

**FACTORS INFLUENCING THE LONG DISTANCE
RUNNERS' PERFORMANCE IN AMHARA REGION,
ETHIOPIA**

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ABSTRACT

It has been said that Athletics has a place above all other sports. Its component skills are fundamental to most other sports and modern training theory originated and developed in Athletics. A large number of athletes have been trained under the Amhara Region's Athletics clubs so as to maximize their level of performance. However, there are a couple of factors that influencing the achievement, viz., the improper application of training load, participating in many competitions and unavailability of event specific nutrition vis-à-vis athletes gender, chronological age, training age, stages of athlete development, in general. The main objective of the study was to investigate factors affecting the young long distance runners' performance and to suggest possible remedies. To attain this objective, different qualitative techniques of survey viz., interview questions for coaches and interview format to some key informants were prepared and used. The study revealed that coaching encompasses many diverse skills and a broad knowledge base which further increases performance of athletes they have been coaching.

Keywords: Young athletes, Long distance, training load, competition

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Introduction

The current study focused specifically on assessing the factors that mainly influence athletes' performance in Amhara region's Athletics clubs. The study included all clubs of distance runners (starting from 3000m to half marathon) which are found in the region since it is not difficult to manage them. So as to be successful in performance in athletic endeavors the value and usefulness of careful planning has been widely recognized. When an individual or team is striving to reach a peak performance for the most important competition(s) of the year, the usefulness and necessity of planning becomes clearer. Recognizing that it is extremely important to plan a training program, the process of planning must be done before the training is undertaken or begun. The need for planning training programs is not a new concept, but until recently it has received less attention than it deserves from coaches and athletes in many sports including athletics. In the study area coaches didn't consider different phases of the annual training plan while allocating or assigning training days for each phases of the macrocycle since it was not consistent from club to club, the number of training sessions in a week, which ranges from 5 to 12 training sessions, are also different among clubs; they didn't quantify the starting training volume of the previous macrocycle. Regardless of stages of athlete development, young athletes have competed in many competitions. Moreover, even though athletes are young and need extra energy for the physical development there is unavailability of the event specific nutrition.

Therefore, the purpose of the study is to investigate the factors that influence the young long distance runners' performance in Amhara region's athletics clubs.

Objectives of the Study

The objective of the current study is mainly focused on investigating the factors that influence young long distance runners' performance in Amhara Region's Athletics clubs and to suggest possible remedies.

Review of Related Literature

The Ethiopian Athletics Federation has been established since 1956. Through the past around 60 years the federation had many great achievements in the athletics sport fields. So, the federation

can be nominated as one of the best performing member countries of the International Association of Athletics Federation (IAAF). Globally, the Ethiopian Athletics Federation is one of the leading member federations of IAAF especially in long and middle distances (Ethiopian Athletics Federation, 2014).

Noakes (1991) clearly showed that the only way to determine what is most appropriate for athletes is to observe carefully how you personally respond to different training methods. Continue experimenting until you finally discover the training methods that produce the best results for you, regardless of how unusual such methods may be. Then, successful performance is determined by an athlete's final time and which competitor is first across the finish line (Robertson, 2009).

Coaches and athletes wanting to develop endurance are always interested in measuring and monitoring exercise intensity. Some of the most popular field methods for monitoring endurance training intensity are to use heart rates, power outputs or time splits. However, to be really precise and train athletes effectively, coaches ideally need to be able to measure at what power output, speed, or heart rate an individual athlete's anaerobic threshold occurs. Recent research from France strongly suggests that coaches of experienced endurance athletes can simply do a 30-minute time trial of their endurance sport to come up with a power output, time split and heart rate that can validly predict anaerobic training pace (Reaburn, 2013). An athlete who has reached a high degree of training is, therefore, someone who has achieved a high level of physical preparation and has perfected all the biomotor abilities required by the sport or event (Bompa, 2006).

According to IAAF Competition rule (2013-2014) the age of athletes is divided into the following:

1. Youth Boys and Girls: Any athlete of 16 or 17 years on 31st December in the year of the competition.
2. Junior Men and Women: Any athlete of 18 or 19 years on 31st December in the year of the competition.
3. Master Men and Women: Any athlete who has reached his/her 35th birthday.

