

## **Awareness of Managing Sport Risks: Perspectives of Coaches and Physical Educators in Ghana**

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**Abstract:** *The purpose of the study was to examine coaches and physical educators' sport risk management awareness in Ghana. Participants included 49 coaches and 65 physical educators (N = 114). They completed the Managing Sport Risk Questionnaire (MSRQ) consisting of a 39-item 5-point Likert scale. The MSRQ consisted of eight subscales: warning of risks (WR), emergency action plan (AP), providing safe facilities (SF), providing safe transportation (TR), personnel and training (PT), safe equipment (SE), documentation (DC), supervision and instruction (SI). The MSRQ had a Cronbach's alpha of .926. The questionnaire was administered once. Frequencies and percentages were used to describe participants' sport risk management awareness. Independent t-Test analyses were computed to determine the differences between coaches and physical education teachers' sport risks management awareness. Results indicated that overall, 63.27% and 70.77% of coaches and physical education teachers had high levels of awareness of sport risk management respectively. In addition, most coaches (81.63%) and physical education teachers (89.23%) exhibited high levels of sport risk management awareness in PSI. The ratings of awareness among males and females were similar.*

**Keywords:** *Coaches, Ghana, physical education, risk management, sports law, teachers.*

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### **I. Introduction**

The greatest number of lawsuits brought against organizations that provide sport or recreational opportunities are based on negligence leading to injury of participants or spectators [1]. In sports, physical education teachers and coaches are the employees in direct contact with the participants and are, therefore, often the people in the organization most likely to be negligent [2, 3]. Therefore, it is vital that coaches who work directly with the participants be familiar with risks and know how to reduce the possibility of injury to athletes.

To provide reasonably safe education and sport programs that limit injuries is an important goal for school principals/headmasters [4]. Principals/headmasters and leaders of sport programs do this through managing the risks of injury and the resulting legal and financial impacts of injuries to the school or organization. Risk management has been defined as "a course of action designed to reduce the risk (probability or likelihood) of injury and loss to sport participants, spectators, employees, management and organizations" [5:46].

The process of risk management includes recognition of the risks, analysis of the risks and action taken [5]. Identifying the likelihood that a problem with the facility, equipment or way the sport activity is conducted could lead to injuries is the first step of recognizing the risk. After the risk has been identified, analysis of the potential frequency and severity of the risks helps coaches, educators, and administrators to be able to determine the best approach to take to deal with the risk. The development of a plan of action through policies and procedures is the final step before implementing the plan [5]. Implementing the plan includes communicating the plan, providing training for employees, and managing the plan [6].

When individuals have been injured in high school sport programs, they often file charges of negligence against school personnel that they unintentionally failed to act as a reasonably prudent professional would act which led to the injury. Four elements must be proven for school officials to be held liable for negligence: duty, breach of duty, proximate causation, and damages [1]. Scholars [7] have identified 14 legal duties for coaches and administrators in interscholastic sports programs. These duties include: duty to plan, duty to supervise, duty to assess and athlete's physical readiness and academic eligibility for practice and competition, duty to maintain safe playing conditions, duty to provide proper equipment, duty to instruct properly, duty to match athletes, duty to provide and supervise proper physical conditioning, duty to warn, duty to ensure that athletes are covered by injury insurance, duty to develop an emergency response plan, duty to provide proper emergency care, duty to provide safe transportation, and duty to select, train, and supervise coaches. Similarly, legal action against physical education teachers often involves supervision, instruction, equipment, facilities and emergency [3]. Effective risk management involves institutional practices that deal with these legal duties in the conduct of sport programs.

### **High School Sport Risk Management Practices**

Previous research has examined the practices used in high schools to manage sport risks [4, 8]. One study [4] examined the practices of high school principals in the United States by surveying 445 principals in the state of Iowa. A 40-item 5-point Likert scale was used to determine how much the principals used 20 specific risk management behaviors. The high school principals rated themselves well (means above 3.5 on the 5-point scale) on most items related to sport programs [4]. There was a statistically significant difference between principals of the largest schools and the smallest schools. Principals at larger schools rated themselves higher on providing safety clinics to keep coaches up to date than those at smaller schools. Conversely, small school principals reported determining that safe transportation is provided to events, determining that coaches use accepted coaching techniques, and determining that "school-owned vehicles or privately contracted transportation services are used to transport athletes to out of town contests" [4:58]. The study concluded that high school principals were aware of their legal duties and acted to meet those legal duties [4].

