

## Risk Management in Park and Recreational Activities

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### Abstract

The aim of this study was to investigate the management processes involved in risk management in park and recreational activities and evaluating them in terms of certain application processes. In this study, documentary screening and archival examination methods were applied. Recreational activities involve many risk factors; for example, safety and health issues are frequent in recreational activities. The planning of sports and recreational areas should pay attention to the usage of materials, ergogenic aids, medical supports, and safety management strategies. The evaluation in this study specifically considered protection and usage processes, health management, the location and construction of the facilities, and security dimensions. It showed that in the management processes associated with park and recreation activities, construction processes, business processes, educational dimensions, service management processes, and risk management dimensions should be analysed by managers and educators. Further, municipalities, universities, and local sport administrations must plan and prepare recreation risk management documents to distribute to public partners and athletes.

**Keywords:** Risk management, Park recreation, Recreational activities

### Introduction

The types of use of open public spaces by children and urban residents varies depending on cultural and environmental factors (Albert et al., 2011). The existence of sports and recreation areas in contemporary city planning is important to create healthy living environments (Ustundag et al., 2011). Sports and recreational activities are constantly vulnerable to the impact of multiple safety issues before, during, and after activities are performed. The positive application of risk management could prevent accidents that cause injuries (Zakaria et al., 2016).

Most accidents occur in parks due to unsafe playground equipment, the inattentiveness of children, and families' neglect to monitor their children (Gul, 2012). Miles and Priest (1999) note that management processes are essential components of the monitoring of recreational activities. Program evaluation, program development and administration, risk management, and research are the key elements of these management processes.

### Definitions of Leisure and Recreation

**Leisure:** This relates to discretionary time, which is the time that remains after sleeping, commuting, working, undertaking personal tasks, and doing necessary household chores. Individuals can choose whatever they wish to do with this time (Tribe, 2015).

**Recreation:** This refers to leisure activities conducted in discretionary time. Recreational activities comprise home-based activities such as watching television and reading, and those outside the home, such as attending the theatre and cinema, watching or participating in sports events, and tourism (Tribe, 2015).

Recreational activities are categorized by Baud-Bovy and Lawson (2002) into six categories.

**Table 1.** Categories of recreational activities

Category of activities	Examples
Taking place about the home	Watching television, reading, listening to music, gardening, do-it-yourself hobbies, exercise, leisure use of computers
Having a high social content	Entertaining, eating out, drinking in bars, party going, visiting friends and relatives
Cultural, educational and artistic interests	Visiting theatres, concerts, exhibitions, museums, attending non-vocational classes
Pursuit of sport, either as participants or Spectators	Golf, football, swimming, tennis, bowls, darts, gymnastics
Informal outdoor recreation	Driving for pleasure, day excursions to seaside and countryside, walking, picnicking
Leisure tourism involving overnight stay	Longer distance travel, tours, weekend breaks, holidays and vacations

Categories of recreational activities (Baud-Bovy and Lawson, 2002).

Participation in recreational activities has fluctuated over the past few years, with participation in team, winter, water, and fitness sports increasing, while participation in individual sports decreased moderately in 2015 and racquet and outdoor sports were unchanged (Physical Activity Council, 2016).

#### **Ambitiousness Youth, Young Adult & Adult Participation in Recreational Activities**

Ambitiousness participation calculates non-participants' attentiveness in particular outdoor recreation, sports, fitness, and leisure time activities. A lot of ambitiousness participants selected attended outdoor activities. Youth and young adults in every age group described camping as their top interest. Cycling followed as the second most popular activity among ambitiousness young adult participants aged between 18-24, and the activity came in third among non-participants aged between 6-12 and 13-27. Hiking and running/jogging were also activities that each age group wanted to try (The Outdoor Foundation, 2016).

For ambitiousness participants of all ages, and specifically adult participants of all ages, camping and cycling were ranked as the top three most interesting activities out of a range of outdoor, sports, fitness, and leisure time activities. Hiking and running/jogging also rated in the top 10 most attractive activities among adult participants (The Outdoor Foundation, 2016).

#### **Risk Management**

Risk management has a variety of origins and has been applied by a wide range of professionals in a variety of contexts. Risks that affect corporations can relate to financial performance and professional esteem, and can have consequences for the safety of employees, as well as the corporation's milieu and social elements. Consequently, managing risk helps the corporation to perform efficiently in an unpredictable environment (www.iso.org).

