the study were NCAA Division I athletic directors. One hundred fifty-three surveys were returned for a response rate of 52%. Demographic information for the athletic directors was analyzed as well as the risk management behaviors in relation to the areas of supervision, medical concerns, facilities, equipment, and crowd control and spectator safety. The study found that the academic preparation in sport related academic majors and previous experience in various capacities in athletics are important factors related positively to developing and implementing risk management behaviors.

High School Principals

Gray (1995) examined the degree to which high school principals performed various risk management behaviors related to supervision of their physical education and athletic programs. Gray had a 62.9% return rate with 280 high school principals responding. The study found that principals are very much aware of their legal responsibilities related to the supervision of physical education and athletic programs and performed those supervisory responsibilities rather consistently. The data revealed very few statistically significant differences based upon school size.

Coaches

Gray and McKinstrey's (1994) study also found that the NCAA Division III football coaches performed prudent risk management behaviors on a relatively consistent basis. Their study had a return rate of 81% with 182 coaches responding to the survey. The study found that coaches with master's degrees scored higher than did coaches with bachelor's degrees. Gary and McKinstrey (1994, p.70) stated that:

Perhaps a major factor related to the relatively high degree of consistency with which the coaches indicated that the identified risk management behaviors were being performed within their programs is the fact that most of the teams are being coached by mature (mean age = 43.913 years), experienced (mean years as head football coach = 12.878 years; 96.7% with football playing experience), and well educated (81.3% with graduate degrees) individuals.

Football Operations

Finally, Ammon (1993) assessed risk and game management practices at municipal football stadiums. Data was analyzed with regard to facility size, classification of stadium management, and geographical factors. The study had a 58% response rate with 35 surveys being returned. The research found that “differences in risk and game management practices were determined by city population, number of night football games, number of non-football related stadium events, status of stadium concession contracts, presence of football related litigation within the past five years, alcohol sales policies, provision of alcohol management training to employees, limitations on drink size and number of alcoholic beverages, cessation of alcohol during the game, and the requirement of crowd management employees to participate in facility training and orientation (Ammon, 1993, p. iv).”

Other findings by Ammon (1993) were that more than 71% of the stadiums did not employ a risk manager. More than 48% of the stadiums reported that their concession stands are not in radio contact with medical and law enforcement officials, and less than 49% had the availability of a telephone. Ammon discovered that 45% of the 20 stadiums that allowed tailgating had no supervision of the tailgating area. Finally, Ammon found that while 74% of the stadium operators “always” possessed an evacuation plan, more than 74% have “never” actually practiced it.

CHAPTER 3

METHODOLOGY

This chapter is a presentation of the methods used to analyze risk management practices implemented at NCAA Division I-A football stadiums. The methodology is presented in the following six sections: a) research design, b) study population, c) data collection method and procedures, d) instrumentation, e) pilot study, and f) statistical analysis.

Research Design

Descriptive research is a study of status and is widely used in education and behavioral sciences. Its value is based on the premise that problems can be solved and practices improved through objective and thorough observation, analysis and description. “The most common descriptive research is the survey, which includes questionnaires” (Thomas & Nelson, 1996, p.314). Creswell (2003) stated a survey design provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population. The primary objective of the quantitative and parametric study was to determine whether elements of the D.I.M. Process were being followed through the risk management practices (dependent variable) of NCAA Division I-A football stadiums. Also, relationships among the risk management practices and specific demographic features of the stadium (independent variable) were examined. Specific demographic information about the stadium manager was reported as well. The demographic information of the stadium manager was reported to simply get a better picture of the backgrounds and professional preparation of the persons who manage or assist in managing the stadiums. Therefore, a survey was disseminated to solicit data about NCAA Division I-A football stadiums. The stated objectives were achieved through the administration of the survey instrument adapted from Ammon’s (1993) Football Facility Risk Management Survey.

Study Population

The population of this study consisted of the football stadium managers at all 117 stadiums that hosted NCAA Division I-A football during the 2004 football season. With 117 universities in NCAA Division I-A, the entire population was sent a questionnaire.

Data Collection Method and Procedures

The questionnaire was made available via the Internet. The on-line questionnaire was generated using PHP programming language. The database used where all the data from the survey was sent after the responders submitted it was MySQL. The questionnaire generated data about the stadiums in the areas of a) risk management practices, b) legal aspects, c) alcohol policies, d) crowd management procedures e) emergency and medical plans, f) parking and traffic control, g) demographic features of the stadium and h) the stadium manager. The questionnaire and procedures were approved by the Florida State Human Subjects Committee (see Appendix A).

The first step in conducting the study was to determine who the best person to complete the questionnaire for each team's football stadium was. By visiting each NCAA Division I-A university's athletic website, a person who was most likely the stadium manager for the respective university was emailed a pre-notification letter asking them to participate in the study by completing a questionnaire that would be sent within the next week. However, after a brief description of the study and the types of questions asked, the letter also asked them if there was another person who would be more qualified to complete the questionnaire. They were asked to inform the researcher of the name and contact information of the person who they thought was the most qualified to answer the questions of the survey. The reason the pre-notification was conducted was because of the fact that all athletic departments function differently. Although the facility manager of a university athletic department is generally the person who is best suited to answer questions about the operations of his or her football stadium, sometimes it may be the director of football operations who is best suited to answer the questions. The pre-

notification letter hoped to clarify who was best suited to complete the questionnaire before it was sent to the subjects.

The questionnaire was distributed on Monday, March 14th, 2005. The subjects were e-mailed a consent letter (see Appendix B) stating the purpose of the study. As previously stated recipients' names were gathered from each university's official athletic website or the stadium's website. The letter requested the recipient's participation in the study and mentioned that by responding to the questionnaire, they would be entered into a drawing for one of five Bobby Bowden autographed footballs to be given away. The participants were given three weeks to complete the questionnaire. The deadline for submitting completed questionnaires was set for 11:00 PM, Friday, April 1, 2005.

The letter to the subjects included the hyperlink to the on-line survey. Each recipient received a unique hyperlink web address that was different from all the other links for the survey. When clicking the hyperlink, respondents were taken to the Internet site for the questionnaire. The unique hyperlink web address prevented someone from simply stumbling onto the questionnaire web site and completing the survey. The unique hyperlink also helped to identify what school had completed the survey. Even if the person completing the survey did not complete the personal information section of the questionnaire, the survey came back to the database coded with the unique token number that was imbedded in the unique hyperlink that the person was sent. Four reminder emails were e-mailed to the subjects reminding them to complete the survey by the due date. Reminder emails were very effective in getting subjects to submit a completed survey. Each time a reminder was sent, the rate of survey submittals increased substantially for the next 24 hours.

There were several unique aspects of the on-line survey that made it better than a traditional questionnaire on a sheet of paper completed with a pencil or pen. First, the questionnaire provided a space after every question for additional information to be typed if the person wished to convey more information than the required "yes" and "no" responses. Secondly, questions could not be skipped as the program would not allow responders to continue onto the next page until they had completed all the questions from the page they were currently completing. This allowed for every questionnaire that was submitted to be usable. No non-usable questionnaires could be submitted. Thirdly,

certain answers to certain questions would cause more questions to become visible to the subject. For example, in section C of the questionnaire, items C-2 through C-6 would immediately become visible to subjects who answered item C-1 “yes”. If a subject answered item C-1 “no”, they were never even shown items C-2 through C-6. Instead, subjects simply continued on to item C-7.

Instrumentation

The current study used a questionnaire adapted from Ammon’s (1993) (see Appendix C) Football Facility Risk Management Survey. Permission to use the Ammon (1993) questionnaire was granted through a letter from Dr. Robin Ammon (see Appendix D). Modifications were made to the Ammon questionnaire. The most notable was changing the possible responses to most of the questions from a four point Likert scale of “1= always/yes”, “2=frequently”, “3=sometimes”, and “4=never/no” to a dichotomous scale of “1=yes”, “2=no”. The primary reason for this was the researcher’s belief that many of the practices investigated in the study were either conducted or not conducted, with no “in between”. Another reason the scale was not used was the confusion of the possible choices with “1= always/yes” and “4=never/no” in the sequence. The researcher felt that some subjects could have interpreted the questionnaire as a “yes/no” type while others may have interpreted it as a Likert scale questionnaire. Also, one of Ammon’s (1993, p. 130) recommendations for future research was conducting a study using a dichotomous scale on the survey instrument. In addition to most of the questions from the Ammon (1993) questionnaire, eight items were added that are more relevant to a study in stadium risk management, especially in light of the changes that have been made to stadium operations post- September 11, 2001. The items that were added to the survey were:

1. Is entry denied to persons caught trying to bring alcohol into the facility?
2. Are assisted listening devices (ALDs) available to the hearing impaired?
3. Are fans allowed on the field after games?
4. In such cases, is an attempt made to stop fans from tearing down the goalposts?
5. Are video cameras used to monitor crowds?

6. Are mounted police used in or around your stadium?
7. Is a lightning detection system used at your stadium?
8. Are bomb-sniffing dogs used at your facility prior to a game?

The items that were added to the original survey instrument were items that the two professionals in collegiate stadium management (see Appendix E) felt were prominent and specific aspects of the risk management operations of their respective collegiate stadiums.

Items from the Ammon (1993) questionnaire that were not used in the proposed study and an explanation of why were as follows:

1. Are drop counts of tickets conducted to verify ticket sales? The researcher believed many stadium managers would not be familiar with the term “drop count of tickets”.
2. Is legal counsel involved in responding to activities, accidents, and injuries that may lead to lawsuits? The researcher felt that the stadium manager would not usually know if or when legal counsel responds.
3. Do policies exist detailing procedures under which use of the facility by outsiders will be permitted? The question’s meaning could be confusing and vague to the subjects.
4. Are crowd management employees required to be licensed? The term “licensed” is too vague in meaning. Subjects would need to know a specific type of license that is required.
5. Are ushers allowed to perform crowd management duties? The term “crowd management duties” could be interpreted to mean many different things.
6. Are gate opening times advertised and adhered to? The question lacked value since the researcher believed most stadiums advertised the game times of their football games and adhered to the time advertised. Also, the question is really two questions in one. A stadium could advertise times, yet not adhere to them.
7. Have specific emergency situations unique to football games been identified? The researcher believed the question could be interpreted in too many ways to be a valuable item.

The questionnaire consisted of nine sections with a total of 95 items. The nine sections were risk management, legal aspects, alcohol policies, crowd management procedures, emergency and medical plan, parking and traffic control, demographics of the university's home football stadium, demographics of the stadium manager, and personal information. The subjects' personal information was used strictly for the awarding of prizes and was not used in the study. The subjects were informed of this through an introductory paragraph before the "personal information" section of the questionnaire. All items related to the football operations of the subject's football stadium.

Validity

Validity is the degree to which a test or instrument measures what it purports to measure (Thomas & Nelson, 1996). According to Ammon (1993), validation of the original football operations survey instrument was achieved by submitting the instrument "to a panel of experienced professionals from the facility management industry." The individuals recommended revisions to the instrument so that it accurately assessed the most prominent aspects of risk management. The current instrument was further revised by submitting it to two professionals in collegiate stadium management (see Appendix E) who recommended changes to assess several areas that have become more of a concern since the terrorist attacks of 9/11 or were particularly unique to them as college stadium managers.

Reliability

Reliability scores were not reported for this study because the questionnaire sought facts about stadium risk management practices, facts about stadium demographics, and facts about the demographics of the stadium managers. Reliability scores are intended for questionnaires that measure attitudes and opinions of subjects, rather than facts about a certain subject.

Pilot Study

A pilot study was conducted as a rehearsal for the current study. Although the main purpose of the pilot study was to inform and guide the current study, it also sought to investigate the risk management practices of NCAA Division I-AA Stadiums.

Questionnaires were emailed to all 121 NCAA Division I-AA stadium managers. The total number of usable responses was 42. This equaled a 35% return rate. Permission was granted to use the Football Facility/Risk Management questionnaire created by Ammon (1993). All the questions of the Ammon survey remained the same for the pilot study. However, responses were changed from a four point Likert scale to a dichotomous scale of “yes” or “no” for some of the questions. Descriptive statistics of frequencies and percentages were used in the pilot study. Chi-square analysis was conducted to identify any significant differences among stadium operations based on the stadiums demographic information.

