**INTRODUCTION**

Soccer became extremely popular in Rwanda following the start of a youth programme in 2006 which strengthened the participation of young players in the second and third division teams. In addition, Rwandan soccer is now progressing to a semi professional level. Medical practitioners in Rwanda were introduced to the concepts of sports medicine at seminars organized by FIFA (1998), the International Olympic Committee (IOC) (1999) and the Confederation of African Football (CAF) (2000) (Twizere, 2004). Since then, there have been no other initiatives to update the knowledge of team medical practitioners. Therefore, some of them may have little knowledge as regards the occurrence, management and prevention of injuries. This might lead to team leaders and coaches to underestimate their importance in the team and their contribution to the prevention of injuries. Studies conducted in Australia reported that a number of clubs did not have formal safety policies (Casey, Finch, Mahoney& Townsend, 2004; Donaldson, Forero, Finch& Hill, 2004). The extent to which these findings apply to African clubs is currently unknown. From a public health perspective, the average cost for medical treatment per injury needs preventive measures as Rwandan soccer players might have more difficulties managing their injuries due to minimal resources, thereby making them spend long periods without playing and might end their careers.
prematurely. To our knowledge there has been no initiative to assess or introduce any safety policies in Rwanda. However, clubs could have a number of issues that are implemented either formally or informally. Therefore the purpose of this study was to identify a range of safety policies and practices available in top division soccer clubs in Rwanda. The results will be used to develop specific safety policies and regulations for good risk management practices of the identified areas in soccer activities in Rwanda.

MATERIALS AND METHODS

In Rwanda, there are 12 male soccer teams in the top flight division who had been registered for the 2007-2008 season. This study used a cross sectional, descriptive, quantitative design. Twelve team leaders regarded as decision or policy makers and twelve team therapists playing the role in the putting the policies in practice participated in this study. The questionnaire, whose validity and reliability was established (Donaldson, Hill, Finch&Forero, 2003), contained close ended questions which cover the roles and responsibilities of the participants and available sport safety policies and practices. Safety policies were defined as written or unwritten guidelines that the club had; and safety practices were the customs or routines that the club personnel performed. The instrument was adapted to the African situation specifically Rwanda and was sent to experts in the field for review. Additionally, they were reviewed by experienced coaches working as technical advisors in FERWAFA to ensure that the content that the questionnaire assessed was valid. Discussions were held with team therapists and team leaders from the second division who participated in the pilot study. The changes which were noted helped to design a more appropriate instrument that was well understood by the participants. Descriptive statistical analyses were performed using the statistical package for social science (SPSS) version 16.0 and Microsoft Excel. Participation was voluntary. Participants anonymity and confidentially was assured and participants had the right to withdraw from the study at any time without any impact.

RESULTS

Characteristics of the participants

The response rate of the team leaders was 75% (n=9) while that of the team medical practitioners was 91.7% (n=11). Most of the team leaders had spent an average of 4.89 (SD=4.91) years in the management of a club. On average, they have been involved in soccer 9.78 (SD=6.78) years prior to the study. The president and the treasurer represented 77.8% (n=7) of the team leaders in the clubs assessed in the survey. The majority of team medical practitioners were nurses (63.6%) followed by physiotherapists (18.2%) and finally a medical doctor (9.1%). The medical practitioners were found to have an average of 9.27 (SD=5.75) years of experience in their respective qualifications with 6.91 (SD=4.66) years of experience in soccer.

Table 1 shows the frequency and percentage of team leaders answering “Yes” to a range of questions related to the policies in place at their clubs. At least 50% of the team leaders reported that their clubs had policy on a sport safety and risk management (55.6%), they all (100%) reported having an emergency action policy in the event of severe injury and a code of conduct and/or fair play policy for players. Approximately 90 % said they also had a code of conduct for people attending competition.
Table 1: Safety policies available in teams