Considerations of risk management emerged after World War II. Risk management has long been linked with the use of merchandise assurance to protect individuals and corporations from diverse losses that cause casualties. Different forms of risk management and options as to how to implement merchandise assurance emerged throughout the 1950s when merchandise assurance was considered very expensive and insufficient to protect against risk (Dionne, 2013). One of the early developments in risk management occurred in the United States, and arose out of assurance management. The application of risk management became more common and more advantageous organized because the price of assurance in the 1950s had become prohibitive and the extent of coverage restricted. Corporations noticed that acquiring assurance was inadequate if there was also insufficient awareness to the protection of property and people. Assurance customers, therefore, became worried about the standard of property protection, standards of health and safety, product liability consequences and other risk control factors. The combined method of using risk financing and risk control advanced in Europe throughout the 1970s and the concept of the total price of risk became central to its implementation. As this method became more established, it also became clear that there were many risks facing corporations that were not insurable. The instruments and methods of risk management were then spread to various disciplines. The maturity of the risk management discipline is now such that there is only a weak association between it and assurance. Insurance is now seen as one risk control method, but it is only relevant to a certain category of dangerous risks. Risks related to economics, commercialism, the marketplace, and reputation are accepted as being particularly significant, but are outside the historical extent of insurance (Hopkin, 2017).

### International Organization for Standardization (ISO) & Parks

ISO is an independent, non-governmental international organization with an affiliation of 163 national standards bodies. Through its members, it brings together specialists to share knowledge and develop voluntary, consensus-based, market relevant International Standards that support innovation and provide solutions to global challenges ([www.iso.org](http://www.iso.org)).

The Technical Committee of ISO (ISO/TC 83), considers sports and other recreational facilities and equipment. ISO has developed 76 standards. 32 of which are still in the development phase. Twenty-two countries are the participating members of these standards and 24 countries are observing members (<https://www.iso.org/committee/50190.html>). There are four standards for playgrounds (ISO TC/254) and these standards also include amusement park standards (<https://www.iso.org/ics/97.200.40/x/>). These four standards relate to design and manufacture, operation and use, requirements for inspection during design, manufacture, operation, and use, and the biomechanical effects of amusement rides on passengers.

The UK is a participating member of the ISO. According to the British Standards Institution (2008), there are certain standards for facilities and equipment that relate to sports and other recreational activities, and eight main components create the standardization.

**Table 2.** BS EN 1176 Standardization of children's playground equipment & surfacing

1. General safety requirements and test methods
2. Additional specific safety requirements and test methods for swings
3. Additional specific safety requirements and test methods for slides
4. Additional specific safety requirements and test methods for runways
5. Additional specific safety requirements and test methods for carousels
6. Additional specific safety requirements and test methods for rocking equipment
7. Guidance for installation, inspection, maintenance and operation
8. Additional specific safety requirements and test methods for spatial networks

In Turkey, the standardization of playgrounds has been determined by the Turkish Standards Institute. TS EN 1177 standardization specifies the standardization of impact-reducing playground floor layouts and determinations of critical fall heights. TS EN 1177-1 standardization introduced standards for general safety rules and test methods alongside playground components and ground rules.

### International Organization for Standardization (ISO) & Risk Management

Risks affecting corporations can impact financial performance and professional reputation, as well as having environmental, safety, and social consequences. Therefore, managing risk efficiently helps corporations to perform well in an unpredictable environment. ISO 31000:2009, Risk management – Principles and guidelines, provides principles, a framework, and a process for managing risk. It can be used by any corporation regardless of its size, activity, or sector. Using ISO 31000 can help corporations increase the probability of achieving their objectives, better determine opportunities and threats, and effectively distribute and use resources for risk treatment. While ISO 31000 cannot be used for authentication purposes, it does provide guidance for inner or outer inspection schedules. Corporations taking advantage of it can compare their applications of risk management with an internationally recognized benchmark, providing sound principles for effective management and corporate governance (<https://www.iso.org/iso-31000-risk-management.html>).

**Table 3.** ISO Standardizations of sports and other recreational facilities and equipment and risk management

	Published ISO standards	ISO standards under development	Participating members	Observing members
ISO/TC 83 – Sports and other recreational facilities and equipment	76	32	22	24*
ISO/TC 262 – Risk management	3	3	53*	17

\*Membership of Turkey (Table 3 is created from data retrieved from [www.iso.org](http://www.iso.org)).

**Table 4.** Ten steps to risk assessment and developing a risk management plan

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| <ol style="list-style-type: none"> <li>1. Make a commitment as an organisation to risk management</li> <li>2. Identify possible threats and risks</li> <li>3. Assess the level of each risk</li> <li>4. Decide to accept or treat each risk</li> <li>5. Determine treatment options for all unacceptable risks</li> <li>6. Formalise your risk management plan</li> <li>7. Implement your treatment options</li> <li>8. Communicate information to everyone affected</li> <li>9. Review your risk management plan</li> <li>10. Identify any new risks and update your action plan</li> </ol> |
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Government of South Australia Office for Recreation and Sport (2016).