The pilot study found that most stadiums conducted operations that were consistent with what is recommended in the risk management literature. However, the pilot study also indicated areas where improvements could be made to current risk management practices. One area of significance was in regards to evacuation plans. While 79% of stadiums had written policies regarding evacuation for bomb threats, severe weather, and other potential disasters, 79% of these stadiums do not practice the evacuation plan. Mulrooney and Ammon (1995) stated the courts might find the existence of a plan not constituting reasonable behavior if the facility administration does not conduct periodic exercises.

The pilot study proved valuable in that it provided the opportunity to conduct a real study using an on-line questionnaire. It also allowed for the opportunity to work with real data using the SPSS computer program.

Statistical Analysis

Due to the use of the dichotomous scale of “yes” and “no” responses in the instrument, frequency tables and percentages were used to describe the different risk management practices and demographic data of the questionnaire. Relationships among the risk management practices and the stadium demographics were analyzed using chi-square statistical technique. Relationships among subjects’ responses based on the demographic data will be considered significant at the $p \leq .05$ levels. The researcher proposed to answer the following research questions using the specified methods below:

RQ1) Are NCAA Division I-A football stadiums' risk management practices being performed in line with what is recommended by Ammon's (2001) DIM Process?

The first research question will be analyzed using frequency tables and percentages.

RQ2) Is there a relationship in the risk management practices at stadiums and certain demographic factors such as:

- A. The seating capacities of the stadiums?
- B. The geographic location of the stadium?
- C. Whether they are on or off-campus?
- D. Whether a public or private university plays football in the stadium?
- E. Who owns the stadium?
- F. Who manages the stadium?
- G. The number of night games they have hosted in the past year?
- H. The number of non-football related events (concerts, graduations, other sports) that have occurred in their stadium the past two years?
- I. The number of ticket sell-outs that have occurred in the past year?

The second research question was analyzed using chi-square analysis to identify the relationship between risk management practices and demographic features in the preceding list A-I.

RQ3) What is the stadium manager's demographic background?

The third research question was analyzed using percentages, frequency tables, and cross-tabulations.

As mentioned earlier, due to the fact that the entire population was sampled for the study, every attempt was made to maximize the return rate. No minimum sample size could be determined from sample size formulas because sample size formulas are based on infinite populations (Rob Fowler, personal communication, November 3, 2004).

Since there are only 117 NCAA Division I-A universities, the whole population can be studied.

CHAPTER 4

RESULTS

This chapter is a compilation of the results from the data analysis. The questionnaire was e-mailed to the stadium managers of all 117 NCAA Division I-A member football stadiums. Seventy stadium managers returned the completed questionnaire for a 60% response rate. All of the questionnaires were usable. Results are presented in the order they appeared on the questionnaire. The sections of the chapter are a) risk management, b) legal aspects, c) alcohol policies, d) crowd management procedures, e) emergency and medical plans, f) parking and traffic control, g) stadium demographics, and h) manager demographics.

Risk Management Results

The first section of the Football Stadium Operations Survey was titled “risk management.” The results of this section are shown in Table 1.

Table 1
Results – A. Risk Management

| | Yes # stadiums (% of stadiums) | No # stadiums (% of stadiums) |
|--|---|--|
| A-1. Possess a Standard Operating Procedures manual for football facility operations | 56 (80%) | 14 (20%) |
| A-2. Provide a manual to each individual who is involved in football ops and game management | 41 (58.6%) | 29 (41.4%) |

Table 1 Continued

| | Yes # stadiums (% of stadiums) | No # stadiums (% of stadiums) |
|---|---|--|
| A-3. Risk manager employed at facility | 38 (54.3%) | 32 (45.7%) |
| A-4. Safety committee used at facility | 35 (50%) | 35 (50%) |
| A-5. Risk management plans in facility are reviewed with follow-up and corrective actions | 61 (87.1%) | 9 (12.9%) |
| A-6a. Written schedules exist for inspection of electrical components | 61 (87.1%) | 9 (12.9%) |
| A-6b. Written schedules exist for inspection of mechanical components | 64 (91.4%) | 6 (8.6%) |
| A-6c. Written schedules exist for the inspection of structural components. | 60 (85.7%) | 10 (14.3%) |
| A-7. There is a risk manager or broker who advises the stadium on insurance coverage and exclusions for the facility regarding liability policies | 63 (90%) | 7 (10%) |
| A-8. Spectator injuries are covered by insurance | 51 (72.9%) | 19 (27.1%) |
| A-9. Event staff, especially private security, are briefed on the meaning and implications of negligence | 57 (81.4%) | 13 (18.6%) |
| A-10. Pre-formatted serious incident reports are used for documenting accidents and/or injuries | 65 (92.9%) | 5 (7.1%) |
| A-11. Concession operations are contracted to an outside agency | 51 (72.9%) | 19 (27.1%) |
| A-12. Concession stand personnel are in radio contact with medical and law enforcement officials | 40 (57.1%) | 30 (42.9%) |
| A-13. Concession stand personnel are in telephone contact with medical and law enforcement officials | 54 (77.1%) | 16 (22.9%) |

Table 1 Continued

| | Yes # stadiums (% of stadiums) | No # stadiums (% of stadiums) |
|---|---|--|
| A-14. Records are available documenting health and sanitation inspections | 67 (95.7) | 3 (4.3%) |
| A-15. Policies exist regarding the collection of money from the concession stands | 66 (94.3%) | 4 (5.7%) |
| A-16. Security or law enforcement officials provide security during transport of cash to central collection point from ticket kiosks or box offices | 67 (95.7%) | 3 (4.3%) |
| A-17. Ticket taking operations are done in-house | 50 (71.4%) | 20 (28.6%) |

A follow-up to item A-8, in regards to whether spectator injuries were covered by insurance, was the dollar value of the insurance. The study found that 23 (45%) stadiums had policy coverage that exceeded \$1,000,000.

Legal Aspects Results

The second section of the questionnaire examined different legal aspects of stadium operations. The results of the section on legal aspects of stadium operations are shown in Table 2.

Table 2**Results – B. Legal Aspects**

| | Yes # stadiums (% of stadiums) | No # stadiums (% of stadiums) |
|---|---|--|
| B-1. Legal counsel involved in the orientation/ training of facility and game management staff | 11 (15.7%) | 59 (84.3%) |
| B-2. Legal counsel involved in the design and implementation of game and risk management policy | 48 (68.6%) | 22 (31.4%) |
| B-3. Written policies exist for dealing with complaints, injuries, and accidents | 57 (81.4%) | 13 (18.6%) |
| B-4. Facility management has been involved in litigation resulting from a football related incident within the last 5 years | 28 (40%) | 42 (60%) |
| B-5. Legal counsel reviews all facility contracts | 52 (74.3%) | 18 (25.7%) |
| B-6. Indemnification clauses exist in your contracts with outside agencies | 63 (90%) | 7 (10%) |
| B-7. Contracts for outside use require certificates of insurance | 68 (97.1%) | 2 (2.9%) |

Of the 68 stadiums that require certificates of insurance, 58 stated they required at least \$1,000,000 worth of coverage. One stadium mentioned that if pyrotechnics are used in the stadium, the dollar amount of the certificate of insurance was \$5,000,000. Four of the stadiums mentioned the dollar amount of coverage varied depending on the type of event or situation.

Alcohol Policies Results

The third section of the Football Stadium Operation Questionnaire was titled “alcohol policies”. The results of the section on alcohol policies can be seen in Table 3.

Table 3
Results- C. Alcohol Policies

| | Yes # stadiums (% of stadiums) | No # stadiums (% of stadiums) |
|---|---|--|
| C-1. Alcoholic beverages are sold during facility’s college football games | 16 (22.9%) | 54 (77.1%) |
| Item C-2 through C-6 were only answered by stadiums that indicated “yes” on item C-1 | | |
| C-2. Facility has a written policy regarding the sale of alcoholic beverages | 14 of 16 | 2 of 16 |
| C-3. Alcohol training such as “TIPS” or “TEAM” is provided to stadium employees | 13 of 16 | 3 of 16 |
| C-4. There is a limit to the number of alcoholic beverages that may be purchased at one time by an individual | 16 of 16 | 0 of 16 |
| C-5. The sale of alcohol is discontinued at some point during the football contest | 15 of 16 | 1 of 16 |
| C-6. A designated driver program exists to assist intoxicated spectators | 6 of 16 | 10 of 16 |
| C-7. The facility provides an area where intoxicated fans can “sober up” while being monitored by medical staff | 35 (50%) | 35(50%) |

Table 3 Continued

| | Yes # stadiums (% of stadiums) | No # stadiums (% of stadiums) |
|--|---|--|
| C-8. Alcoholic beverages are confiscated when brought into the facility | 68 (97.1%) | 2 (2.9%) |
| C-9. Entry is denied to persons caught trying to bring alcohol into the facility | 36 (51.4%) | 34 (48.6%) |
| C-10. Intoxicated individuals are denied entry into the facility | 64 (91.4%) | 6 (8.6%) |
| C-11. Consumption of alcoholic beverages is allowed in the parking lots (tailgating) | 62 (88.6%) | 8 (11.4%) |
| C-11b. If yes for C-11, does anyone monitor? | 52 of 62 | 10 of 62 |

Item C-1 was administered to all 70 of the responding stadiums and dealt with whether a stadium served alcohol at the college football games in the stadium. If a stadium did not serve alcohol, the subjects were directed to skip ahead to item C-7. Items C-2 through C-6 were items only answered by stadiums that served alcohol. Of the 16 stadiums that served alcohol in item C-1, 9 were located off-campus while 7 were located on-campus. As a follow-up to item C-4, thirteen stadiums had a two-drink limit, two stadiums had a one-drink limit and one stadium had a three-drink limit. In regards to item C-5, the sale of alcohol is discontinued at some point during the football game at 15 of the 16 alcohol serving stadiums. Nine stadiums stopped serving alcohol at the end of the third quarter, two stadiums stopped serving at the start of the third quarter, two stadiums stopped serving at halftime, one stadium stopped serving at the start of the fourth quarter, and one stadium sold alcohol only during pre-game and halftime.

Police are asked to confiscate the alcohol at 57 of the 68 stadiums. In addition, 54 of the 68 stadiums allow security to confiscate alcohol. Only 19 of the 68 stadiums that

confiscate alcohol allow facility employees to perform this duty and only 17 stadiums allow ticket takers to perform the duty. Other agencies or personnel that were mentioned as being allowed to confiscate alcohol brought into the stadium were bag checkers (one stadium), Department of Alcohol and Tobacco (one stadium), and ushers (one stadium).

In the 64 of the 70 stadiums that denied intoxicated individuals entry into the stadium, police were charged with determining if patrons were intoxicated in 61 of the stadiums. Security performed this duty in 33 of the stadiums. Facility employees perform this duty in 13 of the stadiums with ticket-takers performing the duty in 9 of the stadiums. One stadium mentioned that determining intoxicated individuals is a joint effort between ticket-takers and police, with ticket-takers identifying individuals who may be intoxicated and the police evaluating to see if they are indeed intoxicated.

As a follow-up to item C-11b, 51 of the 52 stadiums that allow alcohol in the parking lots had police monitoring the activities. Twenty-three of the stadiums mentioned security as a monitor of the parking lots as well. Twenty stadiums also listed parking attendants and facility employees as monitors of alcohol consumption in the parking lots.

Crowd Management Results

The fourth section of the questionnaire pertains to crowd management procedures. The results are shown in Table 4.

