

ATTITUDE OF DOPING AMONG ETHIOPIAN PROFESSIONAL MIDDLE AND LONG DISTANCE RUNNERS

Dr. Mesay Desalegn¹, Mr. Temesgen Haile², Mr. Mohammed Endris³, Mr. Daniel Agegnehu⁴, Mr. Ali Walle⁵, Mr. Osman Abubeker⁶

¹²³⁴⁵Lecturer in University of Gondar Department of Sport Science,

²University of Gondar Youth Center Coordinator

⁶Lecturer in University of Gondar Department of Clinical pharmacy,

Email: temesgenhaile93@gmail.com

Abstract:

*Doping in sport has become progressively viewed as a wider social problem. Indeed, due to a growing awareness of the recreational use of performance enhancing drugs, a rise in consumption rates, and the perceived associated adverse health effects, performance enhancing drugs have come to be viewed as a serious public health problem. The efficient strategy for prevention of doping use throughout the sport calendar requires improving the level of knowledge and hastening the development of negative attitude and practice towards doping in the athletes society. The aim of the study was to determine the level of attitude Ethiopian professional middle and long distance runners on doping. A quantitative cross-sectional study design was conducted. The study included 775 Ethiopian middle and long distance running athletes. The study participants were selected by using cluster sampling technique. Data were collected using structured and pretested questionnaires and multivariate logistic regression analyses were done to identify factors associated with attitude towards doping. Finally, results were presented with appropriate tables and graph as well as adjusted odd ratio (AOR) and 95% confidence interval. The prevalence of unfavorable attitude was 70.8%. In terms of attitude age, educational status, residence, attending training on anti doping and parental factors was showed statistically significant association. The prevalence of unfavorable attitude towards doping was moderate. **Key words:** Ethiopia, athlete, doping, attitude*

Introduction

Doping in sport has become progressively viewed as a wider social problem(van de Ven and Mulrooney 2014). Indeed, due to a growing awareness of the recreational use of performance enhancing drugs (PEDs), a rise in consumption rates, and the perceived associated adverse health effects, PEDs have come to be viewed as a serious public health problem(Keane 2005; Simon, Striegel et al. 2006; Sagoe, Molde et al. 2014).

The efficient strategy for prevention of doping use throughout the sport calendar requires improving the level of knowledge and hastening the development of negative attitude and practice towards doping in the athletes society.

Ethiopians participate in a lot of sports, a modern sport has a history of over half a century and within this period many types of sports have been introduced, but they are most well-known by athletics around the world. Athletic sports, different from other sports, has been playing a crucial role in introducing the country to the outside world. Athletics, in particular, long distance running has not only brought joy for Ethiopians, but also inspiration and courage to overcome

the challenges of poverty(Judah and Girard 2008). But recently we are hearing and reading about some scandals that Ethiopian athletes were using or exposed to doping.

Doping has been a problem in sporting events. Reliable information on the prevalence of doping is necessary to perform policy evaluations(de Hon, Kuipers et al. 2015). Most of the studies on drug abuse in sports had been conducted in different parts of the world like Europe, America, Asia and Africa (Kenya, Nigeria, Uganda and South Africa). But in Ethiopia in investigators' best knowledge there is no any previous study about doping in sport. This study therefore tried to assess the level of attitude on doping among Ethiopian professional middle and long distance athletes.

Methods and materials

A quantitative cross-sectional survey was employed. The study was conducted in Ethiopia. The required sample size was calculated using Epi info statistical software version 7 and the final sample size was 775. For this study Cluster sampling technique was used. The procedure on selection of athletes was as follows. Each athletics clubs were taken as aseparate cluster, Out of Fifty five athletics clubs 25 clubs were selected by simple random sampling and included in the study, and All middle and distance runners found in selected clubs were included in the study. To collection of data Structured Questionnaire was used. Data analysis was carried out by using SPSS version 20 statistical software packages to determine association. Frequency and percentage, Chi-square test to check the presence of association and odds ratios with 95% confidence interval was used to measure the significance and strength of associations between outcome variables and certain independent variables. Logistic regression model was used to assess presence of associations as well as to identify and control the confounding variables. For this study statistical significance was defined at probability level of .05. The model fitness was tested by Hosmer and lemeshow test (0.76 for knowledge, 0.87 for attitude).

