Original Article

The participants' venture degree in the swimming pools in Thessaloniki and the differences between the age groups and their frequency of attendance

LEFKOTHEA TSEVAIRIDOU¹, OURANIA MATSOUKA²

^{1,2}Department of Physical Education and Sport Science, Democritus University of Thrace, GREECE.

Published online: March 25, 2014

(Accepted for publication March 15, 2014)

DOI:10.7752/jpes.2014.01014;

Abstract:

The risk management constitutes the central core of strategic management of each institute. The aim of the present research was the examination of degree of venture that the participants feel in 8 swimming pools in the prefecture of Thessaloniki. More specifically, the aim of the present research was to examine how the age of the participants and the frequency of attendance of the participants influence the human resources, the context and the organisation of the activity which define the factors of degree of venture. The sample of the research constituted of 191 participants of which 80 were men and 111 were women at the age of 18 till to 55 years old, in the 8 swimming pools of the prefecture of Thessaloniki. In an effort to investigate the specific concern, the participants completed the questionnaire of "RISK ASSESSMENT in Physical Education - The Triangle Model", of Beaumont, Eve, Kirkby, Whitlam (1998). For the statistical data analysis was used SPSS 14. Through non parametric analysis Krustal Wallis H indicated statistically important effect of age on organisation and context, and also indicated with the same non parametric analysis statistically important effect on frequency of attendance on the human recourses and context.

Key words: risk management, recreation, safety, age..

Introduction

Over the last two decades, sport and recreation have changed. There has been a shift away from traditional sport with the emergence of many non- traditional sports and recreation. There are now many more opportunities for business and employment, as well as participation in sport and recreation (Australia and New Zealand Standards for Risk Management, 2009). While traditional sports give their place to new sports, more opportunities are created for the development of institutes not only in sports but also in recreation (<http://www.office of sport and recreation Tasmania, 1999>).

However, in companion with opportunity there is usually a risk. Changes in our society, sports and recreation have provided opportunities as well an increased exposure to risks which must be understood and managed by the basic principle of management (Appenzeller, 2005). Risks will always be part of our existence and are certainly an integral part of sports and recreation. As individuals and as part of a society we continually manage risks – sometimes consciously, often without realising it, but rarely systematically (Beech & Chadwick, 2004).

Recently, researchers have shown an increased interest in risk management. However, there has been no discussion about this topic in Greece in the field of the swimming pools.

The aim of this paper is to examine the degree of venture of the participants in the swimming pools of prefecture Thessaloniki in time of free exercising. More specifically, it was examined how the age and the frequency of attendance influence the degree of venture, which are the human resources, the context and the organisation of the activity factors.

Theoretical background

Delineating the concept of the triangle model

The systematic management of risks is now defined as a modern management tool to cope with an increasingly litigious environment. As the line between business and pleasure becomes increasingly blurred, as sports moves into the business arena, and as business thinking is now generally applied to sports and recreation operations, the sports and recreation industry must look closely at its risk management practices (Elliot, 2004).

The risk management constitutes the central core of strategic management of each institute. It is the progress with which each institute approaches methodically the dangers that are related with their activities, aiming at the achievement of the largest profit in each activity (Sandhu, 2004).

The risk continuum identifies the acceptable range of risks within which employees make decisions every day. Occasionally, there have been serious injuries and tragedies where the level of risk involved has gone beyond this acceptable range, reaching much higher levels of risk or danger. This is when harm is likely to occur. Extending danger determines the acceptable level of danger between the human resources of an institute, that take decisions daily, the context and the organisation of the activity. These high-risk situations usually arise when the level of forethought, anticipation or planning which is defined by the human resource, context and organisation of the activity factors, influence the balance of suitable challenge and acceptable level of danger (Beaumont, Eve, Kirkby & Whitlam, 1998).

Human factor and degree of venture

The human resources factor includes the personnel and the customers. The role of personnel not only evaluates if a situation is important but also determines and applies the essential precautions, in order to minimize the present dangers. Regarding the customers, they should be involved in their own safety, they should develop competence in movement, they should be confident in their movement activities, they should behave appropriately obeying to the rules, so as not to create risk situations and they should co-operate with the personnel for the smooth operation of the organization and the normal flow of the activity (Norfolk PE Teaching Competence Standards, 2010).

