



Research Article

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Multi-Dimensional Perspective of long-term athlete development in male soccer in Malawi

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Abstract

The study was conducted to establish the athlete support personnel's knowledge on talent identification and development, the study also aimed at establishing the process used by athlete support personnel during talent identification and development in soccer. The environmental factors effect on soccer players' progress to national level was studied as well. The population comprised athlete support personnel and male soccer players from teams taking part in the Northern Region Premier Division league in Malawi. Multistage sampling which included purposive, volunteer and convenience sampling was used to select seventy-four (74) athlete support personnel and two hundred eighty-nine (289) male soccer players. The findings revealed that, the athlete support personnel's knowledge on talent identification and development of male soccer players was not adequate; while athlete support personnel did not have a process of talent identification and development. There was no significant difference in knowledge of talent identification and development among athlete support personnel in Malawi based on districts ($F_{(4,73)}=.769$; $p>0.05$). Environmental attributes of setting, individual and provision jointly influenced progression to national level among soccer players of teams in Northern Region of Malawi ($F_{(3,285)}=56.334$, $p<0.05$).

Keywords: Athlete Support Personnel; Environmental factors; Soccer; Talent identification and development.

INTRODUCTION

Talent identification and development has been a topic of contention for a long period of time. The main goal of talent identification and development is to select potential performers who could be guided to reach top level of performance [1]. Excelling in sporting fields have been directly linked with success in other fields of life [2]. Sports like the Olympics and the FIFA World cup are followed by billions of people around the world. Soccer is the most popular sport in the world with 250 million athletes worldwide [3]. Success in soccer at world level has been the dream of almost every country. Not only does it bring a lot of prestige to the nation, but it becomes a center of attraction to such a nation.

Soccer is a complex sport characterized by the interaction of technical, tactical, physical, physiological, and psychological components [4]. Studies have shown that for someone to excel in any field, they need at least, eight to twelve years of training which translate to about three and half hours of training per day. This is called the 10,000-hour rule [5, 6]. For talent identification to be successful, a body comprising of sport scientists should be formed. This body should include athlete support personnel (ASP) which comprise of coaches, psychologists, exercise physiologists, biomechanists/performance analyst and measurement and evaluation experts [7]. Athlete support personnel (ASP) are a group of individuals qualified in specific fields working with specific teams that are involved in sports talent identification and development of athletes in different sporting fields. Coaches are a very crucial component of talent identification and development processes in soccer [8]. Player's progression from one step of training to the other depends on one being able to have satisfied athlete support personnel's in his abilities [9]. Athlete support personnel are crucial in making sure a player successfully progresses in his career. A look at most of the successful players at world level has shown that they are introduced into academies at the ages between six years to nine years. If one starts playing football at this age, they have higher chances of being equipped with the knowledge and skills required to succeed in soccer as a career. This should be

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considered the right age of talent identification and development.

Athletes are also expected to undergo a process of talent identification and development with Hugo advocating that talent identification has to begin with talent detection, talent identification, talent selection and talent development [10]. Talent detection refers to the discovery of potential performers who are currently not involved in the sport for which they are to be identified into. Talent identification refers to the process of recognizing current participants by their potential to become elite players. Talent development is a continuous process where players are provided with a suitable learning environment so that they have the opportunity to realize their potential. Finally, talent selection involves the ongoing process of identifying players at various stages, which can demonstrate a prerequisite level of performance for inclusion in a given squad or team [11]. Focusing on talent development than talent selection would facilitate creation of conducive environments that would allow athletes to thrive [12].

Research has shown that environmental factors play an important role in differentiating individuals between success and failure in athletes [13]. Talent Identification and Development implies that athletes need more conducive environments to realize their potential and be able to reach elite levels of performance in soccer. Therefore, it is of significance to understand the TID environment in which athletes are situated. The TID environmental factors are the most direct controllable part in the course of developing elite athletes. Environmental factors have shown to contribute significantly to an athlete's progression and success in sports apart from the genetic factors [14]. Talent development environment has proved to have great influence in ones reaching elite performance in soccer [15]. These environmental factors could be divided into milieu, individual and provisions.

Table 1: Environmental factors that affect talent development

Milieu/Setting	Individual	Provision
Sports culture Sporting policy Socioeconomic factors Birth place Education Schooling	Parents Siblings Coaches and support staff Friends	Long term development Quality preparation Effective communication

Objectives of the study

The following were the objectives of this study

1. To establish the soccer athlete support personnel's knowledge on talent identification and development in Northern region of Malawi.
2. To find out the process used by athlete support personnel working with Northern Region Premier Division teams for talent identification and development in Malawi in the field of soccer.
3. To assess the anthropometric/physical, physiological, Psychological, tactical and technical aspects that are considered

by athlete support personnel during Talent identification and development (TID) in soccer in Northern Region of Malawi

4. To assess the environmental attributes that affect athletes to reach National levels of competition in soccer.

MATERIALS AND METHODS

Study type

A descriptive cross sectional survey research study design was used. The data collected was used to analyze the multidimensional perspectives of long term athlete development in the sport of soccer from the athletes and athlete support personnel's.

