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THE QUALITY OF YOUTH VOLLEYBALL AND ITS CONTRIBUTIONS FOR THE DEVELOPMENT OF ELITE PLAYERS IN SOUTHERN NATIONS NATIONALITIES AND PEOPLES REGION ETHIOPIA

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BY:

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THE QUALITY OF YOUTH VOLLEYBALL AND ITS CONTRIBUTIONS FOR DEVELOPMENT OF ELITE PLAYERS IN SNNPR, ETHIOPIA

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN (VOLLEYBALL COACHING)

BY:
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November, 2021
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DECLARATION

I, Abdulaziz Mussema Hassen**,** hereby declare that the material contained within this dissertation now submitted to the Sport Academy of Bahir Dar University in partial fulfillment for the award of degree of **"Doctor of Philosophy in Volleyball Coaching"** is entirely my own work. I have followed all ethical principles of scholar in the preparation, data collection, data analysis and completion of this dissertation. All scholarly matter that is included in the dissertation has been given recognition through citation. I affirm that I have cited and referenced all sources used in this document. Every serious effort has been made to avoid any plagiarism in the preparation of this dissertation.

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CERTIFICATE

This is to certify that the dissertation entitled **"the Quality of Youth Volleyball and its Contribution for the Development of Elite Players in SNNPR, Ethiopia",** submitted to Bahir Dar University in partial fulfillment of the requirements for the award of the degree of **Doctor of Philosophy in Volleyball Coaching** is the original research work done by **Mr. Abdulaziz Mussema** under our guidance and Supervision. It has not formed on the basis of other works of award to the Candidate of any previous Degree, Diploma, Associateship, Fellowship or other similar title of any candidate of any University.

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CERTIFICATE OF GENUINENESS OF PUBLICATION

This is to certify that the Ph.D. candidate Mr. Abdulaziz Mussema working under my supervision has published a research article "Program Quality and Developmental Outcomes related to Youth Volleyball in Ethiopia: Assessing Relationships and Variations" in the refereed journal named *European Journal of Investigation in Health, Psychology and Education*. The contents of the publication incorporate part of the results presented in his dissertation.

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As a member of the bord of examiners, we examined this dissertation entitled ‘’The quality of youth volleyball and its contributions for the development of elite players in SNNPR, Ethiopia’’ submitted by Abdulaziz Mussema Hassen. We hereby certify that this Dissertation conforms to acceptable standards, and as such is fully adequate in scope and quality. It is therefore approved as the fulfillment of the Dissertation requirements for the degree of Doctor of Philosophy in ‘’Volleyball Coaching’’.

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DEDICATION

In the name of Allah, the most Beneficent, the most Merciful. I dedicate this thesis to my father Mussema Hassen Terega who passed away on 16th July, 2001 during my study in Awasa College of Teachers Education. His untimely demise has caused a great void for family which is difficult to fill. May Allah rest his soul in peace and grant him “Jentul ferdows” Amen.

“Verily, with every difficulty, there comes relief” (Quran, Surah 94 verse 5).

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LIST OF ABBREVIATIONS

AIS: Australia Institute of Sports

ANOCA: Association of National Olympic Committees of Africa

ASC: Australian Sports Commission

DCMS: The Department for Culture, Media and Sport

FDRE: Federal Democratic Republic of Ethiopia

EIS: English Institute of Sport

LTAD: Long Term Athlete Development

LTPD: Long Term Participants Development

NSO: National Sport Organization

NYSDP: National Youth Sport Development Program

PYD: Positive Youth Development

SASCOC: South African Sports Confederation and Olympic Committee

SNNPR: Southern Nation Nationalities and Peoples Region

SPLISS: Sport Policy Factors Leading to International Sporting Success

SPSS: Statistical Package for the Social Sciences:

TID: Talent identification and Development

TD: Talent Detection

TDE: Talent Development

TR: Talent Recognition

TS : Talent Selection

UK: United Kingdom

ABSTRACT

This study examined the quality of youth volleyball and its contributions for developing elite players in Southern Nations, Nationalities, and Peoples region (SNNPR) Ethiopia, the study collected concrete evidence from wider stakeholder groups, including youth volleyball trainees, coaching staff and instructors, at various levels. The study involved under 17 youth volleyball players found in ten different youth volleyball training centers in SNNPR. Using stratified sampling, the researcher selected a proportional sample of n = 220 youth volleyball players in both sexes in filling out a survey questionnaire. 20 coaches and five key informants selected via purposive sampling to take part in the study. Using concurrent mixed methods triangulation design, qualitative data gathering tools interview and quantitative data gathering tool questionnaire were used to collect data from trainees and coaches. The collected data analyzed using SPSS version 23. Hence, independent sample t-test, ANOVA, Pearson product-moment correlation and multiple linear regressions are employed to analyze quantitative data. Besides, thematic analysis inductive approach was used to analyze qualitative data. The researcher found the overall mean value of the quality of youth volleyball around average *M= 2.86. Likewise, the overall mean values of independent variables score found around the average (M = 2.95). The results of regression analysis showed that the process variables together predicted each of the quality outcome, accounting for the variance 4.2% ≤ R2 ≥ 40.8%. The quantitative results along with qualitative findings depicted that quality of youth volleyball and its contribution for developing elite payers in SNNPR, Ethiopia is low. Hence, restructuring youth volleyball scheme is instrumental to better ensure quality and positive elite players' development outcomes.*

Key words: *Quality Youth volleyball**,** elite players' development outcome, practice, experience, coach-athlete relationship, challenges*

CHAPTER ONE
INTRODUCTION

1.1. BACKGROUND OF THE STUDY

Sport is defined as a social and competitive activity that requires specific physical skills and efforts, which occurs within an organized setting (Coakley and Pike, 2009). The participation of youths in sports is widely considered as an important physical activity Pfeiffer and Wierenga (2019) and higher engagement in the youth sport context has been highly emphasized as a viable option (Fenton, et al., 2017).

Nowadays, various countries in the world have received significant political interest and produce an immense amount of policy credentials for developing sporting talent (Richard Bailey & David Morley, n.d.). As Williams and Reilly, cited in Bailey and Collins (2013) asserted, optimizing the route for athletes' development process is a vital construct in any sporting system (Bailey & Collins, 2013).

The contributions of sport's for development range from individual psychosocial outcomes and satisfaction Tadesse, et al. (2020) to creating the conditions for facilitating national sport-for-all and sport (for) development programs Whitley (2019) and conflict resolution and peace building (Beutler, I., 2008)]. This could mean that sports-based development initiatives offer opportunities for using sport as a catalyst for promoting positive social change Coakley (2011) and addressing health, education and other developmental concerns (Levermore and Beacom, 2012).

A sports program focused on youth development enables youth to develop positive relationships with adults and peers, experience a sense of belonging and connectedness, and learn valuable life skills (Wicks et al., 2007). Bosscher et al. (2007) stated that, although some nations forced to focus on some basic issues and establish different priorities, the success of an athlete or team depends on the performance capacity of the national elite sports system and its effectiveness in using all relevant resources for the benefit of elite sport. For example, some nations, such as the former communist states of

Eastern Europe, were very successful in international sports because of making high-level investment in overall national sport systems (Bosscher and et al., 2007).

Athletes' development gives the opportunity to develop and build an integrated sports system that aligns the needs of young people's development from the elements of the system that are being afforded, such as coaching, competition, club structures and so on. To make the system function very well, they must be supportive, clear in their roles and responsibilities, and understand how they contribute to the "bigger picture" of future elite's development (Development Volleyball Canada, 2006).

In addition, Deakin and et al. (2005) confirmed that youth development will become successful if policymakers, sport organizations, coaches, and parents develop and implement youth sport programs that consider youths' stages of development. Youth sport programs conducted in conducive settings, foster developmental assets, youth will have positive sport experiences, and emerge as competent, confident, connected, compassionate and character rich members of society.

Athletes' development should allow volleyball players to identify the opportunities available to them and to understand the pathway they need to follow. As a result, this will lead them to a better horizontal and vertical integration of the key elements of the sporting system across the stages of their development. Therefore, it will help to determine what needs to be done, at what level and by whom, thus leading to better coordination from a delivery perspective by all those involved in volleyball athlete's development program (Development Volleyball Canada, 2006).

Allen and colleagues as cited in Johan & et al. stated that escalation of tournaments among countries for developing potential sports man's honor at main worldwide rivalry and the decline of national budget have led worldwide sports associations to choose well ahead of their utmost success. This makes it important that youth sport development program has a clear focus that emphasizes identifying players with long-term potential rather than current tournament winning-oriented ability (Jones et al., 2016).

To achieve high level of standard in volleyball sports, grounding in a well-structured base is crucial. Hence, youth sports development program has given youths an opportunity to develop their potential, and prepare them to play at higher levels. However, many sports development programs in the country tied to regional and national competitions; so, winning becomes a greater focus than development, and this led to low development status of elites (FDRE, 1998). Diminutive emphasis given for coaches' development and coach-athlete relationships, lack of volleyball talent identification and development systems, poor perception of stakeholders towards youth sport projects could led to poor development to the overall quality.

There are various measures of program quality for youth sports. One way of measuring it is using the impact of sport on health and positive youth development (PYD) (Cairney, J., et al., 2018). The other one is using sporting success explained through widening participation and promoting sporting excellence (De Bosscher, et al.,2009). Also, applied is the role that the sport experience plays in positive personal and life skills development of youth (Bean and Forneris, 2016).

In supporting this, Maguire and Pearton (2000) assert that talent development in youth sport depends on a wide range of factors and elements. The focus and efficiency of sport organizations, the availability and identification of human resources, the methods of coaching and training, practice of sports medicine and sport sciences and allocation of budget are all elements need to be analyzed to understand an athlete's talent identification and development process (Maguire & Pearton, 2000). Therefore, examining the quality of youth volleyball and its contribution to develop elite players was the major concern of this study.

1.2. STATEMENT OF THE PROBLEM

Ethiopian Sports Commission developed Ethiopian National sports policy for the first time in 1998 in order to address sports development benefit to the people where they live and work and learn through continuous participation. This policy encourages youth's participation to become an elite athlete in order to compete in international rivalry representing their country (National Sports policy, 1998). In line with this, national youth

sports development program (2016) stated that the government is promoting National Youth Sports Training Project to achieve all rounded sports performance development for the last ten years. The project aimed to develop the training service and customer satisfaction by implementing citizen charter to make youth sport development program transparent and responsible to stakeholders. Based on the results of research findings, continues discussion made at different levels, annual strategic plan evaluation report and the gap between project management and communication portrayed that, the current youth sport development program performance achievement is low as compared to the aim set (Ethiopia Development program, 2002).

As far as the knowledge of the researcher is concerned, there is no consistent and qualified National volleyball team representing our country, Ethiopia, at various levels and competitions standards. According to CAVB annual ranking, Ethiopia is among the last ten countries of African nations for many years. Besides, the quality of elite players' development and youth volleyball in particular, seems to be unclear over the years. Although there is a huge research gap in Ethiopia regarding this area, there is minimal research conducted regarding youth volleyball and elite players' development. However, the quality of youth volleyball and its contribution for developing elite players, the problems of talent identification and development systems in youth volleyball, stakeholders' perception towards youth sport, the coach-athlete relationships in youth volleyball and the challenges encountered in youth volleyball remained unknown.

Ethiopia has a large pool of sporting talent. However, there is a need for these talented athletes to be identified more effectively and developed to assist National Sports Associations in their youth sport development projects. With careful planning and optimal utilization of limited resources, an appropriate program should set in place that will accommodate the varying needs of selected youth players in different sports. If programs already exist, perhaps these programs require evaluations to adapt to the need of the corresponding stakeholders.

Stated in the National youth sports development program (2016), one of the major reasons for devising youth sports development program was the gap between the need from the

society and low development status of sports in the country. Ethiopia has developed growth and transformational plan in order to lead youth sports talent identification, development and training process.

Although talent identification and development activities have been in place for more than a decade in Ethiopia, there is no evidence showing that these activities were successful as intended in the youth sports development plan of the country. In response to this shortfall, the Ethiopian Federal Sports Commission developed a five-year youth sports project strategic plan for 2011 to 2015, and collaborated with the Federal Ministry of Education, to implement national youth sports project in eight sports across all regions of the country. After evaluation of the project performance and its overall process later in 2016, the project has been developed in to youth sport training development program, including additional five sports and some strategic changes. Despite the fact that, the national youth sports project program made changes in different aspects in a strategic way, the performance and status of Ethiopian volleyball remained unchanged (Ethiopia Development program, 2016).

Among various activities required for the development of volleyball sports in Ethiopia, national youth sports development program should play a major role. In addition, the development of future elite volleyball players is meaningless without good operative elite sports system, wherein the major determinants of talent identification and development outcomes fundamentally rely on the effectiveness and efficiency of the structure and processes (Ethiopia Development program, 2016). In supporting this, an academic review, a report for sports Scotland by the University of Edinburgh (2002), the development of elite athletes is an immense industry. From sports, through art, to education, researchers in all domains are trying to find a way to identify the best in their field.

As far as the knowledge of the researcher is concerned for more than two decades the majority of volleyball sport clubs filled with players coming from SNNPR, Ethiopia. However, despite the fact that, the majority of volleyball players found in volleyball clubs were from SNNPR, there is a decline in the number of volleyball clubs in the region. This indicated that there is a deficit in volleyball successors in the region.

Moreover, a decrease in the number of volleyball clubs participating at national competitions for both sex and lack of new talented volleyball successors joining the sports could be an indication of the consequences of low quality of youth volleyball in Ethiopia (Ethiopia, development program, 2016).

There is no doubt that Ethiopia has a huge raw pool of sporting talent in volleyball as well as in other sports. However, the concern of identifying and developing this potential lack systematic national strategies. In addition, talent identification and development system in Ethiopia is not plainly defined. National sports federations in Ethiopia have invested their time only on those athletes playing for regional level competitions and clubs' competitions without limited emphasis to their long-term development process for the youth athletes.

1.3. BASIC RESEARCH QUESTIONS

The purpose of this research was to examine the quality of youth volleyball and its contribution to develop elite players in SNNPR, Ethiopia. This study answered the following basic research questions.

1. What is the quality of youth volleyball and its contribution for elite players as perceived by the youth players and coaches in the SNNPR?
2. What differences exist between participants (sub groups) perception on current practice, perceived experience, perceived challenges and coach athlete relationship in youth volleyball SNNPR, Ethiopia?
3. Is there a significant relationship between the quality of youth volleyball, current practice, perceived experience, perceived challenges and coach athlete relationship in youth volleyball?
4. To what extent the contextual factors predict the quality of youth volleyball and its contribution to the development of elite players in SNNPR, Ethiopia?

1.4. OBJECTIVES OF THE STUDY

This study attempted to address the following general and specific objectives.

1.4.1. General Objective

The general objective of this study was to examine the quality of youth volleyball and its contribution to develop elite players in the perspective of SNNPR, Ethiopia.

1.4.2. Specific Objectives

- To assess the quality of youth volleyball outcome as perceived by youth volleyball participants (coaches, experts & trainees).
- Examining participants' response between sub groups on current practice, perceived experience, perceived challenges, and coach athlete relationship in youth volleyball.
- Assessing the association between current practice, perceived experience, perceived challenges, coach athlete relationship in youth volleyball and the quality of youth volleyball.
- To explore whether current practice, perceived experience, perceived challenges and coach athlete relationship predict quality of youth volleyball.

1.5. SIGNIFICANCE OF THE STUDY

By examining the quality of youth volleyball and its contributions to elite players' development in SNNPR Ethiopia, this study reveals the developmental contexts and key features of youth volleyball quality, depending on youth volleyball players and their coaches. This helps to develop quality youth volleyball in SNNPR, Ethiopia in creating a suitable learning environment for the education and progress of each selected youth volleyball player. Through this, research plays a key role in supporting the long-term development of elite volleyball players across the SNNPR so that Ethiopia can show increased capacity in producing future collegiate and professional volleyball players who have the sporting talent and positive behavior to compete at the highest levels.

The findings of this research shed light on the overall strategies and processes that produce regional and national quality youth volleyball players who will have the technical and tactical skills, combined with the mindset to compete at the highest levels. Beyond this,

those factors perceived to influence quality youth volleyball players, and the prevailing practices and challenges surrounding implementation, become clear.

Assisted by a more contextualized evidence-based model and structure, which is developing from this research, the youth volleyball would generate a more effective learning and development program that shares the values and vision of youth volleyball. Informed by the findings of this study, the youth volleyball development coaching staff will select youth volleyball players based on authentic task-based parameters, and work towards the best development opportunities possible to create a complete package that best suits volleyball players' needs.

In addition, we expected that the findings of this research would help to sustain and improve the quality of youth volleyball development program functions so young players realize their capabilities and full potential. Seen in this way, this research finding not only benefits program improvement but also the optimal learning and development of young volleyball players.

By exploring the existing structure and functions of the program, as well as the strategies and processes of talent identification and development, from a broader perspective, this research aspires to portray a more refined picture of youth volleyball development in Ethiopia. Exploring youth volleyball players' development in this sense, would help to understand the details of the program from the inner perspective, helping to promote positive development culture in youth volleyball in Ethiopia, emphasizing integrity, quality and honor and respect on and off the field.

This study will benefit to ensure that coaches identify by assessing the correct qualities and attributes, to ensure consistency in talent identification and development process; and enable them to understand that quality of youth volleyball related to talent identification and development process. The community and parents enjoy with the sports by observing talented volleyball players in a game and it will help them understand that youth sport development scheme is instrumental to produce elite volleyball players.

Last, the study will give clear directions for policy makers and sports experts to restructure suitable regional and national youth sports development system by highlighting the major points achieved during the study.

1.6. DELIMITATION OF THE STUDY

Although the results have a novel contribution to the literature; it is not without its limitations. First, the sample only included U-17 youth volleyball trainees and volleyball coaches, and the results are not generalizable outside this population. Also, important to note is that this is the first study to employ these methodologies with this population, so the findings need to be confirmed through replication studies. Additional research required with other youth sport participants of different age levels (i.e., U-13, U-15, individual and other team sports) to better understand contextual factors.

Second the procedural steps taken to minimize the risk of self- report bias, but even though the tools used accepted as valid and reliable instruments to gather data self-developed questionnaire, SPLIS and CART-Q, the results need to be compared to more aim measures.

Third, another limitation of this study related to the coaches' accountability of their responses. This study relied on individual perspectives, experiences, and memory during the interview. As a result, a social desirability bias (respondents to answer questions to be viewed) and retrospective memory bias may have affected the coaches' responses. Interview questions were open-ended and did not ask details regarding the coach-athlete relationship in youth volleyball and current practice of youth volleyball; coaches may have felt obligated to give answers that the researcher and topic would view and interpret in question.

A personal bias may have also crept into the coding and bracketing processes; and have tilted because of the previous experiences and knowledge of the researcher in youth sport. Despite these limitations, this study was exploratory and therefore, the perspectives in youth volleyball and elite players' development will have a valuable contribution to youth sport.

Despite the limitations of the study, the strength of the present study will contribute to further knowledge and its theoretical and practical implications for youth sport. The findings enhance the context of youth sports in Ethiopian and thus, contributing to theorists, coaches, and practitioners' needs. It is the belief that the findings here have addressed the need for a practical, extensive structural change in youth sport to guide and implement, monitor, evaluate and make use of elite players' development.

1.8. DEFINITIONS OF TERMS

- **Development** refers to a process of change in the quality of sport participation, sport performance, and personal development in youth volleyball.
- **Developmental age** refers to the degree of physical, mental, cognitive, and emotional maturity.
- **Elite Players** refers to talented volleyball players playing at the highest-level clubs and national team
- **General training age** refers to the number of years in training, sampling different sports.
- **Physical developmental age** determined by skeletal maturity or bone age after which mental, cognitive and emotional maturity is incorporated.
- **Relative age** refers to differences in age among children born in the same calendar year.
- **Sport specialization** refers to sports training and competition where a particular age group is restricted to and focused upon to participate a single sport in the pursuit of athlete's development.
- **Skeletal age** refers to the maturity of the skeleton determined by the degree of ossification of the bone structure.
- **Sport-specific training age** refers to the number of years since an athlete decided to specialize in one particular sport.
- **Stakeholder** refers to any institution, organization or individual with a particular interest in the youth sports.
- **Status** refers to a state of increment or decrement in all rounded development of youth volleyball.

CHAPTER TWO
REVIEW OF RELATED LITERATURE

INTRODUCTION

The aim of this study was to examine the quality of youth volleyball and its contribution to develop elite players in Southern Nations Nationalities and Peoples Region, Ethiopia. Our country Ethiopia has developed national youth sport development program as one pillar of the sport policy in order to bring change to the overall status of national sport development. Besides, realizing the imminent role of the society in producing elite sports persons capable of registering outstanding achievements at national and international competitions and examining the effectiveness of the program has been very instrumental.

According to the Sport Policy of the Federal Democratic Republic of Ethiopia (1998), the focus of the national sport policy has been on organizing competitive sports for the very few elite athletes who have gained recognition by themselves rather than producing elite sports persons by organizing community centered sport activities. Yet the intent on gaining victory lacks a broad base that would replenish best sports persons and the results registered have been declining as well (Federal Democratic Republic of Ethiopia, 1998).

Wicks, n. d, stated that youth community sport programs should be well-designed to meet the needs of youth's; however, "The limited numbers of community programs that focus on sports are all too often deficient in terms of staff, capacity, and overall program quality" (Wicks et al., n.d.:108). In supporting the above statement, the policy confirmed that the limited role of the community in sports, the decline of sports in schools, the shortage of sports facilities and equipment and lack of trained personnel in the sphere have also made the problem more complex (FDRE, 1998).

The success of an athlete or team depends on the performance capacity of the national system and its effectiveness in using all relevant resources for the benefit of elite sport (Bosscher et al., n.d.). To solve these fundamental problems and to channel the status of sport in the country in to different direction with a new outlook, a community-centered activity remains influential. Thus, the study concerned with making sense of the quality

youth volleyball and its contribution for development future of volleyball elites in SNNPR, Ethiopia. With this in mind, the researcher argues that effective youth volleyball program should contribute to produce future volleyball elites in the country.

To facilitate understanding of youth volleyball development and its outcome, current synthesis review of literature conducted to examine the quality of youth volleyball development and its contribution to future elite players in particular. Therefore, the researcher examined the works of other researchers on the area to explore various issues relating to youth sport development, how youth sport development program structured, their contribution, challenges, process of talent identification and development and literatures regarding coaching youth volleyball.

2.1. HISTORICAL DEVELOPMENT VOLLEYBALL IN ETHIOPIA

The African Volleyball Confederation (CAVB) is the continental governing body for the sport of volleyball in Africa. The CAVB was the last confederation established in 1972, when the FIVB turned its five Volleyball Zone Commissions into continental confederations. Egypt was among the first founding of the FIVB in 1947, the sport of volleyball remains amateur in Africa. There has been considerable effort by the international federation to increase competitive effort in the continent through special development actions. However, as of 2004, no African team has ever got impressive results in international competitions, neither in women's nor in men's events. Hence, there remains a considerable effort to be made by various stakeholders to develop volleyball game in the continent.

In Ethiopia, there is no record describing the exact time when volleyball game introduced. Foreign physical education teachers introduced volleyball games in Ethiopian schools in 1943; volleyball game was one of major ball games practiced for entertainment and competitive purpose in various places and competition settings for many decades and spread throughout the country.

Ethiopian Volleyball Federation (EVBF) founded in 1965 Addis Ababa and becomes a member of both Zone Five Eastern and Central Africa and FIVB to develop and spread

volleyball games throughout the country. Besides, after the effective foundation of the federation, organized competitions at different levels; as a result, the federation formed many volleyball clubs to take part at national level competitions. However, the status and number of volleyball clubs involved at National and regional level in volleyball competition has become decreased year by year.

Absence of volleyball National team representing the country, reduced number of volleyball clubs taking part at national level, reduced number of regional and zone volleyball teams, showed that development status of volleyball has become at lower level when compared to other African countries. According to CAVB annual ranking, Ethiopia is among the last rankings in its performance when compared to other African countries. Therefore, EVBF had devised various strategies in order to develop volleyball in the country. Among various activities made to develop volleyball game in Ethiopia, collaborative agreements with other National Federations and stakeholders made to launch youth volleyball project in 1997 throughout the country. However, the development status of volleyball has remained unchanged.

Although various approaches have been used to develop youth volleyball, the major problems existing in the area were unresearched yet. It has become a point of discussion for various groups. Therefore, this study aimed to investigate the existing problem by examining the quality of youth volleyball and its contribution to the develop elite players in SNNPR, Ethiopia.

2.2. QULITY OF YOUTH SPORT PROGRAM

Youth sport program quality refers to the structure and processes within a program that is intentionally designed and implemented to promote PYD outcomes (Claver, et al., 2017). Researchers argue that program quality, encompassing essential functions, behaviors, and actions, is the best predictor of positive developmental outcomes (Standage & Vallerand 2014). Using program quality is recommended when evaluating sports programs to ensure that youth who participate in a program achieve positive developmental outcomes (Maleka, 2017 & Levermore, 2011). Thus, using program quality in studies to assess outcomes associated with participation in youth development programs is an important exercise

(Roth & Brooks-Gunn, 2016). Various process features are identified by researchers as determinants of PYD outcomes, including opportunities to belong, positive social norms, and supportive relationships, among others (Côté, & Mallett, 2013). It is also important that a suitable training environment, opportunities for broader physical, personal, social skill development, and the presence of supportive interactions are evident (Strachan, Côté, & Deakin, 2011).

The literature review shows that program quality can be assessed in different ways, including the use of qualitative methods, quantitative self-report measures, and observational measures (Yohalem, et al., 2021). While qualitative methods such as a case study or a phenomenological study enable the study of a phenomenon in-depth Fitch, et al., (2017), observational measures of program quality allow for the description of behavior in natural environments (Bean, et al., 2018 & Gratton, 2010). In youth sport research, most studies have relied on self-report measures Silliman, & Schumm, (2013) and Tadesse, et al., (2020) and this study used the same quantitative self-reported measures from the youth players who participated in the youth volleyball project studied. These measures were selected because they help us to understand if the youth volleyball program that was the focus of this research provided a climate that promotes PYD based on the participating youths' perceptions (Burnett, C. 2015).

Participation in youth sport has been associated with improved physical and psychosocial development Eime, et al., (2013) and Coutinho, et al., (2015) and other sports-based developments (Whitley, et al., 2019). To best understand the outcomes emanating from youth sport, there is a need to examine the processes associated with the developmental outcomes that can be achieved (Hodge, et al., 2019). The preponderance of evidence indicates that engagement in youth sport plays an important positive role in youth personal and life skills development (Tadesse, et al., 2018 & Gould, et al., 2012).

Furthermore, youth players' positive perception about their coach, as well as his or her meaningful sport lessons, leads to reported greater development in emotional regulation and cognitive skills (Gould, 2011). A positive relationship is described as "the need to feel belongingness and connectedness with others" (Ryan, & Deci, 2000, p. 68). Youth athletes

in high-quality programs perceived significantly greater opportunities for relatedness, as well as lower negative experiences (Bean, et al., 2018). Hence, coaching actions and social climates have an important influence on the personal and social development of young people (Gould, Flett, & Lauer, 2012). The social support received from head coaches predicted athletes' satisfaction with coaches and sport experiences, leading to success in sports (Cranmer, & Sollitto, 2015; Jowett, 2017).

In the present study, developmental outcome refers to the psychosocial developments attained by the athlete and further developments in sports as a result of youth involvement in organized sports (Ullrich-French, & McDonough, 2012). The growing number of sport-based youth development programs provide a potential avenue for integrating sport meaningfully into a development agenda (Silliman, & Schumm, 2013). As a result, program quality has been outlined as one of the predictors of the developmental outcomes resulting from participation in youth programs (Roth, and Brooks-Gunn 2016). Differences in the quality of youth sports programs may help to explain variations or differences in the sport development outcomes (Dawes, Vest, & Simpkins, 2014; Super, et al., 2018).

There are various outcomes of program quality in youth sports. One way of measuring it is using the impact of youth sport on health and positive youth development (PYD) (Cairney, et al., 2018; Holt & Neely 2011). The other one is using sporting success explained through widening participation and promoting sporting excellence (De Bosscher, et al., 2009; Henriksen, Larsen, & Christensen, 2014). Additionally, the role that the sport experience plays in the development of positive personal and life skills in youth is also recognized (Bean, & Forneris, 2016; Super, et al., 2017). In the current study, the authors used a hybrid of quality measures, including youth volleyball participants' perceived quality of talent identification and the development of a system for recognizing talent, the extent of participation in youth volleyball, an integrated system for youth volleyball, and national and regional volleyball competitions (Yohalem, et al., 2021; Silliman, & Schumm, 2013).

In a complex setting such as youth volleyball, different program qualities interact to produce positive outcomes for the youth (Armour, Sandford, & Duncombe, 2013). In fact,

several factors such as program structure and processes, as well as the relationship between the athlete and the coach, contribute to making sport a place where quality youth development can occur (Whitley, et al., 2019).

Drawing upon the essence of SFD and PYD, the hypothesis of this study is that among youth volleyball players, positive developmental outcomes will be influenced by youth sports program quality variables such as (perceived practice, player's experience, challenges, and coach–athlete relationship). Differences in program quality related to youth volleyball may help to explain variations in the developmental outcomes of youth volleyball participation (Bean et al., 2018). Accordingly, it is hypothesized that demographic and contextual differences may affect program quality and developmental outcomes related to youth volleyball participation.

Youth development programs viewed in various place as an age-appropriate programs designed to prepare adolescents for productive adulthood by providing opportunities and supports to help them gain the competencies and knowledge needed to meet the challenges they will face as they mature (Delgado, 2002). Hadjarati as cited in Junaidi et al. (2018), stated that in the perspective of sports, the national sports development is an effort of sports development and development activities, which is part of efforts to improve the quality of human resources in sports. Thus, sport development taking an important position and becomes one of the human development goals in almost all countries (Junaidi et al., 2018).

As Petitpas et al. (2005) stated that, during the last decade, several programs through sport enhanced youth sport development. Many of these programs developed based on the belief that sport participation provides a productive ground for youth to develop skills and attitudes that have substantial value in future life. Well-structured youth sport development program plan enhances trainee's overall development that suggests effective program design, implementation procedure and conducting effective youth development evaluation (Petitpas et al., 2005). In supporting this, Siedentop, as cited in Date, et al., (1996) stated that youth sport programs have developed by many countries with the goal of increasing physical activity participation in sport for their nations to advance youth sport development (Date, et al., 1996).

Youth sport development programs may have wide-reaching effects on participants that enlarge far beyond their intended outcomes. For instance, sports program may pay attention to helping individuals develop communication and teamwork skills, but participants also may increase their levels of self-esteem or improve their leadership abilities because of their experiences (Bailey, n.d.).

To develop good relationship with the society, youth Sports development programs will better experience youths to facilitate a sense of belongingness, connectedness and learn valuable life skills. Besides, youth trainees learn willpower is as an important element as physical strength and push them ahead of their intended goals thorough high-quality sport-based youth development programs (Wicks et al., n.d.). However, Petitpas et al. (2005) stated that there are only some youth sport development programs who thought about life and sport skills in an organized way.

In broad-spectrum, youth sport programs across the entire spectrum of youth sport involvement provide valuable experiences for participants. Despite organized competitions, volleyball game creates fun and exercise or part of a systematic strategy, sport is an important element in the lives of millions of young people throughout the world. Some youth sport programs should help participants enlarge assets and skills that enable them to function in sport (Petitpas, Cornelius, Raalte, & Jones, 2005).

According to Ethiopian sport policy, sport development outcomes should address to the people to where they live, work and learn. The policy projected that through active sport participation, continental and qualified athletes developed through the system (Federal Democratic Republic of Ethiopia, 1998). The Ministry of youth and sport has given little emphasis for youth sport development program without considering children's life skill development that is the base for all rounded development of youths in future life (Ethiopia Development program, 2016).

Despite the fact that, youth sport development programs are very useful for all rounded development of youths in later life, Coalter, as cited in Date, et al. (1996) suggested that, the questions surrounding "What constitutes the outcomes of youth sport" and "How these

outcomes achieved" are issues that all stakeholders struggle to define and agree upon Date, et al. (1996). Furthermore, these fundamental questions have created several debates among researchers, policy makers and stakeholders in terms of how youth sport programs should be structured (Poinsett, 1996).

Despite the fact that, the focus of youth sport development program designed in Ethiopia is to develop future elites in various sports discipline, however, the program structure does not clearly state how these outcomes of the program achieved. Therefore, it indicates that there are unanswered issues about the mechanism how this program applied in different situations. In supporting the above statement, Petitpas, et al. (2005) confirmed that, in youth sport development program there are still many unanswered questions about the specific strategies that are likely to be most effective with different populations under different conditions (Petitpas, et al., 2005). Hence, youth sport development program needs to consider various factors, clearly stated goals, continuous and effective evaluation plan and support will be instrumental.

Catalano et al., cited in Petitpas et al. (2005) substantiated that, the vast majority of programs lack adequate evaluation plans; and, of those that have plans, few evaluated outcomes outside the conclusion of the program. Therefore, continuous evaluations needed to demonstrate the effectiveness of these programs in preparing participants to cope effectively with subsequent life transitions (Petitpas et al., 2005). Furthermore, in the national youth sport development program, process issues are not given high emphasis, Petitpas and his colloquies stated that examinations of process issues need to be given high priority to better recognize the how and why of the effectiveness of constructive youth sport development programs. Hence, process research should examine the procedure of change that is related to specific program components, such analysis might also include potential moderating and mediating variables that may affect the impact of the program (Petitpas et al., 2005).

In addition, Pentz et al., cited in Petipas, et al. (2005) stated that analyses of implementation quality have become particularly important considerations in multiyear and multisite interventions; though, these basic issues are not considered in Ethiopian sport development

program, these factors must be explored in any thorough assessment of youth development programs. Only by understanding how programs affect youth development, through both their design and implementation, can these programs evolve to effectively meet their goals (Petitpas et al., 2005).

Despite the fact that, youth sport development program in Ethiopia presented to develop future elites, lack of proper follow up and analysis of implementation quality throughout the country is the major factor. Therefore, to be benefited from effective youth sport development program the overall process should accommodate those enabling and inhibiting factors outlined by the researchers.