In running events, younger runners had greater variability than older runners and males were generally more variable compared with female runners (Hopkins & Hewson, 2001, cited in, Robertson, 2009). Therefore, to train a distance runner, one must understand and have the ability to implement a program that abides by scientific principles that govern physical and mental responses to training (Harter and Groves, 2000). Moreover, Noakes(1991) also mentioned that running races is totally different from training, because racing produces its own peculiar stresses: the presence of a large number of experienced runners, learning to pace oneself, fighting to grab sponges, and the confusion caused by trying to drink at tables. So it is best to run a number of short-distance races before you tackle a standard distance.

Bean (2010) showed that the amount, composition, and timing of food intake can profoundly affect sport performance. Good nutritional practice helps athletes train hard, recover quickly and adapt more effectively with less risk of illness and injury. The right foods contribute not only to success in sport but also to enjoyment of life (Maughan, Burke, and Coyle, 2004). In addition to this the duration and intensity of the exercise dictate the type and amount of fuel that is needed, which needs to be balanced against our ability to supply that fuel (Burke and Cox, 2010).

As the exercise goes on for longer and necessarily at a lower intensity aerobic metabolism becomes more important. For this, your muscles burn a fuel mixture of fat (relatively unlimited supply in the body and carbohydrate) (limited supply), with the proportions depending on factors like (1) The intensity of exercise (the carbohydrate contribution is greater at a higher workload); (2) the duration of exercise (carbohydrate contribution typically declines over the duration of the event) your pre-event diet (consuming carbohydrate in the hours before exercise increases the carbohydrate contribution to fuel); and (3) your level of training (training allows you to exercise at the same absolute workload with a higher fat : lower carbohydrate mix(*ibid.*).

Bean (2007) revealed that get your pre-exercise nutrition right and you'll have plenty of energy to train hard and perform at your best. Moreover, eating the right amount and type of carbohydrate as well as timing your pre-exercise meal correctly will help avoid common problems such as fatigue, dizziness, fainting and stitch.

Methodology

Most studies related to athletes performance have been conducted among different countries were mainly quantitative survey in their nature and design. However, somewhat differently this study attempt to design and use some qualitative techniques based on the general objective of the study. Therefore this study used qualitative techniques of which consisted of structured interview that required participants to openly comment on the perceived problems and recommendations in the relationship of the training load, competition frequency and nutrition towards their performance, and interview format to some key informants were prepared and utilized so as to get the relevant information.

The main population for this study was long distance athletes of the Amhara region's athletics clubs in the year 2013/14(N=149). In addition, coaches in the clubs (N=11), key informants (N=2) from the region athletics federation's general secretary and chairman of the technical committee were the target population of this study. Data collection began on October 15, 2013 and ended on June 15, 2014.

Result of the Study

Qualitative evidences obtained in this study are treated as follows: the major factors that influence young long distance runners' performance in Amhara region's athletics clubs are:

- An imbalance ratio between the number of athletes and coaches
- Lack of technical support from the region athletics federation and sport commission
- Lack of athletes' having an opportunity at the time of planning
- Improper application of training load
- Lack of event specific nutrition knowledge
- Too much competition frequency

An imbalance ratio between the number of athletes and coaches

The number of athletes and coaches are not proportional since the ratio of coach to them is not proportional in the region's athletics club i.e. 54.5 percent of the clubs has only one coach who

trains all athletics events (track and field events) whereas 45.5 percent of them has two coaches even though they are not suffice to train or coach young long distance runners of both females and males. Moreover, the region's clubs do not have large numbers of staff, and staffs are often required to perform a diversity of tasks over a day, week or year.

Mixing all athletes together and delivering training for them has downside on monitoring and evaluating every steps of the event either for correction or motivation to go through.

Lack of technical support

Concerned bodies such as the region's athletics federation technical committee, sport commission experts, the university's sport science department teachers, zone sport office experts, were not going to monitor and evaluate how the training process is going on and give feedback about the strength and weaknesses of the training at different periods. The ill-conceived technical support by the region's Athletics Federation and Sport Commission technical committee was given that is they simply went to the club with check list/s and filling it by asking the coach like questionnaire as distinct from helping the club in facilitating the coaching process i.e. planning what they are going to do, doing what they have planned and review/evaluate what they have done.