Table 4
Results of Crowd Management Section

| | Yes # stadiums (% of stadiums) | No # stadiums (% of stadiums) |
|---|---|--|
| D-1. Crowd management services are used by the facility | 60 (85.7%) | 10 (14.3%) |

Table 4 Continue

| | Yes # stadiums (% of stadiums) | No # stadiums (% of stadiums) |
|--|---|--|
| D-2. Crowd management employees are required to participate in facility training and/or orientation | 63 (90%) | 7 (10%) |
| D-3. Policies exist regarding the ejection of disruptive, unruly, or intoxicated fans. | 68 (97.1%) | 2 (2.9%) |
| D-4. Paperwork documenting the incident accompanies ejections | 59 (84.3%) | 11 (15.7%) |
| D-5. Photographs are taken of ejected fans | 12 (17.1%) | 58 (82.9%) |
| D-6. Appropriate signs exist directing fans to various facility locations or services | 68 (97.1%) | 2 (2.9%) |
| D-7. Signs are located at entrances identifying what items are prohibited or allowed into the facility | 69 (98.6%) | 1 (1.4%) |
| D-8. There are written emergency evacuation procedures for the disabled | 45 (64.3%) | 25 (35.7%) |
| D-9. Wheelchair bound fans are provided with clearly marked seats | 69 (98.6%) | 1 (1.4%) |
| D-10. Wheelchair bound fans have the opportunity to sit with companions | 70 (100%) | 0 (0%) |
| D-11. Wheelchair bound fans have the opportunity to purchase normal “prime seat” locations | 53 (75.7%) | 17 (24.3%) |
| D-12. Assisted listening devices (ALDs) are available to the hearing impaired | 22 (31.4%) | 48 (68.6%) |
| D-13. Policies exist regarding the sale of tickets for more than their face value (scalping) | 58 (82.9%) | 12 (17.1%) |

Table 4 Continue

| | Yes # stadiums (% of stadiums) | No # stadiums (% of stadiums) |
|--|---|--|
| D-14. The scalpers are arrested | 32 (45.7) | 38 (54.3%) |
| D-15. The stadium has a command post during games where representatives from different game management agencies are in communication with each other | 67 (95.7%) | 3 (4.3%) |
| D-16. Bags or purses are searched when fans enter the stadium | 67 (95.7%) | 3 (4.3%) |
| D-17. Spectators are allowed to exit and re-enter the stadium | 35 (50%) | 35 (50%) |
| D-18. Fans are allowed on the field after games | 11 (15.7%) | 59 (84.3%) |
| D-19. Steps are taken to stop fans from tearing down the goal posts | 67 (95.7%) | 3 (4.3%) |
| D-20. Video cameras are used to monitor crowds | 40 (57.1%) | 30 (42.9%) |
| D-21. Mounted police are used in and/or around the stadium | 19 (27.1%) | 51 (72.9%) |

Of the 60 stadiums that use crowd management services, 43 are contracted to an outside agency while 17 stadiums use in-house personnel to perform crowd management. As a follow-up to item D-3, the personnel that is allowed to perform the ejection and the number of stadiums of the 68 where it occurs were: police (65 stadiums), security (31 stadiums), facility employees (13 stadiums), ushers (3 stadiums), and other athletic department staff (3 stadiums).

In relation to item D-15, of the 67 stadiums that have command posts, all 67 stadiums reported that law enforcement officials are represented in the command post. Also represented in command posts and the number of stadiums reporting their representation were facility employees (59 stadiums), crowd management (57 stadiums), and medical (55 stadiums). Other agencies listed were fire (6 stadiums), parking and traffic (3 stadiums), Department of Emergency Management (2 stadiums). Other agencies listed as being represented at one stadium each were weather, bomb, cleaning, concessions, licensee, and geographic info systems.

Emergency and Medical Plan Results

The fifth section of the questionnaire pertains to emergency and medical plan procedures. The results are shown in Table 5.

Table 5
Results- E. Emergency and Medical Plan

| | Yes # stadiums (% of stadiums) | No # stadiums (% of stadiums) |
|---|--|---|
| E-1. A written medical services plan exists | 53 (75.7%) | 17 (24.3%) |
| E-2. Emergency medical transportation is available on-site during an event | 70 (100%) | 0 (0%) |
| E-3. Medical services plan has been coordinated with those responsible for security | 66 (94.3%) | 4 (5.7%) |
| E-4. Spectators are advised on how to summon emergency assistance | 57 (81.4%) | 13 (18.6%) |
| E-5. A lightning detection system is used at the stadium | 52 (74.3%) | 18 (25.7%) |

Table 5 Continue

| | Yes # stadiums (% of stadiums) | No # stadiums (% of stadiums) |
|--|---|--|
| E-6. Policies exist for evacuating the facility due to bomb threats, severe weather, or other potential disasters | 69 (98.6%) | 1 (1.4%) |
| E-7. Evacuation plan is practiced | 15 (21.4%) | 55 (78.6%) |
| E-8. Policies exist as to who makes the public address announcement regarding an evacuation and what they are to say | 68 (97.1%) | 2 (2.9%) |
| E-9. Bomb-sniffing dogs are used at the facility prior to a game | 48 (68.6%) | 22 (31.4%) |

As follow-up to item E-7, 11 of the 15 stadiums that practice the evacuation plan specified they do so on an annual basis.

Parking and Traffic Control Results

Section F of the questionnaire pertained to the parking and traffic control operations during football games. The results of this section are illustrated in Table 6.

Table 6**Results- F. Parking and Traffic Control**

| | Yes # stadiums (% of stadiums) | No # stadiums (% of stadiums) |
|--|---|--|
| F-1. Stadium has a written parking operations plan | 58 (82.9%) | 12 (17.1%) |
| F-2. Maps of parking lots are provided in advance to season ticket holders | 68 (97.1%) | 2 (2.9%) |
| F-3. Security personnel remain in the parking lots during the game | 55 (78.6%) | 15 (21.4%) |
| F-4. Security personnel remain in the parking lots after the game | 41 (58.6%) | 29 (41.4%) |
| F-5. Season ticket holders have the ability to purchase reserved parking spaces | 56 (80%) | 14 (20%) |
| F-6. Inspection or maintenance schedules include reviewing the parking lots | 60 (85.7%) | 10 (14.3%) |
| F-7. Traffic flow operations are administered by a law enforcement agency | 67 (95.7%) | 3 (4.3%) |
| F-8. Public transportation vehicles are utilized to reduce the volume of traffic | 52 (74.3%) | 18 (25.7%) |
| F-9. Normal traffic patterns are altered to accommodate the ingress and egress of football traffic | 65 (92.9%) | 5 (7.1%) |
| F-10. Adequate signage is used on major thoroughfares to direct arriving spectators | 63 (90%) | 7 (10%) |

Of the 55 stadiums that had security remain in the parking lots during the game, 45 stadiums specified they use law enforcement as part of the security in the parking lots. Twenty-two stadiums have private security in the lots during the game and 18 have facility employees remain.

In relation to item F-7, of the 67 stadiums where traffic flow operations are administered by a law enforcement agency, city police are represented in the administration of traffic flow operations at 61 of the stadiums. Campus police are used at 52 of the stadiums, while county and state police are involved with traffic flow operations at 28 stadiums each. Item F-8 reported that 74.3% (n=52) of the stadiums used public transportation vehicles to reduce the volume of traffic during football games. Of the 52 stadiums that use public transportation vehicles, 51 stadiums reported using buses, 10 used subway/rail, 8 used vans, and 1 used boat/ferry. Other modes of transportation reported were golf cart trolley (1 stadium) and taxis (1 stadium).

Stadium Demographic Results

Section G of the questionnaire pertained to the demographics of each stadium. Table 7 illustrates the results of section G.

Table 7
Results- G. Stadium Demographics

| | Category | # stadiums (% of stadiums) |
|-------------------------------|------------------|----------------------------|
| G-1. Capacity of the stadium- | 40,000 or less | 22 (31.4%) |
| | 40,001- 65,000 | 24 (34.3%) |
| | more than 65,000 | 24 (34.3%) |
| mean capacity = | 55,673 | |
| minimum capacity = | 17,000 | |
| maximum capacity = | 107,501 | |

Table 7 Continued

| | Category | # stadiums (% of stadiums) |
|--|-----------------------|----------------------------|
| G-2. Geographic location of stadium- | Rural | 15 (21.4%) |
| | Suburban | 17 (24.3%) |
| | Urban | 38 (54.3%) |
| G-3. Stadium is located- | Off-campus | 16 (22.9%) |
| | On-campus | 54 (77.1%) |
| G-4. University that plays football in the stadium is- | Private | 13 (18.6%) |
| | Public | 57 (81.4%) |
| G-5. The stadium is owned by- | Municipality | 10 (14.3%) |
| | University | 60 (85.7%) |
| G-6. Stadium is managed by- | University Employees | 61 (87.1%) |
| | Municipal employees | 7 (10%) |
| | Other | 2 (2.9%) |
| G-7. The # of games your college team played in your stadium in 2004 | six | 38 (54.3%) |
| | five | 22 (31.4%) |
| | seven | 8 (11.4%) |
| | three | 1 (1.4%) |
| | nine | 1 (1.4%) |
| G-8. The # of night games your collegiate football Team played in your stadium in 2004 | 0-2 night games | 32 (45.7%) |
| | 3 or more night games | 38 (54.3%) |
| G-9. The # of non-football related events your stadium has hosted in the past year | zero | 18 (25.7%) |
| | 1-5 | 33 (47.1%) |
| | 6-20 | 9 (12.9%) |
| | 21 or more | 10 (14.3%) |
| maximum # of non-football related events = 300 | | |
| G-10. Sold-out games your collegiate team had in your stadium in 2004 | zero | 28 (40%) |
| | 1-3 | 26 (37.1%) |
| | 4 or more | 16 (22.9%) |

In item G-6, two stadiums were categorized as being managed by “other”. Specifically, an authority managed one stadium and one stadium specified that athletic department employees manage it. The highest number of non-football related events hosted by a stadium was 300. The fact that this stadium also was home to a major league baseball team was one of the main factors for this.

Manager Demographics Results

Manager demographics are presented in Table 8. This section of the questionnaire related to the demographic background of the stadium managers.

Table 8
Results- Manager Demographics

| | Category | # managers (% of managers) |
|-----------------------------------|-------------------|----------------------------|
| H-1. Age of stadium manager- | <= 30 | 12 (17.1%) |
| | 31-40 | 21 (30%) |
| | 41-50 | 14 (20%) |
| | 51-60 | 21 (30%) |
| | 60+ | 2 (2.9%) |
| H-2. Ethnicity of stadium manager | Caucasian | 63 (90%) |
| | African-American | 4 (5.7%) |
| | Hispanic | 2 (2.9%) |
| | Asian-American | 1 (1.4%) |
| H-3. Highest degree earned | Bachelor’s | 20 (28.6%) |
| | Master’s | 48 (68.6%) |
| | Doctorate | 1 (1.4%) |
| | No college degree | 1 (1.4%) |

Table 8 - Continue

| | | |
|--|------------------|------------|
| H-4. Any degrees in Physical Education | Yes | 22 (31.4%) |
| | Bachelor's in PE | 14 (20%) |
| | Master's in PE | 12 (17.1%) |
| | No | 48 (68.6%) |
| H-5. Any degrees in Sport Management | Yes | 33 (47.1%) |
| | Bachelor's in SM | 8 (11.4%) |
| | Master's in SM | 29 (41.4%) |
| | No | 37 (52.9%) |
| H-6. Years of employment at current stadium- | 0-10 years | 34 (48.6%) |
| | 11-20 years | 17 (24.3%) |
| | 21 or more years | 19 (27.1%) |

CHAPTER 5

DISCUSSION

This chapter discusses the results of the study based on the research questions presented in chapter one. Furthermore, conclusions based on the research are drawn and suggestions for future research are presented.

Research Question One

Are NCAA Division I-A football stadiums' risk and game management practices being performed in line with what is recommended by Ammon's (2001) DIM Process?

One of the main purposes of this study was to report the current risk and game management practices of NCAA Division I-A football stadiums in relation to Ammon's (2001) D.I.M. Process.

