

Coaches' Knowledge Of Practices Deleterious To Sports Performance In Nigerian Universities.

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Abstract

Coaches are responsible for training athletes in a sport by analysing their performances, imparting relevant skills, and providing encouragement. As such, in the game of sports, knowledge of coaches about practices that are harmful to an athlete's health or performance is critical. This study determined coaches' knowledge of practices deleterious to sports performance in Nigerian Universities. This descriptive research design comprised of a total of 41 sports coaches in south-eastern Nigerian Universities. A structured questionnaire on knowledge about practices deleterious to sports performance questionnaire was self-developed and was used to collect information from the participants. They checked for suitability of items, clarity of language, adequacy, and understanding. Irrelevant items were expunged from the questionnaire and their corrections and amendments were effected accordingly. The validated instrument was subjected to pre-testing and a coefficient of reliability of 0.8 was obtained which was sufficiently high to ensure the reliability of the instrument. Generally, 41.5% of coaches had a high level of knowledge about the different practices deleterious to sports performance while 41.5%, 12.2%, and 4.9% had moderate, low, and poor levels of knowledge respectively. Greater number of coaches had poor levels of knowledge on potentially dangerous exercise (48.8%). The reduced (moderate or lower) level of knowledge regarding practices that are harmful to sports performance demonstrated by a great number of coaches calls for a need for adequate sports safety education for all University coaches.

Keywords: sports performance; harmful practices in sports; knowledge of coaches

1. Introduction

Universities around the world are regarded as centers of excellence in all areas of human endeavor, including sporting activities. Today's Universities strive to aid University students' socialization and enhance education that goes over just pure academic knowledge to providing and encouraging sporting activities (Salman & Melih, 2012; Popeska et al., 2015). The majority of athletes who win medals for their countries are either undergraduates or fresh graduates (Jeroh, 2012a). This is because the University institution serves as a convening center for the country's sound and energetic young people, who can smoothly imbibe the proper approach to athletics and perform at their optimum levels at all times when driven. However, whether these supposed energy-filled and intelligent youths will excel and achieve excellence in sports depends largely on the leadership qualities and roles played by the University sports coaches. Therefore, the university sports coaches have to be knowledgeable in the sports they are coaching, in order to be on top of their coaching roles. Cassidy et al (2009) emphasised that good coaches have scientific and rational bases for their practices. For optimal performance of any coach, Szabo (2012) identified three essential fundamentals in a coach's knowledge: specialized knowledge which provides details, for example, about field and track events; general sports knowledge which deals with providing information such as the psychological, physiological and biomechanical aspects of sports; and then general knowledge that deals with the human way of life (including historical, geographical, scientific art, etc aspects). Hence, the contemporary technique of coaching is based on capability or competence which reflects on the implications of their coaching styles prior to the sporting activity, while the activity is underway, and when the activity is completed. Therefore, a sound coach should possess an adequate or acceptable knowledge base in the above-mentioned three broad areas, in order to impact meaningfully on the performance of the athletes. Performance can be defined as how well or badly one does something. Peak performance is that performance that transcends an individual's regular performance. In sports, peak performances frequently give rise to the athletes' best. Peak performance in sporting activities is the ultimate end, the joyous and catchy moment that athletes and coaches strive for in their quests for excellence. It is that height of optimal functioning when athletes have attained levels in which things move smoothly (Adedeye et al., 2013). More so, it is that magic moment when an athlete puts in his/her best, in all ramifications, making the performance superb and appearing to surpass ordinary levels of performance. Ohuruogu et al (2016) emphasized that improving athletic performance (to attain peak levels) should be the first target of every coach, and winning the final target. The coach is undoubtedly the designer, teacher, originator, and supplier of an athlete's experience in sports. Because of the coach's central role and the support they offer, they are in a position to exercise strong influence over the athletes' actions and attitudes (Dieffenbach et al., 2002). They guide the athletes towards attaining peak performance in sports. Schloder and McGuire (2007) noted that in this crucial position or capacity, the coach can affect an athlete's experience favourably or negatively, through competent or deleterious practices that are harmful and damaging to the players' careers or health. These practices include non-consideration of safe sport environment by coaches (Schloder & McGuire, 2007), use of harmful ergogenic aids or performance-enhancing drugs by athletes on overt or covert recommendation by the coach (Robinson, 2010), adoption of potentially dangerous exercises during training (Wendell et al., 2010), undue or premature return of injured athletes or players to sports by coaches (Miller, 2012), overtraining (Prentice, 2006), improper or not warming up or warming down (Schloder & McGuire, 2007). Despite the known adverse effects of these deleterious practices there is dearth of research to the best of the researchers' knowledge to establish coaches' knowledge on these deleterious practices. It is on this premise that the researcher embarked on this study to ascertain the knowledge about practices deleterious to sports performance among coaches in Nigerian Universities.