Lack of athletes' having an opportunity at the time of planning

Although it is handy participating athletes during planning, our clubs' coaches didn't apply it, it is not participatory even they didn't give room for suggestion after they stated the annual training plan by themselves.

The researcher believes that effective goal-setting is a vital part of the coaching process. Without goals, both coach and athlete have no direction. Goals help to focus effort and attention and increase motivation. An athlete who is preparing for a specific competition or performance target will train harder than one who does not know what they are training for. However, almost all coaches didn't apply even if it's one of the most essential tools in a coach's armor and it feeds into everything they do as coaches.

Improper application of training load

Coaching process is the relationship between training, organization and competition, thereby including the 'nuts and bolts' of coaching. Within this process the coach's knowledge about the application of training load that marks the difference of the athletes' performance. However, in focus group discussion athletes sorted out the following listed problems that inhibit athletes' performance:

- They, both female and male distance runners, performed training together without knowing the purpose of training
- They couldn't develop any training plan, which should consider their level of performance, with their coaches rather the coach by themselves set the training load without participating them. Moreover, athletes didn't know the exact day of the competition.
- Athletes didn't get training load which consider their level of performance and the ability of recovery at different phases of the macrocycle i.e. they didn't know what kind of training load is given during general preparation phase, specific preparation phase, competition period. To put in shell, they simply executed any training load tailored by the coach at any time.

Lack of event specific nutrition knowledge

While there is no such thing as a magic diet or food, there are many ways in which eating and drinking well can allow athletes at all levels of performance to achieve the special goals of their training and competition programmes. It makes no sense to train hard and ignore the benefits that follow from good food choices. However, the participants didn't have suffice amount of knowledge about event specific nutrition before, during, and after training and/or competition since nobody thought them about those foods' ups and downs. Specifically they summarized the following points are some of the problems they encountered related to nutrition:

- Poor knowledge of foods and drinks and inadequate cooking skills
- Poor choices when shopping or dining out
- Poor or outdated knowledge of sports nutrition
- Inadequate finances
- Busy lifestyle leading to inadequate time to obtain or consume appropriate foods

- Poor availability of good food and drink choices
- Indiscriminate use of supplements and sports foods

In a nutshell, diet affects performance, and our eating and drinking patterns will influence how well we train and whether we compete at our best. Therefore, every athlete must be aware of what foods they should choose to meet their carbohydrate needs, how much should be eaten, and when these foods should be eaten. However, in case of different factors like unavailability of food choice, financial problem, and knowledge gap they didn't apply as needed as possible.

Too much competition frequency

Regarding to competition frequency, young long distance runners have been competed in many competitions which were organized by the region and/or national federation such as cross country, championship, road race, regardless of athletes' stage of development, chronological age, training age and experience since they were too ambitious to reach peaking.

Discussion

In general, the above stated factors in relation to performance many scholars in coaching athletics, long distance running in particular, confirmed that athletics is a 'late specialization sport' as it requires 8 and 12 years of extensive practice to excel at anything. Don't forget that young athletes are not miniature adults so that pushing athlete development too quickly and rushing competition can result in injury, burn-out, and shortcomings in the athlete's physical, technical, tactical and mental abilities (IAAF, 2010). However, from the findings coaches did not consider the athletes stages of development or the athletes' chronological age, training age, gender, level of fitness when designing the training regimen since they were too ambitious to reach to athletes peaking.

In addition, as observe and analysis is among the basic skills of coaching, coaches can modify when there is uncomfortable situation. Moreover, Kilty (2011) clearly showed that a key feature of a performance plan is that it is changeable. It is not set in stone. The plan relies on the feedback that comes from the various activities that are conducted throughout the life of the plan,

but the findings showed that since the ratio between coach and athletes were not proportional coaches couldn't observe and analysis the workout efficiently.