“Developing” the Plan Discussion

According to Ammon (2001), the first step of the D.I.M. Process is developing the risk management plan. There are three steps to the “developing” stage. These steps are identifying the risks, classifying the risks, and selecting methods of treatment. The research seems to suggest that the three steps of the developing stage are being practiced at most of the responding NCAA Division I-A football stadiums. A spectator going to an NCAA Division I-A football stadium should feel safe and that they will be taken care of if an incident was ever to occur. The study shows that practices are generally in place to find hazards and risks and that practices are in place to treat the hazards and risks that are found.

Most stadiums performed risk management practices that help identify risks. One example of this is in the area of bag searches. The results confirmed that 95.7% (n=67) of the stadiums search bags or purses when fans enter the stadium. This practice should be continued and likely will due to the nature of the world that we live in today. Inspecting bags is very effective in detecting items that are prohibited from being brought into the stadium such as weapons, laser pointers, artificial noise-makers, drugs, and

alcohol to name a few. This practice is also easy to perform, inexpensive, and relatively accepted by patrons.

Times have certainly changed. In his study, Ammon (1993) did not even address the topic of bag searches. The fact that the study by Ammon (1993) was conducted in the early 1990's, many years before the September 11, 2001 terrorist attacks may, in part, explain the difference in how "comprehensive" risk management is conceptualized from then to now. The wake-up call that the 9/11 attacks gave to managers of public venues in relation to risk management may be a significant reason why most stadiums of the current study attempt to identify risks through the use of bag searches. The 9/11 attacks not only have made bag searches a requirement at most stadiums, they also have made people more tolerant of bag searches. In the past, many fans may have felt that their privacy was being violated if a ticket-taker or security person examined their bag. Nowadays, most fans will tolerate "bag checks" knowing that their safety may depend on it.

Another very important practice that stadiums employed to identify risks is the use of bomb-sniffing dogs. The study found that 68.6% (n=48) of the stadiums use bomb-sniffing dogs at their facility prior to a game. This is an important aspect of stadium security according to Pantera (2003). Pantera (2003) found that the utilization of bomb-sniffing dogs was one of the key concepts that separated high-scoring "risk management performing" universities from low-scoring "risk management performing" universities in a study on venue security at colleges and universities. Again, the September 11, 2001 terrorist attacks may have been the major impetus in making the use of bomb-sniffing dogs more commonplace at stadiums. However, the study failed to ascertain when the use of bomb-sniffing dogs was first ever implemented.

Many stadiums may not have the resources to use bomb-sniffing dogs prior to all football games. One practice that should be implemented at stadiums that do not use bomb-sniffing dogs prior to all football games is to consider their selected use based on the current terrorist threat conditions as determined by the Homeland Security Advisory System. The Homeland Security Advisory System measures the threat condition of terrorist attacks in the United States. When the advisory system reaches the color of orange, there is a high risk of terrorist attacks. The color red means that there is a severe risk of terrorist attacks. It is recommended that stadiums make it a policy to utilize

bomb-sniffing dogs to search for explosives prior to any football game that occurs during threat condition colors “orange” or “red”.

Perhaps another reason that a large number of responding stadiums today are performing most of the recommended risk management practices that help identify risks is the professional training that the responding stadium managers received. The current study found that 47.1% (n=33) of the responding stadium managers have at least one degree in sport management. Sport law is an important course in many sport management curriculums and includes the subject of risk management. Many sport management programs also offer a course in facility management, which examines the specifics of operating a stadium, arena, or other sport or event venue. In fact, some sport management courses may offer a class, separate from sport law, on the subject of risk management. Perhaps stadium managers are putting into practice what they have learned in their courses in sport management. Football stadium managers should look favorably on job applicants that have sport management degrees because of the risk management knowledge and background in relation to sport facilities that many of these graduates possess.

Also, another area related to professional training that may be a reason why most stadiums are practicing so many of the recommended risk management behaviors is the prevalence of professional organizations such as the International Association of Assembly Managers (IAAM), Stadium Managers Association (SMA), and Collegiate Athletic Operations Services (CAOS) that relate directly with stadium management and provide seminars on the topics of stadium security and risk management. Although IAAM and SMA are older organizations that existed even when Ammon (1993) conducted his study of municipal football stadiums, they have only recently made a push to provide for the needs of collegiate stadium managers. IAAM just recently started the International Stadium Managers Conference (ISMC), with the first conference being held in 2004. This specific conference of IAAM was implemented to address the specific needs of managers of large stadiums that are likely to host more sporting events than concerts. SMA recently made a push to address the specific needs of collegiate stadium managers in 2002, by appointing a college stadium manager onto their Board of Governors to give collegiate stadium managers a voice in the organization and to

potentially boost the membership of SMA with collegiate stadium managers (B.W. Waxman, personal communication, March 1, 2006).

Unlike the older organizations of IAAM and SMA, an organization that is very new is the Collegiate Athletic Operations Services (CAOS) which started in 2004. CAOS is an organization that is geared specifically for collegiate facility and event managers who may not only manage large football stadiums but other venues in the athletic department as well (baseball stadiums, softball stadiums, track and field stadiums, basketball arenas, etc.). Many collegiate facility and event managers are becoming involved in CAOS because it more specifically serves their needs and gives them an opportunity to share ideas with people who do what they do, manage many different types of athletic facilities and events, not just large football stadiums.

Although the study did not address what professional organizations the participating stadium managers were active in. The recent push that the proceeding organizations have made to address the specific needs of collegiate stadium managers may in fact be working and stadium managers are likely getting more involved with an organization. Since stadium security and risk management is a topic that is often discussed in the literature and annual meetings of these organizations, it is safe to say that many stadium managers are putting to use what they learn in these professional organizations.

The second part of the “developing” stage in the DIM Process is classifying risks based on how often they occur and the severity of the potential loss arising from the risk (Ammon, 2001). How risks are classified determines how risks will be treated. The treatment of risks is the third component of the “developing” stage of the DIM Process. Risks can be treated by avoiding, transferring, retaining, or reducing them. Methods of transferring risks that stadiums deal with commonly are the purchasing of insurance, use of independent contractors, and indemnification clauses.

Undoubtedly, there is one risk to a stadium that gets more attention than any other. That risk is alcohol. The risk of alcohol is also the easiest risk to visualize the four treatments at work.

A majority of the responding stadiums choose to avoid the risk of alcohol. Fifty-four (77.1%) of the responding stadiums do so by simply not selling alcohol at their

stadium. The reasons that these stadiums do not serve alcohol are unknown. A very interesting topic for further research would be to determine some of the reasons stadiums do not serve alcohol. Everyone knows of the revenues that are generated from alcohol sales, so why not sell it? Perhaps the stadiums are on “dry” campuses, campuses that do not serve alcohol anywhere on campus. Many stadiums may simply choose to not sell alcohol with the belief that it will diminish the number of fans that become intoxicated. Consumption of alcohol is allowed in the parking lots of 88.6% (n=62) of the responding stadiums. This fact alone means that stadium personnel are still going to have to deal with alcohol related issues even if alcohol is not sold in the stadium.

Regardless of whether alcohol is served in the stadium fans often try and smuggle alcohol into the games or enter the stadium already drunk. The problem of fans entering the stadium already drunk prompted Yale University to ban all drinking games and drinking game paraphernalia in their tailgate area. Drinking games were targeted because it was thought that drinking games are meant to get people drunk (“Yale Bans,” 2005). Stadiums need to be prepared for alcohol related incidents regardless of whether alcohol is sold at the stadium or not.

One method of transferring risks is through the use of independent contractors. According to Malloy and Higgins (2000), independent contractors assume their own liability and are separate from the organization that hires them. The organization that hires an independent contractor is not liable for the negligence of the independent contractor. Stadiums that sell alcohol often use independent contractors for concession operations to transfer any liability that may be attributed to alcohol related incidents. Concession operations were contracted to an outside agency at 13 of the 16 responding stadiums that sold alcohol. Stadiums that sell alcohol should consider using independent contractors to guard against liability from dram shop laws. However, stadiums that use independent contractors for concession operations are required to split any profits from concessions with the operator. Perhaps the three stadiums that served alcohol and did not contract their concession operations to outside agencies chose so for the simple fact that they wish to keep all the profits from concession sales, especially alcohol sales.

One alarming finding of the study was the one stadium that served alcohol, did not contract the concession operations to an outside agency and did not provide alcohol

training to concession personnel. It is imperative that concession personnel participate in alcohol training, especially if the concessions are operated in-house. If concessions are operated in-house and a person that your concession personnel served alcohol to injured a person in a drunk-driving accident, dram shop laws make it possible for the person injured to bring litigation against the owner of the stadium. Alcohol training can help servers identify when a person has had too much to drink and also trains them to deal with persons who are intoxicated. Alcohol training could also be a valuable defense in a trial of a person blaming their injury on the fact that a server served them alcohol while the victim was intoxicated. The courts may find that if a server that had been documented to have participated in a certified alcohol training program such as T.I.P.S. or T.E.A.M. did not determine that the person served was intoxicated at the time, then perhaps the fact was that the person served was indeed sober at the time and has no grounds for the claim.

As an alternative to selling alcohol in all areas of a stadium, some stadiums may consider only selling alcohol in the luxury suites or club seats of the stadium. Alcohol could be sold in these areas because these areas are more easily controlled. Generally, these areas are in more confined spaces with very restricted access allowing for better monitoring of alcohol consumption as well as monitoring that ensures alcohol does not leave the premises of the luxury suites or club seats of the stadium.

Whether you like it or not, alcohol is a part of football weekends. If it is not sold in the stadium, tailgaters drink it outside the stadium, or spectators smuggle it into the stadium. Regardless of what is allowed in a certain stadium, alcohol policies need to be in place and staff trained and prepared to deal with the issues that arise from alcohol.

Insurance coverage is another method of treating a risk by transferring it. Much like the Ammon (1993) study that found that 77% of municipal football stadiums (27 of 35) “always” had insurance coverage for spectator injuries, the current study found that spectators’ injuries are covered by insurance at 72.9% (n=51) of the NCAA Division I-A stadiums. Interestingly, there were some common themes on the feedback from several of the stadiums that mentioned spectator injuries were not covered by insurance. These stadiums mentioned that whether spectator injuries were covered by insurance or not depended on 1) whether the stadium is found negligent, 2) whose fault was the injury,

and 3) the circumstances surrounding the injury. Although these responding stadiums did not go into further detail about their policies and procedures regarding spectator injuries, these common themes reiterate the importance of accurately documenting incidents that take place in the facility as well as briefing all staff on the meaning and implications of negligence.

“Implementing” the Plan Discussion

The second step of the DIM Process is implementing the risk management plan. Ammon (2001) stated that communication is synonymous with this step. Antee and Swinburn (1990) noted that everyone connected with an event must be made to understand that communication is a necessity for public protection. The research found that most stadiums are performing risk management practices that are related to communication. Spectators can count on the fact that signage will convey valuable information to them. Signs regarding where the stadium is located, services available in the stadium, and items prohibited in the stadium are examples of signage provided at most responding stadiums.

However, the one area that could be performed by more stadiums in relation to communication is having concession stand personnel in communication with emergency personnel and law enforcement. The study found that only 57.1% (n=40) of stadiums have concession stands in radio contact with medical and police services. Concession stands are in telephone contact with medical and law enforcement officials at 77.1% (n=54) of the stadiums. The Ammon (1993) study found that only 49% (17 of 35) of stadiums were in telephone contact with medical and law enforcement officials. The fact that more stadiums have concessions in telephone contact with medical and law enforcement officials than in radio contact could quite possibly be the fact that cell phone use among people is becoming more and more common. This may be why the current study and the Ammon study differed so greatly in the area of concession personnel being in telephone contact with medical and law enforcement officials. Mulrooney and Ammon (1995) stated that most concession stands are a source of tremendous congestion and high spectator volume, thus the crowded conditions have the chance of creating a medical emergency or disruptive behavior. With this in mind, more stadiums should put radios in each of the concession stands.