2. Methods

2.1 Study participants

This descriptive research design comprised of 41 sports coaches from Universities situated in Southeast, Nigeria, who are recognised by the sports units of the Universities.

2.2 Instruments

A structured questionnaire on knowledge about practices deleterious to sports performance questionnaire was self-developed and was used to obtain information from the participants. This questionnaire was designed through an extensive and thorough review of related literature. The instrument was reviewed and validated by three certified sports specialists for content and face validity. They checked for suitability of items, clarity of language, adequacy, and understanding. Irrelevant items were expunged from the questionnaire. Corrections and amendments were also effected accordingly. Initially, the questionnaire had 50 items. However, through the process of validation, the number of items increased to 85. The validated instrument was subjected to pre-testing using fourteen coaches from Delta State University, Abraka, and the University of Portharcourt, both in the south-south geopolitical zone of Nigeria. The coefficient of reliability obtained was 0.8; and this was sufficiently high to ensure the reliability of the instrument.

2.3 Procedure

Copies of the questionnaire were distributed to the participants by the researcher with the help of eleven research assistants who were trained in the research procedures. Questionnaires were distributed directly to the participants who were encouraged to complete the questionnaire on the spot for immediate collection. Those who could not complete theirs on the spot later did and sent them to the researcher through the research assistants. All copies of the questionnaires so administered and retrieved were properly checked for completeness before being used for analysis. Analysis was performed using the Statistical Package for Social Sciences (SPSS) version 23. Descriptive statistics of frequency and percentages were used to present the results.

3. Results

Out of the 41 participants, 25 were males while 16 were females. The knowledge of the participants about potentially dangerous exercises is shown in table 1. Out of all the participants, only 3 (7.3%) scored 70% and above and hence had a high level of knowledge of potentially dangerous exercise. Almost half of the coaches [20(48.78%)] had a poor level of knowledge about potentially dangerous exercise. Table 2 indicates that 24 coaches (58.5%) scored above 70% and hence had a high level of knowledge about premature returning of an injured player to play.

Table 1: Participants' knowledge about potentially dangerous exercise.

POTENTIALLY DANGEROUS EXERCISES	NUMBER OF PARTICIPANTS THAT INDICATED ‘TRUE’	NUMBER OF PARTICIPANTS THAT INDICATED ‘FALSE’	PERECNTAGE OF PARTICIPANTS THAT INDICATED ‘TRUE’	
ITEM 1	31	10	75.60%	
ITEM 2	32	9	78.04%	
ITEM 3	18	23	43.90%	
ITEM 4	15	26	36.59%	
ITEM 5	20	21	48.78%	
ITEM 6	24	17	58.54%	
ITEM 7	13	28	31.70%	
ITEM 8	15	26	36.59%	
ITEM 9	1	40	2.44%	
ITEM 10	4	37	9.76%	
ITEM 11	15	26	36.59%	
ITEM 12	14	27	34.15%	
ITEM 13	24	17	58.54%	
ITEM 14	23	18	56.10%	
ITEM 15	31	10	75.61%	
LEVEL OF KNOWLEDGE	44% AND BELOW (POOR)	45% - 54% (LOW)	55% - 69% (MODERATE)	70% AND ABOVE(HIGH)
NUMBER OF COACHES (PERCENTAGE)	20 (48.78%)	13 (31.71%)	5 (12.20%)	3 (7.32%)

Table 2: Participants knowledge about premature returning of injured player to play.

	NUMBER OF PARTICIPANTS THAT INDICATED ‘TRUE’	NUMBER OF PARTICIPANTS THAT INDICATED ‘FALSE’	PERECNTAGE OF COACHES THAT INDICATED TRUE	
ITEM 16	30	11	73.17%	
ITEM 17	26	15	63.42%	
ITEM 18	29	12	70.73%	
ITEM 19	33	8	80.49%	
ITEM 20	21	20	51.22%	
ITEM 21	26	15	63.42%	
ITEM 22	17	24	41.46%	
ITEM 23	26	15	63.42%	
ITEM 24	29	12	70.73%	
ITEM 25	35	6	85.37%	
ITEM 26	36	5	87.81%	
ITEM 27	30	11	73.17%	
ITEM 28	33	8	80.49%	
ITEM 29	30	11	73.17%	
ITEM 30	32	9	78.05%	
LEVEL OF KNOWLEDGE	44% AND BELOW(POOR)	45% - 54% (LOW)	55% - 69% (MODERATE)	70% AND ABOVE(HIGH)
NUMBER OF COACHES (PERCENTAGE)	5 (12.20%)	5 (12.20%)	7 (17.07%)	24 (58.54%)