Athletic Directors are more directly involved in the daily operations of the sports programs than high school principals and have been found to rate themselves highly in the areas of providing safe transportation, equipment, warnings and transfer of risk, crowd control and spectator safety, facilities, supervision and hiring and training of personnel (means above 3.5 on a 5-point scale [8]). Athletic Directors appear to be aware of their legal responsibilities. Furthermore, [8] found that Athletic Directors with sport related education scored higher than those who came from other educational backgrounds. It appears that education influences the behaviors of those responsible for safe sport programs.

In 1998, there were 36 states in the United States that had passed legislation requiring some sort of coaching education for coaches National Federation of State High School Associations ([NFSHSA] [9]). The coaching certification programs developed in the United States through the National Federation of State High School Associations (NFSHSA) includes risk management. While some form of coaching education has only recently been required in the United States, physical education teachers have had more structured preparation. Physical Education teacher education programs provide training in risk management and safety in a variety of ways [10]. These methods may include assigned textbook chapters on risk management, lesson plan assignments, peer teaching assignments, videotapes of teaching, and observation of experienced teachers [10]. Researchers [11] advocate having physical educators evaluate their programs regularly using a risk management inventory so that beginning teachers are able to observe and model safe practices.

### **Sport Risk Management Practices in Ghana**

The actions or behaviors of high profile coaches have dominated the sports media and public attention in Ghana to the extent that their approach to coaching is perceived as the standard or barometer for measuring the behaviors of other coaches irrespective of the level at which they operate. This often leads to coaches, parents, administrators, sport media and sport system builders confusing the work of the elite coach, who is charged with preparing high level sports persons for intense competitive environments with that of the sports coach or physical education teacher who is engaged primarily with the youth at the grassroots level [12]. While all children and young people involved in sport should be encouraged to develop their talent, they should also be part of a safe, rewarding and broader developmental sport. The youth coach is crucial in helping children and young people access this type of experience.

The physical education and sports coaching programs in Ghana are designed to produce high level manpower for both public and private organizations that need services of physical educators and coaches of selected sports disciplines. The main goal of these two programs is to provide students with scientific principles and concepts to understand, identify and analyse various approaches and methods of teaching and/or coaching (both theory and practice), as well as to evaluate the risks associated with the tasks of teaching and performance (University of Education [13]). The programs also equip students with the knowledge and skills in psychology, philosophy, science of human movement, management principles and event management among others. Some of the critical areas of training are in disability sports management, prevention and management of sports injuries, risks management, legal aspects of physical activity and sports ethics. For example, in risk management, attention is focused on financial risks, operational risks and personal risks. Upon completion of any of the programs, successful candidates do not only gain considerable insight into higher level subject matter of physical education or sport coaching but also acquire a much higher appreciation of the numerous managerial, psychological and sociological factors affecting teachers and coaches. It must be noted that because of scarcity of personnel, educational institutions do not make distinction between physical education and sports coaching personnel, using them interchangeably. Therefore, the kind of training being given at the undergraduate level is to prepare the physical educator, especially, to be able to coach in many sports disciplines at the youth level as well.

Candidates who access the physical education and sports coaching programs of the university include teachers from the Colleges of Education, teachers handling School Physical Education activities at the Basic and

Secondary Schools, teachers handling School Hygiene activities in the Basic Schools, personnel from Security Services (Armed Forces, Police Service, Fire Service, Prison Service, Ghana Revenue Authority and Immigration Service), technical personnel from sports academies and retired sports performers. After graduation, majority of them return to the organizations that sponsored them either through study leave or leave of absence to pursue further studies. Physical education teachers are posted (placed) by the Ghana Education Service to Senior High Schools, Colleges of Education, Polytechnics, and District/Regional Physical Education and Sports Departments. The sports coaches are absorbed mostly by public or private sports organizations, university athletic departments and the National Sports Authority.