Costs may be a big reason why radios are not provided to concession stands in order for them to communicate with stadium staff, emergency personnel, and law enforcement. Many stadiums have a large number of concession stands and may feel that purchasing or renting radios for each stand is cost prohibitive. However, the research shows that more concession stands have telephone contact with emergency and law enforcement personnel than radio contact with them. If this is the case, phone numbers of stadium, emergency, and law enforcement personnel should be posted in a conspicuous place. Also, if a command post is used at the stadium (a command post is used at 95.7% (n=67) of the responding stadiums), the phone number to that command post should be placed on the contact list as well. One very important item to place on the contact sheet is the exact location of the concession stand from which the person is calling from. Concession stands should have a room number or some other type of identification where emergency personnel could easily determine the location of the stand and respond as quickly as possible.

Ammon stated that there are three steps to implementing the risk management plan. The first step is involving all employees in the risk management process. The research showed that in the area of involving all employees in the risk management plan, improvements could be made. Stadium managers need to realize the benefits of getting all of these employees thinking about risk management. The more eyes a stadium can have available to identify risks as well as identify solutions to risk related issues, the better. Item A-2 of the questionnaire related to this concept and revealed that only 58.6% (n=41) of the stadiums provide a standard operating procedures manual to each individual who is involved in football operations and game management.

One of the reasons that the number of stadiums that provide manuals to everyone involved is lower than the number of stadiums practicing other recommended risk management practices may be the ambiguity of item A-2. Many stadium managers may have found it difficult to determine where to draw the line in regards to personnel that are involved in football operations. Some stadium managers may regard their turf-grass managers as persons involved with football operations while another manager may not. In the very least, all personnel who are working during a football game should be briefed on the evacuation procedures of the stadium. In the event that something ever would

happen where the stadium would need to be evacuated, the more people you can have to convey the proper evacuation procedures of the stadium the better. If an evacuation was ever to take place, a fan that does not know what to do will likely attempt to find someone who is employed in the stadium, whether it be a concession worker, custodian, or a grounds-keeper; thinking they will know the proper evacuation procedures.

Providing a manual to as many employees as possible, who are involved with game management, will inform everybody of proper procedures, what is expected of the staff, and the tone that the venue wants to set for the event. Antee and Swinburn (1990) stated that a key element in setting the appropriate tone is communication among everyone involved, from the facility manager to the parking attendants, ushers, security, concessions staff, local law enforcement agencies, promoters, and producers.

Ammon (2001) stated that the second step in implementing the plan is the use of printed materials that outlines risk reduction techniques. Examples of items in the printed material may include: the organizational layout and operation, rules and regulations, responsibilities of various employees, correct methods of documenting records and reports, and emergency procedures.

According to the research, a great number of responding stadiums are doing very well in the risk management areas related to documentation. Stadium management needs to realize the importance of documentation. This practice is consistent with the old adage in risk management, “Document everything, if it wasn’t written down, it didn’t happen” (Seidler, 2001, p. 311). Documenting won’t prevent litigation because filing a suit against someone or some stadium is relatively easy. However, having documentation could significantly affect the outcome of that litigation. Several items of the questionnaire related directly with printed materials and documentation. First, 80% (n=56) of the stadiums have a standard operating procedures manual for football facility operations. This result was drastically higher than the 37% (13 of 35) of the stadiums in the Ammon (1993) study that developed a manual for football facility operations. Again, reasons for the improvement compared to the Ammon (1993) study could be related to some reasons mentioned earlier. The wake-up call from 9/11 may be a significant reason or perhaps the professional training through college coursework or seminars conducted by professional organizations are others. However, the data suggests another reason may be

evident to why some stadiums especially have a standard operating procedures manual for football operations. The data suggests stadiums were more likely to have a standard operation procedures manual for football operations if it had been involved in litigation within the past five years from a football related incident. In fact, 25 of 28 stadiums (89%) that have been involved in litigation within the past five years had SOPs for football operations, compared to 31 of 42 stadiums (74%) that have not been involved with litigation in the past five years. The terrorist attacks of 9/11 have been deemed a wake-up call to stadium managers to take risk management seriously, but nothing will wake one up quicker it seems than having your stadium listed as the defendant in litigation stemming from a football related incident.

Although it is good to have a standard operating procedures manual for football facility operations, and so many stadiums from the study do, it is equally important to remember that the procedures need to be updated regularly. A procedures manual is pointless if it doesn't reflect the current procedures and policies to date.

The third step of implementing the risk management plan is utilizing an effective training program. Proper training of employees is a key to reducing risks (Ammon, 2001). One method of training is to practice procedures and actions to see how well they work. Even though 69 of the 70 stadiums stated that policies exist for evacuating the facility due to bomb threats, severe weather, or other potential disasters, only 15 stadiums actually practiced the evacuation plan. In all, 78.6% (n=55) of the stadiums do not practice an evacuation plan. The Ammon (1993) study demonstrated similar results. According to Ammon (1993), 26 of the 35 stadiums had written procedures for evacuations, while the same amount of stadiums (26 of 35) never practiced evacuations. Mulrooney and Ammon (1995) stated that the courts might find the existence of a plan not constituting reasonable behavior if the facility administration does not practice it.

Although the results of the study show that most of the responding stadiums are not practicing the evacuation plans, there may be several reasons why they are not practicing them. One reason may be simple. Stadiums feel that they will never use the evacuation plan. Another reason may be the difficulty in truly simulating a game and practicing the plan with the stadium at capacity. It would be very difficult for an 80,000 seat stadium to get 80,000 people there to practice the evacuation plan.

The results show that perhaps stadiums should examine ways to practice evacuation plans in a different way. Instead of thinking that the plan needs to be practiced in the actual stadium, managers should use table-top models to practice the plan when practicing it in the stadium is just not feasible. If stadium managers have models of their stadium with surrounding infrastructures built, meetings could be conducted where all the agencies that are vital to an evacuation plan (medical, law enforcement, fire/rescue, stadium personnel, security, etc.) could use the model to conduct a table-top simulation of how the evacuation plan would be conducted. The models would help the attendees better visualize the plan, without having to actually be in the stadium.

“Managing” the Plan Discussion

The final component of DIM is managing the plan. The results of the study show that the responding stadiums are adequately “managing” the plan. Managing the plan involves three steps. The first step is hiring or selecting a risk manager and/or risk management committee. Ammon (1993) recommended that a risk manager be hired at stadiums and that if that proved cost-prohibitive, then a safety committee should be appointed from current employees. Just 54.3% (n=38) of the stadiums have a risk manager employed at the facility. A safety committee is used at 50% (n=35) of the facilities. Although the preceding percentages may seem low, most stadiums seem to be following the recommendations of Ammon (1993) because the current study found that 71% (n=50) of the responding stadiums either employ a risk manager or utilize a safety committee.

One very interesting aspect of the results in regards to whether a risk manager is employed at the facility was the responses of five of the responding stadium managers. These five managers stated that they consider their facility and event management personnel to be actual risk managers. Although these persons do not have the job title of “risk manager”, the responding stadium managers may feel that through professional training, education, daily duties, and past experiences that their personnel are knowledgeable enough and consider risk management an important aspect of the job they do to consider them risk managers.

As mentioned earlier, a person can gain knowledge of risk management through sport management courses. Professional organizations related to facility management,

often offer seminars in the area of risk management. Stadium personnel may inspect their facility daily for hazards or they may have had past experiences that have made them aware of hazards and risks that can arise in certain situations. It would be very interesting to identify which of the factors listed above (professional training, education, daily duties, past experiences, or other factors) are most important in determining whether a person is considered a risk manager. Regardless, stadium managers should encourage their personnel to seek training in the area of risk management.

The second step in managing the plan is providing the risk manager with the authority to lead. The third step of managing the plan is providing all employees with the opportunity for continual support into the risk management plan. These two steps are made easy when the steps of “developing the plan” and “implementing the plan” are completed successfully. Written policies should be put into place to allow the risk manager to have a say in operations. As stated earlier, several stadium managers that responded to the questionnaire stated that they classified themselves as well as their stadium personnel as risk managers. If employees are trained properly and policies and procedures are communicated to them, they will become risk managers themselves and will be important assets when it comes to supporting the risk management plan and offering feedback on the plan.

Stadium Operations staff should meet on a regular basis and voice concerns regarding risk management issues in their stadium. Also, all personnel that would not regularly attend the stadium management meetings and work within the stadium should be made well aware of the proper person to contact when they see a risk management issue arise.

Research Question Two

Another purpose of the study was to investigate if there was a relationship between the way stadiums conducted risk management and certain demographic features of the stadium. Relationships were apparent when the p value for a certain category was

≤.05. The research results found relationships among certain risk management practices and only two stadium demographic categories. The stadium demographic that had the strongest relationship with certain risk management practices was the capacity of the stadium. The only other stadium demographic where relationships were found with certain risk management practices was the number of night games a stadium hosted in the 2004 football season. The results also found that there were no relationships among the other stadium demographic categories and certain risk management practices.

RQ2) Is there a relationship in the risk management practices at stadiums and certain demographic factors such as:

A. The seating capacities of the stadiums?

The research did find a relationship between seating capacity and six risk management practices. Stadium capacities were divided into three groups: “40,000 or less”, “40,001-65,000”, and “more than 65,000”. Twenty-two of the stadiums had capacities of “40,000 or less”. Twenty-four of the stadiums had capacities of “40,001-65,000”, and twenty-four stadiums had capacities of “more than 65,000”. The relationships between seating capacities and the six risk management practices are shown in Table 9.

Table 9
Relationships- Capacities

| Item | p value | 40,000 or less | 40,001- 65,000 | more than 65,000 |
|---|---------|------------------|------------------|------------------|
| Legal counsel reviews all facility contracts | .010 | 59.1% (13 of 22) | 66.7% (16 of 24) | 95.8% (23 of 24) |
| Medical services agency represented in command post | .010 | 59.1% (13 of 22) | 79.2% (19 of 24) | 95.8% (23 of 24) |
| Fans allowed to exit and re-enter stadium | .025 | 72.7% (16 of 22) | 45.8% (11 of 24) | 33.3% (8 of 24) |

Table 9 Continued

| Item | p value | 40,000 or less | 40,001- 65,000 | more than 65,000 |
|---|---------|------------------|------------------|------------------|
| Video cameras are used to monitor crowds | .05 | 36.4% (8 of 22) | 62.5% (15 of 24) | 70.8% (17 of 24) |
| Bomb-sniffing dogs used | .000 | 36.4% (8 of 22) | 75 % (18 of 24) | 91.7% (22 of 24) |
| Buses used to reduce the volume of traffic during games | .041 | 54.5% (12 of 22) | 75% (18 of 24) | 87.5% (21 of 24) |

A relationship was found between stadium capacity and whether legal counsel reviews all facility contracts. The research found that the larger the capacity of a stadium, the more likely the stadium will have legal counsel review all facility contracts. Ammon (1993, p116) stated that during his investigation of municipal football stadiums, messages conveyed during follow-up phone calls indicated many of the respondents to be in a period of financial distress. Therefore, the expense of obtaining legal counsel often precludes their use in “financially strapped” stadiums. Generally larger capacity stadiums generate more revenue than smaller capacity stadiums. According to Ammon’s (1993) observations, perhaps one of the reasons less small capacity stadiums have legal counsel review contracts is because they are more “financially strapped” than large capacity stadiums and can not spare the expense of legal counsel.

A relationship was found between stadium capacity and whether a medical agency is represented in the stadium command post. The research found that the larger the capacity of a stadium, the more likely the stadium was to have a medical services agency represented in the command post.

A third relationship was found between stadium capacity and whether fans are allowed to exit and re-enter the stadium. The research found that the smaller the capacity of a stadium, the more likely the stadium allowed fans to exit and re-enter it. Generally, it is recommended that stadiums not allow fans to exit and re-enter the stadium. The

reason for this is that allowing fans to exit allows them to go to areas where the drinking of alcoholic beverages is allowed (i.e. parking lots). They then have the opportunity to become more intoxicated and then re-enter the stadium. Again, more large capacity stadiums are practicing recommended risk management procedures than smaller capacity stadiums.