At Crystal Lake (1990), it is unclear when or how the drowning occurred; but the supervision arrangements were such that a student could have gone under and not resurfaced without anyone noticing. There were several supervisors watching a relatively large group of students in muddy water; each supervisor had, in effect, to watch the whole group. The deceased's absence was not noticed until dinner time. Several of the incidents demonstrate that a drowning will not necessarily be preceded by obvious signs or signals.

At Bibra Lake (1994), two lifeguards were specifically supervising a pool with an estimated 350 people in it; the lifeguard who first spotted a body on the bottom was at first uncertain if the person was playing or not, and went to get a colleague before initiating a rescue. The coroner found that lifeguards who claimed to be watching the pool were not.

In several of the cases discussed here, it is the impression that 'supervision' has been seen by lifeguards as comparable to what a teacher is expected to do on yard duty rather than what a professional lifeguard is expected to do. For non-professional lifeguards supervising organised activities (i.e. activities in which discrepant events will be relatively obvious because of the defined pattern of expected activity) the ratio of students to supervisors should also correspond to the maximum group size - two teachers watching 20 students is not the same as two separate groups of ten students each watched by a teacher.

Context and degree of venture

The context factor includes the equipment, the operation of a sport organization and the emergency plan. More analytically, the equipment and the clothing should be of an appropriate size to suit the age and ability of the individual, should be maintained regularly, should be inspected annually, should be checked for wear and tear, should be checked before use, should be used for the purpose it was designed, should be disposed off effectively when condemned and last but not least, should be stored safely. According to the operation of the institute, the constructional specifications must be met, so that the activity should be done safely. The emergency plan includes safe practice, risk assessment, regular and approved practice, accidents and emergencies, portfolios of records such as medical, individual needs, assessment and attendance (Whitlam, 2005).

Organisation of activity and degree of venture

The third factor, that defines the degree of venture, which can influence the balance between suitable challenge and an acceptable level of danger, includes organisation of the activity and it is analyzed in the organisation, in the style of teaching and in the preparation of action (East Sussex County Council, 2010). The preparation involves detailed and differentiated schemes of work, a clear lesson plan, and an adequate warm-up based on safe exercise principles suitable for the age and the experience of the individual. The style of teaching, class management and organisation of the activity should ensure that the ability of the participants matches with the objectives of action and the models of the athletic education offer complete and authentic experiences. Moreover, it will be ensured that the tasks match the participants capability, methodology is appropriate to the risk issues within the activity, progressive practices enable improvement to occur, participants are involved in the learning of these progressive practices, participants are matched according to size, experience, ability and confidence, and last regular and approved practice is followed (East Sussex County Council, 2010).

Even a broad understanding of the circumstances in which fatalities have occurred in the past may contribute to reducing future fatalities. However, many of the above incidents could have been prevented if supervisors or others close to the incident had specific knowledge. Obtaining that knowledge may be a matter of relatively simple checking, but may also require extensive relevant experience.

The confrontation of such dangers requires the growth of total approach or system which should examine the causes of challenge of injuries or tragedies, as well as the ways or the methods that should be applied for the control and the confrontation of these dangers (South Africa Sports Commission, 2002). However, this requires the existence of frequent inspection and control in the all functional and organisational elements of an institute (human resources, installations, equipment, programs, style of teaching etc.), so as the injuries or tragedies should be eliminated immediately and effectively (South Africa Sports Commission, 2002).

Objectives of the study

The objectives of the study were set as it follows:

1. To record and evaluate the degree to which the age groups of the participants can influence the degree of venture that the Greek participants feel in the swimming pools in Thessaloniki.
2. To record and evaluate the degree to which the frequency of attendance of the participants can influence the degree of venture that the Greek participants feel in the swimming pools in Thessaloniki.

Method

Greek participants in 8 swimming pools in Thessaloniki participated in the study. The data were collected by the researcher, who distributed the questionnaires during March 2011- September 2011. Two hundred questionnaires were distributed in general and a total of 190 (N= 190) were returned.

Instrument development

To measure the degree of venture in swimming pools, the questionnaire which was developed by Beaumont, Eve, Kirkby και Whitlam (1998) was employed. It is consisted of three factors: human resources, (2 items, employee and participants), context (4 items, equipment, operation, transport and emergency plan) and organisation of activity (3 items, teaching style, preparation and organisation), all of them 76 questions, using a 3- point Likert scale anchored by strongly agree (1), no opinion (2) strongly disagree (3) and 2 open questions.