Table 3 indicates that 35 coaches (85.4%) scored 70% and above and hence had a high level of knowledge about training in unsafe sports environment. Table 4 indicates that only 9(22.0%) scored 70% and above and hence had high level of overtraining of athletes. Greater number of the participants, [21(51.22%)] had moderate knowledge of overtraining of athletes.

Table 3: Participants knowledge about Training in Unsafe Sports Environment

TRAINING IN UNSAFE SPORTS ENVIRONMENT	NUMBER OF PARTICIPANTS THAT INDICATED ‘TRUE’	NUMBER OF PARTICIPANTS THAT INDICATED ‘FALSE’	PERECNTAGE OF COACHES THAT INDICATED TRUE	
ITEM 31	38	3	92.27%	
ITEM 32	37	4	90.24%	
ITEM 33	20	21	48.78%	
ITEM 34	32	9	78.05%	
ITEM 35	40	1	97.56%	
ITEM 36	38	3	92.68%	
ITEM 37	36	5	87.81%	
ITEM 38	33	8	80.49%	
ITEM 39	36	5	87.81%	
ITEM 40	33	8	80.49%	
LEVEL OF KNOWLEDGE	44% AND BELOW (POOR)	45% - 54% (LOW)	55% - 69% (MODERATE)	70% AND ABOVE (HIGH)
NUMBER OF COACHES(PERCENTAGE)	1 (2.44%)	1 (2.44%)	4 (9.76%)	35 (85.37%)

Table 4: Participants’ knowledge about overtraining

OVERTRAINING	NUMBER OF PARTICIPANTS THAT INDICATED ‘TRUE’	NUMBER OF PARTICIPANTS THAT INDICATED ‘FALSE’	PERECNTAGE OF PARTICIPANTS THAT INDICATED TRUE	
ITEM 41	39	2	95.12%	
ITEM 42	28	13	68.29%	
ITEM 43	7	34	17.07%	
ITEM 44	16	25	39.02%	
ITEM 45	32	9	78.04%	
ITEM 46	11	30	26.83%	
ITEM 47	18	23	43.90%	
ITEM 48	20	21	48.78%	
ITEM 49	29	12	70.73%	
ITEM 50	15	26	36.59%	
ITEM 51	27	14	65.85%	
ITEM 52	33	8	80.49%	
ITEM 53	23	18	56.10%	
ITEM 54	17	24	41.46%	
ITEM 55	34	7	82.93%	
ITEM 56	23	18	56.10%	
ITEM 57	31	10	75.61%	
ITEM 58	27	14	65.85%	
ITEM 59	27	14	65.85%	
ITEM 60	29	12	70.73%	
ITEM 61	37	4	90.24%	
ITEM 62	31	10	75.61%	
LEVEL OF KNOWLEDGE	44% AND BELOW (POOR)	45% - 54% (LOW)	55% - 69% (MODERATE)	70% AND ABOVE (HIGH)
NUMBER OF COACHES(PERCENTAGE)	4 (9.76%)	7 (17.07%)	21 (51.22%)	9 (21.95%)

Table 5 shows that out of the participants, 24(58.5%) had a high knowledge about not warming up during training session. Also, 24 (58.5%) scored 70% and above and hence, had high level of knowledge about not cooling down during training session (table 6).

Table 5: Participants' knowledge about not warming up before training

NOT WARMING UP BEFORE TRAINING	NUMBER OF PARTICIPANTS THAT INDICATED ‘TRUE’		NUMBER OF PARTICIPANTS THAT INDICATED ‘FALSE’	PERCENTAGE OF PARTICIPANTS THAT INDICATED TRUE
ITEM 63	36		5	87.81%
ITEM 64	39		2	95.12%
ITEM 65	33		8	80.49%
ITEM 66	21		20	51.22%
ITEM 67	27		14	65.85%
ITEM 68	10		31	24.39%
ITEM 69	29		12	70.73%
LEVEL OF KNOWLEDGE	44% AND BELOW (POOR)	45% - 54% (LOW)	55% - 69% (MODERATE)	70% AND ABOVE (HIGH)
NUMBER OF COACHES(PERCENTAGE)	8 (19.51%)	0 (0%)	9 (21.95%)	24 (58.54%)