A fourth relationship was found between stadium capacity and whether video cameras are used to monitor crowds. The research found that the larger the capacity of a stadium, the more likely the stadium used video cameras to monitor the crowds. Possibly, the reason that more large capacity stadiums use video surveillance than smaller capacity stadiums is the reason stated earlier regarding legal counsel. Smaller capacity stadiums generally generate less revenue than large capacity stadiums and may not be able to afford expensive video equipment for the purpose of monitoring crowds.

A fifth relationship was found between stadium capacity and whether bomb-sniffing dogs are used at the stadium prior to a game. The study found that the larger the capacity of a stadium, the more likely the stadium used bomb-sniffing dogs to detect bombs or explosives prior to a game.

A sixth relationship was found between stadium capacity and whether buses are used to reduce the volume of traffic during games. The research found that the larger the capacity of a stadium, the more likely the stadium utilized buses to reduce the volume of traffic. It seems logical that the larger the stadium capacity, the more people that come to the game. Thus the need to reduce the volume of traffic around the stadium area is greater at large stadiums. Since busses are the most common method of reducing traffic volume at stadiums that do so (51 of 52), it is no surprise that more large capacity stadiums use busses to reduce the volume of traffic than that of smaller stadiums.

RQ2) Is there a relationship in the risk management practices at stadiums and certain demographic factors such as:

B. The geographic location of the stadium?

No relationships were found among risk management practices and the geographic location of the stadiums. The researcher anticipated that urban stadiums may perform more of the risk management practices than a rural or suburban stadium because

of the large population that is generally within a specific radius of the stadium. However, no differences were found.

RQ2) Is there a relationship in the risk management practices at stadiums and certain demographic factors such as:

C. Whether they are on or off-campus?

No relationships were found among risk management practices and whether a stadium was located on or off-campus. Whether a stadium is on or off-campus sometimes determines what jurisdiction a stadium is in. Policies can differ among stadiums that are on a college campus and those that are on city or county property. Again, no relationships were found based on these factors.

RQ2) Is there a relationship in the risk management practices at stadiums and certain demographic factors such as:

D. Whether a public or private university plays football in the stadium?

No relationships were found among risk management practices and whether a public or private university plays football in the stadium.

RQ2) Is there a relationship in the risk management practices at stadiums and certain demographic factors such as:

E. Who owns the stadium?

No relationships were found among risk management practices and who owns the stadium. The researcher believed that stadiums that are privately owned would be more concerned with generating revenue than a stadium that is owned by a university or municipality and that there perhaps could be differences in the risk management practices they performed. Again, no relationships were found.

RQ2) Is there a relationship in the risk management practices at stadiums and certain demographic factors such as:

F. Who manages the stadium?

No relationships were found among risk management practices and who manages the stadium. The researcher believed that university employees who manage stadiums are often responsible for other athletic venues at the university and may not be able to commit all of its resources to the football stadiums all the time and may lack in certain

risk management areas than perhaps a stadium that is managed by a private organization who are responsible for managing only the football stadium by itself.

RQ2) Is there a relationship in the risk management practices at stadiums and certain demographic factors such as:

G. The number of night games they have hosted in the past year?

The research did find a relationship between the number of night college football games played at a stadium and two risk management practices. Stadiums were categorized into two categories based on the number of night games they hosted. The relationships between the number of night college football games played at the stadium in the past year and the two risk management practices are shown in Table 10.

Table 10
Relationships- Night Games

| Item | p value | 0-2 night games | 3 or more night games |
|--------------------------------------|---------|------------------|-----------------------|
| Alcohol sold at stadium | .014 | 9.4% (3 of 32) | 34.2% (13 of 38) |
| Written medical services plan exists | .008 | 90.6% (29 of 32) | 63.2% (24 of 38) |

A relationship was found with the number of night games and whether alcoholic beverages were sold during the stadium's college football games. According to the research, more night games were held at stadiums that served alcohol than those that didn't serve alcohol. The fact that stadiums that serve alcohol have more night games seems ironic since one would generally believe that night games would have more disturbances than day games. Therefore, one would think that a stadium that serves

alcohol would prefer to hold day games in hopes that there would be less incidents of trouble. On secondhand, many football game times are determined by television. Although stadiums that serve alcohol may prefer to have a day game, sometimes the fact that the game is televised dictates the game time. Most athletic departments and stadiums probably believe that the benefits of their team being on television outweigh the disadvantages of having a night game at a stadium that serves alcohol.

A relationship was found with the number of night games and whether a written medical services plan exists. This again is ironic because the general thought is that the more night games a stadium hosts, the more attention it should pay to recommended risk management practices. However, the research shows the opposite.

RQ2) Is there a relationship in the risk management practices at stadiums and certain demographic factors such as:

H. The number of non-football related events (concerts, graduations, other sports) that have occurred in the stadium the past year?

No relationships were found among risk management practices and the number of non-football related events (concerts, graduations, other sports) that have occurred in their stadium the past year. This was a surprising result, because the researcher anticipated that stadiums that hosted more non-football related events would perform more of the recommended risk management practices than stadiums that only hosted football games in their stadium. Many risk management practices should be performed no matter what type of events are held in a stadium, therefore it was anticipated that stadiums that hosted events other than football games would inspect the stadium more often since events are being held throughout the year, not just during football season.

RQ2) Is there a relationship in the risk management practices at stadiums and certain demographic factors such as:

I. The number of ticket sell-outs that have occurred in the past year?

No relationships were found among risk management practices and the number of ticket sell-outs that occurred in 2004. This was a surprising result as well because it was anticipated that stadiums that have more sell-outs deal with a great amount of congestion

and therefore may need to take risk management more seriously than stadiums that are not filled to capacities.

Research Question Three

RQ3) What is the stadium manager's demographic background?

Data from the last section of the questionnaire examined the demographics of the person who completed the questionnaire and is used to answer research question three. Most of the data used to answer research question three can be attained from Table 8. However, a discussion about some of the more interesting findings in regards to the stadium manager's background will be addressed in this section.

The questionnaires were sent to those who were most likely to be the stadium manager. However, this did not prevent stadium managers from forwarding the survey to a subordinate to complete. Even if the person who completed the survey was not the person ultimately in charge of the stadium, they obviously had to be knowledgeable of the daily operations of the football stadium to complete the survey. Even at the very least, research question three provides a general background of persons who are closely involved with the overall operations of the football stadium.

A general finding of the research was that the responding stadium managers are a very experienced group in regards to stadium management, highly professionalized, yet not very diverse in terms of race or gender. A majority of stadium managers have been employed at their stadium or athletic department for at least 11 years. This may suggest that stadium managers have come up through the ranks of their specific areas and that departments are more likely to hire from within when filling a vacant stadium director position. Operating a stadium involves regular communication with varying outside agencies (emergency personnel, law enforcement, parking and traffic, concessions, security, crowd management staff, university and civic leaders, etc.) Perhaps those in charge of hiring stadium managers choose to promote from within because they feel that continuity in the relationships with all the varying agencies is important.

The most striking finding of the research was the lack of diversity among managers of stadiums that host NCAA Division I-A college football. Caucasians made

up 90% (63 of 70) of the stadium managers. African-Americans made up just 5.7% (4 of 70) of the managers. Hispanics and Asian-Americans were the least represented ethnic groups among the managers with 2.9% (2 of 70) and 1.4% (1 of 70) representation respectively. As universities and municipalities push for more diversity among their employees, it is quite evident that a stronger push needs to be made on departments that operate stadiums. One way that more minorities could be introduced to the profession of stadium management is to offer internships that are strictly for minority students, similar to how minority scholarships operate. The more minorities that can be brought in to entry-level stadium management positions, the more likely minorities will be in charge of managing stadiums in the future.

The responding stadium managers were almost all male. Only four of the seventy responding stadium managers was female. The nature of the work of a stadium manager may be the main reason for this. If one was to gain an entry-level position in event and stadium management, especially at a university athletic department, the job would be very “blue-collar” in comparison to other jobs in the athletic department. Athletic department jobs in the areas of academics, compliance, life skills, marketing, tickets, development, and the business office could be seen as “white collar” when compared to facility and event management work. Stadium and event management, especially at the entry-level position, often involves set-up of equipment, tear-down of equipment, cleaning, trash detail, and other labor intensive jobs. The nature of the work of an entry-level position in stadium and facility management is very blue-collar even in comparison to the nature of the work of the Assistant or Associate Athletic Director for Facilities at a university or a Stadium General Manager at a large municipal stadium. While the “white-collar” jobs of upper level management of a stadium may appeal to a large number of women, the “blue-collar” type entry-level jobs in stadium management may appeal to much fewer women. Unfortunately for those people, whether men or women, who would love to be part of the upper-level management of a stadium, getting to the top often means starting at the bottom, no matter what level of academic degree one possesses.

Stadium managers are a highly educated group, with 68.6% (n=48) of the managers having master’s degrees. Some interesting findings in regards to degrees are

the breakdown of the managers with degrees in physical education and sport management based on age. Significantly more managers who were age 30 and under had degrees in sport management rather than physical education. Eleven managers age 30 and under had degrees in sport management, while just one manager from the same age group had a degree in physical education. Obviously the very recent growth of schools that offer a degree in sport management is a major factor. This trend is also seen in the managers between 30 and 40 years of age. Seventeen managers in this age group have degrees in sport management while just eight have degrees in physical education. The very recent growth of sport management as a degree program is also a contributing factor to the reason only one manager between the age of 51 and 60 has a degree in sport management and eight managers in the same age group have degrees in physical education. These findings are evidence that if you were interested in working in athletic administration in the 1960's and 1970's one would likely major in physical education. Now, if one wants a job in athletic administration, they are more likely to get a degree in sport management rather than physical education. If this same study is conducted 20 years from now, the findings will likely show that most stadium managers will have degrees in sport management in all age groups, not just the younger age groups as is the case of the current study.

Conclusions

Overall stadiums that hosted NCAA Division I-A football games in 2004 are following the risk management procedures that are recommended in the literature. Of all the items in sections A through F (items relating to specific risk management practices) that all 70 subjects gave a response to (excludes items C2 through C6 and item C11b, since all 70 respondents did not respond to these items), 53 of these 70 items had 70% or more of the stadiums performing the favorable risk management practice. Undoubtedly, a major influence on this is the attention that risk management received after the terrorist attacks on United States soil on September 11, 2001. One aspect of risk management that has received a significant amount of attention is risk management in stadiums, which are seen as a prime target for terrorists now. However, many risk management practices are

in place, not necessarily to guard against terrorist attacks but for the general safety of patrons from everyday accidents and incidents. The professional training that stadium managers are receiving may be another reason why stadiums are generally practicing sound risk management. The classes and seminars that stadium managers attend whether in college or at professional conferences teach the important fact that stadium managers have a legal duty to protect patrons who come to their stadiums.

In relation to the second research question, it is very difficult to stereotype stadiums based on demographic features of the stadium. Although research question two hoped to find the relationships between risk management practices and certain stadium demographic features of the stadium, very few relationships were found. The findings did show that stadium capacity had the most relationships with risk management practices. More sound risk management practices were performed by larger stadiums than smaller stadiums. The finding seems logical in that one would likely operate a 90,000 seat stadium differently than a 35,000 seat stadium, especially in regards to risk management. The main reason being that a stadium manager simply has more people he or she has a duty to keep safe in a larger stadium.

Finally, the most notable finding of the research in regards to the stadium manager demographics is the lack of diversity among persons responsible for operating collegiate football stadiums. Stadium managers are mostly Caucasian males. Another interesting finding was the degrees that stadium managers held. Younger stadium managers were more likely to have a degree in sport management, where older stadium managers were more likely to have a degree in physical education.