2.2.1. The Structure of Youth Sport Programs

Developing a structure that meets various needs of youths to gain planed outcomes in youth sport development programs are the challenging tasks of policy makers and administrators ("Evidence-based policies for youth sport programs," 2014). Structuring a framework for youth sport development program plan is the basic design for all activities done throughout the process. Siedentop (2002a) has suggested that the contrasting natures of the different outcomes of youth sport are not achievable within a single program and promoted by a variety of programs. Although there are varieties of approaches for structuring a framework for youth sport development plan, in most cases there are common features which provides life skill development of youths (Bean & Forneris, 2016). Full knowledge of a sport's clientele is fundamental to ensuring that the most appropriate programs are being implemented and that the entire sport community is being serviced (Volleyball Canada, 2006).

To better understand the design and implementation of youth sport development programs, Petitpas et al., cited in Camir (2014) stated that developing a framework which contain four major components such as an appropriate environment "context", caring adults "external assets", opportunities to learn skills "internal assets", and research and evaluation are instrumental. In addition, this comprehensive structure grounded in research findings in youth sport development and based on best practices identified by youth sport development

professionals. Structuring a framework for planning youth sport programs should serve as a roadmap for all interested stakeholders in evaluating the outcome of youth development programs. In addition, each component of the framework provides guidelines for research questions and evaluation concerns (Camir, 2014).

However, Petitpas, et al. cited in Camir (2014) substantiated that, an appropriate environment should allow youth to take part in voluntary activities that are rewarding, contain clear rules and boundaries, and require sustained effort over an extended period, these issues given little emphasis in national youth sport development program (Camir, 2014). In supporting these, Larson, et al. cited in Camir (2014) confirmed that, in order to maintain youth's motivation to engage in sport, it is important to create a context that allows them to perceive their actions as their own. Therefore, participation in sport negotiated between youth and adults in order to allow youth to exercise individual choice and develop skills, such as responsibility and autonomy. In contrast, Ethiopian Youth sport development program plan does not state the major components, which are outlined by researchers to be taken as a roadmap for youth sport development program in the country (Ethiopia Development program, 2016).

A positive community environment, caring parents, coaches and other stakeholders needs to be major component of youth sport development program plan structure which helps to occur a positive youth development as external support system (Petitpas, 2008). Petitpas, et al. cited in Camir (2014) confirmed that, the relationships between youth and external assets require consistent contact over an extended period in order for mutual trust and respect to be developed and which in fact lacking in Ethiopian national youth sport development program. Coaches and parents should play an important role to develop youth, as they have a potent influence on their personality and they are also vital external assets in the best position to facilitate development (Camir, 2014). Therefore, the quality and density of the social interactions and relationships formed with caring adult mentors play a decisive role to develop positive assets in the youth sport development program (Camir, 2014).

Fraser-Thomas et al. as cited in Camir (2014) stated that participation in youth sport programs allows youths to develop several skills that lead to positive physical, emotional, and social outcomes (Camir, 2014). In contrast, Ethiopian youth sport development program focused on the selection and training of talented youths with little emphasis on youth participation. Therefore, in order to do so, programs have to be designed and involve all kids to take part and teach a wide variety of skills over a period in order to better identify, select and develop those talented youths throughout the process which is the main concern of the researcher in developing talented athletes.

Among the major components of youth sport development program plan, research and evaluation play a decisive role to cheek if intended positive outcomes achieved or not. Besides, Petitpas et al. (2005) stated that it is important to describe the specific elements of a program and how they delivered in order to understand and interpret the results of any outcome analysis. In addition, during the process of research and evaluation, documenting the effectiveness of the program will become very instrumental (Camir, 2014). Although these basic issues are part of youth sport development program, conducting research and evaluation in Ethiopian national youth sport development program persisted to be the major problem. Hence, continuous assessment of actual program strategies to check whether these activities connected to positive youth development should be a primary focus on youth sport development program (Camir, 2014).

Evaluating how programs implemented at the initial stage of the program evaluation gives direction for effective evaluation. According to the Committee on Community-Level Programs for Youth, Eccles and Gootman, cited in Petitpas et al. (2005), confirmed that the first step in the evaluation process is to examine how programs implemented. Therefore, to recognize the positive and negative outcome of youth sport development, program evaluation and research will play a major role. According to Dane and Schneider, Domitrovich and Greenberg, and Durlak cited in Petitpas et al. (2005) stated that the quality of implementation associated with the quality of program outcomes. Many programs lack sufficient time and financial resources to assess factors related to program implementation, which include staff training, ongoing supervision, as well as explicit program elements (Petitpas et al., 2005).

Coalter cited in Schulenkorf (2012) stated in his journal article that strategic monitoring and evaluation should also carried over to the post-project phase. Once a project or an event has ended, it is important to evaluate its management mechanisms and assess social affects and outcomes to sustain and maximize program benefits by collecting feedback from different event stakeholders in order for future planning and management activities (Schulenkorf, 2012). One of the major problems of Ethiopian national youth sport development program is lacking systematic mechanisms for project monitory and evaluation framework for how programs delivered at the beginning and in each phase of the process, which are the core for any programs. Although monitoring and evaluation of youth sport development program projects are crucial, lack of frameworks and models to assess specific goals, needs and circumstances continued to be a problem for various communities and stakeholders (Schulenkorf, 2012).

Schulenkorf in his journal article stated that evaluation of long- term outcomes is necessary to provide evidence of the longevity and profundity of projects. Indeed, if the goal of an initiative to advance social development within or between communities, then sustainability of relationships, community partnerships and social networks beyond the sport project provide key areas for ongoing assessment. Therefore, youth sport development framework should adapt to diverse social contexts, consider different project purposes, and respect varying socio-cultural, economic, demographic and geographic nuances of communities (Schulenkorf, 2012).

2.2.2. The Contribution of Youth Sport Development

In today's global society, the role of sport has become instrumental in various aspects. Sport contributes to the social, physical, psychosocial and behavioral attributes of various groups (Manamela, 2016). Different organizations around the world have recognized sport's contribution as an integral path for children's development as an important global issue. Larson cited in Côté & Lidor (2009) stated that sport is an activity in which youth have reported experiencing the unusual combination of high intrinsic motivation and determined engagement over extended periods of time (Côté & Lidor, 2009).

There is growing evidence that sports participation benefits children and young people; these benefits include improved physical health, enhanced self-esteem and self-efficacy, more effective life and social skills and better grades at school. There is concern, however, that children and young people do not always experience sports participation. There seems to be a fundamental shift of emphasis from a dominant conception of sport as playful, fun-orientated activities, led by the children themselves, towards structured training programs and competitions organized by adults (Bailey, n.d.).

Youth sport programs have the potential to promote several important outcomes in young people's development. Sport has gained international recognition as a global issue to be the route for children's development (Côté & Lidor, 2009). Sport researchers and the wider sports community need to have a clear vision of the inherent value of sport participation and the best way to transmit positive personal values through sport. Hansen et al. cited in Vella et al. (2012), stated that youth sports participation associated with many general indicators of development, including identity development, personal exploration, initiative, improved cognitive and physical skills, cultivating social connections, teamwork, and social skills (Vella, et al., 2012).

In supporting these, Fraser et al. (2007) suggested that through optimal development, pleasant youth who experience more positive than negative effect would emerge. Although, good youths recognize their efficiency to be a contributing member of the society, the question of how youths' potential cultivated through positive development, and how resulting 'good youth' emerge in society is only being addressed (Fraser et al., 2007).

Van Langendonck and et al. Baron and Weiss, cited in Kaleth et al. (2015) suggested that participation in physical activity and sports encouraged for children and can provide many physical, psychosocial, and health benefits. In addition, to develop sport-specific skills, sport participation can also cultivate the growth of other life skills such as leadership, teamwork, and character, and can have a positive effect on health-related measures later in life (Kaleth et al., 2015).

As Coalter cited in “Evidence-based policies for youth sport programs,” (2014) suggested that questions surrounding “What makes up the outcomes of youth sport?” and “How these outcomes achieved?” are issues coaches, parents, and policy makers struggle to define and agree upon. These fundamental questions have created several debates among researchers and policy makers in terms of how youth sport programs structured to gain the desired outcomes expected (“Evidence-based policies for youth sport programs,” 2014).

From a policy perspective, Skille Comeau, cited in “Evidence-based policies for youth sport programs,” (2014) has discussed two views of youth sport that are often perceived as being contradictory, such as excellence and participation. According to Collins, cited in “Evidence-based policies for youth sport programs,” (2014) stated that, the elite youth sport agenda comes ahead of the participation objectives and that few countries can balance policies and resources that maximize the developmental benefits of youth sport (“Evidence-based policies for youth sport programs,” 2014). However, Siedentop, cited in “Evidence-based policies for youth sport programs,” (2014) suggested three primary goals for junior youth sport programs such as the elite-development goal, the public health goal, and the educative goal. Côté et al., cited in “Evidence-based policies for youth sport programs,” (2014) refer to the outcomes of youth sport as Performance, `Participation, and Personal Development. There is evidence from research and practice that different youth sport programs structured to meet these outcomes.

National youth sport development program in Ethiopia focuses on the elite development goal as an outcome of the program, however, the public health goal and the educative goals have given diminutive emphasis, as if they have no contribution to the elite development goal (Ethiopia, Development, 2008). However, Côté et al. (cited in “Evidence-based policies for youth sport programs,” 2014) stated that youth sport involvement can lead to outcomes classified as performance, participation, and personal development; these outcomes are central to youth sport systems aimed at providing quality experiences to participants (“Evidence-based policies for youth sport programs,” 2014). However, these outcomes treated in various nations’ national youth sport development program in different approaches.

Therefore, the researcher contended that youth sport development outcomes need to consider participation goal as a pillar of all other youth sport developments outcomes to come on. It still holds true that countries first need sport participants before they can create elite athletes. Each elite athlete was once just a beginner in his or her sport and dependent on teachers and coaches at schools and clubs to develop their talent (De Bosscher, et al., 2015).

Although it is easy to identify the primary aim of a youth sport program, a sole focus on one aim often reduces importance of the other two objectives and minimizes the potential that sport involvement can have on youths' lives. There is growing evidence that youth sport programs for children can focus on all three outcomes and be successful in developing skilled performance, maintaining participation rates, and enhancing personal development. Thus, by focusing on the common building blocks that all young people need, we can enhance the experience of children in sport and reduce the costs associated with the design of different youth sport programs ("Evidence-based policies for youth sport programs" 2014).

Therefore, specialized sport programs are necessary in providing opportunities for all children to take part in various informal and organized recreational sports should be the focus of sport programmers even if developing elite athletes is the goal of the program. Diversity instead of specialization during childhood has a positive effect on future elite performance and long-term participation in sport (Côté et al. 2009).

2.2.3. Challenges of Youth Sport Development

Nowadays, winning medals in major international competitions has become a major concern to all national sports organizations and governments throughout the world. Bosscher et al. stated that in the last few years, an enormous amount of money has increased to youth sport development program. In addition, various researchers have discussed on diverse Olympic success of nations using socio-economic determinants such as wealth, population, land mass and politics. However, these factors have become out of the control of sports policies (Bosscher et al., 2007).

Many researchers discussed in their review that the challenging nature of youth sport program complicated in answering questions to their specific strategies to apply their program in different population and settings (Petitpas et al., (2005). The challenges in youth sport development programs are even going beyond associations, organizations, groups or stakeholders. For instance, because of the complicated nature of youth sport development program, governing bodies often face the challenge of deciding which activities they intend to emphasize in youth sport development program ("Evidence-based policies for youth sport programs," 2014).

Despite the complicated nature of youth sport development program, Collins, cited in "Evidence-based policies for youth sport programs," (2014) confirmed that a challenge for countries and national governing bodies is structuring youth sport development programs facilitate achievement of excellence and participation to overcome these challenges. In supporting this, Deakin highlighted in his journal article that many sport programs designed to foster positive youth development are doing just the opposite and this raises the question of how stakeholders can assure positive youth development through sport. To answer this critical question, Deakin examined program design and adult influence as two major contextual factors contributing to positive and negative experiences and outcomes in the status of youth sport (Deakin et al., 2005).

Bloom stated that a variety of influences might have a crucial and lasting impact on the development status of successful talented athlete. Among major factors that influence all performers throughout their sporting careers is the quality and appropriateness of the coaching environment (Bloom, 1985). Likewise, Maguire and Pearton (2000) asserted in their journal article that a variety of factors and elements in sport has affected youth talent development. In addition, to understand an athlete's talent development process, the focus and efficiency of sport organizations, the availability and identification of human resources, the methods of coaching and training, and application of sports medicine and sport sciences are all elements measured and analyzed (Maguire & Pearton, 2000).

In supporting this, Veerle De Bosscher et al. (2015) declared that successes of youth sport development programs affected by a variety of factors and classified these factors in to

three levels: macro, meso, and micro-level. Macro-level factors influence the (dynamic) social and cultural environments in which people live, including economy, demography, geography and climate, urbanization, politics, and national culture. Meso level factors influence the policy environment of nations. Micro-level factors influence the success of individual athletes, ranging from the influence of inherited genes to the social influence of parents, friends, and coaches (Veerle De Bosscher et al., 2015).

Houlihan and Green (2008) stated that the elements of elite sport development factors categorized into three clusters: contextual, process related, and specific. Contextual factors included items such as funding, excellence culture, sponsorship climate, media support, participation in sport, and scientific research (Houlihan & Green, 2008). Process related factors focused on the system's processes such as a clear understanding of stakeholders' role, the simplicity of administration, talent identification, development and post-career support, integrated policy development, and coach development (Houlihan & Green, 2008). Specific factors included the structure of competitive programs (i.e., a hierarchy of competitions that prepare for international events), facilities, sport science support services, and international competition (Houlihan & Green, 2008).

Baker and Horton, cited in Manamela (2016) concluded existence of many factors that can influence the acquisition and manifestation of high levels of youths' sport performance. however, the researchers suggested that to analyze their influence, factors needed to be divided into variables that have a primary influence on expertise and variables that have only a secondary influence through their interaction with other variables (Manamela, 2016).

However, many researchers used a variety of approaches to label factors affecting the status of youth sport development; they have a common sense of understanding regarding these variables. The lack of research in this area leads us to believe that not enough known about effective development environments or how they can optimize (Martindale et al., 2005). Therefore, policymakers, national organizations, national federations, coaches, should consider these variables to devise proper youth sport development program which intern contributes to future elite athlete's development.

2.2.4. Stakeholders' Perception Towards Youth Sport

Throughout our lives, we are all subjected to the needs and wishes of other people around us and this may be especially true for children who are not independent from others who have a concern for them. Several children involved in a variety of youth sports programs around the world gained many benefits to keep them healthy and learn physical skills that they can use throughout their lives (Welk, Gregory; Babkes, Megan; Schaben, 2019). Except for informal sport where children organize and conduct their own play, children and youth play organized sport under the supervision and watchful eye of coaches, teachers, parents, and spectators (USADA, 2012).

Coakley et al. and Lee, cited in Catherine et al. (2006) stated that children decide to take part in youth sport, but that decision tied to an awareness of alternatives and rewards shaped by important adults in their lives (Catherine, et al., 2006). Recognizing that stakeholders involved in youth sport development, including coaches and parents, can influence the nature and quality of young athletes' sport experiences. However, the influence from parents can be positive and negative depending on how it received and perceived by the child. For instance, praise, encouragement and support can help to enhance a child's perception of their ability and increase their interest and involvement (Welk, Gregory; Babkes, Megan; Schaben 2019).

In contrast, parental influences and behaviors can have negative effects on a young athlete's sporting experience. They can also perceive these behaviors as encouraging and positive and result in positive affective responses (Hedstrom & Gould, 2004). On the negative side, parents who expect too much and put too many demands on their young athletes before, during, and after competition can create stress that can destroy their child's enjoyment of sport (USADA, 2012).

Smith further stated that the goal priorities they set, the attitudes and values they transmit, and the nature of their interactions can influence the effects of sport participation on children (Smith, 2016). In supporting this, Abraham and Collins, cited in Fix et al. (2011) confirmed that the beliefs and assumptions of stakeholders, including coaches, children

and youth participants, parents, etc. drive much of the behavior observed in social interactions of coaching (Fix, Veldhoven, Lara-bercial, & North, 2017).

In Ethiopia, it is habitual that young people drop out of sport, some never returning because of several reasons. One of the leading reasons would be parents' perception towards youth sport development program. According to the researcher's experience, most of youth parents lack the knowledge of youth sport participation and the benefit attached to it. They perceive that child who took part in youth sport activities will become lagging in their academic achievement, as well as undisciplined and out of the social norm. In supporting this, Weiss (1993) suggested that more research needed to determine the extent to which social support by parents, coaches and peers' influences and affects self-esteem and motivation in youth sport. Hence, though other factors need further investigation to shape their perceptions towards youth sport participation, parents require knowledge and understanding about the benefit of sport participation and parental support for their children's future success.

2.3. TALENT IDENTIFICATION AND DEVELOPMENT

The Ministry of Ethiopian Youth and Sport has devised a growth and transformational plan for two consecutive strategic years to develop competent elites using scientific methods. The program has used talent identification and development experience benchmark from South Africa, England, Germany, Kenya, Australia, France and Spain (Ethiopian Development, 2016). However, despite benchmarks used to implement their best experience for youth sport development in the country, there is no clear sign how their experience on talent identification and development models adopted to follow for effective implementation of youth sport development youth volleyball development in particular. Therefore, the major concern of this section review is to examine and analyze concepts of talent identification and development, developed by sport science researchers on youth sports talent.

The search of greatness and the growing nature of commercialization of sporting excellence triggered various sport organizations to invest their resource to promote

performance in the world (Breitbach et al. 2014). Côté and Lidor (2009) stated that achieving advanced performance in sport is a feat that is acclaimed and can reward in today's civilization; as a result, identifying and developing athletic talent remain key areas of concern in sport. Vaeyens et al., cited in Paul (2016) suggested that, discovering exceptional young athletes and starting them in to a specialized youth sport training program capable of developing their gift should be the main aim of talent identification and development process (Paul, 2016).

Performances in early specialization programs where children identified and selected at a young age to compete and achieve at an elite level of performance are common in several countries around the world in various sports. Research on "Evidence-based policies for youth sport programs," (2014) stated that the human and physical resources invested in these programs are important as youth are raw potential that need to be developed. Because of the dynamic nature of talent identification and development process, various models concerning talent identification and development has become a major concern of discussion by various researchers, sport organizations and government policies ("Evidence-based policies for youth sport programs," 2014).

Russell and Williams, cited in Vaeyens, et al. (2008) defined talent identification (TID), i.e., recognizing current participants with the potential to excel in a particular sport and talent development (TDE) providing the most appropriate learning environment to realize this potential play a crucial role in persuading excellence (Vaeyens, et al., 2008). In supporting this, Williams and Vaeyens, cited in Suppiah et al. (2015) defined talent identification as recognizing current participants with the potential to excel in a particular sport while talent development provides the required learning environment to maximize this potential (Suppiah et al., 2015).

By understanding the concept of talent identification and development and establishing effective talent identification and development systems, stakeholders need to recognize the multidimensional and dynamic nature of sporting talent and promote the range of factors that enable children to develop into successful mature performers. Abbott, et al., cited in Abbott, et al. (2007) stated that however, talent identification processes have focused on a

limited range of variables and base selection of the ‘talented’ on one-off proficiency measures that cannot acknowledge that physical maturity and previous experiences can color performance.

Suppiah, in his journal article portrayed that, what makes for an elite sport champion is a combination of many factors that interact with each other in a certain time and space, often in immeasurable ways, which may never replicate again even when similar conditions come together, but at a different time or place. There is an expectation that resources such as funding, coaching and sport science expertise, time funneled to talent identification and talent development systems are a workable investment where competition successes at progressive levels of competition secured and repeated (Suppiah et al., 2015).

Although various variables appear to strengthen a person’s true potential for growth, there has been insufficient consideration of these variables within traditional talent identification and development approaches as a result, traditional talent identification and development processes are likely to exclude many talented children from support programs (Abbott et al., 2007). Suppiah et al. (2015) asserted that limitation of sport science research existed to investigate measurable variables using valid and reliable tests that contribute to sport achievement in laboratory or field test performance.

According to Abbott et al., Bartmus, Neumann, et al., Durand-Bush and Salmela, and Vaeyens, et al., cited in Bailey and Collins (2013) confirmed that many researchers have raised reservations over the systematic foundations of talent identification programs. Abbott and Collins, Ford et al., cited in Bailey & Collins (2013) noted that, despite the doubts raised by researchers, national governing bodies of sport and key partner agencies continue to invest considerable amounts into talent spotting of young children who directed toward changed and most probably effective sped up youth talent development programs.

Although there are various inhibiting factors to set best model for youth talent identification and development, it remains to be a serious task for researchers to propose an appropriate working roadmap. Having this notion in mind, this section review structured in to three major topics: such as contemporary concepts on youth talent identification and

development, challenges on the current practice of youth talent identification and development and development of progressive youth talent identification and development models to synthesize an appropriate working structure for youth volleyball development in Ethiopia. Hence, the concept of synthesizing evolutional rather than revolutionary talent identification and development systems discussed to produce an alternative model for national youth volleyball talent identification and development in the country.

2.3.1. Contemporary concepts on youth talent identification and development

The concept "youth" refers to the stage of life between childhood and adulthood. It implies a particular period of life, which signifies not only biological and psychological maturing but also the process of an individual's integration in the social community. During this period, young peoples expected to develop skills and capacities in order to take over social roles in all spheres of human activities (Strategy, n.d.).

Youth talent identification and development in the search for international or professional athletic success in early to-mid-adulthood becomes a persistent issue that faces major sporting bodies (Suppiah et al., 2015). The concept of developing talent and athleticism in youth is the goal of many coaches and sports systems; as a result, an increasing number of sporting organizations have adopted various models to provide a structured approach to youth talent identification and development (Rhodr S. Lloyd et al., 2015). In supporting this, current talent identification and development has become a gigantic business in various domains, from sports to other aspects of competitive life; as a result, researchers in all domains are striving to identify the best in their field. However, finding the most effective and most efficient TI method is a complex task (Wolstencroft, 2002).

Although talent identification and development programs have gained popular recognition in recent decades, Vaeyens in his journal article showed that lack of agreement in relation to how talent defined and identified remained accepted theoretical outline to guide current practice (Vaeyens et al., 2008). likewise, lack of understanding regarding the contributions of nature and nurture have led to inconsistencies around the definitions of talent and how to identify (Robinson, 2016). Though there are lack of a reliable model to identify the fittest

youths at younger age, athletes' performance in sport has shown constant progress in recent decades (Gonçalves et al., 2012). Hence, the concept of current practice on talent identification and development remains recent thematic area of sport science researchers.

Baker, et al. and Christopoulos, cited in Robinson (2016) noted that identifying and developing one's potential through talent identification (TID) programs has occurred for many centuries. They employed one of the first regimented systems in ancient Greece, where youth would train for admiration in events like wrestling in 776 BC (Robinson 2016). They introduced traditional talent identification system with introducing selecting best performers during the time of early Greece; the system in team sports like volleyball follows talent identification procedures based on subjective sports competition performance and isolated athletic assessment (Burgess & Naughton, 2010). However, Bompa, cited in Wolstencroft (2002) noted that in the late 1960s and early 1970s many East European countries realized the weakness of the traditional TI programs, and attempted to develop methods of identification, which underpinned with scientific theory and evidence (Wolstencroft, 2002).

For several reasons, traditional practice by measuring the current performance of youths on combinations of physiological, anthropometric or technical variables within age specific groups proven problematic (Vaeyens et al., 2008). It is common to see subjective decisions by sporting organization for player selection, which leads to flawed future elites' success (Robinson, 2016). For instance, low development status of youth sport in Ethiopia shows the traditional approach used for talent identification and development system.

Because of the multifaceted nature of talent identification and development approaches, Sherar et al., cited in Burgess & Naughton (2010) stated that sports science experts in charge of elite talent development might be unfamiliar with current research models. For instance, in Ethiopia, there is a lack of evidence regarding youth volleyball talent identification models as a road map to develop future elites. Although there are models for TID, it needs proper understanding and knowledge to implement it in practice. In supporting this, Burgess and Naughton stated TID models developed by other researchers can often be difficult for coaches to translate into practice (Burgess & Naughton, 2010).

Pankhurst et al., cited in Robinson (2016) stated that, despite the potential advantages of TID programs, there remains a discrepancy between what proposed in the research and even what they observe in practice. However, there are discrepancies over talent identification systems employed, current theories and the question of designing progressive talent identification and development model revolve around the notion of nature, and nurture dichotomy continues to dominate popular discourse.

Therefore, perception of talent and ability in talent identification and development is an important aspect of the system reflecting one's view on whether exceptional performance results from biological or constrained factors. In particular, if athlete selection compromised or missed due to lack of understanding the nature and nurture dichotomy, can lead to decreased participation rates or even withdrawal from sport. As a result, this draws attention to the need for a working progressive TID models that place an emphasis on more aim or evidence-based identification for the success of elite athletes (Robinson, 2016).

2.3.2. Current Practice of Youth TID Systems

In the universe of sport, whether team or individual, among the large group of those engaged, very few will attain the highest level and can aspire to be recognized as exceptional elite. The demand of establishing a 'scientific' talent identification process has led to many nations looking at strategies being employed by countries that excel at major international sporting events. Considerable resources spent across the world in attempting to transfer TI processes to less successful sporting nations (A. J. Abbott, 2006).

They center on the very nature of talent identification and development on the measurement and subsequent comparison of characteristics that contribute to sport specific performance quality (Robinson, 2016). Although talent identification and development linked to sustainable and quality world class performance Martindale et al. (2007) identifying individuals with the utmost potential to excel in sport presents a major and relevant challenge for stakeholders involved in youth sport. Hence, with limited resources available to help youths develop, effective talent identification and development methods are of

paramount importance to minimize costly mistakes through dropout or failure to achieve the intended youth development goal (Abbott et al., 2007).

Although talent identification and development play a significant role in youth sport development, several argumentative ideas raised by researchers on the area created an immense challenge in the current practice of talent identification and development systems. The challenge in youth sport talent identification is whether to choose the cross-sectional/traditional/ method to predict success by measuring current performance of youths' physiological, anthropometric or technical variables. Although, researchers employing cross-sectional/traditional/ method believed that important characteristics of success in adult performance can a method to identify talented youngsters, various researchers stressed that youths who possess the required traits will not keep those attributes throughout their developmental stage (Vaeyens et al., 2008). Because, Abbott and Collins (2002) further stated several factors like maturation and training effects affect the developmental process, early traits on adolescent do not translate in to exceptional performance in later stage.

Second, there is believe that a "deliberate practice" talent development model proposed in which develop national level achievement after 10 years of focused, specific practice. In supporting this, Darren stated athletes can only succeed if, from an early age, exposed them to skill refinement and training specificity (Darren, et al., 2010). However, the early exposure model has also criticized for suggesting elite performance would negate any influences of factors such as genetic predisposition, coaching quality, efficacy in commitment, and parental support. Gullich, cited in Bailey and Collins (2013) confirmed that there is no convincing evidence that most sports require an early investment of training in one activity. In fact, evidence is available suggests that across several eventual elite players, correlated early specialization with eventual success (Bailey & Collins, 2013). Hence, using "deliberate practice" model as one of talent identification and development model has become debating.

Third, the complicated nature of designing appropriate talent identification and development system regarding early specialization and late specialization sport also

created another challenge to design proper TID system. In addition, the unpredictable and dynamic nature of team sports during adolescence provides few guarantees, even to committed individuals (Darren, et al., 2010).

Though, there are many factors that still need to be addressed and overcome to ensure the TID process is valid, successful, and sustainable Burgess & Naughton (2010) the aim of this study focused on the above argumentative issues believed to help to choose proper TID systems to apply in youth volleyball sport Ethiopia. Hence, based on the experience of the researcher, some observe that the current youth sport talent identification and development process in Ethiopia lacks clear pathway to apply and follow the TID process. As a result, creates an immense challenge to evaluate its contribution to future elites in the country and in the SNNPR based on TID systems planed. In supporting this, Martindale et al. stated that clear system would provide a philosophy that drives the aims and practices of talent identification and development, the coaching process, funding, resources, evaluation, coach reward, competition, and club structure (Martindale et al., 2005).

2.3.3. Developing Progressive Youth TID Models

Achievement of outstanding sport performances holds attention of several researchers seeking specific answers about how excellence in sport achieved. Sport science researchers aiming at elite's development in various sports have developed various models for youth sport talent identification and development. However, most of them are exclusive rather than inclusive (Vaeyens et al., 2008). Talent identification may cause discontentment, premature stratification, or dropout from team sports. Understanding the multidimensional differences among the requirements of youth and elite adult athletes could provide more realistic goals for potential talented players (Burgess & Naughton, 2010).

Effective TID systems in sport are crucial for sustainable development of future elites in a country. According to Abbott and Collins; Falk et al. cited in Robinson (2016) stated that TID process has become more attractive and placed to sport organizations as a greater emphasis on early identification and selection of young athletes (Robinson, 2016). However, there remains a lack of agreement to how talent identified, the success rate of

TID programs assessed and the reliability and validity of models debated (Vaeyens et al., 2008).

Despite the lack of a reliable model to identify the fittest at younger ages, Gonçalves stated that human performance in sport has shown a constant improvement in recent decades. It is logical that a good sport and educational system providing opportunities for all and the autonomy to choose our own way at the right time continues to be the best TID model of all (Gonçalves et al., 2012). An increasing number of sporting organizations have adopted a variety of models to provide a structured approach to training of youth (Rhodri et al., 2015).

The need for designing progressive TID models that best fits to countries centering to their development and requirements in a specific sport has become a major concern of many organizations and countries. Therefore, this section review provides a critical analysis of existing TID models of practice that are recognized by researchers to synthesize progressive youth volleyball TID model for youth volleyball development to a roadmap in Ethiopia.

2.3.3.1. Talent Identification (TI)

Talent identification is recognizing current participants with the potential to excel in a particular sport (Vaeyens et al., 2008; Williams & Reilly, 2000). Peltola, cited in Callan (n.d.) encourage defined TI as the process by which children to take part in sports they are most likely to succeed in based on results of testing selected parameters (Callan, n.d.). Hugo stated that have shown TI parameters to predict future performance, considering the child's current level of fitness and maturity (Hugo, 2004a). However, Helsen, et al. stated that there remain limitations to current procedures for identifying talented athletes have reported and it has become apparent that potential talent often overlooked and scarce resources allocated (Abbott, 2006).

The purpose of various approaches to TI systems is the earliest possible selection of promising athletes with the goal of maximizing their potential (Breitbach et al., 2014). Hence, it needs a thorough examination of current TI approaches used by different

researchers to facilitate identification of the most talented athletes and to enable stakeholders to devise resources for the program. In supporting this, Bomppa, cited in Abbott (2006) showed the most widely used TI methods as natural and scientific selection methods.

- **Natural selection method**: Aimed at identifying talented individuals that are already taking part in a sport because of recognition to performance when compared to their groups. Natural selection method have considered as "Traditional TI" approaches by various researchers in attempting to identify those youths already take part in a particular sport (Bompa, 1994, 1999). Natural selection processes rely on talented individuals to come across the sport they are most likely to excel in even though involvement may result from peer or parental interests, proximity of facilities, or of the sport's popularity in that geographical area (Abbott, 2006). For example, in SNNPR, Ethiopia especially in Wolita Zone, Hadia Zone, and Kembata Zone, volleyball sport is popular, as a result many children love to take part in youth volleyball projects; hence, youth volleyball project coaches in the region use natural selection method by considering the current performance of youths to be included in the youth volleyball development program. However, many decads before, various countries for example, East European countries realised the weakness of the traditional TI programmes, and attempted to develop methods of identification which underpinned by scientific theory and evidence (Bompa, 1999). Even though East Europe has been moving away from this traditional approach, such methods have persisted in the West until this day (Wolstencroft, 2002). Therefore, it needs a critical examination of these methods to devise selection method.
- **Scientific selection Method:** Recognized as using practical procedure by which identification of the talented occurs because of testing youths based on the criteria associated with expertise within a certain sport (Abbott, 2006). For instance, the physical, physiological and psychological attributes that affect performance considered as the criteria to identify talented youths in any sport domain; however, sport specific skills should not neglect since they are the fundamentals of that sport. Besides the optimum environment for nurturing these criteria, can target resources

for those individuals that have the greatest potential of becoming outstanding performers. In fact, they highlight that early identification of the talented as one of the most important concerns of contemporary sport (Bompa, 1985, 1990 & Harre, 1982).

Although the process of early talent identification is a major concern, instilling the concept of how to apply TI methods described. Du Randt, et al. (1993) outlined the systematic processes of talent identification, which involve three stages: detection, identification and development. From a scientific selection method perspective, Williams and Reilly, cited in Elferink- Gemser (2013), proposed that pursuing excellence can be break down into four key stages: 'talent detection', 'talent identification', 'talent development', and 'talent selection'. Though both researchers proposed similar approaches for TI process with in scientific selection method, Williams and Reilly added 'talent selection' stage, where the researcher believe very instrumental.

2.3.3.2. Talent development (TD)

Talent development provided a process player with a suitable learning environment and resources to help them realize their potential (Régnier et al., 1993). Talent development considered as developing athletes to realize their potential in sport and in life winning in the end (Plan, Sport, & Group, 2011). Roberts defined talent development as and planned activity aiming at developing athletes' potential in sport rather than an afterthought school program (Roberts, 2008). The goal of every talent development approach is the same, they vary in a variety of ways and approaches and contents to realize athletes' potential (Naughton, 2010).

Although having talent does not guarantee a young person will develop that talent, most fundamental model for talent development should offer opportunities to excel at the uppermost level possible. Hence, opportunities and resources of the schools, community, and home environment required to encourage and promote talent (Roberts, 2008). Baker, et al. and Elferink-Gemser, et al., cited in Robinson (2016) stated that countries like

Australia, Canada, China, the United Kingdom, and the United States have supplied significant resources to develop evidence-based TI and TD programs (Robinson, 2016).