Physical educators and coaches in schools, colleges and polytechnics have two major responsibilities: teaching of physical education and organizing intramural/extramural sports competitions. At the secondary education level, Zonal, District, Regional and National sports competitions are the major extramural activities organized by the Regional and National Schools and Colleges Sports Associations for Basic and Secondary Schools in selected sports disciplines [14]. All schools are obliged to participate, beginning from the zonal level to the bi-annual national championships. Sports activities at this level are supervised by physical education teachers and coaches in the District and Regional offices of the Ghana Education Service. In large educational communities, schools are categorized into zones and some coaches and physical education teachers are appointed as zonal physical education and sports coordinators to supervise and coordinate the work of those teaching or coaching in schools in their assigned zones. Extensive travelling (with and without youth athletes) is involved working in schools accompanied by some physical, financial, ethical and legal risks, requiring constant evaluation of the low-probability risks that often have potential to create negative impact on the image of an institution.

Physical education teachers and coaches in the 40 Colleges of Education institutions in the country have a dual responsibility to teach physical education as a requirement for graduation at this level. They also have the responsibility to organize both intramural and extramural games for students. The Colleges of Education Sports Association (COESA) [14] organizes bi-annual national competitions in selected sports disciplines and physical education teachers and coaches in these colleges have an additional responsibility to assist in preparing athletes for the sports festival. There are 10 Polytechnic Institutions in the country and coaches in these institutions are responsible for planning and organizing intramural and extramural games activities for students as well as assist in the organization of bi-annual sports competitions for Polytechnics under the auspices of the Ghana Polytechnics Sports Association (GHAPSA) [14].

Graduates of the Physical Education and Sports programs of the university who are trained for the security services are responsible for the physical and sports training of military personnel in military barracks. They are responsible for planning and organizing intramural sports competitions under their various command units and preparing athletes for the national Security Services Sports Association (SESSA) Games (Baba, 2009) [15]. The risk factors in these categories are minimal because of the maturity level of the athletes. The role of coaches is mainly to determine whether adequate controls have been put in place to effectively mitigate potential risks.

As part of the learning process, sport coaches and physical educators in Ghana are encouraged to allow children some latitude to explore, within reasonable limits of risk, with improvised facilities and equipment especially in the process of skill acquisition. However, little is known about their sport risk management practices. Therefore, the primary purpose of the present study was to examine the extent to which Ghanaian coaches and physical educators were familiar with managing sport risks. An understanding of their sport risk awareness would help sport administrators and physical education educators better prepare coaches and teachers to provide appropriate and safe sport experiences.

## **II. Method**

### **Participants**

Participants for the study included 49 coaches and 65 physical educators (n = 114) from Ghana. The sample was made up of 85% males and 15% females. The highest level of education attained by participants were: certificate (11.5%), diploma (32.7%), bachelor's degree (44.2%), master's degree (6.2%), and other (5.3%). They had working experience ranging from one to 33 years (M= 7.22; SD= 5.53).

### **Instrument**

The study used the Managing Sport Risk Questionnaire (MSRQ) consisting of a 39-item 5-point Likert scale. The MSRQ was developed from a review of the literature on risk management and legal duties of care in athletics and physical education [3, 11]. The MSRQ consisted of eight subscales: warning of risks (WR), emergency action plan (AP), providing safe facilities (SF), providing safe transportation (TR), personnel and training (PT), safe equipment (SE), documentation (DC), supervision and instruction (SI). Participants indicated the extent to which they agreed or disagreed to each of the 39 statements by selecting the appropriate box for

strongly disagree (1) to strongly agree (5). A rating of 5 or 4 represented a high level of sport risk awareness, while a rating of 2 or 1 for an item meant a low level of awareness. The MSRQ had a Cronbach's alpha of .926. The questionnaire was administered once.

**Data Analysis**

Descriptive data were computed across the whole sample for the entire scale and for each subscale. First, the authors calculated the percentages of coaches and physical educators with high, moderate and low levels of sport risk management awareness for each subscale and the entire scale. Cut-off points for the MSRQ (on a 5-point scale) were 3.50-5 (high), 2.50-3.49 (moderate), and 1-2.49 (low). Second, the means and standard deviations for each subscale and the entire scale were computed for coaches, physical educators, and males and females. Differences in sport risk management awareness between these various sub-groups were determined by using Independent t-Tests.