This questionnaire was subjected to the critical analysis of another three expert judges in the field (Democritus University of Thrace, Greece). They were asked to comment on the relevance of the items on the concept of the degree of venture which human resources, the equipment and the organisation of the activity are influenced by age and the frequency of attendance. There was a change in the number of the questions as the item transport was omitted because it couldn't be applied in Greek data.

A small pilot study was conducted among 30 people who were customers in the swimming pools in Thessaloniki. The aim of this pilot study was to test aspects related to the face validity (comprehension) of the scale.

Reliability of measuring instrument

Reliability addresses the consistency of results. It is mostly measured by Cronbach's alpha, which is an indication of internal consistency and the degree to which items are homogeneous (Cooper and Emory, 1995; Saraph et al., 1989). The value of Cronbach's alpha was computed for each factor. Computations were carried out on the SPSS software. Cronbach's alpha was 0.62 for the human resources, 0,71 for equipment and it was 0.78 for organization.

Results

A preliminary analysis of the demographic characteristics of the sample showed that 41.9% of the respondents were males, whereas 58.1% were females. Regarding their age 23.6% was 18-24 years old, 31.9% between 25-34 years old, 25.1% between 35-44 years old, 12.0% between 45-54 years old and 7.3% was the age group 55 and above.

Using the Kolmogorov Smirnov test we found that the data were not normal so we performed the nonparametric Kruskal- Wallis test. Via the Kruskal- Wallis H test, one way analysis of variance, the age groups were examined to find differences with the factors of venture which are the human resources, the context and the organisation. There was a statistically significant difference between the age groups and the organisation and between the age groups and the context $\{X^2= 14.305, p< .05, X^2= 12.628, p< .05\}$, but no significant differences were found between the age group and the human resources $\{X^2= 9.312, p> .05\}$. Further analysis showed that, there was a statistically significant difference for the organisation factor between the age group 18- 24 $\{M= 1.78 \pm 0.49\}$ and the age group 25- 34 $\{M= 1.60 \pm 0.38\}$, between the age group 18- 24 $\{M= 1.78 \pm 0.49\}$ and the age group 45- 54 $\{M= 1.51 \pm 0.43\}$, and between the age group 18- 24 $\{M= 1.78 \pm 0.49\}$ and the group 55 years old and up $\{M= 1.39 \pm 0.29\}$. All the results are presented in figure 1.

Fig. 1 Means of the participants on the 18-24 age groups about the organisation.

Similarly, there was a statistically significant difference between the age group 35- 44 { $M= 1.67 \pm 0.35$ } and the age group 45- 54 { $M= 1.51 \pm 0.43$ } and between the age group 35- 44 { $M= 1.67 \pm 0.35$ } and the group 55 years old and up { $M= 1.39 \pm 0.29$ }. All the results are presented in figure 2.

Fig. 2 Means of the participants on the 35-44 age groups about the organisation.

As for the context factor there was a statistically significant difference { $Z= 2.071$, $p< .05$ }, between the age group 18-24 { $M= 1.79 \pm 0.55$ } and the age group 45-54 { $M= 1.58 \pm 0.29$ }. Moreover, there was a statistically significant difference { $Z= 2.821$, $p< .05$ } between the age group 18-24 { $M= 1.79 \pm 0.55$ } and the age group 55 years and up { $M= 1.38 \pm 0.28$ }. Similarly, there was a statistically significant difference { $Z= 2.727$, $p< .05$ } between the age group 35-44 { $M= 1.75 \pm 0.49$ } and the age group 55 and up { $M= 1.38 \pm 0.28$ }. All the results are presented in figure 3.

Fig. 3 Means of the participants on the age groups about the context.