In contrast, as far as the experience of the researcher concerned, talent development in youth sport of SNNPR, Ethiopia presented no significant opportunities for trainees to realize their potential. However, Roberts in his journal article contended a key factor that development of talent is providing the children constant opportunities to work at his or her high level of performance (Roberts, 2008). Thus, while the exposure to talent development area begins the process, ongoing opportunities to develop a child's talent and commitment of children to the talent area are essential for sharpening exceptional talent (Roberts, 2008).

Martindale et al., cited in Burgess & Naughton (2010) identified five common factors which affecting talent development in his review of talent development literature. These generic factors include long-term aims and methods, wide-ranging coherent messages and support, emphasis on development rather than early selection, individualized and ongoing development, and integrated, systematic, and holistic development (Burgess & Naughton, 2010). In supporting this, the researcher argued that a method of using practical talent identification and talent development model should play a crucial role to develop future elites by considering these factors.

2.4. CONCEPTUAL MODELS OF TID

In applied research and policy development, model building has become a common approach. Models can help to identify varied factors that might affect a particular phenomenon or situation, their interrelationships or causal sequence (Bailey et al., 2010).

Talent development and athleticism in youth has become the major concern of sports systems. An increasing number of sporting organizations have espoused long-term athletic development models to provide a structured approach to train youth’s (Rhodr et al., 2015). A few decades before, there has been a clear increase in the number of theoretical models dedicated to understanding how athletes develop in sport (Patricia Coutinho, 2016).

Over the past three decades, many researchers have proposed several athlete developments models. For instance, Alfermann and Stambulova, cited in "Evidence-based policies for youth sport programs," (2014) highlighted and reviewed five research-based models (Bloom 1985, Salmela 1994, Stambulova 1994, Côté 1999, Wylleman and Lavallee 2004). More recently, Bruner et al., cited in "Evidence-based policies for youth sport programs," (2014) conducted citation network analysis and revealed two additional models published in peer-reviewed journals Abbott and Collins 2004, and Bailey and Morley 2006 ("Evidence-based policies for youth sport programs," 2014).

However, these talent development models varied in their approach to talent identification and development in youth sport. Someone can especially notice the difference between the former communist-socialist countries and the capitalist countries (Hugo, 2004a). In supporting this, Du Randt et al., cited in Hugo (2004a) found that application of talent identification and development models varied in different countries; the research group recommended that a model for talent identification and development for selected sports has to be developed by every country (Hugo, 2004a). Oakley, Green, and Clumpner, cited in Sport Northern Ireland (2012) stated that, because of a struggle for international supremacy, elite sport development models have shown an increase in similarity and more ever based around specific elite sports development system (Sport Northern Ireland, 2012).

The system of talent identification often held accountable for poor performances, limited number of top performers and emerging and inconsistent champions (Krasilshchikov, 2015). Well-adjusted system of talent identification, on the contrary, regarded as the first step to become an international athlete (Peltola, 1992). However, correct placement of identified talent within a wide variety of sports and events, and further selection is a complex multistage and multidimensional process (Poppleton & Salmoni, 1991 and Williams & Reilly, 2000). It occurs at different age and stages of long-term training and varies in criteria and procedures applied from one sport to another (Krasilshchikov et al., 1995).

Talent identification models present a process of isolation and testing of underlying performance determinants (Salmela & Regnier, 1983). Anyone can use some of these

models or combination of these models in any country's context. However, the choice of a model is dependable on the type of sport and the culture of sport in any nation (Hugo, 2004a).

Over the years worldwide, two major studies conducted on the models used in talent identification; these are the studies of Du Randt 1992 and Régnier et al., 1993, these studies reviewed subsequent studies Hare 1999, Spamer 1999 and Booysen 2002 which are focused on five specific models (Hugo, 2004a). However, this section review will focus on five talent identification models conducted within three decades to current and working models; these models include Harre 1982, Havlicek et al., 1982, Bompa 1985, Régnier 1987 and Hebbelinck 1988, to discuss on the concepts of talent identification models.

Besides, Bailey et al. (2010) stated the formal model of athletes' development models that have been influential in recent discussions of sports are Istvan Balyi's Long-Term Athlete Development, Jean Côté's Developmental Model of Sport Participation, Abbott et al., Psychological Characteristics of Developing Excellence and Bailey and Morley's Model of Talent Development in Physical Education (Bailey et al., 2010).

Although, some of these models or combination of these models not used by considering the chosen sport and the culture of the sport in Ethiopia, the notion of youth sport development program has considered as a part of National sport development strategy to produce elites since the last two decades. The Ministry of Youth and Sports, in collaboration with the Ministry of Education, devised youth sport training development program to implement youth sport development throughout the country. However, as far as the knowledge of the researcher concerned, research studies conducted regarding the program or talent identification and development models in the country are very limited.

The national youth sport development program in Ethiopia included the benchmarks taken from various countries. Although, the program took benchmarks from different country such as Germany, UK, Australia, France, Spain, South Africa and Kenya, there is no clear sign of what has taken from this country or developed models to use for youth talent identification and development in the country. The researcher aimed to scrutinize the basic

concepts of current and recognized talent identification and development models and talent identification and development systems of selected benchmarking countries in particular. Common or related talent identification and development systems reviewed and suggest progressive youth volleyball talent identification and development models in Ethiopia.

2.4.1. Talent Identification Models

2.4.1.1. Harre's Model of Talent Identification

Harre's model of talent identification is a German origin. The model comprises two stages; the first stage of talent identification is to expose as many children as possible to training programs and the second stage involves confirmation of sport talent during junior training programs (Hugo, 2004a). Indicators in this stage include level of performance, rate of improvement, performance stability and reaction to training demands (Hugo, 2004a). In the second stage, the role of social support and significant others, such as peers and family considered as being of great significance in the identification and development of talent; therefore, the athlete's social environment regarded as an important constituent of talent identification process (Booysen, 2002).

Harre's Model emphasizes a close relationship between talent identification and development and talent is re-identified as it is being developed. In addition, Du Randt et al. (1992) stated his assumption based on Harre's model that, if a child has the required attributes to succeed, training and practice would determine the potential of the performer. Although Hare's model regarded as one of the most conclusive talent identification models, the only drawback of this model is that it does not allow for talent identification in a team sport setting (Hugo, 2004a)

Concepts of Harre's model (1999) centered based on the four rules, social environment, and importance of training. The first rule focuses on identifying youngsters showing promising general ability and classifying according to the sport specific skills required. Second rule focused on talent identification based on an important aspect that plays a role in sport performance and determined by heredity. The third rule emphasized that children's evaluations need to be considered regarding their level of biological development, and the

fourth rule reminds to give emphasis on social and psychological variables rather than focusing on physical variables (Booysen, 2002 & Abbott, 2006). The model proposes individuals identified based on aim tests of ability (height, running speed, endurance, coordination, ability in game situations and 'athletic versatility'), building on the premise that detection should base on those performance determinants which characterize top level of competition (Abbott, 2006).

2.4.1.2. Havlicek et al. (1982)

Havlicek et al., model of talent identification is a Czechoslovakian origin. Similar to the model of Harre (1982), Havlicek and his research groups suggested several important principles for talent identification (Booysen, 2007). The first principle that they mention is that the purpose of talent identification is to ensure that those who possess a talent for a particular sport must train for that sport. The next principle they propose comprises four steps. In the first step, it must identify gifted children in physical education classes (Régnier et al., 1993, Spamer, 1999, Hare, 1999 & Booysen, 2002). The second step entails the need to specialize in one of sports depending on the attributes and abilities of the individual; in the third step, a specialization must ensure one sport, and then, prediction of success (Régnier et al., 1993).

In their third principle, however, they insist that for specialization in a sport; they are in fact against specialization that is too early. In their fourth principle, they note their opinion that the criteria for identification need to be based on factors that have a stable genetic influence (Booysen, 2007).

In attempting a more comprehensive approach to talent identification, Havlicek et al. (1982) presented a conceptual model that recognizes the multi-dimensional nature of sports performance. AS the major determinants of talent are innate performance, the research group recognized factors influenced by the environment can also have a significant influence on talent (Abbott, 2006). The researcher's priorities innate factors such as height in selecting the talented, followed by factors that are trainable but influenced (e.g., speed), and factors nurtured (e.g., motivation). However, like Harre's model, this model does not distinguish between variables that gauge potential and performance.

2.4.1.3. Bompa (1985)

Bompa (1985) developed similar suggestion on a conceptual model of talent detection based on the system employed within the Eastern European countries. His model emphasizes three types of performance determinants: (1) motor capacities (perceptual and motor skills, endurance, strength, and power), (2) physiological capacities, and (3) morphological attributes. They based detection on the direct comparison of physiological and morphological profiles from younger performers to those of elite athletes. As other researchers, they based the concept of talent identification models on the belief that determinants of performance and potential are identical (Abbott, 2006).

Bompa further maintained that comprehensive talent identification solved not in one attempt, but accomplished over several years in three main phases of participation (Hugo, 2004a).

1. First phase: it occurs during pre-puberty (3-8 years) and includes a physician's examination of a child's health and physical development of child may or may not involve in sport activities.
2. Secondary phase: they use it with teenagers who have already experienced organized training and detailed health examination to detect obstacles to future sport development.
3. Third phase: it concerns on national team, candidates and factors examined include health, physiological adaptation to training and competing, ability to cope with stress and potential for further performance improvements.

In each phase, they attempt to identify performers with potential, which blurs the distinction between talent identification and talent selection. Bompa also stated that each sport must create its own model (Hugo, 2004a)

2.4.1.4. Régnier (1987)

The model of Régnier (1987) based on conventional science and incorporated the guiding principles of talent identification. Régnier model has a broad, multidisciplinary and multivariate design, and is of great value to sport science and all sports disciplines (Régnier

et al., 1993). This model also provides a broad talent identification framework that can apply to any type of sport (Du Randt & Headley, 1992b, Régnier et al., 1993, Hare, 1999, & Durand-Bush & Salmela, 2001). In addition, Régnier model of talent identification developed guiding principles for talent identification. These are:

1. Talent identification must provide a long-term prediction of success.
2. The determinants of performance need to have a strong hereditary influence.
3. Talent detection and identification need to occur within the larger framework of talent development
4. The demands of different sports vary and therefore, the determinants and criteria for success in each sport need to be established.
5. Adopting a multidisciplinary approach in talent identification.
6. Performance determinants and requirements can improve with training and practice and change with age.

Régnier established these principles and designed his model to address the shortcomings that he had identified in the preceding models of talent identification (Booysen, 2002).

Du Randt and Headley, Régnier et al., Hare, and Spamer, and Booysen, cited in Booysen (2006) stated that there are two main phases to this model. The first phase comprises a task analysis to determine the performance criteria or sport-specific requirements for success. The second phase comprises another task analysis to analyze the determinants of performance (Booysen, 2006). It delineated difference of talent identification between single dimensional sports and multidimensional sports.

Therefore, based on the first phase, for talent identification to be effective and reliable, it is imperative that all the criteria and requirements that play a role in effective performance determined. As a result, sports participants will be successful if they meet and comply with these sport-specific criteria and requirements (Booysen, 2007). Essential sport-specific requirements or criteria have determined and the objectives of these requirements and criteria defined, then identification specific success or performance determinants conducted (Du Randt & Headley, 1992b & Régnier et al., 1993).

The second phase conducted to determine the essential underlying factors or variables that contribute towards achieving success in a sport. Psychological, morphological, environmental and perceptual-motor variables considered being the determinants that most likely contribute toward performance. To increase the chances of realizing talent, advised that the selected determinants have a stable genetic influence (Booysen, 2002).

From this discussion, we can conclude that Régnier's (1987) model provides specific guidelines and principles by which talent identification conducted. Therefore, because of the advantages of this model, an appropriate method for thorough and rigorous scientific and empirical research and enquiry into talent identification described (Booysen, 2007).

2.4.1.5. Hebbelinck's Model – 1988

Hebbelinck (1998) proposed a model with three distinct stages for talent identification that included talent selection and talent development efforts. At the initial stage, encourage mass screening of primary school children using a battery of physical performance tests and children who excel to join a training program to identify talented children. In the second stage, where the focus is on talent selection, evaluates the children's progress and gave recommendations about the most suitable sport for each child to pursue. In the ultimate stage, which is aiming at talent development will go through development of sport specific qualities through a systematic training program (Hugo, 2004a).

2.4.2. Talent development models

2.4.2.1. Developmental Model of Sport Participation (DMSP)

Developmental Model of Sports Participation embraces the early, playful, and nonspecific model of sports participation (Cote J & Hay J. 2002a). The Model also recognizes the potential influences from interactions with coaches, parents, schools, and peers (Naughton, 2010). Côté et al., (2007) extended Bloom's earlier work with talented individuals through qualitative interviews with elite Canadian and Australian gymnasts, rowers, and players of basketball, netball, hockey, and tennis. Like Bloom, they have identified three stages of development:

- Sampling phase (6–12 years): When children are given the opportunity to sample a range of sports, develop foundations of fundamental movement skills and experience sport as a source of fun and excitement.
- The specializing phase (13–15 years): When the child focuses on a smaller number of sports and, while fun and enjoyment are still vital, sport-specific and emerge as an important characteristic of sport engagement.
- Investment phase (16+ years): When the child becomes committed to achieving a high level of performance in a specific sport and the strategic, competitive and skill development elements of sport emerge as the most important.

Progression from the sampling phase can take one of three forms. Children can become involved more seriously in one or two sports in the specializing phase; they can choose to stay involved in sport as a recreational activity; or they can drop out of sport. Likewise, in the specializing phase, players have three options available to them when they aspire to a high level of performance in one sport: recreation, drop out, or progress to the investment phase. Those players who have reached the investment years can progress to ever-higher levels of performance, move to recreational sport, or drop out (Bailey et al., 2010).

Côté's DMSP model is psychological (Bailey et al., 2010). Cote's developmental model of sport participation 1999 has gone a step further to bridge specific ages with the different phases (Marina H. Giolas, 2014). DMSP prescribes participation in a variety of sports during the sampling years (age 6 to 12), a reduced variety during the specializing (age 13 to 15), and substantial investment in a single sport (above 16) year. The DMSP asks team sport athletes not to engage in deliberate practice until at least the specializing years (Bailey et al., 2010).

Côté, cited in Bailey (2010) further stated that deliberate play describes a form of sporting activity that involves early developmental physical activities that are motivating, provide immediate enjoyment, and maximize satisfaction. In addition, it involves a changed version of standard rules, requires minimal equipment, flexible contexts and challenges, and allows children the freedom to experiment with distinct movements and tactics (Bailey et al., 2010). In contrast, Ericsson et al. (1993) concluded in their comprehensive review of

literature that, effective learning of skill acquisition and expert performance occurs through participation in what they called 'deliberate practice' requires effort and accumulation of practice hours, which is not enjoyable and improves performance (Ericsson et al., 1993). Therefore, there are other important activities and experiences to consider other than just the quantity of deliberate practice that contribute to development of expertise in sport (Patricia et al., 2016).

Table 1. Differences between deliberate play and deliberate practice

Deliberate Play	**Deliberate Practice**
Done for its own sake	Done to achieve a future goal
Enjoyable	Not the most enjoyable
Pretend quality	Carried out seriously
Interest on the behavior	Interest in outcome of the behavior
Flexibility	Explicit rules
Adult involvement not required	Adult involvement often required
Occurs in various settings	Occurs in specialized facilities

2.4.2.2. Long-Term Athlete Development (LTAD)

Among the most widely used and most influential participant development models, long-term athlete development model considered instrumental. In addition, governing bodies for sport have asked to adopt and adapt a version of LTAD and promote it among their members (Bailey et al., 2010).

Long-term Athletes Development model defined as a systematic, integrated system that built around development of athletes and identifying appropriate level of competition at each stage. Long Term Athlete Development refers to the investiture of commitment, time, effort, energy, finances, and other key factors that are necessary for developing athletes

through their lifespan (Volleyball Canada, 2006). LTAD passed by an analysis of the tested athlete development models from the former East Bloc countries with all the positive and negative aspects of those models designed by Istvan Balyi (Turnbull, 2011). Sport sciences have provided insight and information regarding the role of growth, development and maturation in athletic development. The model explains the stages of sporting ability and establishes a link between development of players and their physical and psychological growth (Manamela, 2016). The model considers the mental, cognitive and psychosocial readiness of children as an important component of young athlete development (Development, 2014).

Volleyball Canada (2006), stated that the need for LTAD arises in part from the fluctuating international performances of Canadian athletes in some sports and the challenge of other sports are having in identifying and developing the next generation of successful athletes (Volleyball Canada, 2006). As a result, the Federal, Provincial and Territorial Ministry of Canada have developed LTAD as the organizational paradigm of Canadian sport. Besides, thousands of sport leaders and researchers worldwide have contributed to Canadian Sport for Life Long Term Athlete Development by learning how practically implement it, extend it into new areas, analyze its underlying principles, and build an evidence base that supports the benefits of the Long-Term Athlete Development approach (Development, 2014).

The Long-Term Athlete Development strategy created for volleyball based on a LTAD model developed by the Sport Canada expert team. It will lead to a better horizontal and vertical integration of the key elements of the sporting system across the stages of LTAD; which will help to determine what needs to be done, at what level, and by whom. Thus, leading to better coordination from a delivery perspective by all those involved in volleyball. Hence, most practitioners agreed this model should underpin developing sport in Canada and become the common language of sports development (Volleyball Canada, 2006).

Long-term athlete development conceptualized in terms of a series of stages through which players pass and the precise timing; and the type of sport in question determines nature of these stages (Bailey et al., 2010). They conceptualized LTAD in terms of a series of stages

through which players pass and the type of sport in question determines the precise timing and nature of these stages. Balyi distinguishes between 'early' and 'late'- specialization sports. Early specialization sports refer to those sports that require their players to specialize and train from an early age, such as gymnastics, diving, figure skating and table tennis. Late-specialization sports include all other sports and Balyi's model prescribes a more generalized approach, with an emphasis in the early stages on fundamental movement skills (Bailey et al., 2010).

Table 2. LTAD stages adapted from (Bailey et al., 2010)

Early Specialization	**Late Specialization**
Fundamental	Fundamental
Training to Train	Learning to Train
Training to Compete	Training to Train
Training to Win	Training to Compete
Retaining	Training to Win
	Retaining

Stafford, cited in Bailey (2010) stated that translating these stages of practice based on information will present athletes with a series of more challenging which let them to become effective in their future development (Bailey et al., 2010).

Phase one: Fundamental's phase is appropriate for boys aged 6–9 and girls aged 5–8. The primary aim should be the overall development of the athlete's physical capacities and fundamental movement skills. The key points of this phase are:

- Participation in as many sports as possible
- Speed, power and endurance developed using FUN games
- Appropriate running, jumping and throwing taught techniques using agility, balance, coordination and speed (the ABCs of athletics)

- Introduction to the simple rules and ethics of sports
- Strength training with exercises that use the child's own body weight, plus medicine ball and Swiss ball exercises.

Phase two: Learning to train this phase is appropriate for boys aged 9–12 and girls aged 8–11. The primary aim should be to learn all fundamental sports skills. The key points of this phase are:

- Further develop fundamental movement skills, strength and endurance
- Learn general sports skills
- Introduce basic flexibility exercises
- Develop speed with specific activities during the warm-up, such as agility, quickness and change of direction
- Developing knowledge of warm-up, cool-down, stretching, hydration, nutrition, recovery, relaxation and focus
- Structured competition using a ratio of 70:30 training/practice to competition recommended.

Phase three: Training to train this phase is appropriate for boys aged 12–16 and girls aged 11–15. The principal aim should be the overall development of the athlete's physical capacities, with a focus on aerobic conditioning and fundamental movement skills. The key points of this phase are:

- Further develop speed and sport-specific skills
- Develop the aerobic base
- Learn correct weightlifting techniques
- Develop knowledge of how and when to stretch, how to optimize nutrition and hydration, mental preparation and how and when to taper and peak
- Establish pre-competition, competition and post-competition routines
- Sixty percent of training to forty percent competition ratio (including competition and competition-specific training) recommended.

Phase four: Training to compete in this phase is appropriate for boys aged 16–18 and girls aged 15–17. The primary aim should be to optimize fitness preparation, sport/event-specific skills and performance. The key points of this phase are:

- Fifty per cent of time devoted to develop technical and tactical skills, and fitness improvements
- Fifty per cent of time devoted to competition and competition-specific training
- Learn to perform sport-specific skills under a variety of competitive conditions during training
- Special emphasis placed on optimum preparation by modeling training and competition
- Fitness and recovery programs, psychological preparation and technical development tailored to the athlete's needs.

Phase five: Training to win this phase is appropriate for boys aged 18+ and girls aged 17+. The primary aim should be to maximize fitness preparation and sport/event-specific skills, as well as performance. The key points of this phase are:

- Athletes train to peak at major competitions
- Training characterized by high intensity and high volume with breaks to prevent over-training
- Training to competition ratio in this phase is 25:75, with the competition percentage including competition-specific training activities.

Phase six: Retirement and retainment the major aim should be to keep athletes for coaching, officiating, sport administration and so on (Bailey et al., 2010).

Balyi's work has not published in mainstream academic peer-reviewed journals, addressed to coaches and coach educators (Bailey et al., 2010). However, it means LTAD has not undergone the usual quality-assurance procedures associated with scholarly work. Many of the sources he quotes as offering support for LTAD central claims are difficult to access or read, as many originate from the former Soviet Union (Bailey et al., 2010). The sources Balyi cites suggest LTAD has its origins in the biological or physiological tradition. It

outlines relevant factors related to adaptation to training and optimal training (Bailey et al., 2010).

2.4.2.3. Psychological Characteristics of Developing Excellence (PCDE)

The aim of PCDE model is to discover prerequisites to success in sport, and the comparative efficacy of employing these prerequisites within talent identification schemes' (Abbot and Collins, 2004). In addition, the model questions dominance of anthropometric and physiological measures as 'rapid identification tools, stressing both the complex, non-linear pathways to elite success, while also trying to stipulate characteristics that both predict and facilitate the pathway to elite success (Bailey et al., 2010).

These characteristics, which they term the PCDE, show a considerable overlap with those factors associated with causative of achievement across a wide range of domains. They also offer an operationalization of the principles espoused by Dweck 2006. Based on the descriptions offered earlier, in the work of Angela Abbott and colleagues, Abbott and Collins, 2002, 2004, Abbott et al., 2005 & Abbott et al., 2007 the model described as a prescriptive model. This work does not offer a comprehensive description of all facets of participant development, as a model should aspire to. What it does offer, however, is a well-evidenced case for the pivotal role of psychology in the development process (Abbott and Collins, 2004).

Table 3. Summary of existing model of practice adapted from (Rhodr S. Lloyd et al., 2015)

Model	**Model orientation**	**Source of origin**	**Central Philosophy**	**Benefits**	**Disadvantages**
Developmental model of sports participation	Talent	Education/ elite sport Talent	Youth should sample a range of different sports before specializing and investing in later years	Supports the notion of late specialization and youth experiencing a range of sports early in life	Although a participant dev't model, it is based on interviews with elite athletes. Doesn't provide guidance on exercise prescription
Long-term athlete dev't model	Athleticism	Biological Dev't/ elite sport	Early engagement in physical activity; take advantage of "windows of opportunity''	Attempts to base exercise prescription on biological maturation as opposed to chronological age	Due to its title, the model seems to be focused on developing athletes. Also, its guidance on exercise prescription to practitioners is limited and lacks validity
Model of Psychological Characteristics of Developing Excellence (PCDE)	Talent	Psycho-logical	Talent dev't towards eventual performance in senior sport	Based on psychological constructs, such as perceived ability and self-determination	Does not offer a comprehensive description of all facets of participant dev't as a model should arguably aspire to

2.4.3. TID Systems in Some Selected Countries

In search of a suitable model for talent identification and development for youth volleyball Ethiopia, it is useful to look at the approaches implemented in some other countries. Therefore, this review section will discuss the elite athlete development systems of some selected benchmarking countries stated in the national youth sport development program of Ethiopia.

Sport development across the UK has shown an increased interest for the last three decades with in home countries, through Sport England, Sport Scotland, the Sports Council for Wales and Sport Northern Ireland to fulfill their separate roles as individual nations (Houlihan and Green, 2011). Each governing body has its own representative team to compete in international sports organizations, however, the one exception is where all four nations come together to form Great Britain's entry to the Olympic (Gao, 2017).

The sport policy community in the UK has changed in a short period from unknown and dispersed sector tucked away in an obscure government department to a significant crosscutting area of policy. For instance, policy areas such as health and education have become interconnected with sports initiatives. As a result, it has become difficult in demarcating the territory of youth sport development in England. However, since the mid-1990s, sport's political importance in England has increased, and UK government investment has led to an abundance of sports opportunities for young people (Houlihan and Green, 2011). In supporting this, Grix and Carmichael, cited in Ranjan (2016) stated that, UK government has invested resources on sports for increasing mass sport and physical activities participation, to build up national proud through the elite sport success (Ranjan, 2016).

Since commencement of the Labor Government in 1997, sport has featured in the title of a government department 'the Department for Culture, Media and Sport' (DCMS), grass-roots sport, including school sports, has raised the political agenda, as a result elite sport has seen an exceptional intervention and prioritization by the state (Grix & Carmichael, 2011). Publication of the sports policy document ''Sport: Raising the Game'' DNH1995 was a watershed for youth sport in the UK and signaled a significant shift in sports development practice from mass participation, to a more targeted approach that prioritized

sporting excellence and youth sport (Houlihan, 2000; Kay, 2000; Kirk, 2005; Green, 2006). The structure of English sport reorganized and developed, focusing on the aim of the game plan and providing funds for development of regional level sport as well as gave greater attention to created coherent system for elite level sport development (Green, 2007).

In UK, promising youth players feed into regional performance centers where identification, nurturing and development of talented players can take place. In addition, progression beyond this stage is into the England performance squad, where high-quality players prepared for elite-level competition. Players in this squad expected to compete for Commonwealth, European, World and Olympic medals. However, the structure of the pathway lacks definitive detail of how an athlete can move from one stage to the next (Gao, 2017).

Schools are adopting a systematic model of defining, identifying and providing instructions that seek to identify gifted students in various activities for further support and specialized provision (Bailey et al., 2005). Grix and Carmichael, cited in Ranjan (2016) stated that, UK government has invested resources on sports for increasing mass sport and physical activities participation, to build up national proud through the elite sport success.

As in other developed nations before the Second World War, the Australian federal government's involvement regarding sport policy was ad hoc and limited to a concern with the fitness of the population for military service (Houlihan, 2005). However, a defining moment for Australian sport and an acknowledgement that sport was a significant policy area for federal intervention recognized after election of the Whitlam Labor Government in late 1972. Although the Labor Government changed sport, however after the government has changed in the late 1972, Australian sport passed through a variety of changes in strategy and policy directions (Stewart et al., 2004).

Australia's international sporting success results from government initiatives that began in the early 1980s after the failure of its athletes to win a gold medal at the 1976 Montreal Olympic Games (Houlihan and Green, 2011). After a shocking result in 1976 Montreal Olympic Games, Australia launched the talent search scheme to identify and develop talent within a working period for the Sydney Olympics 2000 in 1994. Adair & Vamplew, Green, Green & Houlihan, Houlihan and Stewart et al., cited in Houlihan and green (2011) stated

that the policy parameters set gave, not only a clear articulation of what needed to be done to secure international sporting success, but also provided the capital and operational funding to make it all happen.

Australian Institute of Sport (AIS) established in 1981 by aiming to assist elite athletes to improve their international sporting performances by providing extensive infrastructure comprising an athletic stadium, an indoor sports center, outdoor tennis courts, and a netball center (Houlihan and Green, 2011). Australia has increased its success rate over over twenty years since establishment of the AIS in 1981. The Australian system has become a benchmark for many other nations (Veerle De Bosscher & Simon Shibli, 2015).

Because of thorough talent identification processes adopted in the late 1960, several countries, the former 'Eastern bloc' countries, achieved astounding results during the Olympics of 1972, 1976 and 1980 (Randt, 2008). However, many programs have focused on the early identification of talent to select the best youngsters hoping that they will be the most likely to become the best adults; while the more crucial process of nurturing and development has been, at least by comparison, somewhat neglected (Martindale et al., 2005).

In recent years, several Australian sports have started a more systematic process for identifying talented athletes (Hugo, 2004a). The first step in this talent identification process was to determine the physical and physiological requirements of different sports and then to make recommendations regarding the type of athletes suited for competition (Hoare, 1998). There were three phases in the Talent Search program of Australia:

- School screening
- Sport specific testing
- Talent development

Phase one focused on screening of students in schools through a battery of eight simple physical assessments. In most cases, physical education teachers conducted the tests, and the results forwarded to State/territory coordinators, who compared the results against a national database. Students who were in the top 2% in one of the eight tests invited to take part in the next phase. Phase two, some tests from the first phase and sport-specific

laboratory tests also incorporated. They invited students identified with talent for a specific sport in phase two testing to join a “talented athlete program” organized by the state or national sporting organization. Of those students taking part in Phase two testing, 10% invited to join these specialized training groups. Encouraged athletes not selected to take part in a talent development program to take part in club level sport to allow them to develop their skill (Hugo, 2004a).

One of the great strengths of Australia’s elite sport development program is the close relationship built up between the ASC, the AIS and sport’s national governing bodies, which are more commonly known as national sport organizations (NSOs). The ASC has a pivotal role in funding the scholarship and high-performance programs of NSOs, while the AIS provide coaching and sports science expertise. The ASC elite development grant scheme, which is divided into AIS scholarships and allocations to NSOs high-performance activities, is especially crucial for the ongoing conduct of elite athlete development programs by NSOs, and there has been a gradual but significant increase in funding over recent years (Barrie Houlihan and Mick Green, 2011).

South African sport policy has changed since 1994. The oppressive legislation that the previous government has practiced and changed by introducing inclusive processes and developing a unified sport policy and governing institutions by the elected democrat government (Motlhaolwa, 2016). Strategies set by the South African government started not only to promote development of disadvantaged communities and provide opportunities for participation but also to improve the quality of competitive sport that could also contribute to develop communities (Keim & De Coning, 2014).

Motlhaolwa stated that the policies and acts that govern sport and development in South Africa include the White Paper on Sport and Recreation and the National Sport and Recreation (Motlhaolwa, 2016). However, the White Paper for Sport and Recreation was the first and remains the only comprehensive sport and recreation policy framework in South Africa that has updated through consecutive Ministers released in 2012 under the leadership of Minister F.A. Mbalula (Motlhaolwa, 2016). Hence, Keim and De Coning, stated that the policy has become responsible for regulating sport and determines the roles and responsibilities of institutions in the sport and recreation sector, including government

departments, sport federations, the private sector and the general South African public (Keim & De Coning, 2014). In supporting this, Elsa Kristiansen (2017) confirmed that the South African sport system and policies provide the blueprint for elite youth athlete and coach development by increased exposure competitions, like the Youth Olympic Games (YOG), translate into early professional orientations for young athletes.

In South Africa, international and continental competitions such as World Championships, All Africa Games, ANOCA Youth Games. competitions also considered as stepping stones for the region's emerging young athletes on their way to become national and international stars (Elsa Kristiansen, 2017). Elsa Kristiansen stated that consider the national sport federations as the principal agents and guardians of elite athlete development, including talent identification of young athletes. The national sport federations collaborate with their international counterparts for various activities and help, but with Olympic Sports, SASCOC would be the intermediary body to ensure that young sporting talent identified, nurtured, and developed (Elsa Kristiansen 2017).

Although sport holds tremendous potential as a channel of transformation in South Africa, the present South African sport system suffers many shortcomings and gaps that limit its power to promote positive change and social progress (SASCOC, 2012). As a result, South Africa has developed Long Term Participants Development model (LTPD) which provides an overarching framework and a logical participant developmental pathway to remedy the shortcomings in the South African sport system and make it a powerful contributor to transformation and reconciliation (SASCOC, 2012).

Long Term Participants Development model derived from extensive international research, dialogue and practice. Besides, an extensive series of workshops with National Federations, Provinces, Government organizations and other interested parties in South Africa has also informed it between 2008 and 2012. LTPD provides core recommendations for participant development and, to date, has been used to create 31 sport-specific models. Therefore, LTPD is used to provide a method that allows each sport, province and sporting organization to adapt the principles and guidelines to their own circumstances (SASCOC, 2012).

South African Long Term Participants Development model is a seven-stage mode that provides a framework to align the energies and efforts of the major program providers in the country sport include Physical education and school sports programs, Club, regional and national programs and High-performance programs (SASCOC, 2012). The first three stages of LTPD include Active Start, Fundamentals and Learn to Train encourage, physical literacy and sport for all. In addition, these three stages should provide the foundation upon which developed participation and performance-oriented sports in line with the choices and capabilities of sport participants (SASCOC, 2012).

Physical Literacy possesses the competence and confidence in fundamental movement skills and fundamental sports skills combined with the ability to read their environment and decide. Sport participants who are choosing the performance-oriented route in the next three stages of LTPD Train to Train, Train to Compete, and Train to win, focus on excellence to pursue high-performance training and competition. However, the seventh stage of LTPD Active for life (mass sport participation) cuts across all ages in South African society, supporting lifelong physical activity after they have completed the first three stages (SASCOC, 2012).

2.5. YOUTH SPORTS COACHING

The concept of coach dates back to the time of classical Greek philosopher (469–399 BC) Socrates as the first coach. The Socratic Method, instead of arguing, asked a series of questions, which lead to examining assumptions and changing thinking of those he was interacting with, such as priests, professors, philosophers and parents have always been coaches (Kennedy, 2009).

Coach is a person who is knowledgeable in a particular field of study where the focus is on development of one's performance. Coaching is a process where the coach imparts his knowledge and experience to his athletes to develop their performance. Borrie and Knowles, cited in Cushion et al. (2006) defined coaching as a series of stages that the coach has to go through to help the player/athlete learn and improve a particular skill (Cushion, Armour, & Jones, 2006).

Coaching involves teaching, training, instructing and more. In addition, it is not about helping people to learn sports skills, improve performance and reach their potential rather, it is also about recognizing, understanding, respecting and providing for the other needs of athletes.