Recommendations

After analyzing the data, there are a few recommended risk management practices that more stadiums should think about implementing. These include practicing the evacuation plan at least once a year. The research found that only 21.4% (n=15) of the stadiums practice the evacuation plan that is recommended. This finding is consistent with the Ammon (1993) study that found that only 26% of municipal football stadiums practiced the evacuation plan. Another recommendation is not allowing spectators to exit

and re-enter the stadium. Currently, 50% (n=35) of the stadiums allow this. More stadiums should have security personnel remain in the parking lots after the game. Only 58.6% (n=41) of the stadiums practiced this in 2004. Stadiums studied by Ammon (1993) scored much better in the area of security remaining in lots after games as 86% of the municipal stadiums practiced this. Just 58.6% (n=41) of the stadiums provide a standard operating procedures manual to each individual who is involved in football game operations and game management. More stadiums should get manuals to more people who are involved with football operations. More stadiums besides the 57.1% (n=40) that do so should put concession stand personnel in radio contact with medical and law enforcement officials. The Ammon (1993) study found similar results in municipal football stadiums as over 48% of them had concessionaires who were “never” in radio contact with medical and law enforcement. Finally, many more stadiums that serve alcohol need to implement a designated driver program. Only 6 of the 16 stadiums that serve alcohol have a designated driver program.

Practical Implications

The most important practical implication for practitioners from the study is reiterating how highly risk management should be regarded when operating a football stadium. Stadium managers can see from the results the areas of risk management that other stadiums highly regard and the areas that could possibly use more attention.

The findings of this research provide practitioners a comparison of how they are operating their stadiums in comparison to the responding NCAA Division I-A stadiums. A practitioner who operates a football stadium, whether it be a high school, small college, or even professional stadium, could answer the questions of the survey and determine what risk management practices are being practiced at their stadium. By reviewing their results, they can determine how their stadium compares to those that participated in the study. The results of the current study can justify why some risk management practices should be implemented at a stadium that is not currently implementing them. For example, a stadium manager could feel that a lightning detection system should be purchased. Higher administrators may disagree that the system should be purchased due

to costs and may falsely believe that most stadiums are not currently using lightning detection systems. The stadium manager could justify the importance of the purchase by mentioning that 52 of the 70 responding stadiums of the current study have lightning detection systems.

Suggestions for Future Research

Based on the findings of this study and the review of the related literature, the following suggestions were made for future research:

1. A study measuring how important stadium managers regard certain risk management practices and behaviors. Many risk management practices are simply not practiced because someone in charge of the operations of the stadium may believe they are just not that important. A study to find out the practices that are believed to not be important would be valuable.
2. A study on how spectators perceive different risk management practices. The study could measure whether patrons have favorable or unfavorable perceptions on certain risk management practices. Do spectators have a negative or positive perception about having they're bag searched upon entry? Do they like or dislike the fact that alcohol is not sold inside their stadium? How would they rate the security that is in place at the stadium?
3. A qualitative study of risk management practices at selected stadiums across the world. It would be very interesting to determine the risk management practices that are implemented in very volatile parts of the world (Middle East, Africa, and South America). How do stadiums that are located in parts of the world where terrorism is a daily part of life conduct athletic events?
4. A study that compares the perceived effectiveness of certain risk management practices among stadium managers and patrons. Do certain risk management practices really accomplish what they are in place for? There is no better way to determine if bag checks really work than to ask the fans. If your stadium conducts bag checks, yet a large number of fans that answer your questionnaire state they have been successful in smuggling alcohol into the

stadium, then management may want to re-address how bag checks are conducted and whether they are really effective. Another example would be the topic of serving alcohol in a stadium. Stadium managers may feel that not selling alcohol in the stadium curbs the number of intoxicated fans, while a patron may feel that there are still problems with alcohol because it may be smuggled into the stadium or consumed in the parking lots

5. A study that attempts to compare the number and types of alcohol related incidences between stadiums that sell alcohol and those that don't. Do stadiums that sell alcohol really have more alcohol related incidences or arrests than those that do not sell alcohol? Stadiums that do not sell alcohol still have issues with alcohol being consumed in the parking lots or being smuggled into the stadium. It is quite possible that the findings could be similar. Police reports could be examined to compare alcohol related arrests that occur in and around the stadium on football game days.

APPENDIX A

Human Subjects Approval Letter



Office of the Vice President For Research
Human Subjects Committee
Tallahassee, Florida 32306-2763
(850) 644-8673 · FAX (850) 644-4392

APPROVAL MEMORANDUM

Date: 6/2/2004

To:
Gary Lhotsky
1140 Poplar Drive
Tallahassee FL 32304

Dept.: **SPORT MANAGEMENT**

From: **John Tomkowiak , Chair**

Re: **Use of Human Subjects in Research
Risk and Game Management of Division 1-A Football Stadiums**

The forms that you submitted to this office in regard to the use of human subjects in the proposal referenced above have been reviewed by the Secretary, the Chair, and two members of the Human Subjects Committee. Your project is determined to be Exempt per 45 CFR § 46.101(b) 2 and has been approved by an accelerated review process.

The Human Subjects Committee has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals, which may be required.

If the project has not been completed by **6/1/2005** you must request renewed approval for continuation of the project.

You are advised that any change in protocol in this project must be approved by resubmission of the project to the Committee for approval. Also, the principal investigator must promptly report, in writing, any unexpected problems causing risks to research subjects or others.

By copy of this memorandum, the chairman of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols of such investigations as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Protection from Research Risks. The Assurance Number is IRB00000446.

Cc: Dr. E Newton Jackson
HSC No. 2004.327

APPENDIX B

Consent Letter

Dear Stadium Manager,

Hello. My name is Gary Lhotsky and I am an Assistant Director of Facilities in the Florida State University Department of Athletics. I am also a doctoral student in sport management. I am conducting a study for my doctoral dissertation. The study is investigating the differences in risk management practices between NCAA Division I-A football stadiums. The benefit of this study is that a risk management profile for selected Division I-A football stadiums will be formed.

You will be asked to respond to a series of questions regarding your football stadium operations. The questionnaire will take about 15-20 minutes to complete. Every response will be treated confidentially to the extent allowed by law and no facility will be identified in the study except by means of a code number that I will assign after receiving your responses. As an incentive to submit the survey, I will randomly select five facility managers to receive an autographed football signed by Bobby Bowden. Please understand that your participation is totally voluntary and there is no penalty for non-participation or withdrawal from the study.

In order for this study to be a success, a high rate of return is necessary; therefore your response is critical. I look forward to your early response and the opportunity to share my results in executive summary format with you and other stadium managers. If for some reason you are not the appropriate person to respond to this survey, please forward it to the appropriate person.

Thank you for your assistance with my study. If you have any questions about the questionnaire or study, feel free to contact me at (850) 645-3270 or email me at: glhotsky@mailers.fsu.edu You may also contact my major professor, Dr. E. Newton Jackson, at (850) 599-3136 or email him at: newton.jackson@fam.u.edu

Finally, if you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Committee, Institutional Review Board, through the Vice President for the Office of Research at (850) 644-8633. Thanks again, I look forward to your response.

To complete the survey, click below. IF PAGE CANNOT BE FOUND, CLICK THE "REFRESH" BUTTON.

<http://divisionbyzero.net/~glhotsky/surveyor/index.php?sid=2&token=0112219985>

Sincerely,

Gary J. Lhotsky
Sport Management Doctoral Student
Florida State University

APPENDIX C

Questionnaire

NCAA DIVISION I-A FOOTBALL STADIUM OPERATIONS SURVEY

- Please consider each item carefully to determine how you deal with the subject matter in your football facility.
- Please circle the appropriate answer in the right-hand column as they pertain to the question in the left-hand column.
- Please provide additional information when necessary.

| A. RISK MANAGEMENT | | | | | | | | | |
|---------------------------|---|---|---|----------|---------|----------|---------|----------|---------|
| A-1. | Do you have a Standard Operating Procedures (SOPs) manual for football facility operations? | Yes 1 | No 2 | | | | | | |
| A-2. | Do you provide a manual to each individual who is involved in football operations and game management? | Yes 1 | No 2 | | | | | | |
| A-3. | Is there a risk manager employed at your facility? | Yes 1 | No 2 | | | | | | |
| A-4. | Is a safety committee used at your facility? | Yes 1 | No 2 | | | | | | |
| A-5. | Are risk management plans in your facility reviewed with follow-up and corrective actions? | Yes 1 | No 2 | | | | | | |
| A-6. | Is there a review of the risk management plans in your facility with follow-up or corrective actions? | Yes 1 | No 2 | | | | | | |
| A-7. | Do written schedules exist for the inspection of: Electrical, Mechanical, and Structural components of the facility? | Electrical Components Mechanical Components Structural Components | <table style="width: 100%; border: none;"> <tr> <td style="width: 15%; text-align: center;">Yes 1</td> <td style="width: 15%; text-align: center;">No 2</td> </tr> <tr> <td style="text-align: center;">Yes 1</td> <td style="text-align: center;">No 2</td> </tr> <tr> <td style="text-align: center;">Yes 1</td> <td style="text-align: center;">No 2</td> </tr> </table> | Yes 1 | No 2 | Yes 1 | No 2 | Yes 1 | No 2 |
| Yes 1 | No 2 | | | | | | | | |
| Yes 1 | No 2 | | | | | | | | |
| Yes 1 | No 2 | | | | | | | | |
| A-8. | Is there a risk manager or broker who advises you on insurance coverage and exclusions for the facility regarding liability policies? | Yes 1 | No 2 | | | | | | |

| | | | |
|-------------------------|---|--|---------|
| A-9. | Are spectators' injuries covered by insurance? | Yes 1 | No 2 |
| | | If yes, what is the dollar value of the coverage? _____ | |
| A-10. | Is event staff, especially private security, briefed on the meaning and implications of negligence? | Yes 1 | No 2 |
| A-11. | Do you use pre-formatted serious incident reports are used for documenting accidents and injuries? | Yes 1 | No 2 |
| A-12. | Are concession operations contracted to an outside agency? | Yes 1 | No 2 |
| A-13. | Are concession stand personnel in radio contact with medical and law enforcement officials? | Yes 1 | No 2 |
| A-14. | Are concession stand personnel in telephone contact with medical and law enforcement officials? | Yes 1 | No 2 |
| A-15. | Are records available documenting health and sanitation inspections? | Yes 1 | No 2 |
| A-16. | Do policies exist regarding the collection of money from the concession stands? | Yes 1 | No 2 |
| A-17. | Does security or law enforcement officials provide security during transport of cash to central collection point from ticket kiosks or box offices? | Yes 1 | No 2 |
| A-18. | Are ticket taking operations done in-house? | Yes 1 | No 2 |
| B. LEGAL ASPECTS | | | |
| B-1. | Is legal counsel involved in the orientation/training of facility and game management staff? | Yes 1 | No 2 |
| B-2. | Is legal counsel involved in the design and implementation of game or risk management policy? | Yes 1 | No 2 |

| | | | |
|--|--|----------|---------|
| B-3. | Written policies exist for dealing with complaints, injuries, and accidents? | Yes 1 | No 2 |
| B-4. | Has facilities management been involved in litigation resulting from a football related incident within the last five years? | Yes 1 | No 2 |
| B-5. | Does legal counsel review all facility contracts? | Yes 1 | No 2 |
| B-6. | Do indemnification clauses exist in your contracts with outside agencies? | Yes 1 | No 2 |
| B-7. | Do contracts for outside use require certificates of insurance? | Yes 1 | No 2 |
| Indicate dollar amount required: _____ | | | |
| C. ALCOHOL POLICIES | | | |
| C-1. | Are alcoholic beverages sold during football games? | Yes 1 | No 2 |
| If "no" proceed to question C-7. | | | |
| C-2. | Does the facility have a written policy regarding the sale of alcoholic beverages? | Yes 1 | No 2 |
| C-3. | Is alcohol training such as "TIPS" or "TEAM" provided to stadium employees? | Yes 1 | No 2 |
| C-4. | Is there a limit to the number of alcoholic beverages which may be purchased at one time by an individual? | Yes 1 | No 2 |
| If "yes", Indicate quantity: _____ | | | |
| C-5. | Is the sale of alcohol discontinued at some point during the football contest? | Yes 1 | No 2 |
| If "yes", when? _____ | | | |
| C-6. | Does a "designated driver" program exist to assist intoxicated spectators? | Yes 1 | No 2 |