Distance running training was given in the three periods, viz., preparation, competition, and transition, of macrocycle, yet a high intensive training was given in transition period. But, Bompa (2006) mentioned that the individual training program each athlete follows and the duration and type of training performed during the preparatory phase have substantial influence on the duration of peaking. Therefore, the longer and more solid the preparatory phase, the higher the probability of prolonging the athletic shape and peaking. That is why the ups and downs of athletic performance often depend on the training an athlete performs during the preparatory phase, the ratio between volume and intensity of training, and the number of competitions in which an athlete takes part. Do not exaggerate the number of competitions, especially with the young athletes. Do not wear them down too early! (ibid.).

One of the coach's primary roles is to facilitate the process of individual development through achievement of athletic potential. This role accepts the athletes' long term interests as of greater importance than short term athletic considerations (IAAF, 2010), however, the findings showed that participating young athletes, whose training and chronological age is minimal, in many competitions had an effect on the long development of athletes. If it is applied properly, the majority of athletes are most successful after they have reached athletic maturation (Bompa, 1999, cited in, Smith, 2003).

Coaches did not create an opportunity to participate athletes at the time of designing planning, from annual training plan to training session's plan, in the study area, but coaches have a responsibility to influence the performance and conduct of the athletes they coach, while at the same time encouraging the independence and self determination of each athlete by their acceptance of responsibility for their own decisions, conduct and performance. Gordon (2009) stated that while designing goal-setting to sport, it come up with a series of outcome, performance and process goals which meet the needs of the athlete.

IAAF nutrition for athletes (2007) confirmed that high-energy eating plans can assist the athlete to maximize the outcomes of growth and specialized training programs even though there was inaccessible in event specific nutrition choice in the study area.

Conclusion and Recommendations

So as to maximize the future success of young long distance runners' performance, the researcher, on the basis of the results obtained, recommend the following specific practical implications and recommendations:

Always check the health status of the athlete before delivering training, in between training sessions, and after training sessions.

For the coach and athlete it is important to monitor the program of work, to maintain progression in terms of the volume of work and its intensity. Both coach and athlete must keep their own training records. A training diary can give an enormous amount of information about what has happened in the past and how training has gone in the present. When planning future training cycles, information of this kind is invaluable.

Assign the right coach for the right event according to the event specialization in coaching education and certificate system rather than a coach simply coaching short distance, middle distance, long distance, and field events.

coach should always update his knowledge, ideas, and skills from different sources of information so that technical support from different concerned bodies like the Region's Federation technical committee, sport commission expert, Zone and District sport office experts, teachers, coaches, and athletes, should be part of scaling up the coaches capacity.

Following competition, it is important that the coach and athlete get together as soon as possible in order to evaluate the athlete's performance. Elements to be considered are pre race preparations, focus and performance plans and achievement of these plans

When athletes come to the club concerned bodies have to consider their training age, chronological age, biological age and physiological age before training with the experienced athletes

It is apparent that the athletes pinnacle needs a collaboration effort of different team so that the Amhara region's Athletics federation, sport commission, Zone sport office experts, sport science instructors should work in collaborate.

Coaches simply cannot devise a series of progressive sessions tailored to the specific needs of the athlete, the period of the annual plan and the conditions unless they commit time to some previous planning. This does not have to be time consuming and like all skills, the more the coach plans, the more skilled and the more quickly achieved his planning becomes, therefore, to achieve such kind of qualities developing the capacity of coaches via coaching education and certification system as well as short term training related to athletics.

In order to take in to consider the athletes chronological age, training age, biological age, developmental age, and stages of athlete development at the time of training there should be sufficient amount of coaches or the athlete-coach ratio should be balanced otherwise it is difficult to build relationship, provide instructions, demonstrate the skills, observe and analysis the techniques and tactics, and provide feedback within a limited number of coaches.

Eating well is easy in theory—just chooses a selection of foods that supplies appropriate amounts of the essential nutrients, fibre, phytochemicals, and energy without excess intakes of fat, sugar, and salt, and be sure to get enough exercise to balance the foods you eat. Whereas, in practice, eating well proves harder than it appears. Many athletes are overweight, or undernourished, or suffer from nutrient excesses or deficiencies that impair their health and performance. So that to have knowledge about specific event nutrition it is better to have short term training about nutrition and how to prepare menu from locally available foods.

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