Participants

The population of this study included athlete support personnel and male soccer players taking part in the Northern Region Premier Division league in Malawi. The total sample size for this study was three hundred sixty-three (363) participants. The Northern Region premier division soccer league consists of eighteen (18) teams taking part. These teams are from the five (5) districts out of the twenty-eight (28) districts in the country. Each team has got an average of twenty (25) registered players and seven (7) athlete support personnel. Seventeen (17) teams out of the eighteen (18) took part in the study. Multistage-sampling procedure was used in the study and this included purposive, volunteer and convenience sampling technique.

Data collection

Only direct contact was used to administer questionnaires. No questionnaires were emailed or passed through other forms of media to participants. Some questionnaires were interpreted to our local language (Chichewa) to cater for those participants who could not completely comprehend English. The athlete support personnel were used to assess the knowledge and process being used to identify talent in soccer. The players were used to assess the environmental factors that contribute to athletes reaching the national level of competition in Northern Malawi.

Data analysis

Data from the questionnaires was transcribed into the Statistical Package for Social Sciences (SPSS). The descriptive statistics of frequency counts and percentages were used to analyze the demographic. In addition, Analysis of Variance (ANOVA) was used to test if there was significant difference in knowledge of talent identification and development among athlete support personnel in Malawi based on district of the teams, regression was used to test if there was significant joint influence of environmental attributes (milieu/setting, individual and provision) on progression to national level among soccer players of in Northern Region of Malawi. The same regression was also used to test if there was significant relative influence of milieu/setting, individual and provision on progression to national level among soccer players of teams in Northern Region of Malawi.

RESULTS

Table 2: Distribution of athlete support personnel's knowledge on talent identification and development of male soccer players in Malawi (n=74)

S/n	Variable	Frequency	Percent
	At what age (in years) should talented children be identified in soccer?		
1	<5 years	7	9.0
2	6-9 years	19	26.0
3	>10 years	48	65.0
		74	100.0
S/n	Variable	Frequency	Percent
	How many hours of practice are needed per day for one to become an elite soccer athlete?		
1	1-2 hours	36	49.0
2	3-4 hours	31	42.0
3	>5 hours	7	9.0
		74	100.0
S/n	Variable	Frequency	Percent
	How many years does it take for one to become an elite soccer player?		
1	<8 years	46	62.0
2	9-12 years	11	15.0
3	>13 years	17	23.0
		74	100.0

Table 3: Distribution of process of talent identification used by athlete support personnel (n=74)

S/n	Process	Frequency	Percentage
1.	Detection, Identification, Development, Selection	1	2.0
2.	Selection, Detection, Identification, Development	6	8.0
3.	Detection, Identification, Selection, Development	16	22.0
4.	Detection, Selection, Identification, Development	6	8.0
5.	Selection, Development, Identification, Detection	1	2.0
6.	Selection, Detection, Identification, Development	9	12.0
7.	Selection, Detection, Development, Identification	1	2.0
8.	Identification, Detection, Selection, Development	17	23.0
9.	Identification, Selection, Detection, Development	12	16.0
10.	Development, Identification, Detection, Selection	1	2.0
11.	Development, Selection, Identification, Detection	1	2.0
12.	Development, Selection, Detection, Identification	1	2.0
13.	No specific process (don't know)	2	4.0
Total		74	100.0

Table 4: Summary of regression on joint influence of environmental attributes on progression to national level

R=.610 R ² =.372 Adj. R ² =.366 Std. Error=5.08705						
Model	Sum of Squares	Df	Mean Square	F	Sig. (p value)	Remark
Regression	4373.439	3	1457.813	56.334	0.000	Sig.
Residual	7375.254	285	25.878			
Total	11748.692	288				

Table 5: Summary of regression on relative influence of environmental attributes on progression to national level

Variables	Unstandardized coefficients		Standardized coefficients	t	Sig. (p value)	Remark
	B	Std. Error	Beta (β)			
(Constant)	0.262	2.388		0.110	0.913	
Setting	0.171	0.096	0.097	1.790	0.075	Not Sig.
Individual	0.531	0.079	0.359	6.762	0.000	Significant
Provision	0.515	0.096	0.299	5.335	0.000	Significant

DISCUSSION

Knowledge on talent identification and development

The findings of the study revealed that the athlete support personnel's knowledge on talent identification and development of male soccer players in Northern Region of Malawi was not adequate. This was established through responses in which most of the respondents did not have adequate knowledge on the number of years it takes for one to become an elite soccer player. It takes eight to twelve years of practice for one to become an elite soccer player^[16]. This is called the ten- year or ten thousand-hour rule, which translates to slightly more than three hours of practice daily for ten years^[5, 13]. This knowledge was not reflected in the ASP responses. Few of the ASP affirmed that it should take nine to twelve years of practice for one to become an elite soccer player. When asked how many hours are needed for one to become an elite soccer player, only few of the ASP affirmed that there is need for three to four hours of practice per day for one to become an elite soccer player. When asked the age at which talented children should be identified, the lowest percentage affirmed that talented children should be identified between six years to nine years of age. The majority responded that talented children should be identified at ten years and above. With the lowest professional league competition in soccer according to FIFA being the under seventeen world cup, identifying talented children at the age of ten and above would not provide these children with the required number of years which is predicted to be almost equal to at least ten for them to develop to become elite soccer players.