The research work of Cushion, cited in Camiré et al. (2012) stated that coaches are an essential component to the success of sport programs as they hold considerable position to influence on youth. In addition, they know coach has a decisive responsibility in developing athletes through sport and developing the sport system (Resende & Sarmento, 2014). Therefore, development of youth sporting context, efficient and knowledgeable youth coaches become very instrumental (Camiré et al., 2012).

Millions of children and young people take part in sport and physical activity in the world every day for many reasons, most of their coaches are not qualified or hold lower-level generic qualifications that do not prepare them to work with this age group (Fix, et al., 2017).

In Ethiopia, as far as the experience and knowledge of the researcher is concerned, most of youth volleyball coaches involved in youths' sport training have no formal training in volleyball coaching or youth development. Based on the researcher's experience, among the volleyball coaches took part at annual youth volleyball competition held at the regional level, most of them not trained/certified as volleyball coaches. Ewing et al., cited in Petitpas et al. (2005) stated that in many countries including USA, over 90% of coaches do not have formal training in coach education or youth development. Therefore, without trained leadership, it is doubtful that they taught life skills and other positive characteristics (Petitpas et al., 2005).

One major factor that influences all performers throughout their sporting careers is the quality and appropriateness of the coaching environment (Bloom, 1985). Youth sport coaches have spectacular influence on young athletes' development and enjoyment of sports however, the background and perspective of youth sport coaches can vary from inexperienced parent- volunteers to skilled coaches of elite youth sport programs. Millions of individuals that coach youth sport programs of all types, however, research in this area has limitation who the "youth sport coach" should be (Hedstrom & Gould, 2004). In

supporting this, Martindale et al. stated that not enough known about effective development environments or how they may optimize (Martindale et al., 2005).

Though there are limited researches conducted in youth sport coaching for youth sport development, the researcher believed that the need for quality coaching becomes paramount. Therefore, a clear theoretical foundation for defining "who should be the youth coach and their role" will become the major concern of this review.

According to Malina, nowadays understanding expert performance is a popular topic in sport psychology. The theoretical framework of expert performance in any endeavor is, however, more complicated. Expert performances' primary emphasis is on quality of instruction and practice, and ability of the individual to organize the specific knowledge. It involves explicit teaching of specific skills, supervised practice, and corrections as needed (Malina, 2010).

Although expert performance is a major point of concern in any sports coaching discipline, youth sports coaches differ in their role to deal with novice young athletes throughout their developmental stage. Therefore, stakeholders involved in youth sport development need to be given top priority for youth sport coaches in providing appropriate training and education for them.

Hedstrom and Gould (2004) stated that, as important as knowing why children take part in sports is to understand why they disappear from youth, sports involvement is very helpful in identifying the determinants of youth sport participation. In supporting this, Vella (2012) confirmed that the goals of participation in youth sports concerned with the facilitation of positive youth development, as opposed to absolute success. here are strong theoretical and empirical links between sports coaching and athlete development (Vella et al., 2012a).

With millions of children taking part in youth sports each year, it is vital to understand the motives for, predictors of, and detractors to involvement (Hedstrom & Gould, 2004). The number one reason, which is well documented in several studies, children take part in youth sports is to have fun. If you take the fun out of sports, you take the child out of sports. In addition, it is detrimental to the player if there is too much pressure placed on them too

early to achieve a result, rather than experiencing the sheer joy of a youth game (Hedstrom & Gould, 2004).

Hedstrom, cited in Gould et al. (2004) depicted in their research study that among those inhibiting factors for youth sports involvement, most children blamed the coach for these concerns. In addition, children cited dislike of their coach and not enough fun as significant motives for discontinuing their participation. In contrast, the sport in America survey found coaches are a leading positive influence on today's youth. Respondents who asked to rate the overall influence of a variety of groups on young people across all major demographic groups coaches rank as the number one positive influence on youth today (USADA, 2012).

In supporting the above statements, Vella et al. (2012) noted that transformational coaching leadership behaviors, in particular, have linked to positive developmental outcomes within a youth sport context. In addition, the coach–athlete relationship is a key tool used by coaches who aim to teach life skills to young athletes (Vella et al., 2012a). Therefore, as a youth sports coach, you want to create a stress-free relaxed environment for your team which is in fact gained from proper coaching training and education ("Youth Volleyball Coaches Handbook," n.d.).

They achieved proper youth volleyball development by children taking part in age-appropriate activities can experience, comprehend, and receiving equal playing time, teaching the skills, rules and vocabulary of the game and teaching fair play as it relates to where they are in their cognitive development. Therefore, proper coaching training /certification/ for coaches is very essential as coaching education should include youth development, and rewards for team success at the youth level should reflect the needs of long-term player development (Burgess & Naughton, 2010). In addition, they should train coaches in development and sport national bodies included as part of the talent identification process (Booysen, 2002). Talent identification should not render coaches redundant, but should assist them in their task, with large numbers of qualified coaches assigned to talent development structures (Booysen, 2007).

2.5.1. Coach-Athlete Relationships in Youth Sports Coaching

Adult leadership in youth sports has a significant impact on the lives of millions of youths all over the world for several years (Kowalski & Kooiman 2013). Coaches in youth sports, play many roles that set standards for attitude, behavior, and effort for instance, in the sport context, and in coaching, the relationship established between the coach and athletes plays a central role in athletes' physical and psychosocial development (Jowett & Cockerill, 2002).

Coach-athlete relationship defined as a situation in which a coach's and an athlete's cognitions, feelings, and interrelated behaviors (Jowett & Cockerill, 2002). The coach needs a set of skills and knowledge of the sport in order to provide an experience that would minimize attrition and maximize benefit for youth sport participants (Kowalski & Kooiman, 2013). In addition, Ortín et al., cited in Lisinskiene (2018) stated their players imitated that coaches' behavior, attitude, and value not only in sports settings but in other contexts of players' lives as well (Lisinskiene, 2018). Thus, coaches need to create a suitable environment that promotes to development of athletes' life skills.

The relationship between the coach and the athlete has recognized as an important factor in creating positive educational sports experience for athletes (Lisinskiene, 2018). The coach-athlete interaction referred to as the coach and athlete dyad (Hale, 2006). Horne and Carron examined what they termed coach-athlete compatibility by following the ideas proposed by Schutz 1966 regarding relation orientation-behavior as three positive factors: affection, control and inclusion (Horne and Carron, 1985). According to Schutz, as affection refers how close the two people feel regarding their relationship, control concerned with power, dominance and authority, while inclusion concerns communication between the two and the level of interaction in such factors as decision-making (Schutz,1966).

Horne and Carron, cited in Hale (2006) further stated that, where there was a sense of inclusion, both the athlete and coach felt as though they were compatible. however, does not mean that affection and control were not important, just that inclusion was the major factor (Hale, 2006). Therefore, inclusion is the basic element in coach athlete relationship.

In contrast, lack of trust, lack of respect, excessive dominance, and blind obedience and verbal, physical, and sexual exploitation are components that undermine coaches and athletes' welfare (Burke, 2001; Jowett, 2003; Nielsen, 2001).

Youths who take part in organized sport programs depend on coaches who possess effective instructional techniques, background education, and previous coaching experience (Kowalski & Kooiman, 2013). The goals of participation in youth sports concerned with the facilitation of positive youth development, as opposed to outright success. There are strong theoretical and empirical links between sports coaching and athlete development (Vella & Crowe, 2012b). Positive youth development is depending on coaches who possess all rounded professional quality, however recent studies show that most children receive coaching from untrained amateur coaches (Lisinskiene, 2018).

Research shows that successful coaches have attended more coach education programs and courses, spent more time learning from others, and encountered and solved more problems, and, as a result, have had many opportunities to enhance and deepen what they know about coaching, including the tactical components of coaching (Lisinskiene, 2016). However, most of youth volleyball coaches in SNNPR, Ethiopian youth volleyball projects lack proper coaching skills which is gained from proper coaching education trainings and courses, lack of exposure for experienced coaches and lack of volleyball competition experience. As a result, the positive coach-athlete relationship in youth sport becomes affected.

Scientific research results show that most athletes prefer an environment that promotes education in both sports participation and personality development. Coaches who are supportive, knowledgeable about the sport they are coaching, that prioritize athlete development, and are excellent motivators receive greater recognition. Coaches who offer little or no support, prioritize winning, are unorganized, and have limited knowledge of the sport they are coaching are ineffective. In this sense, the interpersonal relationship between the coach and the athlete is of highest importance, because it can influence an athlete's motivation in sport (Lisinskiene, 2018).

In supporting this, Jowett emphasizes in his study that, when the quality of the relationship is good, coaching benefits because the relationship contains active ingredients: respect,

trust, commitment and collaboration, those are important for positive and mutual influence. However, when the quality of the relationship is poor, coaching suffers because the relationship is absent of active ingredients that allow the coaches and athletes to care for, commit to, co-operate with one another (Jowett, 2017).

Lyle (2002) stated that coaching is an interpersonal process where both a coach and an athlete engage with one another and thus effective coaching could be more readily understood through the quality of the connections coaches and athletes develop. In addition, the quality of the relationship may more easily allow gaining insights into what goes on between coaches and athletes. Such an approach may then facilitate descriptions regarding what their partnership is like, how they relate, connect, bond and explanations about why they act and interact in the way they do (Lyle, 2002).

Jowett et al., cited in Jowett (2017) the effectiveness and success of coaching live within the coach and the athlete and the unit relationship they develop and within this conceptualization the coach and the athlete need one another to develop, grow and succeed. Hence, the emphasis placed on the genuine purpose and positive intent of the coach-athlete relationship. The relationship becomes the medium that motivates, assures, satisfies, comforts, and supports coaches and athletes to enhance their sport experience, performance, and well-being (Jowett, 2017).

In good quality relationships, coaches and athletes invest time, effort and energy to achieve goals and priorities they have agreed. In contrast, coaches and athletes in poor quality relationships may lack the commitment and desire to pursue ambitious objectives, are unwilling to work with each other to develop physical skills, new techniques to overcome difficulties and achieve important outcomes together. The quality of the relationship can function as a barometer of coaching effectiveness (Jowett, 2017).

2.6. CONCEPTUAL FRAMEWORK

The success of international sporting arena results from building high-quality elite sport systems and policies (De Bosscher, et al., 2009). Establishment of an elite sport system is a long-term affair requiring nations to make continual investments (De Bosscher, et al., 2010). The fruits are growing once a high-quality elite system are in place, reaching to that

level demands unwavering commitment and strong leadership (Sotiriadou & Shilbury, 2009). For example, it has taken more than a decade for the German soccer team to become a champion and win a World cup after its disastrous loss in Euro 2000 (Sohn, 2014).

The base for a high-quality elite sport system is a well-organized and integrated youth sports development program. However, success in youth sports development depends upon a variety of programmatic and contextual factors Vaeyens, Lenoir, Williams, & Philippaerts (2008) the role of coaching staff and youth players' close environment in fostering success is paramount (Sotiriadou & Shilbury, 2009).

Some argue, to advance understanding of talent identification and development in youth sport, a shift towards an integrative perspective is necessary, along with development of a comprehensive multidisciplinary theoretical rationale (Phillips, et al., 2010). This study explains dynamical systems theory, human development theory, and the theory of community change and influence as a multidisciplinary theoretical rationale for capturing how multiple interacting factors can shape development of sporting talent and positive behavior among youth volleyball players at SNNPR. This approach suggests that talent development programs should emphasize the individual nature of pathways from youth-to-senior professional performance transition Morris, Tod, & Oliver (2015) identify the range of interacting factors that impinge on performance potential of individual players, rather than evaluating current performance on physical tests referenced to group norms (Phillips et al., 2010).

For Hamilton (1999), the concept of PYD represents three interrelated, however different ways: (1) a developmental process, (2) a principle, and (3) a practice focused on fostering the healthy or positive development of youth. There is a widespread belief that sport participation produces positive development among young people (Wagnsson et al., 2013). The general assumption behind this belief is that sporting talent and positive behaviors transferred (passed) on to those who take part in sports (Menting, et al., 2019). This belief inspires the use of sports as an important strategy to create among young people the attributes needed to achieve personal success (Fitch, et al., 2017). However, this approach to development has increasing acceptance at a global level UNICEF (2019) there is an

emerging evidence base to support this claim (Vaeyens et al., 2008; Whitley, Gould, Wright, & Hayden, 2018). Hence, there remains a need for research that identifies the processes through which they linked sport participation with efforts to produce progressive change transcending the lives of particular young individuals.

A sound approach to youth sport involvement suggests that youth sport involvement includes three basic elements, including involvement or taking part in activities, creating interpersonal relationships with others, and in a specific sport setting (Coutinho, et al., 2016 & Holt & Neely, 2011). When these three elements interact ("the dynamics of talent development"), it creates a context that, when repeated, leads to changes in the personal performances and positive behaviors of the participants (Côté, Turnnidge, & Evans, 2014).

A growing body of research showed that changes in individuals' personal performances and positive behaviors, including competence, confidence, connection, character, and caring (5 C's), have long associated with positive sport experiences (Bowers et al., 2010). These lead to long-term outcomes, including continued sport participation, higher levels of performance in sport, and personal development through sport (3 p's) (Côté et al., 2014). Thus, there are significant positive linkages of the three basic elements of youth sport: activities, relationships, and settings, to positive changes in personal performances and positive behaviors (5 C's) and long-term outcomes (3 P's) (Lerner, 2005).

2.6.1. Conceptual Model of the Study

Considering the diversity of factors accounting for quality youth sport development program, as well as, its multidimensionality, this research used an overarching conceptual model that subsumes both PYD Bowers et al. (2010) and talent identification and development Vaeyens et al. (2008) as bases for research. The components and theories of these frameworks serve as sources of influences, to inform selection of key variables for this study.

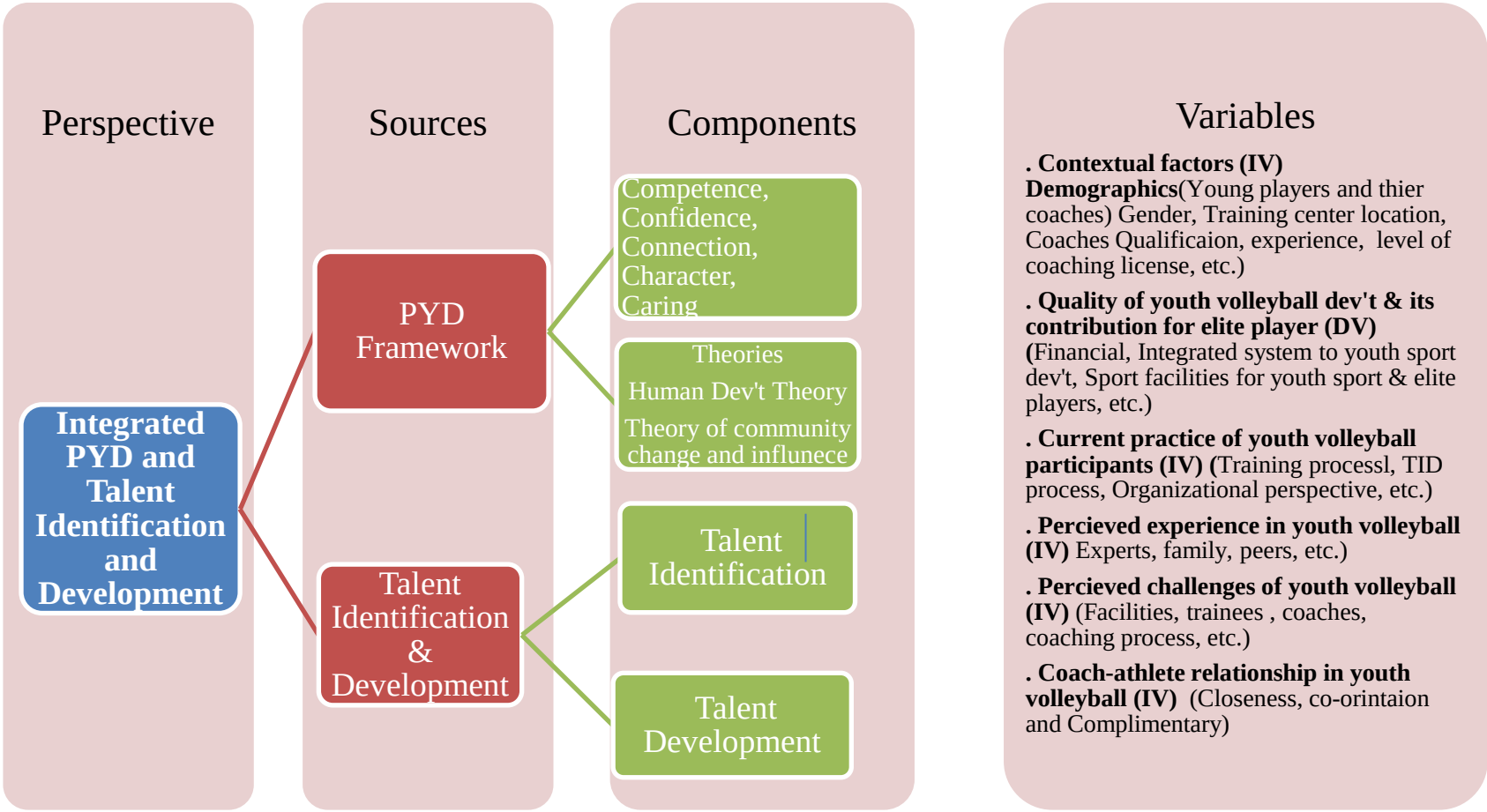

Figure 1. Conceptual Model of the Study (Perspective, Sources, Components, and Variables) adapted from Côté et al. (2014)

Note: Long-term outcome of youth development include 1) continued sport participation, 2) higher levels of performance in sport, and 3) personal development through sport (3 P's) (Côté et al., 2014). Coaching environment is a broad concept that includes social (e.g., relationships with peers and adults), normative (e.g., attitudes, norms and beliefs), structural (e.g., laws, policies, programs services, and systems) and physical (e.g., safe, supportive spaces).

As shown in Figure 1, contextual factors include the demographic characteristic, gender and the youth development location, as well as the coaching staff's professional competencies (qualification, experience, and professional development opportunities). The study applies a broader conceptualization of talent development, including the stages, organizational aspects, and dynamic operations.

Guided by this perspective, this research examined the nature and associations between the contextual factors, talent identification and developmental mechanisms, and processes applied for sporting performance and positive behavior development among youth players in SNNPR, Ethiopia. By doing so, research portrayed an overarching and holistic picture of the ways they nurtured youth volleyball players from an Ethiopian perspective. Important about this research is its primary focus on youth volleyball coaching staff and youth volleyball trainees' psychosocial resources and practical experiences as valuable components to assess program quality and success in youth volleyball development in SNNPR, Ethiopia.

CHAPTER THREE
RESEARCH METHODS

INTRODUCTION

To examine the quality of youth volleyball and its contribution to develop elite players in SNNPR, Ethiopia, the research comprises processes that are not only linear or cyclic. They can be iterative, interactive processes of moving from problem statement through rationale to objectives to operationalizing constructs to design, to data gathering and analysis, to reporting findings, and to implementation. Beyond the chosen research design, the researcher used theoretical understandings of the aims of the research, and knowledge of the fit between data type, research design, method tools, and data analysis techniques. Therefore, based on the stated facts mentioned above, this research provided an overall understanding of the method used in this study.

3.1. DESCRIPTION OF THE STUDY AREA

This research study conducted in Southern Nations, Nationalities, and People Region (SNNPR) Ethiopia. The region has 13 zones and 2 special districts. Among those regions and city administrations found in the country, SNNPR took the responsibility of youth sport training development program to make it effective in its territory. Hence, the administrative structures such as zones and special districts devised to take part in the youth sport training development program opened by the federal and regional government in thirteen sports disciplines.

Among thirteen sports which are included in the national sports training development program, only 10 zones in SNNPR had taken part in youth volleyball training. The number of volleyball training projects opened by the federal and the regional government with in this region accounted 28 training centers. Besides, the region reached bilateral agreement to implement the program with respective authorities between the federal ministries such as the Ministry of Youth and Sports and Ministry of Education and zonal and woreda

district offices down the structure (Ethiopia Development Program, 2016). Therefore, this study focused on SNNPR youth volleyball training centers to achieve the aim designed.

3.2. RESEARCH APPROACH

The study used both quantitative and qualitative research approach to gain insight on the quality of youth volleyball and its contribution to develop future elite players at SNNPR, Ethiopia. Hence, the study implemented the quantitative and qualitative approach because an issue needs intricate and detailed understanding.

3.3. RESEARCH DESIGN

The study used a concurrent mixed methods triangulation design (Creswell, 2012). Reasons for using concurrent mixed methods triangulation design to conduct this Ph.D. research is that concurrent mixed methods design would expect both quantitative and qualitative data collection and both types of data together, provide a better understanding of the research problems than either type by itself (Creswell, 2012). The intention here is to build on the strengths of both quantitative and qualitative data through integrating multiple databases to understand the research problems (Bryman, 2006). From the quantitative data, such as scores from a survey, the researcher could yield specific numbers analyzed. However, the qualitative data set, interview, provides actual words of people in the research, offers many perspectives on the practices of youth volleyball, and provides a complex picture of the existing situation (Creswell, 1998).

The other reason is that, by combining quantitative and qualitative data, the researcher could generate an integrated set of data. For example, by assessing the current practice, perceived experience, perceived challenges and coach athlete relationships in youth volleyball (i.e., quantitative) as well as contributions of youth volleyball development and youth projects, implementation processes leading to those outcomes (i.e., qualitative). Hence, the researcher portrayed an overarching and holistic picture of the existing quality of youth volleyball as applied in the SNNPR context.

3.4. POPULATION, SAMPLE, AND SAMPLING TECHNIQUES

The target population of this study encompassed all U-17 youth volleyball youth participants as established by the federal government in Southern Nation, Nationalities, and Peoples Region. These youth volleyball development project contains both males and trainees found in 10 different zones such as Wolayta, Daworo, Kembata Tembaro, Gediyo, Hadiya, Debub Omo, Gamo Gofa, Segen, Konta, Hawassa. Each zone has 120 trainees in both sexes; therefore, 1200 trainees involved in the U-17 youth volleyball training project. 20 coaches with coaching and playing experience in youth sport projects, clubs, regional and national team selected to take part in the study.

To ensure that the study represented both gender groups in the last sample, the researcher used a stratified sampling method to take sample from U-17 male volleyball participants and U-17 female volleyball participants from the total population. The number of trainees to be included in this study determined by the following sample determination formula (Cochran, 1977).

$$n= \frac{\sum_{i=1}^{2} {N_i}^2 * p * q}{\frac{N^2 d^2}{{z_{\alpha/2}}^2} + Npq}$$

$$n = \frac{(600)^2 * 0.5 * 0.5 + (600)^2 * 0.5 * 0.5}{\frac{0.5}{\frac{(1200)^2 (0.06)^2}{(1.96)^2} + 1200 * 0.5 * 0.5}} = 218$$

Where:

N- Population size =1200

n- Is sample size

Z - Standard normal with a specified level of significance = 95% Confidence level ($Z_{0.025}$= 1.96)

P = Proportion of quality of youth volleyball perception, experience, challenges and practice of youth volleyball project trainees and coaches towards the contribution of elites' volleyball players development in SNNPR, Ethiopia estimated to be 0.5

q= 1-p = 0.5

$w_i = \frac{N_i}{N}$ = weight of strata

N_i= population size for each stratum

d= margin of error assumed (0.06), Substituting the values in the above equation becomes: Among 1200 U-17 male and female project trainees, 109 male and 109 female trainees in total 218 sample determined by single proportion sample determination formula. In each training center, trainees included in this study by using equal proportion allocation method; hence, the trainees selected using simple random sampling technique. Besides, 20 coaches with coaching and playing experience in youth sport projects, clubs, regional and national team selected to take part in the study.

3.4. SOURCES OF DATA

Primary data source is an original source that documents an event in time, a person, or an idea. The study employed primary data as the major source to examine the overall quality of youth volleyball development and its contribution to develop elite players. Therefore, primary data sources, such as questionnaire and interviews, were used to collect data got from youth volleyball trainees, youth volleyball coaches, and experienced coaches.

3.5. DATA COLLECTION INSTRUMENTS

The researcher used quantitative and qualitative methods of data gathering tools such as questionnaire and interview to gather valid and reliable data to materialize the finding.

3.5.1. Questionnaire

To meet the specific objectives of the study, the researcher used adapted and self-developed questionnaire and assess the quality of youth volleyball using a questionnaire adopted from "Sport Policy factors Leading to International Sporting Success" (SPLISS) De Bosscher and et al. (2015) for youth volleyball coaches and trainees in SNNPR, Ethiopia. To examine

and assess the current practice, perceived experience and perceived challenges in youth sport, the researcher used self-developed questionnaire for both coaches and trainers involved in youth volleyball. In addition, to examine and assess the coach-athlete relationship, the researcher adapted questionnaire developed by (Jowett & Ntoumanis, 2004).

To check the reliability of the tools, pilot testing conducted on similar youth volleyball projects, coaches and youth volleyball players found in Guraghe Zone. Besides, sports science experts, sport and psychology professionals were used to check the content and construct validity of the questioner. The SPLISS instrument comprised 96 "Critical Success Factors" (CFC), with nine pillars. However, the researchers used 70 workable questionnaire items and all the nine pillars. In addition, adopted standardized CARQ S. N. Jowett, N. (2004) was used to assess the quality of coach athlete relationship in youth volleyball and self-developed questionnaire employed to examine current practice, perceived experience and perceived challenges of youth volleyball. The validity and reliability of the survey questionnaire was first validated by experts and pilot tested with participant from similar youth volleyball projects. Each item in the questionnaire measured using a five-point Likert- scale, which ranges from 1 (strongly disagree) to 5 (strongly agree).

The study took several steps to establish the SPLISS's and self-developed questionaries' reliability and validity. An expert panel and similar youth sport projects assessed the items for readability, which were then revised after a pilot study. Further refinements made using confirmatory factor analysis to show construct validity (See appendix S). Item-to-total correlations assessed as well as additional confirmatory factor analysis, which suggested a model of good-fit and construct validity of the scale. For reliability, the internal consistency coefficients ranged from 0.81 to 0.87 (mean = 0.84), which satisfies the criteria set forth in sports sciences research (Gratton & Jones, 2010). at the end the researcher organized set of standardized questions to be answered by the project trainees and coaches and each item in the questionnaire measured using a five-point Likert- scale, which ranges from 1 (strongly disagree) to 5 (strongly agree).

The questionnaire encompassed all required personal information of the participants in part one. Part two comprises question items related to the quality of youth volleyball and its contribution on elite players for coaches and sport experts presented. In part three, question items pertaining to current practice on youth volleyball included. Part four included question items regarding perceived experience in youth volleyball towards youth volleyball training. In part five, questions items related to perceived challenges of youth volleyball presented. Part six contained question items related to the coach-athlete relationship in youth volleyball presented to volleyball coaches and players.

3.5.2. Interview

The researcher observed that several previous studies on talent identification and development opted for semi-structured interviews as their primary form of data collection instrument; hence, reinforcing the belief that they were the most appropriate form of data collection for this research (Gould et al., 2002, Jones et al., 2003, Holt & Dunn, 2004 & Wolfenden & Holt, 2005). Hence, the researcher used semi-structured interview using a standard set of open-ended questioning to draw our research participants' opinions about the quality of youth volleyball and its contribution to develop future elites in SNNPR, Ethiopia using one-on-one interviews. This research study addressed five key informant interviews; five participants who had served for many years as club and national team player representing SNNPR and Ethiopia. The key informants served as coach and instructor of volleyball coaches at various levels included to take part in the interview. An interview guide developed and questions regarding the research study included. Semi-structured interviews conducted as a tool for collecting the data and a sound recorder employed to record the interviews and notes taken besides recording the interviews to ensure that data collected were reliable and transparent.

Interviews recorded and then transcribed. Besides, the researcher encouraged participants to talk about their experiences within youth sports project and in volleyball. All the interviews conducted with participants' informed consent in private spaces that lasts minimum 60 minutes and above. The researcher approached the data collected without a

preconceived theoretical framework. After all interviews completed and transcribed, reading the transcript made by the researcher. Hence, the process of data analysis started with categorization and organization of data into themes and meanings that developed from the data. The process comprised getting common statements gained from respondents during the interviews.

The coding process involved taking text data gathered during interviews, segmented sentences into categories and labeling those categories with a theme or sub themes. This process supported the researcher to place phrases of similar themes into their categories for further analysis. Hence, the following themes developed by the researcher based on information gathered from respondents during the interview.

- Perception of quality of youth volleyball
- Attitude of volleyball projects
- Current practice of youth volleyball
- Quality coach athlete relationship
- Challenges of youth volleyball
- Contribution of youth volleyball to elites

3.5.2. Reliability and Validity of Instruments

3.5.2.1. Quantitative Instruments

Coach-Athlete Relationship Questionnaire

The most widely used tool for examining interpersonal two-way relationships is Coach-Athlete Relationship Questionnaire as developed by (Jowett & Ntoumanis, 2004). Therefore, the study used as it is for assessing both coaches' and athletes' perceptions of the quality of the coach and athlete relationship in terms of interdependence. This 11-item survey measures the quality of the coach-athlete relationship on three different constructs of interdependence: closeness, commitment, and complementarity response with Likert scale measures ranges from 1 ("strongly disagree") to 5 ("strongly agree").

The tool underwent various analyses to examine validity of the instrument and its internal consistency. The survey changed after and reviewed by a group of experts, which doubled to establish content validity. Besides, stated subscale showed convergent validity with prime factor loadings and significant p-values. Assessed internal consistency on each subscale and all three Cronbach alpha scores exceeded 0.80 which surpasses the minimum level of 0.70 set forth by (Nunnally & Bernstein, 1994). Hence, because of its basic descriptive properties and its established link with other sporting outcomes, the value of this instrument lends acceptance to its use with populations of various sport disciplines of coaches and trainees; as a result, the tools used as the researcher Jowett & Ntoumanis, 2004 develop it.

SPLISS adapted questionnaire

The first SPLISS project developed in 2008 by an international consortium of researchers to compare elite sport policies in different nations. Various research activities conducted using this tool to compare elite sport strategies in nations such as Belgium, Canada, Italy, the Netherlands, Norway and the United Kingdom. Many athletes, coaches and experts asked to express and rate their views about the elite sports system in their nation; hence, the study remains one of the most inclusive studies at a meso-level and an outcome of the study developed a theoretical model of sport policy factors leading to international sporting success (De Bosscher et al., 2006).

De Bosscher et al. further stated that SPLISS identifies nine pillars that influence international sporting success and specifies critical success factors as key elements within pillars that are necessary to improve the elite sport success of a nation. Financial support, an integrated approach to policy development, foundation of sport participation, talent identification and development, athletic and post-career, training facilities, provision and development of coaches, national and international competition structure and scientific research and sports medicine support are essential for developing elite athletes' necessary conditions to develop sport and athletic careers within a sport (De Bosscher et al., 2006). The study builds on the model and methodologies developed in through various research

activities conducted and includes the experience of various nations and responses from many elite athletes, coaches and other stakeholders (De Bosscher, Shibli, Westerbeek, & van Bottenburg, 2015).

The researcher adapted the approach to youth sport setting and in this respect explores a method to assess the quality of youth volleyball and its contribution to develop elite players. By considering how the quality of youth volleyball and elite players' development measured in the youth sports program, an initial exploration of a measurement tool developed to assess youth sport systems.

Several steps taken to establish the SPLISS's reliability and validity. In the initial construction of the survey, items based on the same scales used in the former tool. An expert panel and similar youth sport projects assessed the items for readability, which were then revised after a pilot study. Further refinements made using confirmatory factor analysis to show construct validity. Item-to-total correlations assessed as well as additional confirmatory factor analysis, which suggested a model of good-fit and construct validity of the scale. Criterion validity was also apparent because of significant correlations between most of the 9 subscales and dimensions on the Negative Affectivity Scale (Levin & Stokes, 1989). For reliability, the internal consistency coefficients ranged from 0.81 to 0.87 (mean = 0.84), which satisfies the criteria set forth by Nunnally and Bernstein (1994). For the tools developed by the researcher regarding the stakeholder's perception towards TID, current trends of TID and major challenges of youth volleyball conducted the same procedure to examine validity of the instrument and its internal consistency (See appendix S).

3.5.2.2. Qualitative instrument

The qualitative instruments used in this study were key informants' interview; therefore, the researcher conducted five key informant interviews. Although member checks, peer evaluation and a panel of researchers checks the researched inference based on the instrument and multiple methods used, maintaining validity and reliability in qualitative research can be inaccurate (Denzin & Lincoln, 2005). Some qualitative researchers reject

validity because of the reality that individual idea is unique and cannot be generalized. However, Pretesting and piloting can help you identify questions that make little sense to participants, or problems with the interview questions that might lead to biased answers. Hence, the researcher used a panel of members to review the interview questions pertaining to its language, wording, and relevance. As a result, three questions (two questions because of leading problem and one question because of its poor wording and relevance) changed because of in appropriateness. After the initial reviews by the researcher, the researcher tested the questions composed of six central questions in the pilot work and used probing questions to explore the participants' views that require further clarifications. The interview guide was used to gather data from 5 key informants.

3.6. METHODS OF DATA ANALYSIS

The researcher collected quantitative data using standardized, adapted and self-developed questionnaires and qualitative data using interview. Hence, to assess the quality of youth volleyball and its contribution for elite players and the difference existed between groups such as (gender, role, Training center, education level, level of experience and coaching license), quantitative data gathered from questionnaire analyzed using descriptive statistics, mean and standard deviations of scores and to examine group difference inferential statistics, such as independent sample t-test was used to examine the difference between two groups such as (gender & role), one-way ANOVA employed to examine the difference between (Training center. Education level, level of experience and coaching license), and post-hoc analyses used to further explore the difference between the study variables. Qualitative data collected using semi-structured interviews analyzed using thematic analysis through inductive reasoning, implying that the analysis relied on the data presented by participants and not from any theoretical framework generated.