Variables of the study: Independent Variables Socio demographic factors (Age, sex, marital status, wealth index, educational status) and Parental factors (parental educational status, parental involvement in sport, presence of high level athlete in the family). Dependent or Outcome Variables was Doping attitude.

Operational definitions

Favorable attitude: those who score less than 50% of attitude question.

Unfavorable attitude: those who score 50% and above of attitude question.

Results

Socio-demographic and characteristics of the respondents

A total of seven hundred and two Ethiopian middle and long distance running athletes were included in the study, giving a response rate of 90.6%. Nearly three-fifths (59.4%) of the respondents were males. The mean year's age of the respondents was 21.43 (with a S.D of 2.845). Majority of the respondents were Orthodox Christians (85.6%), more than half of respondents were in secondary school grade levels (66.2%) and rural residents (63%). More than third-fourths of the study participants were unmarried (91.7% [Table-1]. The average yearly income of the athletes based on their report was 123,056 birr (S.D \pm 19.363).

Table 1: Socio-demographic characteristics of the study participants (n-702) Ethiopia, 2017

Characteristics	Frequency	Percent
Sex		
Male	417	59.4
Female	285	40.6
Religion		
Orthodox	601	85.6

Muslim	50	7.1
Protestant	39	5.5
Catholics	3	0.4
Others	9	1.28
Ethnicity		
Amhara	278	39.6
Tigrie	109	15.5
Oromo	294	41.9
SNNP	9	1.3
Others	12	1.7
Current marital status		
Unmarried	644	91.7
Married	58	8.3
Education		
Primary education (Grade 1-8)	99	14.1
Secondary school (Grade 9-12)	458	65.2
College and above	145	20.7
Residence		
Urban	260	37
Rural	442	63
Competition level		
National	597	85
International	105	15

Parental factors

One of the parental factors for this particular study was parental educational status in which 87.2% of them had no formal education and 68.2% of the respondents had no Parental involvement in sport. The other parental factor for this study was presence of high level athlete in the family in which 86.6% of the study participants didn't have high level athletes in their families [Table-2].

Table 2: Parental characteristics of Ethiopian middle and long distance running athletes (n-702), Ethiopia, 2017

Characteristics	Frequency	Percent
Parental educational status		
No formal education	612	87.2
Formal education	90	12.8
Parental involvement in sport	223	31.8
Yes	479	68.2
No		
Presence of high level athlete in the family		
Yes	94	13.4
No	608	86.6

Training on anti-doping

The study participants reported that, majority (63.2%) of them didn't take training on anti-doping drugs [Fig-1].

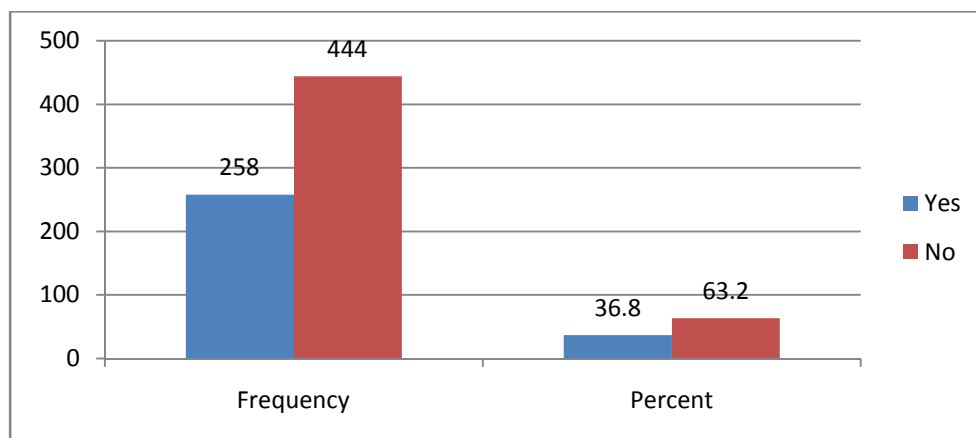


Figure 1: Prevalence of training on anti doping of Ethiopian middle and long distance running athletes (n=702), Ethiopia, 2017

Prevalence of attitude

After categorization the scores of PEAS, by using 50 as a cut point, the result revealed that the prevalence of unfavorable attitude towards doping was 70.8% [Fig-2].