<table>
<thead>
<tr>
<th>Safety policies</th>
<th>Frequency and % of respondents answering Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=9</td>
</tr>
<tr>
<td>A comprehensive policy on sport safety/risk management</td>
<td>5 (55.6)</td>
</tr>
<tr>
<td>An emergency action policy in the event of severe injury</td>
<td>9 (100)</td>
</tr>
<tr>
<td>A pre-participation health screening policy</td>
<td>3 (33.3)</td>
</tr>
<tr>
<td>A policy on alcohol or other drugs</td>
<td>2 (22.2)</td>
</tr>
<tr>
<td>A code of conduct and/or fair play policy for players</td>
<td>9 (100)</td>
</tr>
<tr>
<td>A code of conduct of people attending competition</td>
<td>8 (88.9)</td>
</tr>
<tr>
<td>Presence of formal sport insurance policy</td>
<td>2 (22.2)</td>
</tr>
<tr>
<td>Compulsory insurance at the club</td>
<td>1 (11.1)</td>
</tr>
<tr>
<td>Safety committee</td>
<td>2 (22.2)</td>
</tr>
<tr>
<td>Safety budget</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Review of policies</td>
<td>0 (0)</td>
</tr>
<tr>
<td>General safety condition of the playing grounds</td>
<td>2 (18.2)</td>
</tr>
<tr>
<td>Injury prevention as one of the targets of training or coaching</td>
<td>2 (18.2)</td>
</tr>
<tr>
<td>Encouragement of players to sick for treatment</td>
<td>11 (100)</td>
</tr>
</tbody>
</table>

Table 2 shows the frequency and percentage of team medical practitioners answering “Yes” or “Always” or “Very often” to a range of questions related to the safety policies and practices in place at their teams. Almost all the strategies are frequently done in competition rather than in training. Less than 20% of the team medical practitioners reported that their playing grounds were generally in a safe condition and that injury prevention was one of the targets of training or coaching.

Table 2: Safety practices in place implemented by medical practitioners (N=11)


DISCUSSION

Safety policies available in the clubs

This study found out that more than half of the teams had a comprehensive policy on sport safety or risk management which is similar to the study conducted by Finch and Hennessy (2000). This was more than the results of the study conducted by Donaldson and Hill (2002). The authors of these studies discussed the reasons why all the teams did not have the policies in place which could be also applicable in the Rwandan teams. These may include lack of information, limited resources, not being required to, or not seeing such plans as necessary or relevant. They further recommended that strategies to overcome these barriers should be developed.

The results of this study indicated that all the teams had an emergency action policy in the event of severe injury. This is good because soccer is not a sport without risks (Donaldson & Hill, 2002). It is a contact sport that has the potential to result in serious injuries to participants, including head injuries and fractures (McGrath & Ozanne-Smith, 1997). This indicates that teams have measures to take care of seriously injured players. However, two thirds of the teams did not have a pre-participation screening policy. Therefore, coaches and team therapists may be at risk of not being informed if a decision or action is required about the welfare of players. In addition, the application of the pre-season examination in Rwandan teams may be difficult because on the one hand the teams do not value the presence and the importance of the medical practitioner; and on the other hand the medical practitioner is not ready sometimes because of lack of resources and necessary equipment.

More than three quarters of the team did not have a policy on participation of players at matches or training while under the influence of alcohol or drugs. This indicate that teams might not know alcohol-related problems and the potential problems associated with allowing players to participate in matches or training while under the influence of alcohol. Apart from health threat of the players, the use of drugs or any other performance enhancing procedure to gain advantage over the others is cheating and is contrary to the spirit of the sport (World Anti-Doping Agency, 2003). We could further suggest that Rwandan soccer teams either do not consider drugs in sport to be an important issue or that they do not believe that developing and implementing anti-drug policies may be necessary. It is necessary to establish anti-doping policies to protect the health of the players, the spirit of fair play and the values that players find in the pursuit of excellence (Murray, 2010). This requires further investigation and possibly the development of a code or policy that is meaningful and relevant which could be followed by all the teams.

Foul and illegal play like tackles has been identified as contributing factor injuries in soccer (Giza, Fuller, Junge & Dvorak, 2003). A number of fouls like pushing, holding, barging, tripping, striking or intentional kicking are not allowed in soccer therefore causing the player to be penalised (Donaldson & Hill, 2002). Although the results of this study indicated that all the teams had a code of conduct for players and nearly all also reported that they had a similar policy for other people attending matches, we could hypothesise that these policies are not well implemented based on the results of the study conducted among Rwandan soccer players which found out that contact was among the main mechanisms of injuries (Twizere, 2004). This was higher than what have been found in similar studies (Hawkins & Fuller, 1998; Hawkins, Hulse, Wilkinson, Hodson & Gibson, 2001).

According to Donaldson and Hill (2002), insurance is a ‘risk transfer’ strategy for clubs that comes into play after an injury has occurred. The authors further stated that the Australian Sports Commission availed guidelines for clubs on developing and implementing a sports safety plan and recommend that clubs should regularly review their insurance policies to ensure their adequacy. The results of this study indicated that only 2 out of 9 clubs had an insurance policy but insurance was compulsory in only one team. It may be hypothesized that, additional to the financial constraints associated with ignorance, teams value players who are able to play and not those whom their playing carriers have been ended by serious injuries or any other reason.