To analyze data collected from the second basic research question, "What are the perceptions of participants on current practice, perceived experience, major challenges and coach athlete relationship in youth volleyball? (Are there differences between subgroups (gender, role, training center, education level, level of experience and coaching license) in

the SNNPR youth volleyball?)"; analyzed using descriptive statistics, mean and standard deviations of scores and to examine group difference inferential statistics, such as one-sample t-test and one-way ANOVA used. Post-hoc analyses also included to further explore variables of interest.

To analyze data gathered from the third basic research question, "Is there a significant relationship between is the quality of youth volleyball and its contribution for elite players, current practice, perception of stakeholders, major challenges and coach athlete relationship in youth volleyball, the researcher used" Pearson correlation coefficient. The data gathered from the fourth basic research question "To what extent the contextual factors predict the quality of youth volleyball and its contribution for elite players in SNNPR?" a standard multiple regression was employed. The researcher conducted all the analyses using SPSS version 23. Finally, the information gained from the qualitative data gained from interview was analyzed using thematic analysis and used to cross-validate and triangulate the data got from the questionnaire.

3.7. ETHICAL CONSIDERATIONS

In this study the researcher requested the consent of the respective region youth and sports authority in order to conduct the study in the region. Besides, subjects involved in the study requested their voluntary participation in the research study. Respondents given a clear description of the purpose, scope and intended outcomes of the research. The type of information required for the research stated, as in the policy for anonymity and confidentiality. Neither the organizations nor the respondents taking part in the research named in the project. All the questionnaires treated as anonymous. Ethical clearance not required as the study did not involve questions that were offensive or personal and there were no identifiable risks to the respondents' health. All the interview transcripts and printed versions of the questionnaire coded using respondent numbers to ensure anonymity.

CHAPTER FOUR

RESULTS AND DISSCUSSION

INTRODUCTION

This section presented both quantitative and qualitative results to assess the quality of youth volleyball and its contribution to develop elite players in SNNPR, Ethiopia. The results of the preliminary analyses of participants' scores on the various measures of the quality of youth volleyball, current practice in youth volleyball, perceived experience in youth volleyball, perceived challenges in youth volleyball and coach-athlete relationship in youth volleyball presented based on the findings of each research questions. The results would explain the nature of the variables under examination, what variables related to the quality of youth volleyball, and to what degree current practice of youth volleyball, perceived experience in youth volleyball, perceived challenges in youth volleyball and coach-athlete relationship correlated with the quality of youth volleyball contributed to quality of youth volleyball.

Therefore, the results presented in different headings demographic statistics of participant, level of the studied variables, variations among the studied variables, relationship between independent and dependent variables, and the predictive capacity of the independent variables.

4.1 RESULTS

4.1.1. Descriptive Statistics

Demographic characteristics

Based on the stated facts about the population of the study under the research method section, research participants asked to state their biography; hence, the researcher described the demographic characteristics of participants presented in the Table 4.1. below.

Table 4. Demographic Characteristics of Participants

Variables	Category	Role of participant in the youth project			
		Coach		Trainee	
		Count	Column N %	Count	Column N %
Sex of Respondents	Male	13	65.0%	107	49.8%
	Female	7	35.0%	108	50.2%
Level of coaching license	Beginner	4	20.0%	NA	NA
	Level I	5	25.0%	NA	NA
	Level II	8	40.0%	NA	NA
	Instructor	3	15.0%	NA	NA
Training experience	3 years of experience	-	-	66	30.7%
	4 years of experience	3	15.0%	148	69.3%
	5 and greater than 5 years of experience	17	85.0%	-	-

Most of the coaches' gender involved in the study accounted for 13 males (65%) and 7 females (35%); in addition, level II licensed coaches accounted for 8 (40%); while, level I licensed coaches accounted for 5 (25%), beginner level coaches accounted for 4 (20%), and instructor licensed coaches accounted for 3 (15%). In addition, most of the coaches' experience was over 5 years (85%) and 15% of them have below 5 years of coaching experience.

Youth volleyball trainees gender involved in the study accounted, male 107 (49.8%), while 108 (50.2%) of them were female youth volleyball trainees. In addition, the researcher asked youth trainees about their training experience in the project; hence, most of the trainees replied they have 4 years of training experience which accounted, (69.3%), (30.7%) of them had 3 years of training experience as shown in the table.

The researcher asked respondents to state their level of education; hence, most of the coach's levels of education were degrees, which accounted for 70%; while, diploma holder

accounted for 15%, and master degree 15%. In addition, most of trainee's level of education was Grade 8 which accounted 34.5%, while 5.6% them was grade 7, 28.5% them was grade 9, 17.7% of them was, 10, 10.7% of them was, 11, and 2.8% of them was grade 12. Among the population sample planed, 100% response rate attained from coaches and youth volleyball trainees' response rate was 98.6%.

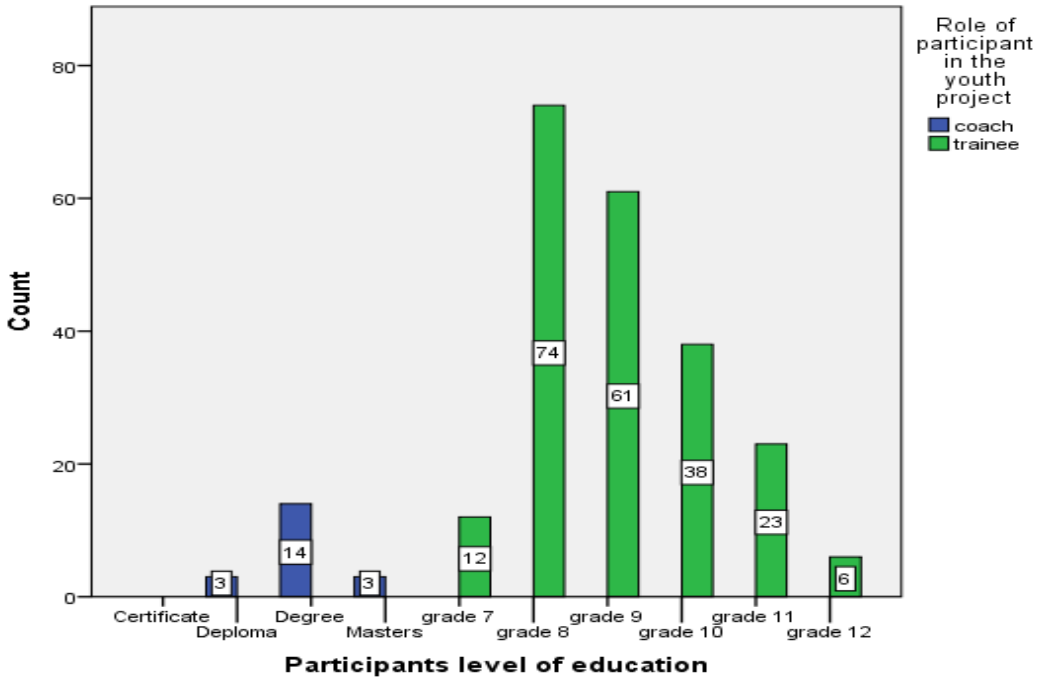

Figure 2. Level of Participants Education

4.1.2. Level of the Studied Variables

The first purpose of this study was to examine the quality of youth volleyball and compare whether there is a significant difference between the calculated mean and the mean test values of quality of youth volleyball, current practice, perceived experience in youth volleyball, perceived challenges in youth volleyball and coach-athlete relationship in youth volleyball. To do this, mean and standard deviation, and one sample t-test, computed, and the results presented in the study.

Responses to the assessment on the quality of youth volleyball nine subscales resulted in the response rating of youth volleyball participants with overall (M= 2.86, SD=0.51)

computed using combined mean formula. Among nine subscales, Participation in youth volleyball (M=2.93, SD = 0.51), Financial support (M=2.89, SD = 0.44), Quality of talent identification and development system (M=2.89, SD = 0.47) and integrated youth sport system showed higher mean score of (M= 2.89, SD= 0.53). while, Coaching provision and coach development (M=2.85, SD = 0.50), and Sport facilities for youth sport and elite players (M=2.84, SD = 0.57), received the second highest mean score. However, Scientific research and innovation (M=2.80, SD = 0.54), National and regional level competition mean score of (M=2.82, SD = 0.49) and Elite players post career support (M=2.83, SD= 0.56) received the lowest mean score, as shown in the Table 4.2

Table 5. Descriptive Statistics of participants on Quality of Youth Volleyball

Sub-scales	Role of participant in the youth project					
	Coach		Trainee		Overall	
	Mean	SD	Mean	SD	Mean	SD
Integrated system for youth volleyball	3.42	.31	2.84	.42	2.89	.53
Financial support	3.44	.33	2.84	.51	2.89	.44
Youth volleyball sport participation	3.41	.53	2.89	.48	2.93	.51
Quality of talent identification and development system	3.25	.34	2.85	.46	2.89	.47
Sport facilities for youth sport and elite players	3.24	.38	2.80	.58	2.84	.57
Elite players Post career support	3.42	.37	2.78	.55	2.83	.56
Coaching provision and coach development	3.41	.21	2.79	.49	2.85	.50
National and regional volleyball competition	3.01	.44	2.80	.49	2.82	.49
Scientific research and innovation in youth sport	3.35	.26	2.75	.53	2.80	.54

Note: *Responses were on a 5-point Likert scale (where 1 indicates strongly disagree to status of youth volleyball development while 5 indicating strongly agree).*

Furthermore, as shown in the Table 4.3. below one sample t-test was conducted to compare the calculated mean and the mean test values of the studied variables. There was a significant difference between the scores for the calculated mean value of the quality of youth volleyball (*M*=2.89, *SD*=.34); *t*= -4.863, *p*=.000 and the mean test value which was 3. These results show that the quality of youth volleyball in SNNPR, Ethiopia is below average as perceived by participants. Similarly, there was a significant difference between the scores for the mean value of current practice of youth volleyball (*M*=2.57, *SD*=.45); *t*=-14.545, *p*=.000 and the mean test value which was 3. These results suggest that current practice of youth volleyball in SNNPR, Ethiopia is below average as reported participants. Likewise, there was a significant difference between the scores for the mean value of perceived experience in youth volleyball (*M*=2.57, *SD*=.35); *t*=-18.213, *p*=.000 and the mean test value which was 3. These results suggest that perceived experience in youth volleyball was below average.

On the other hand, the results of one sample t-test indicated that there was a significant difference between the scores for the mean value perceived challenges in youth volleyball (*M*= 3.33, *SD*=.67); *t*=7.772, *p*=.000 and the mean test value which was 3. These results show that perceived challenges existed in youth volleyball in SNNPR, Ethiopia is above average as perceived by respondents. Similarly, the results of one sample t-test indicated that there was a significant difference between the scores for the mean value coach athlete relationship in youth volleyball (*M*= 3.43, *SD*=.80); *t*=8.387, *p*=.000 and the mean test value which was 3. These results show that coach athlete relationship in youth volleyball in SNNPR, Ethiopia is above average as perceived by respondents.

Table 6. Results of one-sample t-test on Level of studied variables

Variables	N	Mean	SD	T	Df	Test value	Sig.
Quality of youth volleyball	235	2.89	.34	-4.863	234	3	.000
Current practice of youth volleyball	235	2.57	.45	-14.545	234	3	.000
Perceived experience in Youth volleyball	235	2.57	.35	-18.213	234	3	.000
Perceived challenges in youth volleyball	235	3.33	.67	7.772	234	3	.000
Coach athlete relationship in youth volleyball	235	3.43	.80	8.387	234	3	.000

*. The mean difference is significant at the 0.05 level

4.1.3. Variation Among Studied Variables

Inferential statistics were conducted to address whether differences existed in the studied variables or not. More specifically, independent sample t-tests were run to examine any differences in responses to the studied variables such as the quality of youth volleyball development, Current practice in youth volleyball, Perceived experience in youth volleyball, Perceived challenges in youth volleyball, and Coach-athlete relationship in youth volleyball between gender and roles as /coaches and trainees/ in the project. Moreover, ANOVA were used to explore differences in responses between Zones/districts/, educational level, coaching license, coaching and training experience. When significant differences were noted, a Tukey HSD post-hoc test was conducted to determine which groups differed as indicated by the ANOVA.

Gender Differences

Mean scores for male and female participants were compared across perspectives on the quality of youth volleyball development, current practice in youth volleyball, perceived experience in youth volleyball, perceived challenges in youth volleyball and coach-athlete

relationship, including overall scores and the subscales were also analyzed between these subgroups.

Participants' gender difference

In this study, 13 male coaches and 107 male trainees and 7 female coaches and 108 female trainees totally 235 youth volleyball participants were included. These two groups were analyzed to compare means on all measures of variables. Female participants reported higher ratings on every measure such as current practice of youth volleyball, perceived experience in youth volleyball, perceived challenges in youth volleyball, and coach-athlete relationship except on one measure of sub scale the quality of youth volleyball development. However, significant differences were existed in current practice of youth volleyball and perceived experience in youth volleyball with $p < .05$. The mean difference is 0.27 and 0.40 respectively, which indicates a medium effect size (Cohen, J. 1988). Results of the test are shown in Table 4.4. below.

Table 7. Results of t-test for participants' Gender Difference

Variables	Sex	N	Mean	SD	T	Df	Effect Size Cohen's d	Sig. (2-tailed)
Quality of youth	Male	120	2.88	.351	1.08	233		.283
volleyball	Female	115	2.83	.299	1.08	230		
Current practice of youth	Male	120	2.04	.262	-2.19	233		.030*
volleyball	Female	115	2.11	.243	-2.19	233	0.277	
Perceived experience in	Male	120	2.51	.390	-3.28	233		.001*
youth volleyball`	Female	115	2.65	.295	-3.30	221	0.403	
Perceived challenges in	Male	120	3.32	.629	-.474	233		.636
youth volleyball	Female	115	3.36	.710	-.472	227		
coach athlete relationship	Male	120	3.40	.784	-.777	233		.438
in youth volleyball	Female	115	3.48	.823	-.776	231		

*. The mean difference is significant at the 0.05 level.

Participants' role difference (Coach and trainee)

Participant's role difference on overall measures of study variables were analyzed to determine differences between coaches and youth volleyball trainees. Coaches were reported higher ratings on two measures of subscales such as the quality of youth volleyball development and current practice of youth volleyball; while, trainees reported higher ratings on three measures of subscales such as perceived experience in youth volleyball, perceived challenges in youth volleyball and Coach-athlete relationship. There were statistically significant differences on all measure of sub scales at the $p < .05$. The mean difference is for coaches 2.16 and 0.76 and for trainees 1.76, 1.42 and 1.49 respectively, which indicates a large effect size (Cohen, 1988).

Table 8. Results of t-test for Respondents Roles Difference

Variables	Role of participant	N	Mean	SD	T	Df	Effect Size Cohen's d	Sig. (2-tailed)
Quality of youth volleyball	Coach	20	3.33	.155	7.45	233	2.16	.000*
	Trainee	215	2.81	.303	12.72	35		
Current practice of youth volleyball	Coach	20	2.27	.301	3.67	233	0.76	.000*
	Trainee	215	2.06	.243	3.07	21		
Perceived experience in youth volleyball	Coach	20	1.99	.420	-9.01	233	1.76	.000*
	Trainee	215	2.63	.293	-6.70	21		
Perceived challenges in youth volleyball	Coach	20	2.71	.142	-4.56	233	1.42	.000*
	Trainee	215	3.40	.669	-12.33	130		
Coach athlete relationship in youth volleyball	Coach	20	2.65	.143	-4.78	233	1.49	.000*
	Trainee	215	3.51	.800	-13.56	165		

*. The mean difference is significant at the 0.05 level.

Results of one-way Analysis of Variance (ANOVA)

One-way analysis of variance was conducted to see what statistically significant mean score difference between training centers located in ten zones on overall measure of study variables. Hence, the results of descriptive statistics depicted that Konta, Hadiya, Hawassa,

and Wolyta demonstrated the highest mean score on the quality of youth volleyball; Kanbata, Daworo, and Gediyo indicated the second highest mean score on the stated measure of scale and Ganogofa, Segen, and Debub Omo, had shown the least mean score of the stated measure of subscale respectively.

Likewise, Hawassa, Konta, Daworo and Hadiya, indicated the highest mean score on current practice of youth volleyball; Kanbata, Gediyo and Segen were indicated the second highest mean score of the stated measure of subscale; whereas, Gamogofa, Debub omo and Wolyta demonstrated the least mean score on the current practice of youth volleyball respectively.

Correspondingly, the results of descriptive statistics indicated that Daworo, Hawassa, and Gediyo demonstrated the highest mean score on measure of subscale perceived experience in youth volleyball; on the other hand, Wolyta, Gamogofa, Debub omo and Konta depicted the second highest mean score of the stated measure of subscale; whereas, Hadiya, Kanbata and Segen had shown the least mean score respectively.

Similarly, the results of descriptive statistics indicated that Debubomo, Segen, and Gamogofa demonstrated the highest mean score perceived challenges in youth volleyball; while, Gediyo, Kanbata, and Daworo showed the second highest mean score of the stated measure of subscale. On the other hand, Wolyta, Hawassa, Konta and Hadiya had shown the least mean score respectively.

Likewise, the results of descriptive statistics depicted that Gediyo, Debub omo, and Segen, demonstrated the highest mean score on measure of subscale coach-athlete relationship in youth volleyball; whereas, Kanbata, Gamogofa, and Daworo depicted the second highest mean score on the stated measure of sub scale; while, Wolyta, Konta, Hadiya, and Hawassa had shown the least mean score respectively (See appendix A).

Summary Analysis of Variance (ANOVA) between Project Zones

To analyze differences between participants of youth volleyball projects in ten zones, such as Wolita, Debubomo, Gamogofa, Hadiya, Kanbata. Gediyo, Hawassa, Daworo, Konta and Segen, a one-way ANOVA was conducted to compare responses on all measures of the study variables such as quality of youth volleyball, current practice of youth volleyball,

perceived experience in youth volleyball, perceived challenges in youth volleyball and Coach-athlete relationship.

As shown in the table below, there were statistically significant differences between zones on all measure of perspectives $p < .05$ level on quality of youth volleyball ($F(9,225) = 24.111$, $p = 0.000$, $\eta 2 = .490$), Current practice of youth volleyball ($F(9,225) = 11.919$, $p = 0.000$, $\eta 2 = .322$), perceived experience in youth volleyball ($F(9,225) = 6.426$, $p = 0.000$, $\eta 2 = .204$), perceived challenges in youth volleyball ($F(9,225) = 58.144$, $p = 0.000$, $\eta 2 = .699$) and coach-athlete relationship ($F(9,225) = 51.054$, $p = 0.000$, $\eta 2 = .671$).

Table 9. Summary Analysis of Variance (ANOVA) between Training centers/Zones/

Variables	Category	Sum of Squares	Df	Mean Square	F	Sig.
Quality of youth volleyball development	Between Groups	12.262	9	1.362	24.111	.000*
	Within Groups	12.714	225	.057		
	Total	24.977	234			
Current practice of youth volleyball	Between Groups	4.919	9	.547	11.919	.000*
	Within Groups	10.318	225	.046		
	Total	15.237	234			
Perceived experience in youth volleyball	Between Groups	5.994	9	.666	6.426	.000*
	Within Groups	23.320	225	.104		
	Total	29.314	234			
Perceived challenge in youth volleyball	Between Groups	73.171	9	8.130	58.144	.000*
	Within Groups	31.461	225	.140		
	Total	104.631	234			
Coach athlete relationship	Between Groups	101.165	9	11.241	51.054	.000*
	Within Groups	49.539	225	.220		
	Total	150.704	234			

*. The mean difference is significant at the 0.001 level.

As Cohen (1988) classifies the magnitude of difference .02 as a small effect, .06 as a medium effect, and .14 as a large effect; the magnitude of differences was calculated using

the formula for Eta squared. Hence, the effect size calculated using eta squared on all measure of sub scale was more than (.14). Hence, the result demonstrated that the difference between the zones 0.98, 0.69, 0.50, 1.52 and 0.98 respectively, which indicates a large effect size (Cohen, 1988).

To further demarcate these differences on all measures of sub scales between Zones, Post-hoc comparisons were conducted using a Tukey HSD test. Dawro zone reported significantly higher mean score on measures of subscales perceived experience in youth volleyball; whereas, Hawassa reported significantly higher mean score on current practice of youth volleyball. Furthermore, Konta depicted significantly higher mean score on the quality of youth volleyball development than other zones. Gediyo zone reported significantly higher mean score on coach-athlete relationship in youth volleyball than other training center zones; whereas, Debub omo depicted significantly higher mean score on measure of subscale perceived challenges in youth volleyball (See appendix B&C).

Summary Analysis of Variance (ANOVA) between Coaches Level of Education

To analyze differences between coaches based on their level of education (i.e., diploma, degree, etc.), a one-way ANOVA was conducted to compare responses on all measures of the study variables. Coaches with degree level of education reported higher mean scores than coaches with master and diploma respondents on all three measures sub scales such as quality of youth volleyball, current practice of youth volleyball and perceived challenges in youth volleyball; however, coaches with diploma level of education reported higher mean score on two measure of sub scales such perceived experience in youth volleyball and coach-athlete relationship in youth volleyball than degree and masters holder coaches (See appendix D). However, there were no statistically significant differences on any of the scales between coaches of different level of education as shown in the table below.

Table 10. Summary Analysis of Variance (ANOVA) between Coaches level of Education

Variables	Category	Sum of Squares	Df	Mean Square	F	Sig.
Quality of youth volleyball	Between Groups	.134	2	.067	.956	.404
	Within Groups	1.191	17	.070		
	Total	1.326	19			
Current practice of youth volleyball	Between Groups	.013	2	.006	.062	.940
	Within Groups	1.714	17	.101		
	Total	1.726	19			
Perceived experience in youth volleyball	Between Groups	.371	2	.186	1.058	.369
	Within Groups	2.982	17	.175		
	Total	3.354	19			
Perceived challenges in youth volleyball	Between Groups	.065	2	.033	1.747	.204
	Within Groups	.317	17	.019		
	Total	.382	19			
Coach athlete relationship in youth volleyball	Between Groups	.052	2	.026	1.305	.297
	Within Groups	.338	17	.020		
	Total	.390	19			

Differences in Trainees Level of Education

To analyze differences between participants level of education (i.e., 7th grade, 8th grade, etc.), a one-way ANOVA was conducted to compare responses on all measures of subscales quality of youth volleyball, current practice of youth volleyball, perceived experience in youth volleyball, perceived challenges in youth volleyball and coach-athlete relationship in youth volleyball.

The results of descriptive statistics depicted that trainee with grade 11 level of education demonstrated the highest mean score on the quality of youth volleyball; trainees with grade 7 and grade 10 level of education indicated the second highest mean score on the stated measure of scale and trainees with grade 12 and grade 9 level of education and had shown the least mean score of the stated measure of subscale respectively.

Likewise, trainees with grade 8 level of education indicated the highest mean score on measures of subscale current practice of youth volleyball; while, trainees with grade 9 and

grade 7 level of education were indicated the second highest mean score of the stated measure of subscale; whereas, trainees with grade 11, grade 10 and grade 12 demonstrated the least mean score on the current practice of youth volleyball respectively.

Correspondingly, the results of descriptive statistics indicated that trainees with grade 9 level of education demonstrated the highest mean score on measure of subscale on perceived experience in youth volleyball; on the other hand, trainees with grade 10 and grade 11 level of education depicted the second highest mean score of the stated measure of subscale; whereas, trainees with grade 8, grade 7 and grade 12 level of education had shown the least mean score respectively.

Similarly, the results of descriptive statistics indicated that trainees with grade 8 level of education demonstrated the highest mean score on perceived challenges in youth volleyball; while, trainees with grade 9 and grade 10 level of education showed the second highest mean score of the stated measure of subscale. On the other hand, trainees with grade 12, grade seven and grade 11 level of education had shown the least mean score respectively.

Likewise, the results of descriptive statistics depicted that trainee with grade 8 level of education demonstrated the highest mean score on measure of subscale on coach-athlete relationship in youth volleyball; whereas, trainees with grade 9 and grade 10 level of education depicted the second highest mean score on the stated measure of sub scale; whereas, trainees with grade 11, grade 7 and grade 12 level of education had shown the least mean score respectively (See appendix E).

Summary Analysis of Variance (ANOVA) between Trainees Level Education

There were statistically significant differences existed between trainees level of education on two measures of sub scales such as current practice of youth volleyball and perceived challenges in youth volleyball; more specifically, there were statistically significant differences existed between trainees educational level at the $p < .05$ level for the Current practice of youth volleyball measure of subscale ($F(5,209) = 3.168$, $p = 0.009$, $\eta 2 = .0341$), and perceived challenges in youth volleyball TID system ($F(5,209) = 2.370$, $p = 0.041$, $\eta 2 = .0536$). Summary of ANOVA values for the overall measure of subscales are shown in the table below.

Table 11. Summary Analysis of Variance between Trainees' Level of Education

Variables	Category	Sum of Squares	Df	Mean Square	F	Sig.
Quality of youth volleyball	Between Groups	.673	5	.135	1.479	.198
	Within Groups	19.036	209	.091		
	Total	19.709	214			
Current practice of youth volleyball	Between Groups	.893	5	.179	3.168	.009**
	Within Groups	11.784	209	.056		
	Total	12.677	214			
Perceived experience in youth volleyball	Between Groups	.119	5	.024	.272	.928
	Within Groups	18.268	209	.087		
	Total	18.387	214			
Perceived challenges in youth volleyball	Between Groups	5.133	5	1.027	2.370	.041*
	Within Groups	90.536	209	.433		
	Total	95.669	214			
Coach athlete relationship in youth volleyball	Between Groups	6.587	5	1.317	2.114	.065
	Within Groups	130.272	209	.623		
	Total	136.859	214			

*. The mean difference is significant at the 0.05 level.

**. The mean difference is significant at the 0.01 level.

As Cohen (1988) classifies the magnitude of difference .02 as a small effect, .06 as a medium effect, and .14 as a large effect, the magnitude of differences was calculated using the formula for Eta squared. Hence, the result demonstrated the magnitude of difference 0.27 and 0.23 which constituted medium effect between trainees' level of education

To further outline these differences, post-hoc comparisons were conducted using a Tukey HSD test. The test reported higher mean score on measure of subscale current practice of youth volleyball score for trainees with grade 8 level of education (M=2.108, SD=0.231) was significantly different from trainees with grade 12 level of education (M=1.728, SD=0.206) and trainees with grade 9 level of education (M=2.065, SD=0.220). However, trainees with grade 7(M=2.064, SD=0.186), grade 10 (M=2.023, SD=0.260) and grade 11

(M=2.039, SD=0.285) level of education did not differ significantly from either trainee with grade 8, grade 9 and grade 12 level of education. similarly, it is indicated that the test result reported higher mean score on measure of sub scale perceived challenges in youth volleyball score for trainees with grade 8 level of education (M=3.523, SD=0.693) was significantly different from trainees with grade 11 level of education (M=3.059, SD=0.550). However, trainees with grade 7(M=3.109, SD=0.747), grade 9 (M=3.445, SD=0.650) and grade 10 (M=3.399, SD=0.617) and grade 12 (M=3.347, SD=0.747) level of education did not differ significantly from trainees with grade 8 level of education (See appendix E & F).

Differences between Coaches' Level of Coaching License

To analyze the differences between coaches' level of coaching license (i.e., Beginner, Level I, etc.), a one-way ANOVA was conducted to compare responses on all measures of the study variables.

Descriptive statistics depicted that level I licensed coaches demonstrated the highest mean score on the quality of youth volleyball; while, instructor licensed coaches and level II licensed coaches indicated the second highest mean score on the stated measure of scale; but and beginner licensed coaches had shown the least mean score. Likewise, level II licensed coaches indicated the highest mean score on measures of subscale current practice of youth volleyball; while, instructor licensed coaches and level I licensed coaches indicated the second highest mean score of the stated measure of subscale; whereas, Beginner licensed coaches demonstrated the least mean score on the current trends of youth volleyball TID.

Correspondingly, the results of descriptive statistics indicated level II licensed coaches demonstrated the highest mean score on measure of subscale on perceived experience in youth volleyball; on the other hand, instructor licensed coaches and level I licensed coaches depicted the second highest mean score of the stated measure of subscale; whereas, beginner licensed coaches had shown the least mean score.

Similarly, the results of descriptive statistics indicated beginner licensed coaches demonstrated the highest mean score on perceived challenges in youth volleyball; while, level I licensed coaches and instructor licensed coaches showed the second highest mean

score of the stated measure of subscale. On the other hand, level II licensed coaches had shown the least mean score.

Likewise, the results of descriptive statistics depicted that instructor licensed coaches demonstrated the highest mean score on measure of subscale on coach-athlete relationship in youth volleyball; whereas, level II licensed coaches and grade level I licensed coaches depicted the second highest mean score on the stated measure of sub scale; whereas, beginner licensed coaches had shown the least mean score (See appendix G).

Summary Analysis of Variance (ANOVA) between Coaches' Level of Coaching License

There was statistically significant difference on one measures of sub scales perceived experience in youth volleyball; more explicitly, there were statistically significant differences between coaches' level of coaching license at the $p < .05$ level for the perceived experience in youth volleyball subscale ($F(3,16) = 6.624$, $p = 0.004$, $\eta 2 = .178$). ANOVA values for the overall measure of study variables were shown in the table below.

Table 12. Summary Analysis of Variance between Coaches' Level of Coaching License

Variables	Category	Sum of Squares	Df	Mean Square	F	Sig.
Quality of youth volleyball	Between Groups	.405	3	.135	2.349	.111
	Within Groups	.920	16	.058		
	Total	1.326	19			
Current practice of youth volleyball	Between Groups	.451	3	.150	1.885	.173
	Within Groups	1.276	16	.080		
	Total	1.726	19			
Perceived experience in youth volleyball	Between Groups	1.858	3	.619	6.624	.004*
	Within Groups	1.496	16	.093		
	Total	3.354	19			
Perceived challenges in youth volleyball	Between Groups	.068	3	.023	1.155	.357
	Within Groups	.314	16	.020		
	Total	.382	19			
	Between Groups	.114	3	.038	2.211	.126

Coach athlete relationship in youth volleyball	Within Groups	.276	16	.017
	Total	.390	19	

*. The mean difference is significant at the 0.01 level.

As Cohen (1988) classifies the magnitude of difference .02 as a small effect, .06 as a medium effect, and .14 as a large effect, the magnitude of differences was calculated using the formula for Eta squared. Hence, the result demonstrated that the magnitude of difference 1.11 constituted large effect size between coaches' level of coaching license (Cohen, 1988).

To further outline these differences, post-hoc comparisons were conducted using a Tukey HSD test. The test reported higher mean score on measure of subscale perceived experience in youth volleyball score for level II licensed coaches (M=2.273, SD=0.385) was significantly different from instructor licensed coaches (M=2.181, SD=0.273) and beginner licensed coaches (M=1.50, SD=0.117). However, level I licensed coaches (M=1.818, SD=0.257), did not differ significantly from level II, instructor and beginner licensed coaches (See appendix G & H).

Difference in Coaches Level of Coaching Experience

To analyze the differences between coaches' level of coaching license (i.e., Beginner, Level I, etc.), a one-way ANOVA was conducted to compare responses on all measures of sub scales quality of youth volleyball development, current practice of youth volleyball, perceived experience in youth volleyball, perceived challenges in youth volleyball and Coach-athlete relationship in youth volleyball.

Descriptive statistics depicted those coaches with greater than 10 years of experience demonstrated the highest mean score on the quality of youth volleyball development; while, coaches with less than 5 years of experience indicated the second highest mean score on the stated measure of scale; but, coaches with 5 to 10 years of experience had shown the least mean score of the stated measure of subscale.

Likewise, coaches 5 to 10 years of training experience indicated the highest mean score on measures of subscale current practice of youth volleyball; while, coaches with more than 10 years of training experience indicated the second highest mean score of the stated

measure of subscale; whereas, coaches with less than 5 years of experience demonstrated the least mean score on the Current trends of youth volleyball TID.

Correspondingly, the results of descriptive statistics indicated coaches with more than 10 years of experience demonstrated the highest mean score on measure of subscale on perceived experience in youth volleyball; on the other hand, coaches with 5 to 10 years of coaching experience depicted the second highest mean score of the stated measure of subscale; whereas, coaches with less than 5 years of coaching experience had shown the least mean score.

Similarly, the results of descriptive statistics indicated coaches with 5 to 10 years of coaching experience demonstrated the highest mean score on perceived challenges in youth volleyball; while, coaches with less than 5 years of experience showed the second highest mean score of the stated measure of subscale. On the other hand, coaches with more than 10 years of coaching experience had shown the least mean score.

Likewise, the results of descriptive statistics depicted those coaches with more than 10 years of experience demonstrated the highest mean score on measure of subscale on coach-athlete relationship in youth volleyball; whereas, coaches with less than 5 years of coaching experience depicted the second highest mean score on the stated measure of sub scale; whereas, coaches with 5 to 10 years of coaching experience had shown the least mean score (See appendix H).

Summary Analysis of Variance (ANOVA) between Coaches Level of Coaching Experience

One-way ANOVA was conducted to compare differences between coaches based on their level of coaching experience between three groups (< 5years, 6-10 years, and < 10 years. Responses on all measures of the study variables such as quality of youth volleyball development, current practice of youth volleyball, Perceived experience in youth volleyball, perceived challenges in youth volleyball and coach-athlete relationship. There were no statistically significant differences between coaches' level of coaching experience

on any measures of sub scales (See appendix I). Summary of ANOVA values for the overall measure of subscales are shown in the table below.

Table 13. Summary of Variance (ANOVA) between Coaches Level of Experience

Variables	Category	Sum of Squares	Df	Mean Square	F	Sig.
Quality of youth volleyball development	Between Groups	.191	2	.095	1.428	.267
	Within Groups	1.135	17	.067		
	Total	1.326	19			
Current practice of youth volleyball	Between Groups	.043	2	.021	.215	.809
	Within Groups	1.684	17	.099		
	Total	1.726	19			
Perceived experience in youth volleyball	Between Groups	.237	2	.119	.647	.536
	Within Groups	3.117	17	.183		
	Total	3.354	19			
Perceived challenges in youth volleyball	Between Groups	.005	2	.003	.115	.892
	Within Groups	.376	17	.022		
	Total	.382	19			
Coach athlete relationship in youth volleyball	Between Groups	.018	2	.009	.416	.666
	Within Groups	.372	17	.022		
	Total	.390	19			

The mean difference is significant at the 0.05 level.