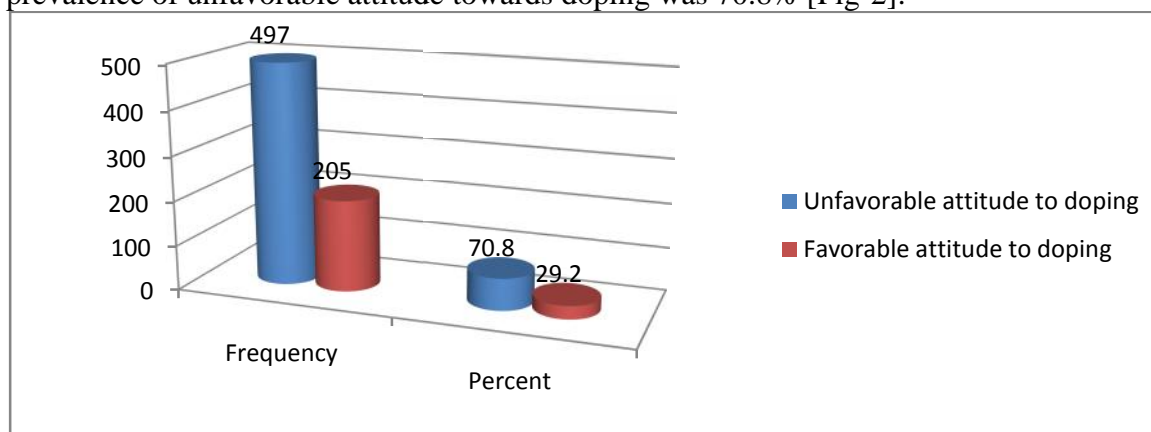


Figure 22: Prevalence of attitude about doping of Ethiopian middle and long distance running athletes (n=702), Ethiopia, 2017

Bivariate and multivariate analyses were computed to identify the confounders and to determine factors associated with level of attitude of study participants respectively. Seven variables showed significant association with attitude level of doping at a 5% level of significant.

After logistic regression has been used to assess factors associated with unfavorable attitude socio demographic characteristics, parental factors and training on doping were showed statistically significant association. An athlete who had a parent with formal education was 2.5 times more likely to have unfavorable attitude to doping as compared to athletes who had a parent with no formal education. Similar to this athletes who had a parent involving in sport were almost 60% more likely to have negative attitude to doping. In contrast to this athletes who had not high level athlete in the family were almost 2 times more likely to have unfavorable attitude towards doping.

The result of the study also revealed that athletes' residence was statistically significant determinant of attitude of doping. From the lower table it is shown that respondents who reside in urban were almost 50% more likely to had unfavorable attitude about doping [Table-3]

Table 3: Multivariate logistic regression analysis for potential factors associated with unfavorable attitude of Ethiopian middle and long distance running athletes (n-702), Ethiopia, 2017

Variables	Attitude about doping		Crude OR(95%CI)	Adjusted OR(95%CI)	P-value
	Favorable	Unfavorable			
Age				0.927(0.871-0.986)*	
Educational status					
Primary education	60	39	2.206(1.26-3.861)*	2.801 (1.55-5.056)*	
Secondary school	325	133	1.389(0.897-2.151)	1.67 (1.052 -2.652)*	
College and above	112	33	1	1	
Residence					
Urban	172	88	1.421(1.019-1.982)*	1.488(1.046-2.12)*	
Rural	325	117	1	1	
Parental educational status					
No formal education	446	166	1	1	
Formal education	51	39	2.055(1.306-3.233)*	2.585(1.60-4.168)**	
Parental involvement in sport					
Yes	151	72	1.24(0.879-1.751)	1.595(1.068-2.38)*	
No	346	133	1	1	
High level athlete in the family					
Yes	73	21	1	1	
No	424	184	1.509(0.901-2.525)	2.08(1.146-3.778)*	
Training on anti doping					
Yes	204	54	1	1	
No	293	151	1.947(1.36-2.786)**	2.027(1.393-2.95)**	