| | | | |
|--|---|----------|---------|
| C-7. | Does the facility provide an area where intoxicated fans can “sober up” while being monitored by medical staff? | Yes 1 | No 2 |
| C-8. | Are alcoholic beverages confiscated when brought into the facility? | Yes 1 | No 2 |
| If “yes”, by whom? _____ | | | |
| C-9. | Is entry denied to persons caught trying to bring alcohol into the facility? | Yes 1 | No 2 |
| C-10. | Are intoxicated individuals denied entry into the facility? | Yes 1 | No 2 |
| If “yes”, who determines if they are intoxicated? _____ | | | |
| C-11. | Is the consumption of alcoholic beverages allowed in the parking lots (tailgating)? | Yes 1 | No 2 |
| If “yes”, does anyone monitor the activities? _____ Who? _____ | | | |
| D. CROWD MANAGEMENT PROCEDURES | | | |
| D-1. | Are crowd management services used by the facility? | Yes 1 | No 2 |
| If “yes”, indicate type: in-house _____ contracted to outside agency _____ | | | |
| D-2. | Are crowd management employees required to participate in facility training and orientation? | Yes 1 | No 2 |
| D-3. | Do policies exist regarding the ejection of disruptive, unruly, or intoxicated fans? | Yes 1 | No 2 |
| If “yes”, who ejects them? _____ _____ | | | |
| D-4. | Does paperwork documenting the incident accompany ejections? | Yes 1 | No 2 |
| D-5. | Are photographs taken of the ejected fan? | Yes 1 | No 2 |

| | | | |
|-------|---|----------|---------|
| D-6. | Do appropriate signs exist directing fans to various facility locations or services? | Yes 1 | No 2 |
| D-7. | Are signs located at entrances identifying what items are prohibited or allowed into the facility? | Yes 1 | No 2 |
| | What items are prohibited in your facility? _____ _____ | | |
| D-8. | Are there written emergency evacuation procedures for the disabled? | Yes 1 | No 2 |
| D-9. | Are wheelchair bound fans provided with clearly marked seats? | Yes 1 | No 2 |
| D-10. | Do wheelchair bound fans have the opportunity to sit with companions? | Yes 1 | No 2 |
| D-11. | Do wheelchair bound fans have the opportunity to purchase normal "prime seat" locations? | Yes 1 | No 2 |
| D-12. | Are Assisted listening devices (ALDs) available to the hearing impaired? | Yes 1 | No 2 |
| D-13. | Do you have policies regarding the sale of tickets for more than their face value (scalping)? | Yes 1 | No 2 |
| D-14. | Are the scalpers arrested? | Yes 1 | No 2 |
| D-15. | Does the stadium have a command post during games where representatives from different game management agencies are in communication with each other? | Yes 1 | No 2 |
| | Which agencies are represented: facility_____ law enforcement_____ medical_____ crowd management_____ other_____ | | |
| D-16. | Are bags or purses searched when fans enter the stadium? | Yes 1 | No 2 |
| D-17. | Are spectators allowed to exit and re-enter the stadium? | Yes 1 | No 2 |

| | | | |
|--------------------------------------|---|----------------------------|---------|
| D-18. | Are fans allowed on the field after games? | Yes 1 | No 2 |
| D-19. | Are steps taken to stop fans from tearing down the goalposts? | Yes 1 | No 2 |
| D-20. | Are video cameras used to monitor crowds? | Yes 1 | No 2 |
| D-21. | Are mounted police used in or around your stadium? | Yes 1 | No 2 |
| E. EMERGENCY AND MEDICAL PLAN | | | |
| E-1. | Does a written medical services plan exist? | Yes 1 | No 2 |
| E-2. | Is emergency medical transportation available on-site during an event? | Yes 1 | No 2 |
| E-3. | Has the medical service plan been coordinated with those responsible for security? | Yes 1 | No 2 |
| E-4. | Are spectators advised on how to summon emergency assistance? | Yes 1 | No 2 |
| E-5. | Is a lightning detection system used at your stadium? | Yes 1 | No 2 |
| E-6. | Do policies exist for evacuating the facility due to bomb threats, severe weather, or other potential disasters? | Yes 1 | No 2 |
| E-7. | Is the evacuation plan practiced? | Yes 1 | No 2 |
| | | If "yes", how often? _____ | |
| E-8. | Do policies exist as to who makes the public address announcement regarding an evacuation and what they are to say? | Yes 1 | No 2 |
| E-9. | Are bomb-sniffing dogs used at your facility prior to a game? | Yes 1 | No 2 |

F. PARKING AND TRAFFIC CONTROL

| | | |
|---|---|---------|
| F-1. Does the stadium have a written parking operations plan? | Yes 1 | No 2 |
| F-2. Are maps of parking lots provided in advance to season ticket holders? | Yes 1 | No 2 |
| F-3. Do security personnel remain in the parking lots during the game? | Yes 1 | No 2 |
| | Please indicate which of the following remain: law enforcement officials _____ private security _____ facility employees _____ | |
| F-4. Do security personnel remain in the parking lots after the game? | Yes 1 | No 2 |
| F-5. Do season ticket holders have the ability to purchase reserved parking spaces? | Yes 1 | No 2 |
| F-6. Do inspection or maintenance schedules include reviewing the parking lots? | Yes 1 | No 2 |
| F-7. Are traffic flow operations administered by a law enforcement agency? | Yes 1 | No 2 |
| | If yes, what type of law agency (ies)? Campus _____ City _____ County _____ State _____ | |
| F-8. Are public transportation vehicles utilized to reduce the volume of traffic? | Yes 1 | No 2 |
| | If "yes", what transportation type? Bus SubwayRail Vans Boat/Ferry | |
| F-9. Are normal traffic patterns altered to accommodate the ingress and egress of football traffic? | Yes 1 | No 2 |
| F-10. Is there adequate signage used on major thoroughfares to direct arriving spectators? | Yes 1 | No 2 |

| | |
|--------------------------------|--|
| G. STADIUM DEMOGRAPHICS | |
| G-1. | What is the capacity of your stadium? _____ |
| G-2. | Classify the geographical location of your stadium: <input type="checkbox"/> urban <input type="checkbox"/> suburban <input type="checkbox"/> rural |
| G-3. | Your stadium is located: <input type="checkbox"/> on-campus <input type="checkbox"/> off-campus |
| G-4. | Your university is <input type="checkbox"/> public <input type="checkbox"/> private |
| G-5. | Your stadium is owned by: <input type="checkbox"/> Your university <input type="checkbox"/> Another university <input type="checkbox"/> Municipality (city, county, other) <input type="checkbox"/> Private organization |
| G-6. | Your facility is managed by: <input type="checkbox"/> university employees <input type="checkbox"/> private company <input type="checkbox"/> municipal employees <input type="checkbox"/> other _____ |
| G-7. | In 2004, how many games did your football team play in your stadium? _____ |
| G-8. | In 2004, how many of your home football games kicked-off at night? _____ |
| G-9. | In the past year, how many non-football related events occurred in your football stadium? _____ |
| G-10. | Your average attendance for 2004 was: _____ |
| G-11. | In 2004, how many games were sell-outs? _____ |
| H. MANAGER DEMOGRAPHICS | |
| H-1. | What is your age? ≤ 30 _____ _____ 51-60 31-40 _____ _____ 61+ 41-50 _____ |

| | | | | | | | |
|--|---|--|---|-----|----|---|---|
| H-2. What ethnic group are you a member? | <input type="checkbox"/> Caucasian <input type="checkbox"/> African-American <input type="checkbox"/> Hispanic <input type="checkbox"/> Native-American <input type="checkbox"/> Asian-American <input type="checkbox"/> Mixed <input type="checkbox"/> International | | | | | | |
| H-3. Your Highest Degree earned? | <input type="checkbox"/> B.S. <input type="checkbox"/> B.A. <input type="checkbox"/> B.B.A. | <input type="checkbox"/> M.S. <input type="checkbox"/> M.Ed. <input type="checkbox"/> M.B.A. | <input type="checkbox"/> J.D. <input type="checkbox"/> Ed.D. <input type="checkbox"/> Ph.D. | | | | |
| H-4. Are any of your degrees in Physical Education? | <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Yes</td> <td style="text-align: center;">No</td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> </table> If yes, which? <input type="checkbox"/> Bachelors <input type="checkbox"/> Masters <input type="checkbox"/> Doctorate | | | Yes | No | 1 | 2 |
| Yes | No | | | | | | |
| 1 | 2 | | | | | | |
| H-5. How long have you been employed at your current college/university/stadium? | _____. | | | | | | |
| <p>I. PERSONAL INFO- The personal information asked here is used strictly for assistance in raffling of the five Bobby Bowden autographed footballs that will be given away for participating in the study and verifying that a legitimate or appropriate staff member completed the survey. Your name, university or facility, and email address will not be identified in the study. Facilities will only be identified by means of a code number that I will assign after receiving your responses. Thank you.</p> | | | | | | | |
| Your Name _____ | | | | | | | |
| Your Title _____ | | | | | | | |
| Your University or Stadium _____ | | | | | | | |
| Your Email Address _____ | | | | | | | |
| Would you like an executive summary of the results of the survey and the study sent to you when complete? | <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Yes</td> <td style="text-align: center;">No</td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> </table> | | | Yes | No | 1 | 2 |
| Yes | No | | | | | | |
| 1 | 2 | | | | | | |

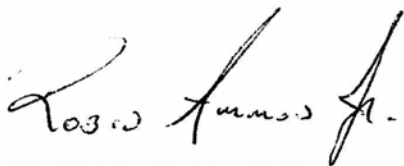
APPENDIX D

Permission Letter to Use Instrument

January 16, 2003

Dear Committee Members

I give Gary Lhotsky permission to use the Football Facility/Risk Management survey that I developed for my dissertation.



Dr. Robin Ammon Jr
Sport Management Program Coordinator
Slippery Rock University
West Gym #224
Slippery Rock, PA 16057

APPENDIX E

Football Stadium Experts

Dr. Charles A. Morris
Assistant Athletic Director / Event Management
Florida State University Department of Athletics
Tallahassee, FL

Bart Mondell
Assistant Athletic Director / Facilities
Florida International University
Miami, FL

REFERENCES

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BIOGRAPHICAL SKETCH

Gary Lhotsky is a native of Bridgeport, West Virginia. Gary attended Edinboro University of Pennsylvania, where he was a member of the football team and received a B.A. in speech communications in 1993. Gary got his first taste of athletic event management during his work study job at Edinboro. His work study job consisted of facility set-up and tear-down, ticket-taking, crowd management, and clean-up, for all the men's and women's basketball games as well as the wrestling matches.

Two years after graduating from college, Gary returned to school to pursue his master's degree in sport management at Georgia Southern University in Statesboro, GA. After completing his coursework at GSU, Gary was off to Miami, FL to complete a year-long internship (fall 1996 to summer 1997) as an assistant director of events in the University of Miami Athletic Department.

Soon after the completion of his internship, Gary landed his first "real job" as facility and events coordinator in the Florida International University Athletic Department. It was while at FIU, that Gary met his future wife and mother of his three beautiful boys, Wanda Day. After a year and a half at FIU, Gary wanted to pursue a doctorate in sport administration. In July of 1999, Wanda and Gary left Miami for Tallahassee, FL so that Gary could enroll in the sport management doctoral program at Florida State University. Gary capitalized on all of his work experience in athletic facility and event management by accepting a graduate assistantship in the FSU Department of Athletics in the area of facilities and events. A highlight of his first semester at FSU was being a part of the football game operations for the team that won the 1999 National Championship. In November of 2003, Gary gave up his graduate assistantship and accepted a full-time position with the athletic department at FSU. Currently, Gary is the Assistant Director of Facilities for the Seminoles and has primary facility and event oversight of volleyball and baseball.

Gary lives in Crawfordville, FL with his wife Wanda and their three boys (Christopher, Nathan, and Kaden). He enjoys spending time with his family and going to the beach at St. George Island as well as the Outer Banks of North Carolina. Gary also enjoys following all of the Seminole sports teams as well as West Virginia Mountaineer football and basketball.