Difference between Trainee's Level of Training Experience

To analyze the differences between trainee's level of training experience (i.e., 3 years, 4 years and 5 years), a one-way ANOVA was conducted to compare responses on all measures of sub scales quality of youth volleyball development, current practice of youth volleyball, perceived experience in youth volleyball, perceived challenges in youth volleyball and coach-athlete relationship.

Descriptive statistics depicted that trainee with 5 years of training experience demonstrated the highest mean score on the quality of youth volleyball development; while, with 4 years

of training experience indicated the second highest mean score on the stated measure of scale; but, trainees with 3 years of training experience had shown the least mean score of the stated measure of subscale.

Likewise, trainees with 4 of training experience indicated the highest mean score on measures of subscale current practice of youth volleyball; while, trainees with 3 of training experience indicated the second highest mean score of the stated measure of subscale; whereas, trainees with 5 years of training experience demonstrated the least mean score on the Current trends of youth volleyball.

Correspondingly, the results of descriptive statistics indicated trainees with 3 years of training experience demonstrated the highest mean score on measure of subscale on perceived experience in youth volleyball; on the other hand, trainees with 4 years of training experience depicted the second highest mean score of the stated measure of subscale; whereas, trainees with 5 years of coaching experience had shown the least mean score.

Similarly, the results of descriptive statistics indicated trainees with 3 years of training experience demonstrated the highest mean score on perceived challenges in youth volleyball; while, trainees with 4 of training experience showed the second highest mean score of the stated measure of subscale. On the other hand, trainees with 5 years of training experience had shown the least mean score.

Likewise, the results of descriptive statistics depicted that trainee with 3 years of training experience demonstrated the highest mean score on measure of subscale on coach-athlete relationship in youth volleyball; whereas, trainees with 4 years of training experience depicted the second highest mean score on the stated measure of sub scale; whereas, trainees with 5 years of training experience had shown the least mean score (See appendix J)

Summary Analysis of Variance (ANOVA) between Trainees Level of Training Experience

There was statistically significant differences on four measures of sub scales such as the quality of youth volleyball, perceived experience in youth volleyball, perceived challenges in youth volleyball and coach-athlete relationship in youth volleyball; more specifically,

there were statistically significant differences between trainee's level of training experience at the $p < .05$ level for the quality of youth volleyball development ($F(2,212) = 5.000$, $p = .008$, $\eta 2 = 0.047$), the perceived experience in youth volleyball subscale ($F(2,212) = 4.467$, $p = .013$, $\eta 2 = 0.042$), perceived challenges in youth volleyball ($F(2,212) = 7.000$, $p = .001$, $\eta 2 = 0.061$), and coach-athlete relationship in youth volleyball ($F(2,212) = 4.482$, $p = .012$, $\eta 2 = 0.040$). Hence, ANOVA values for the overall measure of subscales are shown in the Table 4.12.

Table 14. Summary Analysis of Variance between Trainee's Level of Training Experience

Variables	Category	Sum of Squares	Df	Mean Square	F	Sig.
Quality of youth volleyball development	Between Groups	.888	2	.444	5.000	.008**
	Within Groups	18.822	212	.089		
	Total	19.709	214			
Current practice of youth volleyball	Between Groups	.001	2	.000	.004	.996
	Within Groups	12.677	212	.060		
	Total	12.677	214			
Perceived experience in youth volleyball	Between Groups	.744	2	.372	4.467	.013*
	Within Groups	17.644	212	.083		
	Total	18.387	214			
Perceived challenges in youth volleyball	Between Groups	5.926	2	2.963	7.000	.001**
	Within Groups	89.743	212	.423		
	Total	95.669	214			
Coach athlete relationship in youth volleyball	Between Groups	5.552	2	2.776	4.482	.012*
	Within Groups	131.307	212	.619		
	Total	136.859	214			

*. The mean difference is significant at the 0.05 level.

**. The mean difference is significant at the 0.01 level.

As Cohen (1988) classifies the magnitude of difference .02 as a small effect, .06 as a medium effect, and .14 as a large effect, the magnitude of differences was calculated using

the formula for Eta squared. Hence, the result demonstrated the magnitude of difference 0.21, 0.20, 0.25, and 0.20 respectively, which indicates a medium effect size between trainees' level of education (Cohen, 1988).

The test reported higher mean score on measure of subscale the quality of youth volleyball development score for trainees with 5 years of training experience (M=3.171, SD=0.064) was significantly different from trainees with 3 years of training experience (M=2.736, SD=0.268). However, trainees with 4years of experience (M=2.842, SD=0.311) did not differ significantly from trainees with 3 years of training experience and trainees with 5 years training experience.

Similarly, it is indicated that the test result reported higher mean score on measure of sub scale Perceived experience in youth volleyball score for trainees with 3 years of training experience (M= 2.660, SD=0.302) was significantly different from trainees with 5 years of training experience (M=2.151, SD=0.209). However, trainees with 4 years of training experience did not differ significantly from trainees with 4 years of training experience.

Likewise, the test result reported higher mean score on measure of perceived challenges in youth volleyball score for trainees with 3 years of training experience (M=3.618, SD=0.609) was significantly different from trainees with 4 years of training experience (M=3.317, SD=0.671) and trainees with 5 years of training experience (M=2.611, SD=0.096). Similarly, the test result reported higher mean score on measure of coach athlete relationship in youth volleyball score for trainees with 3 years of training experience (M=3.735, SD=0.684) was significantly different from trainees with 4 years of training experience (M=3.428, SD=0.832). However, trainees with 5 years of training experience (M=2.848, SD=0.052) did not differ significantly from trainees with 3 years of training experience (See appendix J & K).

4.1.4. Relationship between Dependent and Independent Variables

The third objective of the study was to examine the association between the study variables quality of youth volleyball, current practice of youth volleyball, Perceived experience in youth volleyball, perceived challenges in youth volleyball and coach athlete relationship in youth volleyball. Therefore, to attain this, Pearson correlation coefficient was computed and the results were presented in Table 4.13.

Table 15. Relationship among the Studied Variables

Variables	M	SD	1	2	3	4	5
Current practice of youth volleyball	.402	.080	1				
Perceived experience in youth volleyball	2.58	.354	-.008	1			
Perceived challenges in youth volleyball	.312	.063	-.738**	-.085	1		
Coach-athlete relationship in youth volleyball	3.44	.802	.697**	.048	-.812**	1	
Quality of youth volleyball development	.351	.042	.653**	.179**	-.721**	.690**	1

**. Correlation is significant at the 0.01 level (2-tailed).

A Pearson product-moment correlation coefficient was computed to assess the relationship existed between variables. Hence, preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. There was a positive correlation between current practice of youth volleyball and quality of youth development (r = .653, p< 0.000). This shows that as current practice of youth volleyball in youth volleyball projects increases the quality of youth volleyball development also increases too. The coefficient of determination (r^2) of the two variables shows approximately 42.6% of the variance (r^2 = .426) in quality of youth volleyball development can be described by the variance of current practice of youth volleyball (at the significance level p=.01).

Likewise, there was a statistically positive significant correlation between perceived experience in youth volleyball and the quality of youth volleyball development (r = .179, p< 0.006). This depicted that as perceived experience in youth volleyball improved the quality of youth volleyball improved too. The coefficient of determination (r^2) of the two variables shows approximately .32% of the variance (r^2=.032) in the quality of youth

volleyball development can be explained by the variance of perceived experience in youth volleyball (at the significance level p=.01).

Conversely, there was a statistically negative significant correlation perceived challenges in youth volleyball and the quality of youth volleyball development (r = -.721, p< 0.000). This indicates that as perceived challenges in youth volleyball decreases and the quality of youth volleyball development increase. The coefficient of determination (r^2) of the two variables shows approximately 51.9% of the variance (r^2= -.519) in the quality of youth volleyball development and its contribution for elite players can be explained by the variance of perceived challenges in youth volleyball (at the significance level p=.01).

There was a statistically significant positive correlation was observed between coach-athlete relationship in youth volleyball and the quality of youth volleyball development (r = .690, p< 0.000). This shows that as coach-athlete relationship in youth volleyball increases the quality of youth volleyball development increases. The coefficient of determination (r^2) of the two variables shows approximately 47.6% of the variance (r^2=.476) in the quality of youth volleyball development can be explained by the variance of coach-athlete relationship in youth volleyball (at the significance level p=.01).

There was a statistically positive significant relationship between current practice of youth volleyball and coach-athlete relationship in youth volley ball (r = .697, p< 0.000). This indicates that as coach-athlete relationship in youth volleyball increase current practice of youth volleyball increases too. The coefficient of determination (r^2) of the two variables shows approximately 48.5% of the variance (r^2=.485) in coach-athlete relationship in youth volleyball can be explained by the variance of current practice of youth volleyball (at the significance level p=.01).

Conversely, there was a statistically negative significant relationship between coach-athlete relationship in youth volleyball and perceived challenges in youth volleyball (r = -.812, p< 0.000). This indicates that as coach-athlete relationship of youth volleyball improved perceived challenges in youth volleyball decreases. The coefficient of determination (r^2) of the two variables shows approximately 65.9% of the variance (r^2= -

.659) in coach-athlete relationship youth volleyball can be explained by the variance of perceived challenges in youth volleyball (at the significance level p=.01).

Similarly, there was a statistically negative significant relationship between perceived challenges in youth volleyball and current practice of youth volleyball (r = -.738, p< 0.000). This indicates that as current practice of youth volleyball increases perceived challenges in youth volleyball decreases. The coefficient of determination (r^2) of the two variables shows approximately 54.4% of the variance (r^2=-.540) perceived challenges in youth volleyball can be explained by the variance of current practice of youth volleyball (at the significance level p=.01).

4.1.5. Regression Analyses

The fourth objective of the study was to explore whether current practice, perceived experience in youth volleyball, perceived challenges in youth volleyball and coach athlete relationship predict the quality of youth volleyball development. Hence, to specifically address the research question "To what extent the contextual factors predict the quality of youth volleyball development in SNNPR?", a standard multiple regression was used to determine how measures of independent variables predict ratings of the quality of youth volleyball development. The approach was used to determine the unique variance in the dependent variable (i.e., quality of youth volleyball development) that each of the four independent variables (i.e., current practice of youth volleyball, perceived experience in youth volleyball, perceived challenges in youth volleyball and Coach-athlete relationship in youth volleyball) explains.

The researcher used multiple regressions which used to predict an outcome variable from independent variables. Preliminary analyses were conducted to ensure no violation of the assumptions of normality, linearity, multi co-linearity and homoscedasticity.

Normality Test

A fundamental task in many statistical analyses is to characterize the location and variability of a data set. Hence, a further characterization of the data that includes skewness and kurtosis is demanded. Skewness is a measure of symmetry, or more precisely, the lack of symmetry. A distribution, or data set, is symmetric if it looks the same to the left and

right of the center point. Kurtosis is a measure of whether the data are heavy-tailed or light-tailed relative to a normal distribution. That is, data sets with high kurtosis tend to have heavy tails, or outliers. Data sets with low kurtosis tend to have light tails, or lack of outliers. A uniform distribution would be the extreme case. The skewness for a normal distribution is zero, and any symmetric data should have skewness near zero. Negative values for the skewness indicate data that are skewed left and positive values for the skewness indicate data that are skewed right.

Kurtosis is a statistical measure that defines how heavily the tails of a distribution differ from the tails of a normal distribution. In other words, kurtosis identifies whether the tails of a given distribution contain extreme values. Along with skewness, kurtosis is an important descriptive statistic of data distribution. However, the two concepts must not be confused with each other. Skewness essentially measures the symmetry of the distribution, while kurtosis determines the heaviness of the distribution tails. An excess kurtosis is a metric that compares the kurtosis of a distribution against the kurtosis of a normal distribution. The kurtosis of a normal distribution equals 3. Therefore, the excess kurtosis is found using the formula below:

Excess Kurtosis = Kurtosis – 3

The types of kurtosis are determined by the excess kurtosis of a particular distribution. The excess kurtosis can take positive or negative values, as well as values close to zero. A mesokurtic distribution shows an excess kurtosis of zero or close to zero. This means that if the data follows a normal distribution, it follows a mesokurtic distribution. Leptokurtic indicates a positive excess kurtosis. The leptokurtic distribution shows heavy tails on either side, indicating large outliers; however, a platykurtic distribution shows a negative excess kurtosis. The kurtosis reveals a distribution with flat tails. The flat tails indicate the small outliers in a distribution. Based on this fact, the descriptive statistics depicted in the table below reveals that the distribution of data is normal.

Table 16. Normality Test

Variables	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Quality of youth volleyball	235	.317	.159	-.175	.316
Current practice of youth volleyball	235	1.104	.159	.710	.316
Perceived experience in youth volleyball	235	.240	.159	-1.243	.316
Perceived challenges in youth volleyball	235	-.639	.159	1.099	.316
Coach-athlete relationship in youth volleyball	235	.184	.159	-1.492	.316
Valid N (listwise)	235				

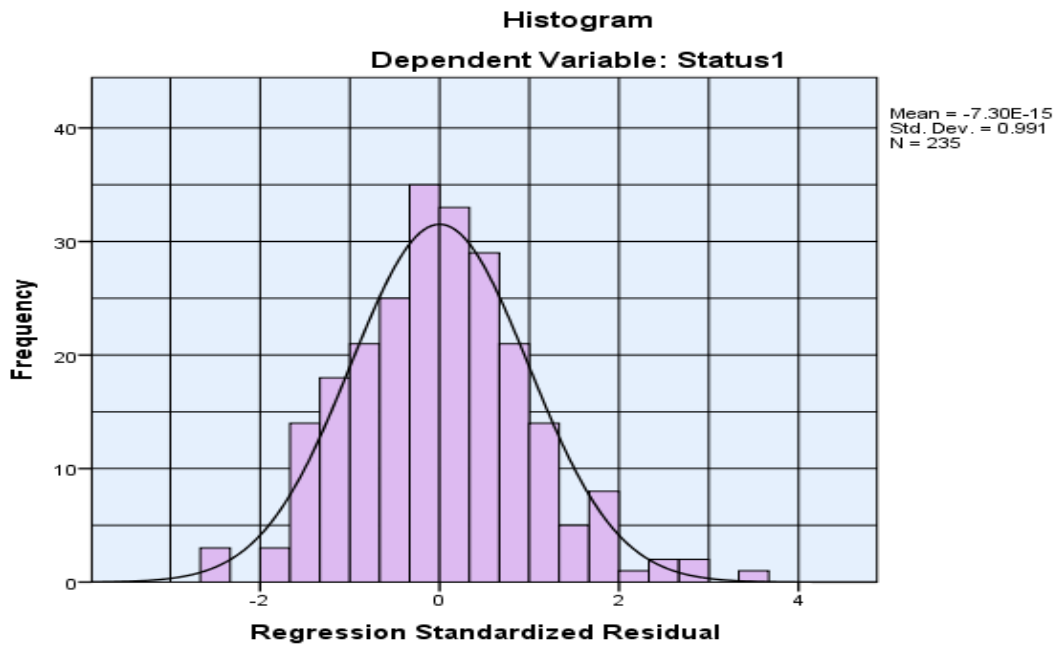

Figure 3. Normality test

Histogram is an effective graphical technique for showing both the skewness and kurtosis of a particular data set. It has been used to test the normality distribution of residual. Based

on this fact the above figure shows that the majority of the scores lie around the center of the distribution; in addition, the coefficient of the skewness data value is between -3 and 3 and kurtosis value is not far from zero. Thus, it fulfills the assumption of multiple regressions.

Linearity Test

Linearity refers to the predictor variables in the regression which have a straight-line relationship with the outcome variable. When the residuals are normally distributed and homoscedastic the points on such a plot should fall close to the diagonal reference line. A normal probability plot or normal quantile plots of the residuals are an indicator for best tests for normally distributed errors (Field, 2013). These are plots of the fractals of error distribution versus the fractals of a normal distribution having the same mean and variance. If the distribution is linear, the points on such a plot should fall close to the diagonal reference line. A bow-shaped pattern of deviations from the diagonal indicates that the residuals have an excessive skewness (i.e., they are not symmetrically distributed, with too many large errors in one direction). An S-Shaped pattern of deviations indicates that the residuals have excessive kurtosis i.e., there are either too many or too few large errors in both directions. Therefore, a plot should fall close to the diagonal reference line. Hence, based on these prior facts while we see the figure (3) below it fulfills the assumption of multiple regressions.

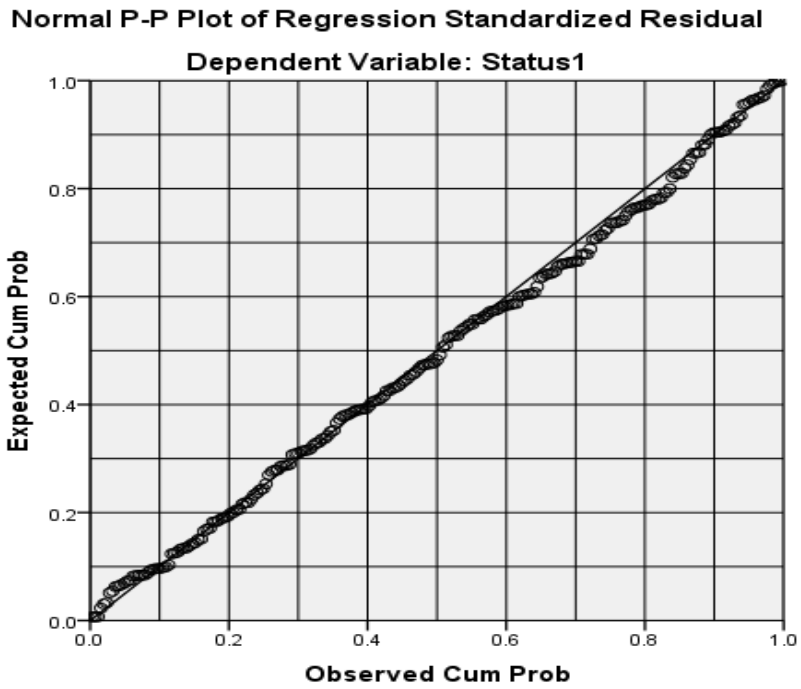

Figure 4. Linearity Test

Multi-Co-linearity Diagnostics

The assumptions underlying a regression analysis are conducted to ensure that the results of regression are reliable and free from biasness. Therefore, before presenting the regression models, it should be inspected for the nonexistence of excessive correlations between the independent variables in the model. The correlation matrix in conjunction with co-linearity statistics was scanned as a preliminary look for multi-co-linearity to avoid multi-co-linearity in the research variables; there should be no substantial correlations (R >.9), no tolerance value below .1 and no variance inflation factor over 10 between the predictors (Field, 2005).

Moreover, one method to detect high multi co-linearity between independent variables is Variance-Inflating Factor (VIF) which measures how the variance of an estimator is inflated by the presence of multi co-linearity. With zero correlation between the independent variables, VIF equals 1. A value of VIF greater than 10 indicates a problem (Gujarati, 2004). Therefore, based on the stated facts below in Table 4.20 co-linearity statistics, the absence of multi co-linearity was ensured.

Table 17. Co-linearity Statistics

Model	Co-linearity Statistics	
	Tolerance	VIF
Current practice of youth volleyball	.424	2.361
Perceived experience in youth volleyball	.982	1.018
Perceived challenges in youth volleyball	.279	3.580
Coach-athlete relationship in youth volleyball	.319	3.137

a. Dependent Variable: Quality of youth volleyball development

According to the finding of this study, in examining the correlation matrix of independent variables in the above table, the results found no pair correlation coefficient in excess of .70. Similarly, the results in table above revealed that no tolerance value found below .1 and all-variable inflation factors (VIF) values are below 10 (the VIF current practice of youth volleyball, perceived experience in youth volleyball, perceived challenges in youth volleyball and coach-athlete relationship in youth volleyball is found to be less than 2.361, 1.018, 3.580 and 3.137 respectively). Based on the above stated facts, multi-co-linearity is not a critical problem. In statistical conversation, tolerance is a statistic used to indicate the variability of the specified independent variable not explained by the other independent variables in the model. Therefore, it is proved that there is no existence of excessive correlation between the independent variables themselves.

The finding of the regression model table below indicates that the value of the regression coefficient R= .769 which indicates that there was a strong relationship between independent and dependent variables. R square, on the other hand, explains .591 of Current practice of youth volleyball, perceived experience in youth volleyball, perceived challenges in youth volleyball and coach-athlete relationship in youth volleyball. The remaining was explained by other variables which are not identified by this research and need further research.

Table 18. Regression Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.769[a]	.591	.584	.02711

Results of the regression analysis report table below indicated that the quality of youth volleyball development predictors explained 59.1% of the variance in current practice of youth volleyball, perceived experience in youth volleyball, perceived challenges in youth volleyball and coach-athlete relationship in youth volleyball ($R2 = 0.591$, $F (4, 230) = 83.12$, $p < .000$), as P is less than .05 and F value is large, the model is significant. Therefore, the null hypothesis was rejected. Furthermore, it was found that ratings of Current practice of youth volleyball ($\beta = .122$, $p < .000$), perceived experience in youth volleyball ($\beta = .017$, $p < .001$), perceived challenges in youth volleyball ($\beta = -.223$, $p < .000$) and coach-athlete relationship in youth volleyball ($\beta = .013$, $p < .001$) significantly predicted the quality of youth volleyball development. Hence, all the variables make a statistically significant contribution to the variance explained by the model.

The Predictive Capacity of the Independent Variables

The last objective of this study was to investigate to what extent the contextual factors (i.e., current practice of youth volleyball, perceived experience in youth volleyball, perceived challenges in youth volleyball, and coach-athlete relationship in youth volleyball predict the quality of youth volleyball development. Hence, a regression analysis was performed and the results are presented in Table below.

Table 19. Regression Analysis of the Studied Variables

Variables	B	Beta	T	Sig.
Current practice of youth volleyball	.122	.234	3.618	.000
Perceived experience in youth volleyball	.017	.140	3.288	.001
Perceived challenges in youth volleyball	-.223	-.335	-4.200	.000
Coach-athlete relationship in youth volleyball	.013	.248	3.322	.001

a. Dependent Variable: Quality of youth volleyball development and its contribution for elite players

As depicted in the results of regression analysis in the above table revealed that there was a statistically significant contribution of all the study variables to the quality of youth volleyball F (4, 230) = 83.12, p < .000). Therefore, the direct effect of the variables to the quality of youth volleyball development was determined using beta coefficients and the effect of current practice of youth volleyball (β = .122, *t* = 3.618, p < .000), perceived experience in youth volleyball (β = .017, *t* = 3.288, p < .001), perceived challenges in youth volleyball (β = -.223, *t* = -4.200, p < .000) and coach-athlete relationship in youth volleyball (β = .013, *t* = 3.322, p < .001)

Table 20. The Independent Contribution of Variables

Variables	B	***R***	R^2	**(B *r)/** R^2	**Explained in percentage**
Current practice of youth volleyball	.234	.653	.591	.258	25.8
Perceived experience in youth volleyball	.14	.179		.0424	4.2

Perceived challenges in youth volleyball	-.335	-.721	.408	40.8
Coach-athlete relationship in youth volleyball	.248	.69	.289	28.9

The contribution of each independent variables to the variance of dependent variable i.e., the quality of youth volleyball development was calculated and the contribution of current practice of youth volleyball to the variance of the quality of youth volleyball development was .653 to the total R^2, which was .591 which is 25.8 % of the total R^2. The independent contribution of perceived experience in youth volleyball to the variance of the quality of youth volleyball development was .179 to the total R^2, which was .591 which is 4.2 % of the total R^2. The contribution of perceived challenges in youth volleyball to the variance of the quality of youth volleyball development was -.721 to the total R^2, which was .591which is 40.8 % of the total R^2. Moreover, the independent contribution of coach-athlete relationship in youth volleyball to the variance of the quality of youth volleyball development was .69 to the total R^2, which was .591 which is 28.9 % of the total R^2. The composite score R^2 was 59.1 %.

Using regression coefficients (*B*) for independent variables and the constant term given under the column labeled *B* in Table 4.1 one can construct the Ordinary Least Squares (OLS) equation for predicting the quality of youth volleyball as: QYVB = .284 + (.122) (CP) + (.017) (PE) + (-.223) (PCH) + (.013) (CAR). Using this equation, given values for "current practice of youth volleyball," "perceived experience in youth volleyball," "perceived challenges in youth volleyball," and "coach-athlete relationship," we can come up with a prediction for the "the quality of youth volleyball" variable.

Using unstandardized coefficients to indicate how much the dependent variable varies with an independent variable when all other independent variables are held constant. The effect of current practice of youth volleyball using unstandardized coefficient, B_1, for current practice of youth volleyball is equal to .122, for perceived experience in youth volleyball using unstandardized coefficient, B_1, perceived experience in youth volleyball is equal to

.017, for perceived challenges in youth volleyball using unstandardized coefficient, B_1, for perceived challenges in youth volleyball is equal to -.223, and for coach athlete relationship in youth volleyball using unstandardized coefficient, B_1, for coach athlete relationship in youth volleyball is equal to .013, (see Coefficients table, Appendix M). Therefore, this implies that for each one increase of independent variables such as current practice of youth volleyball, perceived experience in youth volleyball, and coach athlete relationship in youth volleyball there is an increase in the quality of youth volleyball development of .122, .017, and .013, respectively. However, for each one unit increase in perceived challenges in youth volleyball there is a decrease in -.223 of the quality of youth volleyball development.

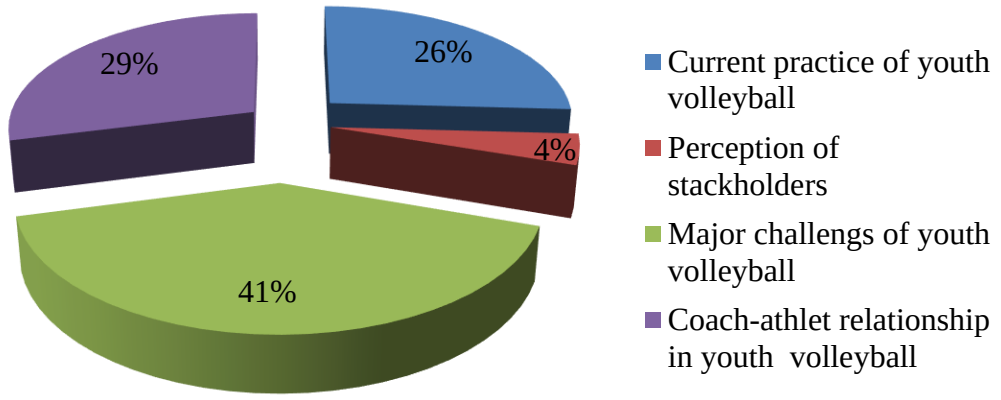

Figure 5. The Contribution of independent variables to the dependent variable

4.1.6. Qualitative Result

The aim of this interview was to find out the interviewees' experiences, opinions and ideas towards youth volleyball and youth sport projects in particular. Moreover, it helped to strength the results obtained through questionnaires to get the data which might not gain through other data collection instruments. Hence, presentation of the data from the individual interviews in the form of themes and a summary of the results were presented. The use of key informants' quotations (in the form of essays) is significant throughout this section. These have been included as a means of representing the voices of the participants. In addition, the quotations are taken directly from the transcribed interviews and are

presented here in an anonymous format to ensure confidentially. It must be noted that all of the themes were considered equally important because of their content matter and that the order in which the themes are presented is not representative of any hierarchical significance. Therefore, the results of interviews were presented accordingly.

4.1.6.1. Theme: 1 Perception of youth volleyball development quality

In this section, key informants were asked to forward their ideas, opinions or feelings related to youth volleyball and youth sport projects. All respondents (R1-R5) informed me that the current quality of youth volleyball sport in Ethiopia is not developed. They explained that it is not developed due to various reasons. More specifically, two key informants reasoned as follows:

> R1: *lack of coordinated structural organization and support top to down the structure of youth sports, lack of coordination with the media to support the volleyball sport, lack of appropriate budget, lack of training and coaching facilities and equipment's for volleyball sport, etc.*
>
> R2: *...we do not have a permanent national team; we can conclude that it is not in a good quality. Due to mismanagement practice in youth sport project, the quality of volleyball in SNNPR, it is deteriorating from time to time.*

These responses revealed that the current quality of youth volleyball in Ethiopia and in particular SNNPR is not developed due to several factors such as a lack of coordinated structural organization, lack of appropriate budget to youth sports, poor youth sport project management system, lack of training and coaching facilities and equipment's.

4.1.6.2. Theme: 2 Current practice of youth volleyball

According to responses obtained, the current practice youth volley in SNNPR is ineffective. As all respondents (R1-R5) explained that youth volleyball projects in SNNPR is not practiced very well. Moreover, five key informants articulated that:

> R1: *I believe that all the activities related to youth volleyball training done by unqualified personnel with poor experience towards the sport. Coaches involved in this program lacks qualified training in volleyball sport and these coaches are assigned based on personal relationship. Despite the fact that there are many*

determining factors for poor practice of youth volleyball sport in the region, very committed and interested volleyball players practicing the sport by themselves without the help of the coaches or having little assistance are joining many clubs found in our country. This indicates that the region is a potential for volleyball sport. However, the practice of youth volleyball does not contribute for elite players' development as expected.

R2: *In my opinion, coaches are not well trained to perform youth volleyball training effectively. In addition, there is a lack of proper and adequate facilities and materials delivered to trainees and coaches. Most of the time, there is poor management and control system of youth projects.*

R3: *In my opinion, the practice of youth volleyball training is performed by those who do not have experience and coaching skills; I think this is the result of poor strategy in general and poor project management system in particular. Youth projects are directed to be performed in schools and to be given by school PE teachers who do not have proper experience and coaching skills.*

R4: *In my opinion, all activities related to youth volleyball are ineffective due to poor talent identification and development practice, poor mechanisms used for evaluating and transferring qualified trainees from one stage to the other level, and lack of* proper mechanisms used for evaluating the quality of coaches leading youth sport projects.

R5: *I think that the program leading youth volleyball sport projects are not well experienced and have no proper management and coaching skills.*

The interview results revealed that the coaches' current practices and their quality in SNNPR are ineffective due to poor talent identification and development practice, poor training and coaching materials and equipment delivery system, poor coach's carrier development system, poor mechanisms used for evaluating and transferring qualified trainees from one stage to the other level, lack of proper mechanisms used for evaluating the quality of coaches leading youth sport projects.

4.1.6.3. Theme: 3 Attitude of volleyball projects

In this section, all interviewees genuinely explained their views. The respondents (R1-R5) confirmed that the attitude towards volleyball sport in some specific areas in SNNPR is positive although there is no uniformity of the activities throughout the region. Moreover, the interviewees (R1, R2, R3) depicted that volleyball sport is highly practiced in some areas like Wolyta, Hadiya, Kembata, Gamogofa and Sidama zones. Peoples consider volleyball as a cultural sport and in day-to-day activities. However, R1 said, "Volleyball in other areas who do not have clear and transparent information regarding youth volleyball sport projects and stakeholders have poor attitude towards youth volleyball projects. In addition, the implementation of youth volleyball sport projects in the region is very low because the coaches who are assigned to youth sport projects are not well trained as a result trainee do not get appropriate training." Similarly, three key informants articulated that:

> R3: *I think the attitudes of the community in SNNPR towards youth volleyball projects are very good; they consider as volleyball sport is their cultural game. The families of the trainers have positive attitude; however, the sport leaders have a poor attitude towards volleyball development of the game in the region.*
>
> R4: *Experts and sport leaders have negative attitudes towards volleyball sport and they only focus on some sports which they believe have good results. Whereas some parents are not aware of youth sport projects; so, they consider it as a waste of time and have a low attitude to the projects. Therefore, awareness creation should be made about the projects and the benefits attached to youth sports*.
>
> R5: *The projects are not really implemented in our country, especially SNNPR. Despite the fact that the community loves the sport, minimum opportunities given for volleyball players, low income generated from volleyball sport and mismanagement of the projects and the attitude towards volleyball sport is very low*.

Although in some areas the communities have a positive attitude towards youth volleyball sport projects, there are mismanagement practice (sport leaders) problems. The results depicted that there are factors that contributing for negative attitude towards youth volleyball sport projects like mismanagement, low income generated from the

sport, lack of experienced coaches involved in youth projects and lack of awareness towards youth volleyball projects.

4.1.6.4. Theme: 4 Challenges of youth volleyball

In this section, respondents (R1-R5) explained the challenges of youth volleyball projects and suggest the solution. More specifically, five key informants reasoned that:

> R1: *I believe that there is no clear, scientific and formal talent identification, selection and development system.*
>
> R2: *In my understanding, the major challenges are like lack of trained and qualified coaches, lack of proper talent identification and development methods to be used as a model, lack of proper training and coaching facilities and equipment's, lack of proper project management skills, lack of effective monitoring and evaluation of projects, lack of proper competition organized for trainees at each stage, lack of coordination between stakeholders especially Ministry of Education and Sport to develop youth projects, etc.*
>
> *R3: The main problems are low attitude and inefficiency of experts leading youth sport projects, the attitude towards all sports needs to be equal and fairly treated because currently high emphasis is given for some sports like football and athletics. In addition, lack of qualified and experienced coaches and lack of regional volleyball sports academy.*
>
> R4: *There is no scarcity of budget in the region to lead the program; but the way youth sports are led by respective authorities and lack scientific implementation.*
>
> R5: *The major problems are lack of qualified and experienced coaches, lack of budget for the projects to deliver appropriate materials and equipment's, lack of appropriate management system leading the projects, lack of coordination between stakeholders to develop and support the projects, etc. needs to be examined by the government leading the program.*

These results showed that lack of appropriate management system leading the project, unscientific and improper talent identification method used, lack of qualified and unexperienced coaches and lack of proper and adequate facilities and equipment delivered

to youth volleyball projects were the main problems of youth volleyball projects in SNNPR.