Note: 1= Reference **, =p<0.001, * =p<0.05

Discussion

A general objective of the current study is to assess the level of knowledge, attitude and practice on doping among Ethiopian professional middle and long distance runners. Considering this, it is crucially essential for athletes to have an unfavorable attitude regarding to doping.

Controlling doping only by tests is not sufficient; a profound change in the attitudes, which should be monitored repeatedly, is needed. Information about doping and prevention are necessary, and should cater to the athletes and associated stakeholders. This will allow us to establish and maintain correct attitudes towards doping(Alaranta A, Alaranta H et al. 2006).

In the present study with regarding to doping, the prevalence of unfavorable attitude towards doping was 70.8%. This result is in line with other several previous studies conducted in different countries (Britain(Mottram, Chester et al. 2008; Bloodworth and McNamee 2010; Bloodworth, Petróczi et al. 2012), Finland(Alaranta A, Alaranta H et al. 2006), France(Peretti-Watel, Guagliardo et al. 2004), Netherlands(De Hon, Eijs et al. 2011), Australia(Dascombe, Karunaratna et al. 2010), Korea(Kim and Kim 2017), Kenya (Chebet 2014), Uganda(Muwonge, Zavuga et al. 2015)) with different methods, population and instruments. Even though the

unfavorable attitude towards doping use is high (70.8%) in Ethiopian middle and long distance running athletes, there is still need to progress to its maximum level. Attitudes towards the behavior develops through learning, thus they are results of a slowly evolving process that involves prolonged engagement. Accepting this as a basic premise, one must consider the conceptual challenges around 'doping attitude'.

This study also tried to see the association between different factors and unfavorable attitude towards doping. With this regard, the odds of unfavorable attitude decreases by 7.3% as the age of the athlete increase by a year. The result of this study found that factor negative associated with the required unfavorable attitude was age. In the other hand educational status, residence, parental educational status, parental involvement in sport, high level athlete in the family and training on anti doping were negatively associated with unfavorable attitude.

In case of educational status the result of this study revealed that the unfavorable attitude of athletes was increased as their educational status increases. This finding is supported by a study conducted in British which tried to explore how people's attitudes to a broad range of issues vary according to their level of education.

Findings indicated a clear association between education and attitudes across a range of attitudinal areas and sub-topics. The results suggest that educational level is associated with: interest and involvement in politics; political efficacy; environmental awareness and concern; perceptions of gender roles; attitudes to immigration and immigrants; perceptions of welfare benefits and benefit recipients; national identity and entrepreneurship(Brennan, Chanfreau et al. 2015).

A study from Austria revealed that attitudes toward doping consistently supported refusal. Given that the attitudes of parents have been found to influence the attitudes and behavior of their children in other behavioral studies, this result is reassuring, but it is not certain that this transfer of beliefs would hold true for doping(Blank, Leichtfried et al. 2015). Similarly in the present study parental factors such as parental educational status, parental involvement in sport and presence of high level athlete in the family were statistically associated with attitude towards doping.

Conclusion and Recommendations

From the present study Age, educational status, residence, parental educational status, Parental involvement in sport, presence of high level athlete in the family and training on anti doping were found to be the independent predictors of attitude towards doping.

Based on the finding of the study we recommend the following recommendations: Information and prevention programs better to be started with athletes at a young age, and involving other stakeholders (e.g. coaches or family), are necessary, better to expand a regularly scheduled awareness creation about doping by conduction anti doping trainings or workshops, it is advisable to consider the educational status while providing training towards doping, and the present study is the first study to assess the attitude of doping and its associated factors among Ethiopian middle and long distance running athletes. Further research is needed with enlarge the study, include other populations, study design and additional independent variables.

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