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Professional football players as role models in smoking prevention

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Summary

AIM: High-profile athletes are often promoted as role models, being portrayed as providing positive messages such as good health attitudes, which are assumed to be related to their success. As the logic behind using high-profile athletes as role models is also the argument for linking sports performance to not smoking, the objective of the present study was to compare publicly smoking players and non-smoking players with regard to their football performances during the 2014 FIFA World Cup in Brazil.

METHODS: For each of the 736 players of the 32 teams officially registered for the 2014 FIFA World Cup the following data were collected through the official FIFA database: year of birth, position on the field (goalkeeper, defender, midfielder or forward), number of matches played, number of minutes played, number of goals scored and distance covered. The distance covered per minute played was also calculated. For every player the first 100 pictures on Google Pictures were screened for pictures showing the player smoking.

RESULTS: Smokers played an average of 246.7 minutes versus 175.4 minutes for nonsmoking players (t -test = 2.538; df = 734; p = 0.011). The distance covered per minute played was 0.11 for smoking players versus 0.10 for non-smoking players (t -test = 2.820; df = 63.5; p = 0.006).

CONCLUSION: The data of this study do not support the use of football stars as role models for prevention campaigns, as the smokers appeared to perform better. Future studies should, however, try to control for the celebrity bias.

Introduction

Adolescents are especially at risk for substance use, as it is a period during which shaping of the personality occurs. Through identification with certain role models they may strive to attain socially defined roles [1]. High profile athletes are often promoted as role models, being portrayed as providing positive messages such as good health attitudes, which are assumed to be related to their success. For exam-

ple, an Italian school-based programme has been used to investigate the use of media models (famous soccer players or television characters) for smoking prevention among secondary school students [2]. At the end of the 2-year programme, 4% pupils of the study group and 14% of the control subjects reported smoking.

In June and July 2014 the 20th FIFA World Cup took place in Brazil, getting together 32 of the best football nations and being followed by millions of regular or casual fans around the world. Many of the participants are internationally well known and unquestionably may represent role models for young and adult fans, including substance use behaviours.

Previous studies have investigated smoking habits among professional football players. In a study published in 1986 [3], including 1559 English professional footballers, a smoking prevalence of 5% was found, significantly lower than the then 38% in the general population. The prevalence was lower in first division clubs (3.2%) compared with fourth division clubs (6.9%). The authors of the study suggested consequently that the results could "be used in a national campaign to promote non-smoking amongst young people who follow football." Another study, realised in France, was conducted to determine smoking habits of coaches and professional players of the first and second divisions between 1993 and 1994 [4]. The rate of response was 31% for coaches (36 responded) and 54% for players (257 responded). Among the 257 responding players, 36% declared themselves as smokers and 3% as ex-smokers. The smoking prevalence was higher among the second division players (31 vs 20%), and 58% of the coaches and 39% of the players considered smoking and sports to be compatible.

As the logic behind using high profile athletes as role models is also the argument for linking sports performances to non-smoking, the objective of the present study was to compare publicly smoking players and nonsmoking players with regard to their football performances during the 2014 FIFA World Cup in Brazil.

Methods

For each of the 736 players of the 32 teams officially registered for the 2014 FIFA World Cup the following data were collected through the official FIFA database (www.fifa.com).

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fa.com/about-fifa/official-documents/development/technical-study-group-reports/; accessed 19 April 2016): year of birth, position on the field (goalkeeper, defender, midfielder or forward), number of matches played, number of minutes played, number of goals scored and distance covered (www.fifa.com/worldcup/archive/brazil2014/statistics/index.html; accessed 2 February 2016). Each team is made up of 23 players. Systematically, three goalkeepers, but the number of defenders, midfielders or forwards may vary depending on the team.

The distance covered per minute played was also calculated.

For every player, the first 100 pictures on Google Pictures were screened for pictures showing the player smoking. The search strategy consisted of forename AND name AND smoking. The keywords were also translated into the players' country's official language (except for countries without Latin alphabet, i.e., Algeria, Greece, Iran, Japan, Korea Republic and Russia, for which the English spelling was used). Only the pictures on which the player could clearly be identified were retained. A distinction was made between smoking cigarettes, cigars, waterpipe or electronic cigarette.

The prevalence of smokers in the various field positions were compared using Fisher's exact test. In order to compare the mean number of minutes played or the mean distance covered per minutes played between field positions, t-tests were used. For the mean distance covered per minutes played, variances were considered unequal and therefore the Welch degrees of freedom modification were applied.

Due to the small number in each category, the retained outcome was only any type of tobacco use vs no tobacco use.

Results

Among the 736 screened players, 36 (4.89%) were depicted smoking in at least one of the first 100 pictures of Google Pictures.