Furthermore, some interviewees suggested the possible solution for the challenges of youth volleyball projects. Likewise, three interviewees suggested that:

> *R1: It needs proper TID manual which is employed to be applied in all regions. In addition, proper and adequate training materials for coaches and trainees should be presented. Coaches leading the project should be assigned by considering their coaching skill and experience. Coaches' development plan has to be made in collaboration with national volleyball association and federations to increase the number of qualified coaches.*
>
> *R2: To overcome this problem, effective collaboration between all stakeholders such as the Federal Sport Commission, National Olympic Committee, Ethiopian Volleyball Federation, Ministry of Education and other non-governmental organizations should be set in place.*
>
> *R4: Coaches leading the projects should be qualified and experienced; What is more, the materials and equipment's for trainees and coaches needs to be proper and adequate. Training centers for youth volleyball projects have to be revised and concerned bodies or the right persons have to be assigned; moreover, regional training center for talented youth volleyball players has to be installed with full privileges.*

To solve this problem, coaches leading the project need to be assigned by considering their coaching skills and experiences, different stakeholders like the National sport commission, National Olympic, EVF, and other non-governmental organizations need to be involved in volleyball sports. This suggests that all stakeholders should work together to solve the problems face on the practice of youth volleyball projects.

4.1.6.5. Theme: 5 Quality of coach athlete relationship

According to the responses obtained, the coach athlete relationship existed in youth volleyball in SNNPR is not satisfactory. As key informants described that the coaches lack skills related to youth volleyball training. Adequate training is not given for them

as well as coaches' recruitment depends on blood relationship and friendly relationship. Moreover, five key informants reasoned as follows:

R1: *I believe that all the activities related to youth volleyball done by unqualified personnel with poor experience towards the sport. Coaches involved in this program lacks qualified training in volleyball sport and these coaches are assigned based on personal relationship. Despite the fact that there are many determining factors for poor coach athlete relationship in youth volleyball, lack of proper coaching skill and experiences is decisive.*

R2: *In my opinion, coaches are not well trained to perform good coach athlete relationship in youth volleyball effectively. In addition, most of the coaches demonstrate that they are acting as authoritarian coaches.*

R3: *In my opinion, the coach-athlete relationship in youth volleyball is performed by those who do not have experience and coaching skills; I think this is the result of poor coach's career development system. In addition, youth projects are directed to be performed in schools and to be given by school PE teachers who do not have proper experience and coaching skills.*

R4: *In my opinion, all activities related coach athlete relationship in youth volleyball training are performed by poor experienced coaches.*

These results realized that the coach athlete relationship in youth volleyball is not satisfactory. This indicated that coaches involved in youth volleyball projects lack proper coaching skills and coaching experience to make effective coach-athlete relationship. In addition, the result portrayed that youth volleyball in SNNPR are coach's dominant.

4.1.6.6. Theme: 6 Contribution of youth volleyball to elite players

Youth volleyball projects can play a vital role in the development of volleyball elites. Related to this, all respondents (R1-R5) mentioned their opinions on the contributions of youth volleyball projects. However, they informed me that it does not contribute to the development of elite's volleyball player. Likewise, five key informants articulated that:

R1: *I believe youth volleyball projects could not contribute to the development of elite volleyball players which may represent our country. In addition, if we*

see the regional volleyball competitions many players are out of youth volleyball projects which are practiced by themselves or traditionally.

R2: *Based on the stated problematic facts towards youth volleyball, I believe that most players have developed by themselves not with the help of these projects. Besides, we do not have volleyball national team representing our country; therefore, this could be the best example for unproductively of the youth volleyball projects.*

R3: *The practice of youth volleyball project is implemented more than ten years, but good results are not attained. For example, if you see volleyball players of the clubs in Ethiopian volleyball premier league, the players are those playing for many years no new successors are observed. Besides, it is evident that the country has no volleyball national team represented by new elite players. This realizes that the program does not contribute for the elite player's development, so the government needs to examine the overall activities of the program.*

R4: *In my opinion, youth volleyball projects are not effective; therefore, elite player's production without effective youth volleyball training is not possible. In addition, the way the projects are managed in SNNPR is ineffective.*

R5: *I think that youth volleyball projects in our country in general and SNNPR in particular are not effective; therefore, it has not or little contribution towards elite player's development.*

The interview responses indicate that youth volleyball projects do not have contribution to elite player's development. This might be due to several factors like poor practice of youth volleyball projects, poor practice by inexperience coaches and so on.

4.2. DISCUSSIONS

In this section, all the results of the study presented in the previous section were discussed thoroughly based on the objectives outlined in the study. Therefore, all the research objectives of the study were discussed accordingly.

The first purpose of this study was to assess the quality of youth volleyball outcome by examining the difference existed between current practice of youth volleyball, perceived experience in youth volleyball, perceived challenges in youth volleyball and coach athlete

relationship in youth volleyball in SNNPR, Ethiopia; the results of the finding depicted that the overall mean value of the status of youth volleyball in SNNPR is below average as perceived by youth volleyball coaches and youth volleyball trainees. Similarly, the qualitative result depicted that the current status of youth volleyball in Ethiopia and in particular SNNPR is not developed due to several factors such as a lack of appropriate budget allocated to youth sports, lack of coordinated structural organization, poor youth sport project management system, lack of training and coaching facilities and equipment's, etc. Moreover, respondents stated that the contribution of youth volleyball projects for the development of elite players in SNNPR is very low.

Furthermore, respondents further stated that "Ethiopia has no permanent volleyball national team and the status of volleyball particularly in SNNPR is deteriorating from time to time" and this could be an indication low quality in youth volleyball in particular and volleyball sport in general. Hence, we could suggest that the cause for low quality of youth volleyball and its contribution for the development of elites in SNNPR are associated with contextual factors. In supporting this, Doherty and Cousens, cited in Jones et al. (2016) confirmed that, social and political contexts, organizational capacities, and program features are known to influence the efficacy of youth sport programs to facilitate youth development (Jones et al., 2016). In line with this, Cobley and Till, cited in Till et al. (2020) asserted that despite a variety of factors associated with youth sports, the processes are even more complex for young trainees where various physiological, psychological and social factors can impact upon understanding, identifying and developing future elites (Till et al., 2020). In addition, Holt asserted that different developmental trajectories resulted from differences in how youths spend their time across various activities and contextual factors (Holt, 2008).

The results of independent sample t-test indicated that no significant difference was existed between both genders; however, male participants depicted slightly high ratings on the quality of youth volleyball and its contribution for elite players and the mean value of the result indicated that the quality of youth volleyball and its contribution for the development of elite players in SNNPR youth volleyball is low. Conversely, the results of t-test indicated that there was significant difference between participants' role /coach and trainees/; the

results of coaches demonstrated high rating score on the quality of youth volleyball and its contribution for development of elite players mean score value indicated that was above average. The result indicates that there is a remarkable difference between coaches and athletes' perceptions towards youth volleyball development in the region; however, the difference could be the result of leading role owned by the coach or trainees lack of understanding and knowledge of the overall practice. Unfortunately, the lack of research in this area leads us to believe that not enough is known about the difference existed.

The results of one-way ANOVA indicated that there was significant difference between youth volleyball project center zones; Daworo zone depicted high rating score on the quality of youth volleyball and its contribution for elites; however, the mean value of the result indicated that the status quo for youth volleyball and its contribution for elites in SNNPR is low. As the result shows there was difference between zones on the perception of participants towards the quality of youth volleyball and its contribution for the development of elites; despite lack of research in this area, the result indicates that the perception of participants depends on the actual practice of youth volleyball projects implemented across the region.

On the contrary, the results of one-way ANOVA indicated that there was no significant difference existed between coaches' level of education, level of coaching license and level of coaching experience. Similarly, the results of one-way ANOVA indicated that there was no significant difference existed between trainees' level of education on the quality of youth volleyball and its contribution for elites. However, significant difference was existed between trainees' level of training experience; trainees with 4 years of training experience depicted high rating score on the quality of youth volleyball and its contribution for the development of elites' volleyball players.

The second objective of the study was to examine the perceptions of participants on independent variables such as current practice of youth volleyball, stakeholder perception towards youth volleyball, major challenges of youth volleyball and coach athlete relationship in youth volleyball (Gender, Role, Training center, education level, level of experience and coaching license) in the SNNPR. Hence, one basic research question was

outlined as “What are the perceptions of participants on current practice of youth volleyball, stakeholder perception towards youth volleyball, major challenges of youth volleyball and coach athlete relationship in youth volleyball? Are there differences between subgroups (gender, role, Training center, education level, level of experience and coaching license)?

The overall mean value for current practice of youth volleyball indicated that the practice of youth volleyball in SNNPR was below average as perceived by participants. Similarly, the results of the interview depicted that the practice of youth volleyball projects are ineffective. More specifically, respondents confirmed that poor talent identification and development practice, poor training and coaching materials and equipment delivery system, poor coach’s carrier development system, poor mechanisms used for evaluating and transferring qualified trainees from one stage to the other level, lack of proper mechanisms used for evaluating the quality of coaches leading youth sport projects are indications of youth volleyball practice in SNNPR.

This result indicates that the practice of youth volleyball in SNNPR is not satisfactory as a result of poor implementation and evaluation systems of the program by the stakeholders involved in youth volleyball. In supporting this, Quin confirmed that good programs are assessed and measured to ensure that desired outcomes are achieved (Quin, 1999). In line with this, Dane & Schneider, 1998; Domitrovich & Greenberg 2000; Durlak 1998; cited in Petitpas et al. (2005) stated that, the quality of implementation is also often associated with the quality of program outcomes (Petitpas et al., 2005). Hence, to attain the expected outcomes stakeholders have to work collaboratively. In supporting this, Motlhaolwa, explained that, successful partnership with community, government, social groups, and organizations involved in youth sport could contribute in effectiveness of youth sport development programs (Motlhaolwa, 2016).

The results of t-test indicated that significant difference was existed between both genders; however, female participants depicted slightly high ratings on current practice of youth volleyball; the mean value of the result indicated that the current practice of youth volleyball in SNNPR below average. Similarly, the results of t-test indicated that significant difference was indicated between participants’ role difference/coach & athlete/;

however, coaches reported slightly high ratings of mean score below average on current practice of youth volleyball in SNNPR. Even though the result indicated the practice of youth volleyball in SNNPR is not satisfactory as perceived by participants, the practice of youth sport programs is highly depending on the quality of coaches leading youth sport projects. In supporting this, Martindale et al. asserted that poor direction by less experienced coaches may reinforce poor practice (Martindale et al., 2005).

The results of one-way ANOVA indicated that there was significant difference existed between project zones on current practice of youth volleyball in SNNPR; however, Hawassa reported high ratings of mean score below average on current practice of youth volleyball. The difference existed between training zones in the actual practice of youth volleyball would be the result of poor qualification and coaching experience of coaches leading youth volleyball projects. In supporting this, Cushion stated that coaches are an important constituent to the success of sport programs practices (Cushion 2010). In line with this, Camiré et al., emphasized that as coaches gain more experience and education, they become more capable at developing and applying clear coaching standards and all-inclusive coaching practices (Camiré et al., 2012). Similarly, the results of one-way ANOVA indicated that there was significant difference existed between trainees' level of education on current practice of youth volleyball in SNNPR; trainees with grade 8 level of education reported slightly high ratings of mean score below average on current practice of youth volleyball in SNNPR.

To the contrary, the results of one-way ANOVA indicated that no significant difference was existed between coaches' level of education, level of coaching license and level of coaching experience on current practice of youth volleyball in the region. Similarly, the results of one-way ANOVA indicated that no significant difference was existed between trainees' level of training experience on current practice of youth volleyball. The overall result revealed that the poor practice of youth volleyball in the region is highly predictable by coaches with different level of education and trainees' level of training experience.

The overall mean score value for perceived experience in youth volleyball is below average as perceived by participants. Having this result indicates that there is lack of positive

attitude towards youth sport participation. Likewise, the qualitative results demonstrated that despite volleyball game is considered as cultural sport and highly recognized in some specific areas in SNNPR, the perception of stakeholder in many areas considered that they have negative attitude towards the practice of youth volleyball. In line with this, West asserted that, trainees' perceptions of youth sport program depend on the function of their socio-cultural background and their overall goal achievement; hence, stakeholders should work together to help ensure that the athlete will have a positive experience (West, 2016).

Similarly, Schwab et al. asserted that creating positive experiences for youth sport participation is of paramount importance (Schwab et al., 2010). However, Catherine et al. explained that there is a challenge creating a positive atmosphere for sport participation and pressuring or pushing their children into sport by stakeholders involved and recommended that parents should provide a supportive atmosphere that is encouraging to their children's participation (Catherine et al., 2006). Therefore, Weiss, (1993) suggested that more research is needed to determine the extent to which social support by parents, coaches and peers influences and affects self-esteem and motivation in youth sport.

On the other hand, the results of t-test indicated that significant difference was existed between both genders on stakeholders' perception towards youth volleyball; however, female participants depicted slightly high ratings of mean score below average on stakeholders' perception towards youth volleyball in SNNPR. Likewise, the results of t-test indicated that significant difference was existed between participants' role difference /coach and athlete/ on stakeholders' perception towards youth volleyball; however, trainees depicted slightly high ratings of mean score below average on stakeholders' perception towards youth volleyball in SNNPR. The result indicated that the perception of trainees towards the program is low in status as compared to coaches.

Despite lack of research in this area, this could be the result of leading roles attached to coaches. In supporting this, Møllerløkken et al. stated that coaches' influence has been attributed, in part, to the motivational climate they create through the transfer of attitudes and values (Møllerløkken et al., 2017). In line with this, a group of researchers asserted that coaches play a critical role in either impeding or strengthening an athlete's

participation in, and motivation for sports (Treasure and Roberts, 1995; Alvarez et al., 2009).

Furthermore, the results of one-way ANOVA indicated that there was significant difference existed between project zones on Perception of stakeholders towards youth volleyball in SNNPR; however, Dawaro reported high ratings of mean score below average on perception of Stockholders towards youth volleyball. Correspondingly, the results of qualitative data indicated that difference is existed between zones on the perceptions of stakeholders towards youth volleyball in SNNPR.

More specifically, key informants stated that volleyball sport is highly practiced in some areas like Wolyta, Hadiya, Kembata, and Gamogofa zones consider volleyball sport as a cultural sport and stakeholders have positive attitude towards youth volleyball. However, the majority of respondents stated that stakeholders have poor attitude towards youth volleyball projects in other areas that do not have clear and transparent information regarding youth volleyball sport. Similarly, the results of one-way ANOVA indicated that there was significant difference existed between coaches' level of coaching license on perception of Stockholders towards youth volleyball in SNNPR; level I licensed coaches reported slightly high ratings of mean score below average on perception of Stockholders towards youth volleyball.

Likewise, the results of one-way ANOVA indicated that there was significant difference existed between trainee's levels of training experience on perception of Stockholders towards youth volleyball in SNNPR; trainees with 3 years of training experience reported slightly high ratings of mean score below average on perception of Stockholders towards youth volleyball. The overall result leads that the perception of stakeholders towards youth volleyball is low as perceived by project zones, lower-level licensed coaches and trainees with lower-level training experience. The result indicates that the motivational climate for youth volleyball in SNNPR is affected. In supporting this, Møllerløkken et al stated that deviations in perceptions of the motivational climate could potentially be a reason for dissatisfaction (Møllerløkken et al., 2017).

Conversely, the results of one-way ANOVA indicated that no significant difference was existed between coaches' level of education, trainees' level of education and coaches' level of coaching experience on perception of Stockholders towards youth volleyball in the region.

The overall mean value result on perceived challenges in youth volleyball program as perceived by coaches and youth trainees indicated that the major challenges for youth volleyball existed in SNNPR are above average. Similarly, interview results depicted that lack of appropriate management system leading youth sports, Lack of appropriate budget allocated to youth sports, lack of qualified and inexperienced coaches and experts involved in youth sports, lack of proper and adequate facilities and equipment's delivered to youth volleyball were the main problems of youth volleyball projects in SNNPR.

The result clarifies that the process of youth volleyball participation in the region is affected by many complicated challenges. In supporting this, Till et al., stated that most sporting organizations and practitioners admit the limitations and consequences regarded as challenges for the process of youth sports (Till et al., 2020). In line with this, Smith and Smoll asserted that youth's participation in a sport situation by itself does not guarantee a positive outcome but, the nature and quality of the program, which are directly dependent on your input, are major factors in determining benefits in youth sport (Smith & Smoll, 2002).

On the other hand, the results of t-test indicated that no significant difference was existed between both genders on major challenges of youth volleyball; however, female participants depicted slightly high ratings of mean score above average on major challenges of youth volleyball in SNNPR. To the contrary, the results of t-test indicated that significant difference was existed between participants' role difference /coach and athlete/ on major challenges of youth volleyball; however, trainees depicted slightly high ratings of mean score above average on major challenges of youth volleyball in SNNPR.

The results of one-way ANOVA indicated that there was significant difference existed between project zones on major challenges of youth volleyball in SNNPR; however, Debubomo reported high ratings of mean score above average on major challenges of youth

volleyball. Similarly, the results of one-way ANOVA indicated that there was significant difference existed between trainees' level of education and between trainee's levels of training experience. Moreover, both trainees with grade 8 level of education and trainees with 3 years of training experience reported high ratings of mean score above average on major challenges of youth volleyball.

On the contrary, the results of one-way ANOVA indicated that no significant difference was existed between coaches' level of education, coaches' level of coaching license and coaches' level of coaching experience on major challenges of youth volleyball in the region. Hence, this result confirmed that coaches with different status assured the existence of complicated challenges which could affect youth volleyball development in the region.

The overall mean value score on coach-athlete relationship in youth volleyball as perceived by coaches and youth trainees indicated that the coach-athlete relationship subscales closeness and complimentary existed in youth volleyball projects were above average; however, commitment subscale indicated below average. Conversely, the results of qualitative data indicated that the coach-athlete relationship in youth volleyball is not satisfactory. Similar results were obtained by Fehr from respondents of meta and direct perspective coach athlete relationship indicating that commitment received the lowest mean score of value (Fehr, 2017).

The commitment between coach and athlete to develop positive relationship between them appears to be a major factor. Moreover, despite the fact that lack of coaching skill and coaching experience could be decisive in coach-athlete relationship, the result illustrate that the relationship existed between coach and youth volleyball trainees in SNNPR is affected by poor commitment between coaches and youth volleyball trainees. In supporting this, Lisinskiene stated that the relationship between the coach and the athlete has been recognized as an important factor in creating positive educational sports experience for trainees (Lisinskiene, 2018).

Furthermore, the results of t-test indicated that no significant difference was existed between both genders on coach-athlete relationship in youth volleyball; however, female participants depicted slightly high ratings of mean score above average on coach-athlete

relationship in youth volleyball in SNNPR. In supporting result, Fehr stated that, men and females did not significantly differ in ratings of coach-athlete relationship (Fehr, 2017). Conversely, other studies found that females reported higher levels of difference than males (Jowett & Don Carolis, 2003, as cited in Jowett & Nezlek, 2011). In addition, Jowett & Clark-Carter claimed that women assume greater similarity, between their own perceptions coach athlete relationship sub scales than men (Jowett & Clark-Carter, 2006). Despite the current finding against others researchers' contention, there is clear evidence for gender differences in the coach-athlete relationship. The disparity could be the result of contextual factors existed in youth volleyball sport.

To the contrary, the results of t-test indicated that significant difference was existed between participants' role difference /coach and athlete/ on coach-athlete relationship in youth volleyball; however, trainees depicted slightly high ratings of mean score above average on coach-athlete relationship in youth volleyball in SNNPR. In line with this, Rhind in his body of research indicated that the quality of a coach-athlete relationship is related to a number of individual factors (Rhind, 2008). Despite the fact that, interaction between coach and athlete is decisive, however, Kowalski & Kooiman stressed that youths who participate in organized sport programs depend heavily on coaches who possess all the required educational qualities and coaching experiences (Kowalski & Kooiman, 2013). These findings indicate that coach athlete relationship in youth volleyball requires all rounded qualified coaches where youth trainees relied on to bring about the expected outcome.

On the other hand, the results of one-way ANOVA indicated that there was significant difference existed between project zones on coach-athlete relationship in youth volleyball in SNNPR; interestingly, Gediyo zone reported high ratings of mean score above average on coach-athlete relationship in youth volleyball. The result indicates that, there is respectable coach athlete relationship in Gediyo zone than other project zones. More specifically, this result would indicate that practical coaches' qualification and coaching experience differences are existed between the stated youth volleyball project zones in SNNPR. In supporting this, Camiré et al., stated that experience and education are two

variables that can help explain the differences that exist between coaches (Camiré et al., 2012).

Similarly, the results of one-way ANOVA indicated that there was significant difference existed between trainees' level of training experience; remarkably, trainees with 3 years of training experience reported high ratings of mean score above average on coach-athlete relationship in youth volleyball.

Conversely, the results of one-way ANOVA indicated that there was no significant difference existed between coaches' level of education, trainees' level of education, coaches' level of coaching license and coaches' level of coaching experience on coach-athlete relationship in youth volleyball in the region. In line with this, Fehr asserted that coach-athlete relationship quality did not differ between participants of different academic levels (Fehr, 2017). One can assume that as the level of knowledge and skill of an individual increase the level of relationship and other communication increased with advance common understanding. Despite the fact that, Fehr (2017) indicated that there is no difference existed, it is unclear why the current results indicated no difference. Hence, more research investigations are needed to examine this issue.

The third objective of the study was to assess the association between the studied variables such as quality of youth volleyball and its contribution for elite players, current practice of youth volleyball, perception of stakeholders towards youth volleyball, major challenges of youth volleyball and coach athlete relationship in youth volleyball. Hence, to attain this objective, Pearson correlation coefficient was computed.

The results of the Pearson correlation coefficient demonstrated that there was a statistically positive significant correlation between current practice of youth volleyball and quality of youth volleyball and its contribution for elite players. This shows that when current practice of youth volleyball increases the quality of youth volleyball and its contribution for elite players also increases too. Similarly, the results of the Pearson correlation coefficient demonstrated that there was a statistically positive significant correlation between current practice of youth volleyball and coach-athlete relationship in youth volley ball. This shows that as coach-athlete relationship in youth volleyball increase current practice of youth

volleyball increases too. Conversely, the results of the Pearson correlation coefficient demonstrated that there was a statistically negative significant correlation between major challenges of youth volleyball program and current practice of youth volleyball. This shows that as major challenges of youth volleyball increase current practice of youth volleyball decreased.

On the other hand, the results of Pearson correlation coefficient demonstrated that there was a statistically positive significant correlation between Perception of stakeholders towards youth volleyball and the quality of youth volleyball and its contribution for elite players. This shows that as when Perception of stakeholders towards youth volleyball increases the quality of youth volleyball and its contribution for elite players also increases too.

The results of the Pearson correlation coefficient demonstrated that there was a statistically positive significant correlation between coach-athlete relationship in youth volleyball and the quality of youth volleyball and its contribution for elite players. This shows that as coach-athlete relationship in youth volleyball increase the quality of youth volleyball and its contribution for elite players increases too. Conversely, the results of the Pearson correlation coefficient demonstrated that there was negative significant relationship between coach-athlete relationship in youth volleyball and major challenges of youth volleyball program; this shows that as with high levels of major challenges of youth volleyball program associated with lower levels of coach-athlete relationship in youth volleyball.

Similarly, the results of Pearson correlation coefficient demonstrated that there was a statistically negative significant correlation between major challenges of youth volleyball and the quality of youth volleyball and its contribution for elite players. This shows that with high levels of major challenges of youth volleyball associated with lower levels of the quality of youth volleyball and its contribution for elite players.

The fourth objective of the study was to explore whether current practice of youth volleyball, perception of stakeholders towards youth volleyball, major challenges of youth

volleyball and coach athlete relationship in youth volleyball predict the quality of youth volleyball and its contribution for the development of elite players. To specifically address the research question and explore the relationships between the dependent and independent variables, a standard multiple regression was used to determine how measures of independent variables predict ratings of the dependent variable.

To assess the predictive qualities of Current practice of youth volleyball, Perception of stakeholders towards youth volleyball, Major challenges of youth volleyball and Coach-athlete relationship in youth volleyball with respect to the quality of youth volleyball and its contribution for the development of elite players, a standard multiple regression was conducted.

The results of the regression analysis indicated that the quality of youth volleyball and its contribution for elite player predictors accounted 59.1% of the variance in Current practice of youth volleyball, Perception of stakeholders towards youth volleyball, Major challenges of youth volleyball and Coach-athlete relationship in youth volleyball.

Furthermore, the results of regression analysis revealed that there was a statistically positive significant contribution of the study variables such as current practice of youth volleyball, perception of stakeholders towards youth volleyball, major challenges of youth volleyball and coach athlete relationship to the quality of youth volleyball and its contribution for elite players. However, results of regression analysis portrayed those major challenges of youth volleyball have a statistically negative significant contribution to the quality of youth volleyball development and its contribution for elite players.

The greatest positive contributor to the quality of youth volleyball development was coach athlete relationship, current practice of youth volleyball and stakeholders' perception towards youth volleyball respectively; however, major challenges of youth volleyball existed in SNNPR was found to be the greatest negative contributor to the quality of youth volleyball and its contribution for the development of elite players in SNNPR, Ethiopia.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. SUMMARY

The major purpose of this research was to examine the quality of youth volleyball and its contribution to develop elite players in SNNPR, Ethiopia. The study used quantitative and qualitative data from original sources with maximum response rate that helped to triangulate and generalize the findings to the wider population with comprehensive statistical data analysis. Result of basic descriptive statistics presented to generate an overall picture of the data and answer the first two basic research questions. Demographic characteristics of gender, educational level, training experience, coaching experience, and level coaching license were the primary classifications for testing. Inferential statistics t-test and ANOVA conducted to determine differences between these groups and address the sub-questions for research questions one and two as well.

Pearson product-moment correlations were used to identifying associations between the dependent and independent variables. To further explore this relationship and answer the third, fourth, fifth and sixth research questions, a standard multiple regression used to test and determine if the subscales of the quality of youth volleyball and its contribution for the development of elite players had a significant positive predictive relationship with current practice of youth volleyball, perception of stakeholders towards youth volleyball, challenges of youth volleyball and coach-athlete relationship in youth volleyball.

The results of qualitative data gathered from semi-structured interview presented and interpreted. Presentation of the results guided by interpreting the transcripts in line with the objectives of the study. It provided direct quotes in the text to show the individual concepts. Themes and sub-themes from data analysis presented and categorized according to the research interview questions and presented according to the objectives of the study. The findings of the study discussed by triangulating the quantitative and qualitative data to materialize the output.

The results represent a novel contribution to the general body of knowledge on youth sports and youth volleyball in particular. Perception of the quality of youth volleyball and its contribution to develop elite players were low among this population. Participants showed low perception towards youth volleyball and poor practice of youth volleyball in SNNPR. They showed a high level of coach athlete relationship in youth volleyball and existence of complicated challenges in youth volleyball projects in the stated region.

Some differences between sub-groups emerged, which show contextual factors that need to be examined in future studies. Most notably, there was clear and positive association between quality of youth volleyball, coach-athlete relationship in youth volleyball, current practice of youth volleyball and perceived experience in youth volleyball. There was a negative association between quality of youth volleyball development and perceived challenges in youth volleyball. Evidence presented to suggest that coach-athlete relationship in youth volleyball, current practice of youth volleyball, perceived experience in youth volleyball and perceived challenges in youth volleyball interdependence may be a predictor of quality of youth volleyball development and its contribution to develop elite players in SNNPR, Ethiopia.

The results represent a context for future investigations that could inform the Federal Democratic Republic of Ethiopia Sport Commission, SNNPR Sport Commission and Ethiopian Volleyball Federation acknowledged several limitations when interpreting the results. Though, the implications for stakeholders who occupy a central role in youth sports. These practitioners are in the position nurturing the practice of youth sports, which could lead to better outcomes for elite players in various disciplines. Therefore, it may be wise for those stakeholders to be engaged in efficient practice aiming at fostering effective youth sport and youth volleyball in particular.

5.2. CONCLUSION

Based on the stated evidence gained from the study, it is concluded that the quality of youth volleyball in SNNPR, Ethiopia, is below average as perceived by stockholders involved in youth volleyball. Moreover, the qualitative results of the quality of youth volleyball and

the practice of youth volleyball projects in the region did not contribute to develop elite players in SNNPR, due to several complicated factors.

The results of the study lead to conclude that stakeholders involved in youth sports have low attitude towards the overall practice of youth sports in SNNPR, Ethiopia. Moreover, from the qualitative results lack of coordinated structural organization, inefficient youth sport project management system, lack of budget and training and coaching facilities, poor coach's carrier development system, poor mechanisms used for evaluating and transferring qualified trainees are the main indications of youth volleyball practice in SNNPR.

Based on the results, we can conclude that the difference existed in perceived experience in youth volleyball between gender, participants' role, training center, coaches' level of coaching license and trainee's levels of training experience constituted medium to high. The results of the study found that the overall process of youth sports is affected by various complicated challenges, existed in the region. Moreover, difference is existed between participants' role, training center, trainees' level of education and trainee's levels of training experience.

Based on the results of the study we can conclude that coach athlete relationship, current practice and perceived experience in youth volleyball considered positive contributor to the quality of youth volleyball in SNNPR; however, perceived challenges found to have negative contribution to quality of youth volleyball. The study directed that overall perception of coach athlete relationship recognized as fair; however, commitment requires great attention. From qualitative result however, coach athlete's relationship in youth volleyball is not satisfactory. Hence, this finding directed to further investigate why this difference observed.

Perhaps the most remarkable implication of this study is the positive association between current practice of youth volleyball, coach-athlete relationship in youth volleyball, and quality of youth volleyball. However, perceived challenges in youth volleyball had a strong negative association. From correlational results we can conclude that a strong positive association existed between quality of youth volleyball, current practice in youth volleyball

and coach-athlete relationship in youth volleyball. Though, current practice in youth volleyball had a negative association with perceived experience in youth volleyball.

This is the first study to show such a correlation within youth volleyball and novel contributes to the literature. Perhaps the worthiest conclusion is obvious associations between perceived experience in youth volleyball and the quality of youth volleyball. This finding is a novel to show such a correlation within youth volleyball and it contributes to the literature. It is possible to conclude that perceived experience in youth volleyball may be an antecedent to the quality of youth volleyball and future elite players' development.

Based on the results of the study we can conclude that coach athlete relationship, current practice of youth volleyball and perceived experience in youth volleyball are the main positive contributor to the quality of youth volleyball development in SNNPR, Ethiopia. However, the result of the study showed that perceived challenges of youth volleyball in SNNPR, Ethiopia found to be a great negative contributor to the quality of youth volleyball and its contribution to develop elite players in SNNPR, Ethiopia.

5.3. RECOMMENDATIONS

This study primarily focused on quality youth volleyball programs and key developmental outcomes. Hence, the study contributes to the body of knowledge in the quality measurement of youth sports programs and their impacts. The purpose is to encourage individuals, programs, and systems to pay attention to the quality of young people's experiences in youth sports programs. Hence, based on the findings of the study, the following recommendations were suggested:

First, the quality of youth volleyball appears to influence elite players' development and influenced by contextual factors in multiple settings, hence, restructuring youth volleyball pathways is restructuring youth volleyball scheme is instrumental to better ensure quality and positive elite players' development outcomes. In addition, the overall activities of youth sport in SNNPR, requires coordinated collaborations between stakeholders (i.e., EOC, EVF, regional associations, training center zones, parents, youth sport experts, coaches etc.).

Second, the contemporary practice of youth volleyball in SNNPR is accompanied with various inefficiencies and to better change this, proper practice using appropriate TID system by qualified coaches and experts has to be conducted. Moreover, proper evaluation system for transferring qualified trainees and evaluating qualified coaches leading youth sport projects and coach's carrier development system has to be implemented to improve the quality of the coaches leading youth volleyball projects.

Third, although volleyball sport in SNNPR, Ethiopia regarded as practiced cultural sport in some selected areas, perception of stakeholders towards youth volleyball practice in the respective region lacks positive attitude; hence, to better change the attitude of stakeholders involved in youth sport, extensive awareness creation has to be set in place before the actual practice of youth sports program. Youth volleyball development plan, the outcome expected, required resources for youth sport have to be communicated to create transparency in the overall process of youth sport and to improve the attitudes of stakeholders towards youth volleyball.

Fourth, among those determining factors to quality of youth volleyball, coach athlete relationship is paramount; besides, tackling the challenges existed in youth volleyball is indispensable. Improved working conditions for coaches and trainees, improved qualifications in volleyball coaching, practical experience in youth sport is mandatory to interact with different level of athletes' age group. Hence, coaches should be acquainted to work and be aware of the meaning that athletes gain support from their interactions and benefit from these positive two-way interactions.

Finally, exploring program quality and development outcomes related to a youth volleyball project in this sense provides insights from the perspectives of youth volleyball players and coaches that will help to inform a positive development culture, emphasizing quality and equity at the same time. This exploration is particularly important for Ethiopia as it seeks to provide a broader dimension to its youth sports policies by utilizing the empirical evidence of relationships and variations to enhance national sporting excellence and promote a culture of development. Beyond this, the results have important practical

implications for many youth volleyballs programs and coaches who work with youth volleyball players.