### Application of Risk Management in Park and Recreational Activities

The aim of risk management in recreation is to protect the recreation corporation's proprietorship (field, building, facility, etc.), the income of the recreational corporation, and the recreational corporation's reputation (coach, athlete, spectator etc.) (Cobanoglu, 2008). The procedure of risk management can be applied as part of a best practice management system within the sport and leisure sector (Fuller & Drawer, 2004). The classification of risk management in sports and recreational activities is as follows:

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| <ol style="list-style-type: none"> <li>1. Risk management in activities</li> <li>2. Risk management in injuries</li> <li>3. Risk management in facilities and equipment</li> <li>4. Risk management in insurance and finance</li> <li>5. Risk management in sports branches</li> </ol> |
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(Yilmaz, 2013).

### Results, Conclusions and Recommendations

Nearly 25% of adolescents reported at least one recreational injury. Injuries were mostly minor, mainly soft tissue trauma and skin abrasions (Grimmer et al., 2000). Local governments need to produce effective policies to ensure that sports services are organized to promote sports, and for the adoption of use by the public (Ucar, 2014). Designs that allow parents and children to socialize and at the same time take into account climatic characteristics should be prioritized (Uysal, 2015).

### Risk Management in Park and Recreational Activities

Basically, there are four main sources of risk in park and recreational activities and these risk factors relate to facilities, equipment, programs and human safety. In terms of a risk management approach, park and recreational activity corporations should analyze four key management areas: finance management, insurance management, facility management, and injury management (Yilmaz, 2013).

The risk management of park and recreational activities should consist of four basic processes: planning, identification, evaluation, prevention, and control. The aim of the risk management of park and recreational activities should be: identifying the risks associated with the goals of the corporation, controlling the most critical risks first, ensuring a detailed understanding of the impact of those risks on the success of the corporation, and prioritizing the risks.

Heat cramps, heat tiredness, and heat stroke can occur during physical activity due to increased body temperatures in hot and humid environments, and are health problems that have frequently occurred in recent years in park and recreation contexts. Because of this fact, injuries may occur which may lead to death, although this occurs only rarely (Armstrong et al., 2007). Cardiac problems are the most common causes of death during recreational activities (Fornes & Lecomte, 2003). The risk plan for possible first aid interventions in such cases should include education programs covering personal health information, the use of personal protective equipment, the cleaning of pathogenic soils and materials, the safe removal of pathogenic materials from environment, proper hand washing and drying techniques, and vaccination. Risk management plans should also include medical examinations, proper activity programs, and the availability of emergency intervention teams. The main components of treatment plans for the ill and injured should be: to note symptoms of the illness, to engage an emergency health team, to monitor liquid intake and temperature, to provide sufficient clothing, and to help the ill/injured acclimatize, as well as the implementation of preventive approaches. Weather conditions can sometimes be life-threatening during sport and outdoor activities such as camping,

hiking, cycling, fishing, and climbing, especially in open areas. Natural disasters that may occur, such as storms, landslides, snowslides, floods, and hail, may result in loss of life (Twigg, 2004). The main components of the risk management plan for these situation include education about weather conditions, the engagement of an intervention team, and the monitoring of timing, location, nature, and equipment.

The necessity of wearing appropriate clothing and having the appropriate equipment for the activities needs to be constantly emphasized (Luke & Micheli, 1999). Tools and equipment used in parks and recreational activities must be of good quality and robust. The walls around the area where the activity is held should be covered with protective and soft material (Frosdick & Walley, 2010). The grounds of sporting areas should have the most efficient structure and should be well planned. There should be no tools or obstacles in the area of activity that could jeopardize safety. Additionally, slippery floors increase the risk factor of lower extremity injuries and should be avoided (Piekarz et al., 2015).

The most common, contemporary and least expensive method of transferring risk is to take out insurance. There are various types of insurance that should be considered by recreational corporations. The first is liability insurance. There are various classes covered by liability insurance, including: public liability insurance, occupational liability insurance, manager and responsible liability insurance, and association liability insurance. The second is income protection insurance, including: workers' compensation insurance, personal accident insurance, participant insurance, and travel insurance. The third is insurance for the protection of assets. Other insurance types that might be considered by recreational corporations are cancellation and abandonment insurance, natural disaster insurance, private emergency insurance, tax audit insurance, and legal expense insurance (Yılmaz, 2013).

Participation of Turkey in ISO/TC 262 – Risk management indicates that Turkey recognizes the importance of risk management, actively participates in the ISO technical committee and applies the standardizations of risk management. However, the application of ISO/TC 83 – Sports and other recreational facilities and equipment standardizations is still being observed by ISO in Turkey. The application of ISO/TC 83 standardizations would contribute to further investments in risk management, resulting in reduced risk factors.

Regarding the diversity of types of activities associated with park and recreation management, priority should be given to the risk factors that may be encountered in the planning process of the facilities. These include: location selection, climatic conditions, landscape and architecture, transportation, and users' expectations. Therefore, expectations should be taken into account, especially the attendance of the participants in the physical activities, as well as specific and general risk factors that different age groups may encounter in the same field of activity.

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