Table 6: Participants' knowledge about not cooling down before training

NOT COOLING DOWN AFTER TRAINING	NUMBER OF PARTICIPANTS THAT INDICATED 'TRUE'	NUMBER OF PARTICIPANTS THAT INDICATED 'FALSE'	PERCENTAGE OF PARTICIPANTS WITH TRUE RESPONSE	
ITEM 70	40	1	97.56%	
ITEM 71	30	11	73.17%	
ITEM 72	16	25	39.02%	
ITEM 73	28	13	68.29%	
ITEM 74	37	4	90.24%	
ITEM 75	37	4	90.24%	
LEVEL OF KNOWLEDGE	44% AND BELOW (POOR)	45% - 54% (LOW)	55% - 69% (MODERATE)	70% AND ABOVE (HIGH)
NUMBER OF COACHES(PERCENTAGE)	1 (2.44%)	4 (9.76%)	12 (29.27%)	24 (58.54%)

Table 7 indicates that 32 (78.1%) scored 70% and above and hence had high levels of knowledge about the use of harmful ergogenic aids.

Generally, out of all the participants only 17(41.5%) scored 70% and above and hence had a high level of general knowledge about the various practices deleterious to sports performance. Also, 17, 5 and 2 coaches representing 41.5%, 12.2% and 4.9% scored 55 - 69%, 45-54% and 44% and below and hence, had moderate, low and poor levels of knowledge respectively.

Table 7: Participants' knowledge about the use of harmful ergogenic aids

USE OF HARMFUL ERGOGENIC AIDS	NUMBER OF PARTICIPANTS THAT INDICATED 'TRUE'	NUMBER OF PARTICIPANTS THAT INDICATED 'FALSE'	PERCENTAGE OF PARTICIPANTS THAT INDICATED TRUE	
ITEM 76	36	5	87.81%	
ITEM 77	32	9	78.05%	
ITEM 78	23	18	56.10%	
ITEM 79	30	11	73.17%	
ITEM 80	37	4	90.24%	
ITEM 81	31	10	75.61%	
ITEM 82	35	6	85.37%	
ITEM 83	32	9	78.05%	
ITEM 84	37	4	90.24%	
ITEM 85	33	8	80.49%	
LEVEL OF KNOWLEDGE	44% AND BELOW (POOR)	45% - 54% (LOW)	55% - 69% (MODERATE)	70% AND ABOVE (HIGH)
NUMBER OF COACHES (PERCENTAGE)	3 (7.32%)	2 (4.88%)	4 (9.76%)	32 (78.04%)

4. Discussion

This study determined the knowledge of practices deleterious to sports performance among coaches in south-eastern, Nigerian Universities. The practices that were investigated to determine the coaches' knowledge about them include: potentially dangerous exercises, premature return of an injured player to sports, training in an unsafe sports environment, overtraining, not warming up during training sessions, not cooling down during training sessions and the use of harmful ergogenic aids.

The findings showed that a large number of sports coaches had a poor level of knowledge about potentially dangerous exercises. This statistic is highly disturbing as coaches in University settings, a place considered a centre of excellence in all human endeavor (Jeroh, 2012a), are expected to possess the required skills and experience. A situation where over 90% of the coaches in universities have moderate or low knowledge about exercises that are potentially dangerous to their subjects is a serious cause for concern. This reduced level of knowledge about potentially dangerous exercises among the coaches which is observed in this study may be linked to the observed incidence of sports injuries which is on the rise and still has the tendency to grow exponentially (Semyon, 2008). The findings of this research agree with the reports of Schloder and McGuire (2007), who stated that coaches do not pay attention to the rules and guidelines while supervising exercises that are potentially harmful to the athletes. It is apparent that coaches having less or not having sound knowledge about potentially dangerous exercises will have their subjects or trainees more prone to injuries. An injured athlete can't perform and if such athlete is frequently or recurrently injured, they may quit sports entirely.

Though the majority of the participants had a high level of knowledge of returning an injured player to sports (58.5%), a great number (41.5%) had low to moderate levels of knowledge about returning an injured player. A cursory check or review of this report may make one believe that it is acceptable. However, considering the grievous consequences associated with the premature return of injured players to sports, such as impairment of skills, attention, speed, cognitive strategies, and most importantly, chances of reinjury (which may even result in permanent disability or death) (Prentice, 2006), one may realise that this finding is far from being satisfactory. The greater number of coaches in this study who had moderate to lower levels of knowledge about returning an injured player may have contributed enormously to the reported poor performance of Nigerian Universities at World University games (Amuchie, 2003; Jeroh, 2012a; Jeroh, 2012b).