The outcome of the study on difference in knowledge of talent identification and development revealed that, there was no significant difference in knowledge of talent identification and development among athlete support personnel in Malawi based on districts of the teams. This implied that, there was no significant difference in the knowledge of talent identification and development among the respondents in spite of the diverse composition of such teams from five different districts of Chitipa, Karonga, Rumphi, Nkhata-Bay and Mzimba.

Process of talent identification and development

Athlete support personnel in Northern Region of Malawi did not use appropriate process of talent identification. Talent identification is supposed to start with talent detection followed by talent identification to talent selection and lastly talent development^[10]. Only few of the ASP were able to come up with the correct process of talent identification and development. However, the majority, responded to have been using identification to detection to selection and lastly development. The variation in terms of knowledge of TID is well explained with the fact that Malawi as Nation has neither developed its own Talent identification tool nor adopted any as a standard to be used in TID. That leaves it open for each individual to choose their own preferred process of talent identification and in the end their is lack of consistency in knowledge application. Key stages in talent development begin with detection^[9, 16]. The study also revealed that the ASP did not know the proper process of talent identification and

development because of the increased number of different responses from the ASP, even from ASP from the same teams. This points out to the fact that talent identification and development in soccer is a complex process due to the different skills needed to become an elite soccer player^[17]. The researcher therefore is of the view that those ASP who were able to respond correctly to the process of talent identification and development might be out of luck not because of using the said steps as stated during talent identification and development of players for their teams. The fact that some ASP were able to come up with the process correctly, does not mean that the ASP know exactly what is involved in each step. The study did not go into details of asking the ASP what activities take place during each step of the process.

Environmental attributes affecting players to reach national level of performance

The findings of the study revealed that, environmental attributes (setting, individual and provision) jointly influenced progression to national level among soccer players of teams in Northern Region of Malawi. This means that, the linear combination of environmental attributes (setting, individual and provision) was tested significant on progression to national level among soccer players of teams in Northern Region of Malawi. The implication was that the environmental attributes had strong effect on the manner at which soccer players of teams in Northern Region of Malawi progressed to national level from grassroots. These finding concur with the suggestions of^[18], that environmental factors such as setting, individual and provisions are crucial in the development of talent and elite performance of football athletes. Orosz & Mezo emphasized the role of parents, teachers, coaches, friends, and teammates to have an impact on the athletes and their values, beliefs, emotions, attitudes and engagement^[19].

The findings of the study also revealed that individual attribute and provision had significant relative influence on progression to national level among soccer players of teams in Northern Region of Malawi, while setting did not. This means that individual attribute and provision were tested significant on progression to national level among soccer players of teams in Northern Region of Malawi; which implied that, individual attribute and provision facilities individually had effect on progression to national level among soccer players of teams in the study area. These findings were in line with the suggestions made by Kelly *et al*, who emphasized the role of parents to create conducive environments to help their children succeed in their sporting career in addition to hard work and learning^[9]. For a football athlete to reach elite levels of performance there is a complex interaction of between the individual and environmental factors^[20].

However, the study revealed some areas that Malawi is doing well and only need to invest much if progress is to be made as a nation in the field of soccer. Results indicated that a significant percentage of the players started playing soccer at the ages between one to ten years. The nation only needs to enforce and expand on such early exposure to sports. Secondly, there is hope for Malawi to make notable milestones in soccer as many of its Athletes according to data findings are young. A significant percentage of the players reported to be below twenty

years of age. However, this might not be entirely true as the researcher could not exactly verify their exact age through any means. The study also revealed that the majority of the players are still students. This therefore could have an impact in their dedication to training as they need to also concentrate on their education

CONCLUSION

It was concluded in the study that, the athlete support personnel's knowledge on talent identification and development of male soccer players in Northern Region of Malawi was not adequate; while athlete support personnel did not use appropriate process of talent identification. It was further established that, there was no significant difference in knowledge of talent identification and development among athlete support personnel in Malawi based on teams. Conclusion was made that, environmental attributes (setting, individual and provision) jointly influenced progression to national level among soccer players of teams in Northern Region of Malawi. Lastly, it was established that, individual attributes and provision attributes had significant relative influence on progression to national level among soccer players of teams in Northern Region of Malawi, while setting did not

Conflict of interest

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