Two teams had a designated safety committee whereas none had either a regular review of their safety policies or a budget to cover specific safety costs. These findings were worse than the results of the study conducted by Donaldson and Hill (2002). Without a designated safety committee, no one will
be directly responsible for safety and responsibility will be shared between the club administrators, coaches and team managers. People in these positions already have a wide range of responsibilities and they may not be able to give due care and attention to safety issues. Many of the teams may not have the infrastructure required to develop or implement a comprehensive sports safety or risk management plan. Many team leaders may not think that this issue need a specific budget, or a designated person or committee to coordinate and review activity.

The International Federation of Football Association (FIFA) introduced compulsory wearing of shin guards for all soccer matches and training (FIFA, 2008). Although the results of this study indicated that six teams (66.7%) had a designated policy related to wearing protective equipment at matches, none had a similar policy at training. This shows how the teams undermine the usefulness of wearing protective equipment during the training.

The playing surface can influence sports injuries across a range of sports, and participants should not be required to play when there is a risk of injury due to poor playing surface conditions (Ekstrand & Gillquist, 1984; Ekstrand & Nigg, 1989). The results of this study indicated that less than half of the teams had a policy about the inspection of playing surfaces before matches and two teams (22.2%) had similar policies for training. This may explain the findings of Twizere's (2004) study which found out that Rwandan soccer players sustained more injuries in training than in competition. Donaldson and Hill (2002) recommended that clubs could effectively address this issue by appointing a designated person to conduct a safety inspection of the playing surface before matches and training.

Sports safety practices
The results of this study indicated that team medical practitioner adopted the safety practices more frequently during competition than during training. For example shin guards and boots were regularly checked by someone in authority at matches (90%) but this was not done at training (0%). The results of this study concur with the study by Donaldson and Hill (2002). Not putting enough emphasis on the implementation of injuries during training may cause the players not understanding its importance which subsequently predispose them to injuries.

Clubs may have limited knowledge and experience of injuries occurring during training and therefore consider it less necessary to address safety issues at training. They may find it more difficult to identify qualified people who are willing to attend training because the medical personnel work in hospitals or private clinics, and safety equipment might be less accessible at training due to financial limitation. Alternatively, the activities undertaken at training, such as skill drills and fitness exercises, may not incorporate full body contact or be undertaken with maximum intensity, and therefore not be perceived to pose the same risk of injury as participation in games.

Another consideration is that the governing bodies for soccer require clubs to adopt certain safety practices at matches, and the referee or match commissioner is often readily available to ensure that requirements are met. It is likely that there is no designated person to ensure that safety practices are undertaken at training. In addition, there is no opposing team at training to insist that certain safety practices are adopted. It is therefore less likely that a violation of safety practices occurring at training will be reported to the governing body.

Not all the club stakeholders are aware about the safety policies in place at their Clubs. One of the limitations of this study is that it did not ask whether the policies in place were written. However, it could be hypothesized that even the policies available in teams were not written which could also explain the limited awareness of club stakeholders about the policies in the team. Communication is essential for the successful implementation of any policy, guideline, recommendation or regulation (Donaldson & Hill, 2002). Lack of communication could lead to a number of stakeholders having limited knowledge about the policies in place at their clubs. Therefore, future studies could assess if the policies in place in the clubs are written and the means of communication by the clubs.

The results of this study indicated that all the team leaders reported that their clubs would like access to more safety training programmes as well as assistance to develop a sport safety programme. In addition, the majority of team leaders reported that
the federal sport body and medical professionals should actively support their clubs to implement safety policies and practices. These findings suggest that FERWAFA could potentially play an important supportive role in setting standards for sports safety and use medical practitioners in disseminating sports safety information and resources.

CONCLUSION

The result of this study indicates that soccer teams in Rwanda had few safety policies and implemented the limited safety policies they have to some extent to improve safety for their players. However, the clubs addressed safety issues at matches rather than at training. Teams were also interested in receiving information and assistance in safety issues. In conclusion, the implementation of injury prevention strategies and/or policies is not adequate. Clubs emphasize the implementation of injury prevention strategies at competitive matches and not during training. Clubs should develop, implement and monitor a comprehensive sport safety plan paying particular attention to the development and implementation of policies covering issues that this study has been identified as being poorly addressed. Clubs should ensure that all safety measures are observed and implemented at both training session and during competition. Governing bodies in Rwanda, especially FERWAFA should develop and disseminate written sports safety policies and guidelines and supervise clubs in their development, implementation and monitoring.

REFERENCES