The proportion of smokers were statistically different between field positions, with 1.0% of goalkeepers, 4.6% of defenders/midfielders, and 8.1% of forwards (Fisher's exact test = 6,652; $p = 0,035$) being pictured smoking (fig.1).

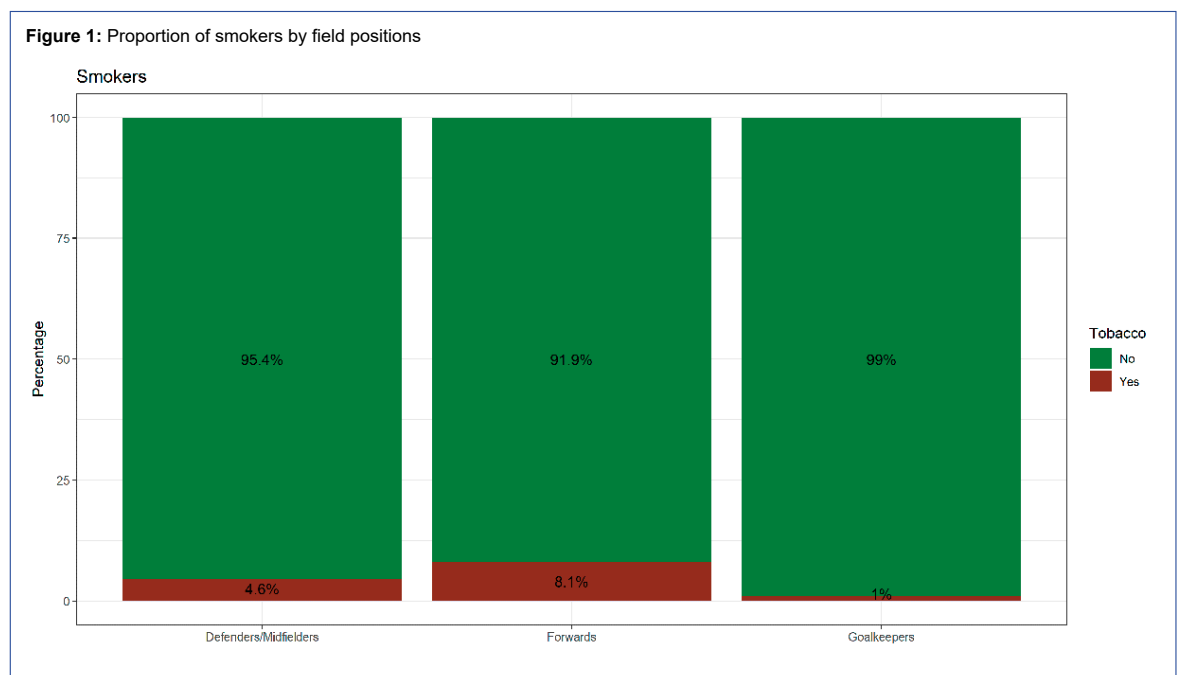
Smokers ran an average of 27.4 km during the tournament versus 18.8 km for non-smoking players (fig. 2). Smokers played an average of 246.7 minutes versus 175.4 minutes for non-smoking players (t-test = 2.538; $df = 734$; $p = 0.011$). The distance covered per minutes played was 0.11 for smoking players versus 0.10 for non-smoking players (t-test = 2.820; $df = 63.5$; $p = 0.006$).

Discussion

The objective of the present study was to test differences between smoking World Cup football players and non-smoking players to evaluate their suitability as role models for smoking prevention, based on correlations between sports performances and smoking status.

The present results do not support a performance-lowering effect of being a smoker. Smokers covered a higher distance per minute played, indicating better physical fitness. They also had more minutes of playing time, an indicator of a higher trustworthiness for coaches and perhaps an indicator of "stardom".

The results and conclusions from this study need to be considered in light of their limitations. It is likely that pictures of the most famous players appear more often among the first 100 pictures on Google, and that they are more likely to be depicted in private situations, increasing thus their risk to be "uncovered" as smokers. The relatively higher proportion of smokers among the forwards, who are regularly the most celebrated players, may support this hypothesis. This "celebrity-bias" may lead to an underestimation of smoking among less well-known players. More popular players are furthermore expected to play in better teams, which again will result in more minutes, as they are more likely to go far in the tournament, which could explain the longer time played.



In addition, sportsmen and -women are not per se the best presenters for addiction programmes because of their higher risk of using substances (e.g., alcohol) and addiction behaviour. Indeed, Goutteborge's team [5] found that the prevalence of psychological problems and/or psychosocial difficulties among professional footballers was found to be high in relation to low social support and recent life events.

In conclusion, the data of our study do not support the use of football-stars as role models for prevention campaigns, as the smokers appeared to perform better. Future studies should, however, try to control for the celebrity-bias.

Disclosure statement

No financial support and no other potential conflict of interest relevant to this article was reported.

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Figure 2: Athletic performance by Tobacco users