The results indicate that a good number of coaches were knowledgeable about what an unsafe sports environment entail. This implies that they are knowledgeable of what it entails to keep the sports environment safe, and the harm or damage an unsafe sports environment can result in. This is encouraging even though knowledge about this does not guarantee its application. However, it still remains unclear why a satisfactory percentage of coaches had a high level of knowledge about training in unsafe sports environment even when this level of knowledge was not seen in other deleterious practices investigated. Perhaps, it may be due to the fact that most of the consequences of an unsafe sports environment are practical in nature and quick to manifest, hence leaving the coaches with no option but to be knowledgeable about them.

The high percentage of coaches that were observed in this study to have moderate or lower levels of knowledge about overtraining is highly unsatisfactory. Overtraining has been proven to be a form of potentially dangerous exercise as its adverse effects have been reported (Prentice, 2006; Brenner, 2007; Faigenbaum, 2009). Similar to the findings of on knowledge of coaches about potentially dangerous exercises, a large number or percentage of coaches are again found to have unsatisfactory knowledge about another harmful practice. This goes a long way toward proving that these results are not coincidental. This finding supports Mgbor and Obiyemi's (2001) assertion that Nigerian university sports coaches run ineffective training programmes for athletes and lack adequate and skilled personnel. Overtraining as said earlier results

in adverse effects, including underperformance in sports, drop out from sports, burnout, infection, depression, etc. Therefore, given this finding, it is pertinent to conclude that owing to their lack of adequate knowledge about overtraining, the majority of the coaches may have been exposing their athletes to overtraining thereby possibly causing the athletes to witness underperformance in sports and other myriads of issues associated with overtraining.

Though participants had a high level of knowledge about not warming up during training sessions, a lot of them had moderate to lower levels of knowledge about not warming up during training sessions. This finding brings some understandings and explanations to the statement made by Schloder and McGuire (2007) that frequently, coaches allow short-lived warm-up sessions which are grossly inadequate to get the body ready for the main exercise. It is pertinent to add that coaches who do not plan for sufficient warm-up or who do not include warm-up at all during training sessions do not have sound or adequate knowledge about the damaging effects of not warming up (properly) on sports performance. Apart from increasing the risk of injury, not warming up during training sessions also decreases the enjoyment aspect of the sports (Ladwig, 2013), thereby increasing the chances of athletes dropping out from sport. These are all detriments to sports performance, and they may have played a role in the poor performance of Nigerian University athletes at the World University Games. Similarly, some of the athletes (41.46%) had moderate to low knowledge about the damaging effects of not cooling down at all or properly during training. Warm-up and cool-down (sometimes referred to as warm-down) are often treated together by most authors, and from the analysis above, coaches in this study demonstrated similar levels of knowledge about them. The negative consequences associated with not allowing the body to cool down properly following exercise, on both the performance and health of the athletes have been emphasized (Robinson, 2010). Therefore, coaches who coach at the University level should have sufficient knowledge of this important factor. If not, the athletes' performance may continue to deteriorate, thereby endangering their health and increasing the likelihood of dropping out from sports (Ladwig, 2013). As a result, coaches' and Universities' dreams of seeing their athletes dominate at global university games or producing high-performing athletes to represent the country at international sporting events are severely hampered.

It was observed that a greater number of coaches (78.0%) had a higher level of knowledge about the use of harmful ergogenic aids than the other deleterious practices studied. Although this study reported that appreciably higher percentage of coaches had a high level of knowledge about the use of harmful ergogenic aids, several authors (Robinson, 2010; Molobe, 2012) found that most sportsmen and women use drugs to enhance their sports performance or personal appearance, to reduce pain as well as for recreational purposes. It is still worrisome that there are coaches within the University setting who do not have adequate knowledge (22% in this study) about the use of harmful ergogenic aids. It is noteworthy to highlight here that these coaches who have poor or moderate knowledge regarding ergogenic aids may lead coaches to recommend these substances to their players, thereby jeopardizing their performance and/or health. This may explain why many athletes still use harmful ergogenic aids despite the myriad of problems associated with their use.