The Krustal Wallis H test was performed aiming to examine the differences among the frequency of attendance and the factors of venture which are the human resources, the organisation and the context. There was a statistically significant difference among the frequency of attendance and the human resources $\{X^2 = 10.879, p < .05\}$, and among the frequency of attendance and the context $\{X^2 = 8.146, p < .05\}$, but there were no significant differences found among the frequency of attendance and the organisation $\{X^2 = 4.016, p > .05\}$. More analytically, there was a statistically significant difference for human resources factor $\{Z = 2.682, p < .05\}$ between the customers who came 4-6 times per week $\{M = 1.63 \pm 0.30\}$ and between the customers who came every day $\{M = 1.75 \pm 0.28\}$. Moreover, there was a statistically significant difference $\{Z = 2.107, p < .05\}$ between those who came 4-6 times per week $\{M = 1.63 \pm 0.30\}$ and those who came once a week $\{M = 1.73 \pm 0.36\}$. There was a statistically significant difference $\{Z = 2.388, p < .05\}$ between those who came 4-6 times per week $\{M = 1.63 \pm 0.30\}$ with those who came 2-3 times per week $\{M = 1.68 \pm 0.27\}$. All the results are presented in figure 4.

Fig. 4. Means of the participants on the frequency of attendance about the human resources factor.

As for the context factor there was a statistically significant difference $\{Z = 2.451, p < .05\}$ among those who came 4-6 times per week $\{M = 1.58 \pm 0.35\}$ and those who came once a week $\{M = 1.83 \pm 0.52\}$. All the results are presented in figure 5.

Fig. 5 Means of the participants on the frequency of attendance about the context.

Discussion and conclusions

The major theme of the study was to examine how the age of the participants and the frequency of attendance influence the factors of degree of venture which are the human resources, the context and the organisation of the activity.

One of the most significant findings to emerge from this study regarding the age of the participants was the difference either for the human resources or the variable organisation. These results converge with the results of a corresponding research, on Water Safety New Zealand (2008), in which, historically, the age-related category of the 15-24 year olds presents the bigger percentage of fatal incidents of drowning a percentage of 18%. This can be justified from the fact that people between 15-24 years old are more daring and reckless. According to Howland, Hingson, Mangione Bell and Bak (1996), “testosterone can... contribute to the highest rates of drowning between men from the end of puberty and the first years of adulthood”. It is also known that between the ages of 15- 24 the hemisphere of the brain of an individual undergoes important changes. These changes in cross-correlation with the characteristics of an individual influence the capability of perception and behaviour when there is danger (McAnarney, 2008). The second major finding regarding the frequency of attendance was the difference either for the human resources or the variable organisation. The fact that extensive studies that would research the frequency of attendance of the participants in the swimming pools do not exist is unfortunately remarkable. However, the elements that exist prove that in Holland 88 millions of individuals annually, with the percentage of 78%, visit the swimming pools for recreation. In Austria, the percentage of individuals that visit the swimming pools corresponds to 38% of total population, that is to say 3.157, 900 people, from the age of 15 years and up. This research will serve as a base for future studies especially in Greece. Furthermore, the empirical findings from this study make several contributions to the current literature.

References

- Appenzeller, H. (2005). *Risk Management in Sport Issues and Strategies*. Durham, North Carolina: Carolina Academic Press.
- Australia/New Zealand standards 4360. (2009). *Risk management: standards australia*.
- Beamont, A., Eve, K. Kirkby, E. & Whitlam, P. (1998). Safe practice in physical education and school sport. http://www.wrexham.gov.uk/assets/pdfs/sports_development/pe_school_sports/safe_practice_pess.pdf. retrieved on 2 may 1998.
- Beech, J. & Chadwick, S. (2004). *The Business of Sport Management*. England: Pearson Education Limited.
- East Sussex County Council. (2010). *PE and School Sport Team East Sussex County Council*.
- Elliot, D. (2004). Risk Management in Sport. In Beech, J. and Chadwick, S. (ed.) *The Business of Sport Management* pp. (414-430). England: Pearson Education Limited.
- Howland, J., Hingson, R., Mangione, T. W., Bell, N. & Bak, S. (1996). Why are most drowning victims men? Sex differences in aquatic skills and behaviour. *American Journal of Public Health*, 86(1), 93-96.
- McAnarney, E.R. (2008). Adolescent brain development: forging new links? *The Journal of Adolescent health*, 42(4), 321-3.
- Norfolk PE Teaching Competence Standards. (2010). *Norfolk County Council Presentation*.
- Sandhu, M.A. (2004). Business process development in project-based industry, *Business Process Manager Journal*, 10(6), 673–690.
- South Africa Sports Commission. (2002). *Education and Training in Sport, Recreation and Facility Management*. Centurion: Jacaranda Education.
- Water Safety New Zealand. (2008). About Swim for Life. . <http://www.swimforlife.org.nz/aboutsfl.htm>. Retrieved on 8December 2008