**III. RESULTS**

**Sport Risk Management Awareness Levels among Coaches and Physical Educators**

Table 1 shows data on the sport risk management awareness levels among coaches and physical educators. Overall, most of the coaches and physical educators perceived themselves to have moderate to high levels of awareness in sport risk management. However, a higher percentage of physical educators (70.77%) than coaches (63.27%) rated themselves as having high levels of awareness of sport risk management. Only 3.08% and 2.04% of physical educators and coaches indicated they had low levels of awareness respectively.

Table 2 presents data on the types of training that enabled coaches and physical educators to become familiar with potential sport risks. The table shows frequencies and percentages of coaches and physical educators for each source of education. Most of the coaches ((61.22%) and physical educators (63.08%) attributed their familiarity with potential sport risks to inservice training (professional development) programs provided by their organizations.

**Sport Risk Management Awareness and Gender**

Table 3 presents data on sport risk management ratings and gender. Results indicated that females (3.81) had a higher overall mean score than males (3.65). In addition, their mean scores for all the subscales, except SE, were higher than of their male counterparts. Furthermore, the highest mean score for males was in the PSI (4.11) followed by PT (3.80). Alternatively, their lowest mean score was in DC (3.30) followed by AP (3.36). Similarly, the highest rating for females was in PSI (4.32) followed by PT (3.90). The lowest mean score for females was DC (3.49) followed by AP (3.59). However, Independent t-Test analyses showed that the overall mean scores and those for all the subscales for males and females did not differ significantly. That is, the sport risk management awareness levels among males and females were similar.

**Sport Risk Management Awareness and Program Type**

Table 4 indicates data on sport risk management and program type. The overall mean scores for coaches (3.68) and physical educators (3.69) were similar. However, coaches' ratings for PT, SE, and PSI were higher than their counterparts in physical education. Conversely, the physical educators had higher ratings than the coaches in WR, AP, SF, TR, and DC. The Independent t-Test analyses, however, indicated that only the mean difference for PT was significant, while the others were not. Thus, there was a significant difference in the level of awareness among coaches and physical educators in Personnel and Training (PT). Coaches (3.98) had a higher mean score than physical educators (3.70).

**IV. Tables**

**Table 1:** Frequencies and percentages of coaches and physical educators with high, moderate, and low levels of risk management awareness

Subscale	Coaches (n = 49)			Physical Educators (n = 65)		
	High	Moderate	Low	High	Moderate	Low
Warning of risks	30 (61.22)	12 (24.49)	7 (14.29)	42(64.62)	18(27.69)	5(7.69)
Emergency Action Plan	20 (40.82)	22 (44.90)	7 (14.29)	36(55.38)	25(38.46)	4(6.16)
Duty to provide safe facilities	27 (55.10)	14 (28.57)	8 (16.33)	40(61.54)	20(30.77)	5(7.69)
Duty to provide safe transportation	34 (69.39)	15 (30.61)	0 (.00)	50(76.92)	12(18.46)	3(4.62)
Personnel and training	39 (79.59)	9 (18.37)	1 (2.04)	43(66.15)	14(21.54)	8(12.31)
Safe Equipment	32 (65.31)	14 (28.57)	3 (6.12)	45(69.23)	18(27.69)	2(3.08)
Documentation	25 (51.02)	15 (30.61)	9 (18.37)	34(52.31)	24(36.92)	7(10.77)
Supervision & Instruction	40 (81.63)	4 (12.25)	3 (6.12)	58 (89.23)	4(6.15)	3(4.62)
Overall Mean	31 (63.27)	17 (34.69)	1 (2.04)	46 (70.77)	17 (26.15)	2 (3.08)

**Table 2: Sources of sports risks education**

Category	Coaches (n = 49)		Physical Educators (n = 65)	
	Yes	No	Yes	No
Completed coaching certification program	21 (42.86)	28 (57.14)	30 (46.15)	35 (53.85)
Undergraduate coursework in sport law	20 (40.82)	29 (59.18)	31 (47.69)	34 (52.31)
Inservice training	30 (61.22)	19 (38.78)	41 (63.08)	24 (36.92)
Seminars or conferences	15 (30.61)	34 (69.39)	38 (58.46)	27 (41.54)
Other	7 (14.29)	42 (85.71)	0 (.00)	65 (100.00)

Frequency (Percentage)