The findings of this study revealed that more than half of the participants had moderate to low levels of general knowledge about the various practices deleterious to sports performance that were investigated. This indicates that fewer coaches are qualified (knowledgeable) to organise safe sports training or competition. Several authors have emphasized the significance of a high level of coaching expertise for effective coaching (Scholder & McGuire, 2007; Mesquita et al, 2008; Robinson, 2010). Therefore, there should be no room for mediocrity. Coaches should have a thorough knowledge of health and safety issues (Robinson, 2010), because those with a limited understanding of these safe procedures are more likely to generate underperforming

athletes as a result of their lack of expertise.

5. Conclusion

In summary, only 41.5% of coaches had a high level of knowledge about the different practices deleterious to sports performance while 41.5%, 12.2% and 4.9% had moderate, low and poor levels of knowledge respectively.

Therefore, substantial percentage (41% or more) of coaches had moderate or lower levels of knowledge about the different practices deleterious to sports performance. It is only in training in unsafe sports environment and use of harmful ergogenic aids that less than 40% of coaches demonstrated moderate or lower levels of knowledge. Also, greater number of coaches had poor levels of knowledge on potentially dangerous exercise (48.8%).

6. Implications of the Study

The reduced level of knowledge about practices deleterious to sports performance demonstrated by a significant percentage of coaches calls for a need for adequate sports safety education for all University coaches. A situation in which coaches perform athletic training solely when a competition is on the line should also be avoided. Therefore, University sports units should conduct regular training for their players so that coaches can develop their knowledge based on experience. Another important implication of the findings is that prospective coach employers should perform thorough screening procedures before employing coaches to ensure that only those with the required knowledge are employed.

7. Limitations of the Study

Due to the nature of the study, the number of items in the questionnaire was large, in order to ensure its content validity. This increased number of items presented some difficulties in getting some of the participants to fill the questionnaires. However, all the participants contacted eventually complied, but a good number of them did not fill the questionnaires on the spot for this reason. Their questionnaires were later returned to the researcher through the research assistants. This limitation however, did not invalidate the results of the study.

Another limitation (though did not invalidate the study) is that a majority of the Universities' sports units visited during the course of data collection had only few coaches as permanent staff, but engage others as ad-hoc coaches whenever there is competition in view. As a result, there was difficulty in contacting the ad-hoc coaches since this study was carried out in a period when there was no ongoing competition or a competition in view.

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Appendix

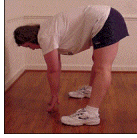
QUESTIONNAIRE

Please respond to each of these items by ticking (✓) against the option (TRUE or FALSE) as it applies to you.

Potentially dangerous exercises

1. All exercises that cause harm to the player are potentially dangerous. TRUE () FALSE ()
2. Moving a joint beyond its natural limits of range of motion is not harmful. TRUE () FALSE ()
3. Increasing the speed of any exercise is not potentially dangerous. TRUE () FALSE ()
4. During training session, instructing different participants with different personal characteristics such as fitness level, previous injury history etc, to carry out the same exercises is safe. TRUE () FALSE ()

5. High impact exercises on the same spot, such as aerobic dancing, are not potentially dangerous exercises. TRUE () FALSE ()
6. During training session, allowing any exercise that causes pain or discomfort to the participants is potentially dangerous. TRUE () FALSE ()
7. A repeated fingertip – to- floor movements in individuals with tight muscle on the back of the thigh (hamstrings) as shown below is safe. TRUE () FALSE ()



8. Repeated sit-up exercises in individuals with weak tummy (abdominal) muscle such as shown below do not cause damage to the low back. TRUE () FALSE ()



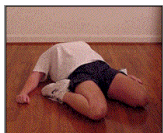
9. Lying on the back and raising both legs at the same time such as shown below does not cause damage to the low back. TRUE () FALSE ()



10. Standing on one leg and stretching the muscle on the front of the thigh by holding the ankle with hand on the same side and bending the knee (as shown below) cause damage to the bent knee. TRUE () FALSE ()



11. Exercises that involve extreme flexion (bending) of the knee such as shown below are safe. TRUE () FALSE ()



12. Performing push-ups exercises with hands placement that allow the fingers to be pointing outwards as shown below cause wrist injury in the long run. TRUE () FALSE ()



13. During training program there is no need for exercises to be individualized (that is instructed according to each participant's personal characteristics). TRUE () FALSE ()
14. Reducing the speed of any exercise does not reduce the risk of injury. TRUE () FALSE ()
15. Considering the techniques used while carrying out exercises is not important for the safety of such exercises. TRUE () FALSE ()

Premature Returning of injured player to play

16. Returning an injured player to training when he/she is not ready physically (i.e. when joint range of motion, strength, stamina etc have not returned) does not mean it is a premature return. TRUE () FALSE ()
17. Returning an injured player to training when he/she is physically ready but psychologically not prepared is not a premature return. TRUE () FALSE ()
18. Players who return to sport because they feel pressured by their coach to do so return prematurely. TRUE () FALSE ()
19. Players who return to play because they feel guilty of letting the team down risk premature return. TRUE () FALSE ()
20. Cultural beliefs that link pain tolerance with being a strong person do not encourage premature return to play. TRUE () FALSE ()
21. Over-conformity to the sport ethic such as sacrificing for the team does not encourage premature return to play. TRUE () FALSE ()
22. One can set an exact timeline for the recovery process after injury. TRUE () FALSE ()
23. The coach has a responsibility to put pressure on the player to return to training and competition after injury. TRUE () FALSE ()
24. The decision of when player returns to play after injury should be made by the coach. TRUE () FALSE ()
25. Premature return of injured player to play predisposes the player to risks of recurrent sports injuries. TRUE () FALSE ()

26. Premature return of injured player to sports does not cause underperformance TRUE () FALSE ()
27. Physical symptoms (i.e. swelling, pain etc.) resolution of an injury is the only indication of injury resolution. TRUE () FALSE ()
28. Returning an injured athlete to sports involves allowing the athlete to play at highest intensity on his first games after injury. TRUE () FALSE ()
29. Functional symptoms resolution (i.e. joint range of motion, strength, stamina etc.) is a major criterion of return-to play. TRUE () FALSE ()
30. An athlete returning to sports does not have a need to be taught progressive relaxation methods. TRUE () FALSE ()

Playing in an Unsafe Sports environment

31. Failure to develop and organize an emergency action plan and first aid procedures constitutes unsafe sports environment. TRUE () FALSE ()
32. Failure to develop travel safety guidelines to and from games constitutes unsafe sports environment. TRUE () FALSE ()
33. Planning a safe practice environment for all participants is not the responsibility of the individual coach. TRUE () FALSE ()
34. Coaches not having knowledge of how to treat common minor sports injuries does not constitute unsafe sports environment. TRUE () FALSE ()
35. Not checking the field of play for potential obstacles before training commences exposes the players to risks of injuries. TRUE () FALSE ()
36. Not getting the athlete's medical clearance before participating in sporting does not matter. TRUE () FALSE ()
37. Creating procedures to check the facility, before and after games, for potential safety hazards is not necessarily important for safety of the sports environment. TRUE () FALSE ()
38. Games (both trainings and competitions) should be covered (overseen) by appropriate health professionals. TRUE () FALSE ()

39. Allowing the athletes to get used to the sporting environment (acclimatization) is not necessary for optimal performance of the athletes. TRUE () FALSE ()
40. Allowing the athletes to get used to the sporting environment (acclimatization) is not necessary for health of the athletes. TRUE () FALSE ()

Overtraining

41. Overtraining is an accumulation of training stress resulting in long-term reduction in performance, with related physiological signs (such as changes in blood pressure, heart rate etc.) TRUE () FALSE ()
42. Overtraining is an accumulation of training stress resulting in long-term reduction in performance, without related psychological signs (decreased self-esteem, apathy, mood swings, fatigue etc.). TRUE () FALSE ()
43. Overtraining is an accumulation of non-training stress resulting in long-term reduction in performance, without related physiological signs (such as changes in blood pressure, heart rate etc.) TRUE () FALSE ()
44. Overtraining is an accumulation of non-training stress resulting in long-term reduction in performance, without related psychological signs (such as decreased self-esteem, apathy, mood swings, fatigue etc.) TRUE () FALSE ()
45. The overtraining syndrome is a low performance condition, frequently associated with depression situation during intense training. TRUE () FALSE ()
46. The overtraining syndrome is a fatigue condition frequently associated with infections during intense training. TRUE () FALSE ()
47. Diagnosis of overtraining is only made when the symptoms do not cease in two weeks of rest. TRUE () FALSE ()
48. Overtraining symptoms present an identifiable clinical cause. TRUE () FALSE ()
49. When the adaptation limit is exceeded during intense training, physical-mental performance tends to remain the same. TRUE () FALSE ()
50. Psychological disturbances (such as depression, mood swing, etc.) associated with overtraining tend to manifest at the same time with the physiological symptoms (such as changes in blood pressure, heart rate etc.). TRUE () FALSE ()