**Table 3: Independent t-Test analyses for sport risk management and gender**

Category	Males (n = 96)		Females (n = 17)		t-Values	
	M	SD	M	SD	t	P
Warning of Risks	3.63	.83	3.73	.73	-.45	.655
Emergency Action Plan	3.36	.72	3.59	.55	-1.26	.210
Providing Safe Facilities	3.55	.79	3.76	.70	-1.04	.300
Providing Safe Transportation	3.72	.70	4.01	.73	-1.57	.120
Personnel and Training	3.80	.80	3.90	.68	-.51	.612
Safe Equipment	3.75	.72	3.67	.75	.43	.671
Documentation	3.30	.84	3.49	.79	-.83	.406
Supervision & Instruction	4.11	.77	4.32	.62	-1.09	.280
Overall Mean	3.65	.58	3.81	.49	-1.05	.297

**Table 4: Independent t-Test analyses for sport risk management and program type**

Category	Coaches (n = 49)		Physical Educators (n = 65)		t-Values	
	M	SD	M	SD	t	P
Warning of risks	3.64	.83	3.67	.82	-.18	.860
Emergency Action Plan	3.33	.76	3.45	.65	-.87	.388
Duty to provide safe facilities	3.53	.87	3.63	.70	-.65	.516
Providing safe transportation	3.70	.71	3.84	.72	-1.03	.307
Personnel and Training	3.98	.66	3.70	.85	1.87	.064*
Safe Equipment	3.78	.80	3.72	.67	.35	.724
Documentation	3.28	.89	3.39	.80	-.639	.524
Supervision & Instruction	4.17	.78	4.12	.74	.341	.734
Overall Mean	3.68	.58	3.69	.57	-.124	.901

\*p < .10

## V. Discussion And Conclusions

The current study examined the sport risk management awareness among coaches and physical educators in Ghana. The results indicated that most coaches and physical educators rated themselves as having high levels of sport risk management awareness in Supervision and Instruction (PSI). Their training in areas of responsibility which most directly impact athletes and students is therefore, high. This is consistent with [10] analysis of textbooks finding that all the textbooks included content on safe instruction. Physical educators and coaches have responsibility to provide instruction and realize they must do so in a safe manner.

The ratings of sport risk awareness among males and females were similar. Since both males and females receive the same training and have similar responsibilities, it is not surprising that there would be no significant differences by gender.

There was a significant difference in the level of awareness among coaches and physical educators in Personnel and Training (PT). Coaches had a higher mean score than physical educators. The items in this subscale include use of athletic trainers and membership in a coaching association which are less relevant to physical educators than to coaches. Individuals who teach physical education and organize intramural sports activities may be less likely to be aware of these items than those who are responsible for organizing extramural sports programs.

There were no significant differences in the other subscales, even though coaches had higher mean scores in Safe Equipment (SE) and Supervision and Instruction (PSI). Conversely, physical educators had higher mean scores in Warning of risks (WR), Emergency Action Plan (AP), Duty to provide safe facilities (SF), Providing safe transportation (TR), and Documentation (DC). Coaches may have responsibility for sports activities requiring specialized equipment than do physical educators. Physical educators may tend to work with younger children who are less aware of risks and therefore need more warning about the risks. Furthermore, the risk management process in most Ghanaian public schools and youth sports academies does not involve documentation (consent, waivers and release form) usually because physical educators and youth sports coaches

have to abide by the principle of *in loco parentis* [16]. They are made to understand, as part of their training, both their legal and social responsibility in their relationship with minors in order not to create a breach which will lead to legal liability. However, in the absence of quality facilities and equipment [17], physical educators especially are enjoined to improvise with available alternatives that may involve some minimum physical risk and therefore require close supervision at all times during practices or training.

Physical educators reported higher levels of sports risks education from coaching certification programs, undergraduate coursework in sports law, and seminars and conferences. While coaches may not always have the same level of formal training for their responsibilities, they have the same legal of responsibility. The deficiency in the area of coaching education is similar to what was reported by NFSHSA in the United States [9].

The highest levels of sport risks education for both coaches and physical educators was inservice training, with over 60% reporting they had inservice training. As certification programs and continuing education opportunities expand, it is vital that coaches and physical educators continue to be provided inservice training in risk management. Areas of particular need identified in this study are emergency planning and documentation.

Continuing education through inservice training of current coaches and physical educators is recommended. The levels of awareness reported by physical educators and their reported training through sports risks education shows that progress can be attained in making sport and physical education safer in Ghana.

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