51. Carrying out the same exercise during every training (monotony) leads to overtraining. TRUE ()
FALSE ()
52. Having too much expectation on an athlete above his /her performance capacity leads to overtraining
TRUE () FALSE ()
53. Increasing the weekly training loads (intensities and durations) by more than 10% leads to
overtraining. TRUE () FALSE ()
54. Whether a player eats balanced diet or not does not matter in prevention of overtraining. TRUE ()
FALSE ()
55. Overtraining leads to underperformance in sports. TRUE () FALSE ()
56. Overtraining does not lead to dropout from sports. TRUE () FALSE ()
57. Overtraining leads to burnout. TRUE () FALSE ()
58. Cross-training with other exercises is not important in reducing the risk of overtraining. TRUE ()
FALSE ()
59. Other activities engaged by the athletes outside sports (such as educational, social activities, trips) do
not need to be considered in designing training programs for the athletes. TRUE () FALSE ()
60. It is not necessary that coaches register training parameters (such as training frequency, duration and
intensity) joined with periods of resting between the training sessions. TRUE () FALSE ()
61. Including at least one recovery day every week reduces the risk of overtraining. TRUE ()
FALSE ()
62. The use of drugs to aid recovery from training is ethical. TRUE () FALSE ()

Warm up exercises

63. The warm-up activity is the tuning of the body to get ready the major muscle group that will be used
for the main training session. TRUE () FALSE ()
64. Not conducting warm up exercises before a practice session predisposes players to sport injuries.
TRUE () FALSE ()
65. Not conducting warm up exercises before a competitive event does not hinder the realization of
athletes' full potential in performance. TRUE () FALSE ()

66. In sports that have long half-time breaks, not conducting warm up before events resumes after long breaks does not result to a reduced level of athletes' performances. TRUE () FALSE ()
67. Not conducting warm up exercises before events do not prevent athletes from being in the right frame of mind psychologically for the event. TRUE () FALSE ()
68. A proper warm-up activity does not take up to 20%-25% of total practice time to ready the body for action. TRUE () FALSE ()
69. After warm-up activity the player should rest for several minutes before going into the main training session without. TRUE () FALSE ()

Cool down Exercises

70. The cool-down (often referred to as the warm-down) is the finish to the active part of each training session. TRUE () FALSE ()
71. Not conducting cool down exercises after an exercise task does not prevent the body from having full relaxation after performance. TRUE () FALSE ()
72. Not conducting cool down exercises after an exercise task does not prevent the removal of waste products from the muscles. TRUE () FALSE ()
73. Not conducting a cool down exercises encourages delayed onset of muscle soreness after a training session. TRUE () FALSE ()
74. In the last 5 minutes of exercise, the exerciser should slow down gradually to a light jog or brisk walk, and then finish off with five to 10 minutes of stretching. TRUE () FALSE ()
75. Stretching during cool down is done emphasizing the major muscle groups used during the activity. TRUE () FALSE ()

Use of Harmful Ergogenic Aids

76. An ergogenic aid is as substance that directly improves physiological variables (such as heart rate, blood oxygen content, etc.) associated with exercise performance. TRUE () FALSE ()
77. An ergogenic aid act by removing subjective restraints (such as anxiety, fear etc) which may limit capacity to performance. TRUE () FALSE ()
78. The use of ergogenic aid can be in the form of nutritional, mechanical, pharmacological, psychological, physiological or treatment in nature. TRUE () FALSE ()

79. Drugs (such as alcohol consumption, cigarette smoking, anabolic steroids, cocaine, blood doping etc) used by athletes to improve their sporting performances impair performance. TRUE () FALSE ()
80. Some alleged ergogenic aid (such as alcohol consumption, cigarette smoking, anabolic steroids, cocaine, blood doping etc) used by athletes to enhance their performances or physical appearances do not pose health risks TRUE () FALSE ()
81. The coach does not need to check and know which drugs are prescribed for and taken by athletes by a doctor, and for which medical purpose. TRUE () FALSE ()
82. The coach has no role in educating the athletes on the effects of taking performance enhancing drugs. TRUE () FALSE ()
83. It is right for coaches to give performance enhancing drugs to their athletes with their athletes' consent. TRUE () FALSE ()
84. It is right for coaches to give performance enhancing drugs to their athletes without their athletes' consent. TRUE () FALSE ()
85. It is not useful that coaches have knowledge of ergogenic aids. TRUE () FALSE ()