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APPENDIXES

Appendix A: Descriptive statistics and ANOVA for youth volleyball training zones

Subscales /variables	Project Zone	N	Mean	SD	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
An integrated system to youth sport development	Konta	24	2.162500	.4843754	.0988727	1.957966	2.367034
	Segen	24	2.233333	.4733476	.0966217	2.033456	2.433211
	Woliyta	24	2.291667	.4915960	.1003466	2.084084	2.499249
	Daworo	22	2.227273	.4661717	.0993881	2.020584	2.433962
	Debubomo	23	2.195652	.4607092	.0960645	1.996427	2.394878
	Gamogofa	22	2.218182	.4625358	.0986130	2.013105	2.423259
	Hadiya	25	2.156000	.4761652	.0952330	1.959449	2.352551
	Hawassa	24	2.200000	.4836456	.0987237	1.995774	2.404226
	Kanbata	24	2.325000	.4954137	.1011259	2.115805	2.534195
	Gediyo	22	2.295455	.5075405	.1082080	2.070424	2.520485
	Total	234	2.229915	.4742765	.0310044	2.168830	2.290999
Sport facilities for youth sport and elite players	Konta	24	1.875000	.5841936	.1192480	1.628317	2.121683
	Segen	24	1.928571	.5142167	.1049640	1.711437	2.145706
	Woliyta	24	1.898810	.4885180	.0997183	1.692526	2.105093
	Daworo	22	1.935065	.4962978	.1058110	1.715019	2.155111
	Debubomo	23	1.894410	.4819899	.1005018	1.685982	2.102838
	Gamogofa	22	1.870130	.5270323	.1123637	1.636457	2.103803
	Hadiya	25	1.862857	.5158706	.1031741	1.649916	2.075798
	Hawassa	24	1.886905	.4876090	.0995328	1.681006	2.092804
	Kanbata	24	2.005952	.5451719	.1112827	1.775746	2.236158
	Gediyo	22	2.000000	.5697254	.1214659	1.747398	2.252602
	Total	234	1.915140	.5141794	.0336130	1.848916	1.981365
Elite players Post career support	Konta	24	1.708333	.3751006	.0765671	1.549942	1.866724
	Segen	24	1.777778	.3764398	.0768405	1.618821	1.936734
	Woliyta	24	1.750000	.3509821	.0716439	1.601793	1.898207

	Daworo	22	1.780303	.3577796	.0762789	1.621672	1.938934
	Debubomo	23	1.739130	.3547160	.0739634	1.585740	1.892521
	Gamogofa	22	1.734848	.3767695	.0803275	1.567798	1.901899
	Hadiya	25	1.720000	.3718074	.0743615	1.566525	1.873475
	Hawassa	24	1.763889	.3675111	.0750179	1.608703	1.919075
	Kanbata	24	1.805556	.3732177	.0761827	1.647960	1.963152
	Gediyo	22	1.810606	.3893267	.0830047	1.637988	1.983224
	Total	234	1.758547	.3637556	.0237794	1.711697	1.805397
Coaching provision and coach development	Konta	24	2.263889	.6048760	.1234698	2.008472	2.519306
	Segen	24	2.152778	.3571409	.0729011	2.001970	2.303585
	Woliyta	24	2.180556	.3790154	.0773662	2.020511	2.340600
	Daworo	22	2.202020	.3639168	.0775873	2.040669	2.363372
	Debubomo	23	2.198068	.3638498	.0758679	2.040727	2.355408
	Gamogofa	22	2.156566	.3557855	.0758537	1.998819	2.314312
	Hadiya	25	2.182222	.3766323	.0753265	2.026756	2.337688
	Hawassa	24	2.166667	.3618999	.0738725	2.013850	2.319484
	Kanbata	24	2.226852	.3551313	.0724909	2.076893	2.376811
	Gediyo	22	2.207071	.3649800	.0778140	2.045248	2.368894
	Total	234	2.193732	.3895944	.0254686	2.143554	2.243910
Financial Support	Konta	24	2.308333	.3824975	.0780770	2.146819	2.469848
	Segen	24	2.273611	.3162246	.0645491	2.140081	2.407141
	Woliyta	24	2.294444	.3332850	.0680315	2.153711	2.435178
	Daworo	22	2.268182	.2992897	.0638088	2.135484	2.400879
	Debubomo	23	2.249275	.2838889	.0591949	2.126513	2.372038
	Gamogofa	22	2.245455	.2691443	.0573818	2.126123	2.364786
	Hadiya	25	2.236000	.3391056	.0678211	2.096024	2.375976
	Hawassa	24	2.273611	.2997550	.0611872	2.147036	2.400187
	Kanbata	24	2.308333	.3382607	.0690472	2.165498	2.451168
	Gediyo	22	2.306061	.3840244	.0818743	2.135794	2.476327
	Total	234	2.276353	.3216570	.0210274	2.234925	2.317781
Participation in sport	Konta	24	2.336310	.3378183	.0689569	2.193661	2.478958
	Segen	24	2.324405	.2878254	.0587521	2.202867	2.445943

	Woliyta	24	2.348214	.3159909	.0645014	2.214783	2.481646
	Daworo	22	2.347403	.2982337	.0635836	2.215173	2.479632
	Debubomo	23	2.338509	.2856878	.0595700	2.214969	2.462050
	Gamogofa	22	2.327922	.2894392	.0617087	2.199592	2.456252
	Hadiya	25	2.305714	.2881370	.0576274	2.186777	2.424651
	Hawassa	24	2.324405	.3185546	.0650247	2.189891	2.458919
	Kanbata	24	2.366071	.3088911	.0630521	2.235638	2.496505
	Gediyo	22	2.386364	.3604669	.0768518	2.226542	2.546186
	Total	234	2.340049	.3045449	.0199087	2.300825	2.379273
Quality of Talent identification and development system	Konta	24	2.267045	.5464521	.1115441	2.036299	2.497792
	Segen	24	2.274621	.6649736	.1357372	1.993827	2.555415
	Woliyta	24	2.456439	.8619423	.1759432	2.092473	2.820406
	Daworo	22	2.295455	.6819625	.1453949	1.993089	2.597820
	Debubomo	23	2.270751	.6693387	.1395668	1.981307	2.560195
	Gamogofa	22	2.274793	.6850899	.1460617	1.971042	2.578545
	Hadiya	25	2.230909	.6556428	.1311286	1.960273	2.501545
	Hawassa	24	2.251894	.6714935	.1370680	1.968347	2.535441
	Kanbata	24	2.464015	.8929123	.1822650	2.086971	2.841059
	Gediyo	22	2.340909	.7008877	.1494298	2.030153	2.651665
	Total	234	2.312743	.7007936	.0458123	2.222484	2.403002
National and Regional competition	Konta	24	2.127976	.4174165	.0852048	1.951717	2.304236
	Segen	24	2.104167	.3818934	.0779537	1.942907	2.265426
	Woliyta	24	2.110119	.4456878	.0909756	1.921922	2.298316
	Daworo	22	2.081169	.3602217	.0767995	1.921455	2.240882
	Debubomo	23	2.040373	.3234612	.0674463	1.900498	2.180248
	Gamogofa	22	2.074675	.3514701	.0749337	1.918842	2.230508
	Hadiya	25	2.048571	.3391102	.0678220	1.908594	2.188549
	Hawassa	24	2.080357	.3878492	.0791694	1.916583	2.244132
	Kanbata	24	2.080357	.3791730	.0773984	1.920246	2.240468
	Gediyo	22	2.094156	.4136497	.0881904	1.910754	2.277558
	Total	234	2.084249	.3753327	.0245363	2.035908	2.132590
	Konta	24	1.925595	.4533368	.0925370	1.734168	2.117023

Scientific research and innovation	Segen	24	1.913690	.4594126	.0937772	1.719698	2.107683
	Woliyta	24	1.925595	.5220213	.1065572	1.705165	2.146026
	Daworo	22	1.918831	.4874745	.1039299	1.702697	2.134965
	Debubomo	23	1.872671	.4551838	.0949124	1.675835	2.069507
	Gamogofa	22	1.886364	.4519739	.0963612	1.685970	2.086758
	Hadiya	25	1.837143	.4242190	.0848438	1.662034	2.012252
	Hawassa	24	1.883929	.4960190	.1012494	1.674478	2.093379
	Kanbata	24	1.919643	.5172544	.1055841	1.701225	2.138060
	Gediyo	22	1.938312	.5848947	.1247000	1.678984	2.197639
	Total	234	1.901709	.4778969	.0312411	1.840158	1.963261

Appendix B: Descriptive statistics and ANOVA for youth volleyball training zones

Variables	Project Zone	N	Mean	SD
Quality of youth volleyball development and its contribution for elite	Konta	24	3.33	.141
	Segen	24	2.63	.332
	Woliyta	24	2.93	.203
	Daworo	22	2.86	.171
	Debubomo	24	2.62	.318
	Gamogofa	22	2.64	.321
	Hadiya	25	3.13	.169
	Hawassa	24	2.97	.151
	Kanbata	24	2.76	.188
	Gediyo	22	2.65	.279
	Total	235	2.86	.327
Current practice of youth volleyball TID	Konta	24	2.19	.213
	Segen	24	2.03	.254
	Woliyta	24	1.80	.167
	Daworo	22	2.19	.221
	Debubomo	24	1.97	.179
	Gamogofa	22	2.00	.292
	Hadiya	25	2.19	.164
	Hawassa	24	2.34	.200
	Kanbata	24	2.04	.250
	Gediyo	22	2.03	.169
	Total	235	2.08	.255
Perceived experience in youth volleyball	Konta	24	2.52	.388
	Segen	24	2.36	.291
	Woliyta	24	2.56	.505
	Daworo	22	2.97	.293
	Debubomo	24	2.54	.309
	Gamogofa	22	2.55	.341
	Hadiya	25	2.49	.262

	Hawassa	24	2.75	.246
	Kanbata	24	2.45	.262
	Gediyo	22	2.63	.216
	Total	235	2.58	.354
Perceived challenges in youth volleyball	Konta	24	2.63	.159
	Segen	24	3.95	.483
	Woliyta	24	2.83	.302
	Daworo	22	3.28	.352
	Debubomo	24	4.03	.483
	Gamogofa	22	3.90	.512
	Hadiya	25	2.60	.140
	Hawassa	24	2.82	.271
	Kanbata	24	3.65	.368
	Gediyo	22	3.81	.472
	Total	235	3.34	.669
Coach athlete relationship in youth volleyball	Konta	24	2.74	.103
	Segen	24	4.15	.544
	Woliyta	24	2.75	.482
	Daworo	22	3.30	.583
	Debubomo	24	4.17	.585
	Gamogofa	22	3.78	.608
	Hadiya	25	2.74	.111
	Hawassa	24	2.62	.226
	Kanbata	24	3.96	.513
	Gediyo	22	4.28	.569
	Total	235	3.44	.802

Appendix C: Post hoc analysis between youth volleyball training zones

Multiple Comparisons							
Tukey HSD							
Dependent Variable	(I) respondent zone	(J) respondent zone	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Quality of youth volleyball	Konta	Segen	.69545*	.06862	.000	.4761	.9147
		Woliyta	.39317*	.06862	.000	.1739	.6125
		Daworo	.46328*	.07016	.000	.2391	.6875
		Debubomo	.70174*	.06862	.000	.4824	.9210
		Gamogofa	.68372*	.07016	.000	.4595	.9080
		Hadiya	.19532	.06793	.119	-.0218	.4124
		Hawassa	.35785*	.06862	.000	.1385	.5772
		Kanbata	.56495*	.06862	.000	.3456	.7843
		Gediyo	.67235*	.07016	.000	.4481	.8966
	Segen	Konta	-.69545*	.06862	.000	-.9147	-.4761
		Woliyta	-.30228*	.06862	.001	-.5216	-.0830
		Daworo	-.23216*	.07016	.036	-.4564	-.0079
		Debubomo	.00630	.06862	1.000	-.2130	.2256
		Gamogofa	-.01172	.07016	1.000	-.2360	.2125
		Hadiya	-.50013*	.06793	.000	-.7172	-.2830
		Hawassa	-.33760*	.06862	.000	-.5569	-.1183
		Kanbata	-.13050	.06862	.668	-.3498	.0888
		Gediyo	-.02309	.07016	1.000	-.2473	.2011
	Woliyta	Konta	-.39317*	.06862	.000	-.6125	-.1739
		Segen	.30228*	.06862	.001	.0830	.5216
		Daworo	.07012	.07016	.992	-.1541	.2943
		Debubomo	.30858*	.06862	.000	.0893	.5279
		Gamogofa	.29056*	.07016	.002	.0663	.5148
		Hadiya	-.19785	.06793	.108	-.4149	.0193
		Hawassa	-.03532	.06862	1.000	-.2546	.1840

		Kanbata	.17178	.06862	.272	-.0475	.3911
		Gediyo	.27919*	.07016	.004	.0550	.5034
	Daworo	Konta	-.46328*	.07016	.000	-.6875	-.2391
		Segen	.23216*	.07016	.036	.0079	.4564
		Woliyta	-.07012	.07016	.992	-.2943	.1541
		Debubomo	.23846*	.07016	.027	.0142	.4627
		Gamogofa	.22044	.07167	.070	-.0086	.4495
		Hadiya	-.26796*	.06949	.006	-.4900	-.0459
		Hawassa	-.10543	.07016	.890	-.3297	.1188
		Kanbata	.10167	.07016	.910	-.1226	.3259
		Gediyo	.20907	.07167	.107	-.0200	.4381
	Debubomo	Konta	-.70174*	.06862	.000	-.9210	-.4824
		Segen	-.00630	.06862	1.000	-.2256	.2130
		Woliyta	-.30858*	.06862	.000	-.5279	-.0893
		Daworo	-.23846*	.07016	.027	-.4627	-.0142
		Gamogofa	-.01802	.07016	1.000	-.2423	.2062
		Hadiya	-.50642*	.06793	.000	-.7235	-.2893
		Hawassa	-.34389*	.06862	.000	-.5632	-.1246
		Kanbata	-.13679	.06862	.605	-.3561	.0825
		Gediyo	-.02939	.07016	1.000	-.2536	.1948
	Gamogofa	Konta	-.68372*	.07016	.000	-.9080	-.4595
		Segen	.01172	.07016	1.000	-.2125	.2360
		Woliyta	-.29056*	.07016	.002	-.5148	-.0663
		Daworo	-.22044	.07167	.070	-.4495	.0086
		Debubomo	.01802	.07016	1.000	-.2062	.2423
		Hadiya	-.48840*	.06949	.000	-.7105	-.2663
		Hawassa	-.32587*	.07016	.000	-.5501	-.1016
		Kanbata	-.11877	.07016	.799	-.3430	.1055
		Gediyo	-.01137	.07167	1.000	-.2404	.2177
	Hadiya	Konta	-.19532	.06793	.119	-.4124	.0218
		Segen	.50013*	.06793	.000	.2830	.7172
		Woliyta	.19785	.06793	.108	-.0193	.4149

		Daworo	.26796*	.06949	.006	.0459	.4900
		Debubomo	.50642*	.06793	.000	.2893	.7235
		Gamogofa	.48840*	.06949	.000	.2663	.7105
		Hawassa	.16253	.06793	.335	-.0546	.3796
		Kanbata	.36963*	.06793	.000	.1525	.5867
		Gediyo	.47703*	.06949	.000	.2550	.6991
	Hawassa	Konta	-.35785*	.06862	.000	-.5772	-.1385
		Segen	.33760*	.06862	.000	.1183	.5569
		Woliyta	.03532	.06862	1.000	-.1840	.2546
		Daworo	.10543	.07016	.890	-.1188	.3297
		Debubomo	.34389*	.06862	.000	.1246	.5632
		Gamogofa	.32587*	.07016	.000	.1016	.5501
		Hadiya	-.16253	.06793	.335	-.3796	.0546
		Kanbata	.20710	.06862	.082	-.0122	.4264
		Gediyo	.31450*	.07016	.000	.0903	.5387
	Kanbata	Konta	-.56495*	.06862	.000	-.7843	-.3456
		Segen	.13050	.06862	.668	-.0888	.3498
		Woliyta	-.17178	.06862	.272	-.3911	.0475
		Daworo	-.10167	.07016	.910	-.3259	.1226
		Debubomo	.13679	.06862	.605	-.0825	.3561
		Gamogofa	.11877	.07016	.799	-.1055	.3430
		Hadiya	-.36963*	.06793	.000	-.5867	-.1525
		Hawassa	-.20710	.06862	.082	-.4264	.0122
		Gediyo	.10740	.07016	.878	-.1168	.3316
	Gediyo	Konta	-.67235*	.07016	.000	-.8966	-.4481
		Segen	.02309	.07016	1.000	-.2011	.2473
		Woliyta	-.27919*	.07016	.004	-.5034	-.0550
		Daworo	-.20907	.07167	.107	-.4381	.0200
		Debubomo	.02939	.07016	1.000	-.1948	.2536
		Gamogofa	.01137	.07167	1.000	-.2177	.2404
		Hadiya	-.47703*	.06949	.000	-.6991	-.2550
		Hawassa	-.31450*	.07016	.000	-.5387	-.0903

		Kanbata	-.10740	.07016	.878	-.3316	.1168
Current practice in youth volleyball	Konta	Segen	.15351	.06182	.283	-.0441	.3511
		Woliyta	.39035*	.06182	.000	.1928	.5879
		Daworo	-.00498	.06321	1.000	-.2070	.1970
		Debubomo	.21272*	.06182	.024	.0152	.4103
		Gamogofa	.18880	.06321	.089	-.0132	.3908
		Hadiya	-.00096	.06120	1.000	-.1965	.1946
		Hawassa	-.15132	.06182	.303	-.3489	.0462
		Kanbata	.14254	.06182	.389	-.0550	.3401
		Gediyo	.15530	.06321	.298	-.0467	.3573
	Segen	Konta	-.15351	.06182	.283	-.3511	.0441
		Woliyta	.23684*	.06182	.006	.0393	.4344
		Daworo	-.15849	.06321	.270	-.3605	.0435
		Debubomo	.05921	.06182	.994	-.1383	.2568
		Gamogofa	.03529	.06321	1.000	-.1667	.2373
		Hadiya	-.15447	.06120	.261	-.3500	.0411
		Hawassa	-.30482*	.06182	.000	-.5024	-.1073
		Kanbata	-.01096	.06182	1.000	-.2085	.1866
		Gediyo	.00179	.06321	1.000	-.2002	.2038
	Woliyta	Konta	-.39035*	.06182	.000	-.5879	-.1928
		Segen	-.23684*	.06182	.006	-.4344	-.0393
		Daworo	-.39533*	.06321	.000	-.5973	-.1933
		Debubomo	-.17763	.06182	.119	-.3752	.0199
		Gamogofa	-.20156	.06321	.051	-.4036	.0004
		Hadiya	-.39132*	.06120	.000	-.5869	-.1957
		Hawassa	-.54167*	.06182	.000	-.7392	-.3441
		Kanbata	-.24781*	.06182	.003	-.4454	-.0502
		Gediyo	-.23505*	.06321	.009	-.4370	-.0330
	Daworo	Konta	.00498	.06321	1.000	-.1970	.2070
		Segen	.15849	.06321	.270	-.0435	.3605
		Woliyta	.39533*	.06321	.000	.1933	.5973
		Debubomo	.21770*	.06321	.023	.0157	.4197

		Gamogofa	.19378	.06457	.086	-.0126	.4001
		Hadiya	.00402	.06260	1.000	-.1960	.2041
		Hawassa	-.14633	.06321	.383	-.3483	.0557
		Kanbata	.14753	.06321	.371	-.0545	.3495
		Gediyo	.16029	.06457	.284	-.0461	.3666
	Debubomo	Konta	-.21272*	.06182	.024	-.4103	-.0152
		Segen	-.05921	.06182	.994	-.2568	.1383
		Woliyta	.17763	.06182	.119	-.0199	.3752
		Daworo	-.21770*	.06321	.023	-.4197	-.0157
		Gamogofa	-.02392	.06321	1.000	-.2259	.1781
		Hadiya	-.21368*	.06120	.020	-.4093	-.0181
		Hawassa	-.36404*	.06182	.000	-.5616	-.1665
		Kanbata	-.07018	.06182	.981	-.2677	.1274
		Gediyo	-.05742	.06321	.996	-.2594	.1446
	Gamogofa	Konta	-.18880	.06321	.089	-.3908	.0132
		Segen	-.03529	.06321	1.000	-.2373	.1667
		Woliyta	.20156	.06321	.051	-.0004	.4036
		Daworo	-.19378	.06457	.086	-.4001	.0126
		Debubomo	.02392	.06321	1.000	-.1781	.2259
		Hadiya	-.18976	.06260	.079	-.3898	.0103
		Hawassa	-.34011*	.06321	.000	-.5421	-.1381
		Kanbata	-.04625	.06321	.999	-.2483	.1557
		Gediyo	-.03349	.06457	1.000	-.2398	.1729
	Hadiya	Konta	.00096	.06120	1.000	-.1946	.1965
		Segen	.15447	.06120	.261	-.0411	.3500
		Woliyta	.39132*	.06120	.000	.1957	.5869
		Daworo	-.00402	.06260	1.000	-.2041	.1960
		Debubomo	.21368*	.06120	.020	.0181	.4093
		Gamogofa	.18976	.06260	.079	-.0103	.3898
		Hawassa	-.15035	.06120	.298	-.3459	.0452
		Kanbata	.14351	.06120	.364	-.0521	.3391
		Gediyo	.15627	.06260	.276	-.0438	.3563

	Hawassa	Konta	.15132	.06182	.303	-.0462	.3489
		Segen	.30482*	.06182	.000	.1073	.5024
		Woliyta	.54167*	.06182	.000	.3441	.7392
		Daworo	.14633	.06321	.383	-.0557	.3483
		Debubomo	.36404*	.06182	.000	.1665	.5616
		Gamogofa	.34011*	.06321	.000	.1381	.5421
		Hadiya	.15035	.06120	.298	-.0452	.3459
		Kanbata	.29386*	.06182	.000	.0963	.4914
		Gediyo	.30662*	.06321	.000	.1046	.5086
	Kanbata	Konta	-.14254	.06182	.389	-.3401	.0550
		Segen	.01096	.06182	1.000	-.1866	.2085
		Woliyta	.24781*	.06182	.003	.0502	.4454
		Daworo	-.14753	.06321	.371	-.3495	.0545
		Debubomo	.07018	.06182	.981	-.1274	.2677
		Gamogofa	.04625	.06321	.999	-.1557	.2483
		Hadiya	-.14351	.06120	.364	-.3391	.0521
		Hawassa	-.29386*	.06182	.000	-.4914	-.0963
		Gediyo	.01276	.06321	1.000	-.1892	.2148
	Gediyo	Konta	-.15530	.06321	.298	-.3573	.0467
		Segen	-.00179	.06321	1.000	-.2038	.2002
		Woliyta	.23505*	.06321	.009	.0330	.4370
		Daworo	-.16029	.06457	.284	-.3666	.0461
		Debubomo	.05742	.06321	.996	-.1446	.2594
		Gamogofa	.03349	.06457	1.000	-.1729	.2398
		Hadiya	-.15627	.06260	.276	-.3563	.0438
		Hawassa	-.30662*	.06321	.000	-.5086	-.1046
		Kanbata	-.01276	.06321	1.000	-.2148	.1892
Perceived experience in youth volleyball	Konta	Segen	.15909	.09294	.788	-.1379	.4561
		Woliyta	-.03788	.09294	1.000	-.3349	.2591
		Daworo	-.44835*	.09502	.000	-.7520	-.1447
		Debubomo	-.02273	.09294	1.000	-.3197	.2743
		Gamogofa	-.02686	.09502	1.000	-.3305	.2768

		Hadiya	.03545	.09200	1.000	-.2586	.3295
		Hawassa	-.22727	.09294	.304	-.5243	.0697
		Kanbata	.07197	.09294	.999	-.2250	.3690
		Gediyo	-.10950	.09502	.978	-.4132	.1942
	Segen	Konta	-.15909	.09294	.788	-.4561	.1379
		Woliyta	-.19697	.09294	.516	-.4940	.1000
		Daworo	-.60744*	.09502	.000	-.9111	-.3038
		Debubomo	-.18182	.09294	.630	-.4788	.1152
		Gamogofa	-.18595	.09502	.630	-.4896	.1177
		Hadiya	-.12364	.09200	.942	-.4177	.1704
		Hawassa	-.38636*	.09294	.002	-.6834	-.0894
		Kanbata	-.08712	.09294	.995	-.3841	.2099
		Gediyo	-.26860	.09502	.134	-.5723	.0351
	Woliyta	Konta	.03788	.09294	1.000	-.2591	.3349
		Segen	.19697	.09294	.516	-.1000	.4940
		Daworo	-.41047*	.09502	.001	-.7141	-.1068
		Debubomo	.01515	.09294	1.000	-.2819	.3122
		Gamogofa	.01102	.09502	1.000	-.2927	.3147
		Hadiya	.07333	.09200	.999	-.2207	.3674
		Hawassa	-.18939	.09294	.573	-.4864	.1076
		Kanbata	.10985	.09294	.974	-.1872	.4069
		Gediyo	-.07163	.09502	.999	-.3753	.2321
	Daworo	Konta	.44835*	.09502	.000	.1447	.7520
		Segen	.60744*	.09502	.000	.3038	.9111
		Woliyta	.41047*	.09502	.001	.1068	.7141
		Debubomo	.42562*	.09502	.000	.1219	.7293
		Gamogofa	.42149*	.09707	.001	.1113	.7317
		Hadiya	.48380*	.09411	.000	.1830	.7846
		Hawassa	.22107	.09502	.376	-.0826	.5248
		Kanbata	.52032*	.09502	.000	.2166	.8240
		Gediyo	.33884*	.09707	.020	.0286	.6491
	Debubomo	Konta	.02273	.09294	1.000	-.2743	.3197

		Segen	.18182	.09294	.630	-.1152	.4788
		Woliyta	-.01515	.09294	1.000	-.3122	.2819
		Daworo	-.42562*	.09502	.000	-.7293	-.1219
		Gamogofa	-.00413	.09502	1.000	-.3078	.2995
		Hadiya	.05818	.09200	1.000	-.2358	.3522
		Hawassa	-.20455	.09294	.459	-.5015	.0925
		Kanbata	.09470	.09294	.991	-.2023	.3917
		Gediyo	-.08678	.09502	.996	-.3905	.2169
	Gamogofa	Konta	.02686	.09502	1.000	-.2768	.3305
		Segen	.18595	.09502	.630	-.1177	.4896
		Woliyta	-.01102	.09502	1.000	-.3147	.2927
		Daworo	-.42149*	.09707	.001	-.7317	-.1113
		Debubomo	.00413	.09502	1.000	-.2995	.3078
		Hadiya	.06231	.09411	1.000	-.2384	.3631
		Hawassa	-.20041	.09502	.523	-.5041	.1033
		Kanbata	.09883	.09502	.989	-.2048	.4025
		Gediyo	-.08264	.09707	.998	-.3929	.2276
	Hadiya	Konta	-.03545	.09200	1.000	-.3295	.2586
		Segen	.12364	.09200	.942	-.1704	.4177
		Woliyta	-.07333	.09200	.999	-.3674	.2207
		Daworo	-.48380*	.09411	.000	-.7846	-.1830
		Debubomo	-.05818	.09200	1.000	-.3522	.2358
		Gamogofa	-.06231	.09411	1.000	-.3631	.2384
		Hawassa	-.26273	.09200	.125	-.5567	.0313
		Kanbata	.03652	.09200	1.000	-.2575	.3305
		Gediyo	-.14496	.09411	.874	-.4457	.1558
	Hawassa	Konta	.22727	.09294	.304	-.0697	.5243
		Segen	.38636*	.09294	.002	.0894	.6834
		Woliyta	.18939	.09294	.573	-.1076	.4864
		Daworo	-.22107	.09502	.376	-.5248	.0826
		Debubomo	.20455	.09294	.459	-.0925	.5015
		Gamogofa	.20041	.09502	.523	-.1033	.5041

		Hadiya	.26273	.09200	.125	-.0313	.5567
		Kanbata	.29924*	.09294	.047	.0022	.5962
		Gediyo	.11777	.09502	.965	-.1859	.4214
	Kanbata	Konta	-.07197	.09294	.999	-.3690	.2250
		Segen	.08712	.09294	.995	-.2099	.3841
		Woliyta	-.10985	.09294	.974	-.4069	.1872
		Daworo	-.52032*	.09502	.000	-.8240	-.2166
		Debubomo	-.09470	.09294	.991	-.3917	.2023
		Gamogofa	-.09883	.09502	.989	-.4025	.2048
		Hadiya	-.03652	.09200	1.000	-.3305	.2575
		Hawassa	-.29924*	.09294	.047	-.5962	-.0022
		Gediyo	-.18147	.09502	.662	-.4852	.1222
	Gediyo	Konta	.10950	.09502	.978	-.1942	.4132
		Segen	.26860	.09502	.134	-.0351	.5723
		Woliyta	.07163	.09502	.999	-.2321	.3753
		Daworo	-.33884*	.09707	.020	-.6491	-.0286
		Debubomo	.08678	.09502	.996	-.2169	.3905
		Gamogofa	.08264	.09707	.998	-.2276	.3929
		Hadiya	.14496	.09411	.874	-.1558	.4457
		Hawassa	-.11777	.09502	.965	-.4214	.1859
		Kanbata	.18147	.09502	.662	-.1222	.4852
Perceived challenges in youth volleyball	Konta	Segen	-1.32292*	.10795	.000	-1.6679	-.9779
		Woliyta	-.20486	.10795	.671	-.5498	.1401
		Daworo	-.64804*	.11037	.000	-1.0008	-.2953
		Debubomo	-1.40625*	.10795	.000	-1.7512	-1.0613
		Gamogofa	-1.26926*	.11037	.000	-1.6220	-.9165
		Hadiya	.03181	.10686	1.000	-.3097	.3733
		Hawassa	-.19444	.10795	.734	-.5394	.1505
		Kanbata	-1.02431*	.10795	.000	-1.3693	-.6793
		Gediyo	-1.17835*	.11037	.000	-1.5311	-.8256
	Segen	Konta	1.32292*	.10795	.000	.9779	1.6679
		Woliyta	1.11806*	.10795	.000	.7731	1.4630

		Daworo	.67487*	.11037	.000	.3222	1.0276
		Debubomo	-.08333	.10795	.999	-.4283	.2616
		Gamogofa	.05366	.11037	1.000	-.2991	.4064
		Hadiya	1.35472*	.10686	.000	1.0132	1.6962
		Hawassa	1.12847*	.10795	.000	.7835	1.4734
		Kanbata	.29861	.10795	.155	-.0464	.6436
		Gediyo	.14457	.11037	.951	-.2082	.4973
	Woliyta	Konta	.20486	.10795	.671	-.1401	.5498
		Segen	-1.11806*	.10795	.000	-1.4630	-.7731
		Daworo	-.44318*	.11037	.003	-.7959	-.0905
		Debubomo	-1.20139*	.10795	.000	-1.5464	-.8564
		Gamogofa	-1.06439*	.11037	.000	-1.4171	-.7117
		Hadiya	.23667	.10686	.450	-.1048	.5782
		Hawassa	.01042	.10795	1.000	-.3346	.3554
		Kanbata	-.81944*	.10795	.000	-1.1644	-.4745
		Gediyo	-.97348*	.11037	.000	-1.3262	-.6208
	Daworo	Konta	.64804*	.11037	.000	.2953	1.0008
		Segen	-.67487*	.11037	.000	-1.0276	-.3222
		Woliyta	.44318*	.11037	.003	.0905	.7959
		Debubomo	-.75821*	.11037	.000	-1.1109	-.4055
		Gamogofa	-.62121*	.11274	.000	-.9815	-.2609
		Hadiya	.67985*	.10931	.000	.3305	1.0292
		Hawassa	.45360*	.11037	.002	.1009	.8063
		Kanbata	-.37626*	.11037	.026	-.7290	-.0235
		Gediyo	-.53030*	.11274	.000	-.8906	-.1700
	Debubomo	Konta	1.40625*	.10795	.000	1.0613	1.7512
		Segen	.08333	.10795	.999	-.2616	.4283
		Woliyta	1.20139*	.10795	.000	.8564	1.5464
		Daworo	.75821*	.11037	.000	.4055	1.1109
		Gamogofa	.13699	.11037	.965	-.2157	.4897
		Hadiya	1.43806*	.10686	.000	1.0966	1.7796
		Hawassa	1.21181*	.10795	.000	.8668	1.5568

		Kanbata	.38194*	.10795	.017	.0370	.7269
		Gediyo	.22790	.11037	.554	-.1248	.5806
	Gamogofa	Konta	1.26926*	.11037	.000	.9165	1.6220
		Segen	-.05366	.11037	1.000	-.4064	.2991
		Woliyta	1.06439*	.11037	.000	.7117	1.4171
		Daworo	.62121*	.11274	.000	.2609	.9815
		Debubomo	-.13699	.11037	.965	-.4897	.2157
		Hadiya	1.30106*	.10931	.000	.9517	1.6504
		Hawassa	1.07481*	.11037	.000	.7221	1.4275
		Kanbata	.24495	.11037	.447	-.1078	.5977
		Gediyo	.09091	.11274	.998	-.2694	.4512
	Hadiya	Konta	-.03181	.10686	1.000	-.3733	.3097
		Segen	-1.35472*	.10686	.000	-1.6962	-1.0132
		Woliyta	-.23667	.10686	.450	-.5782	.1048
		Daworo	-.67985*	.10931	.000	-1.0292	-.3305
		Debubomo	-1.43806*	.10686	.000	-1.7796	-1.0966
		Gamogofa	-1.30106*	.10931	.000	-1.6504	-.9517
		Hawassa	-.22625	.10686	.517	-.5678	.1153
		Kanbata	-1.05611*	.10686	.000	-1.3976	-.7146
		Gediyo	-1.21015*	.10931	.000	-1.5595	-.8608
	Hawassa	Konta	.19444	.10795	.734	-.1505	.5394
		Segen	-1.12847*	.10795	.000	-1.4734	-.7835
		Woliyta	-.01042	.10795	1.000	-.3554	.3346
		Daworo	-.45360*	.11037	.002	-.8063	-.1009
		Debubomo	-1.21181*	.10795	.000	-1.5568	-.8668
		Gamogofa	-1.07481*	.11037	.000	-1.4275	-.7221
		Hadiya	.22625	.10686	.517	-.1153	.5678
		Kanbata	-.82986*	.10795	.000	-1.1748	-.4849
		Gediyo	-.98390*	.11037	.000	-1.3366	-.6312
	Kanbata	Konta	1.02431*	.10795	.000	.6793	1.3693
		Segen	-.29861	.10795	.155	-.6436	.0464
		Woliyta	.81944*	.10795	.000	.4745	1.1644

		Daworo	.37626*	.11037	.026	.0235	.7290
		Debubomo	-.38194*	.10795	.017	-.7269	-.0370
		Gamogofa	-.24495	.11037	.447	-.5977	.1078
		Hadiya	1.05611*	.10686	.000	.7146	1.3976
		Hawassa	.82986*	.10795	.000	.4849	1.1748
		Gediyo	-.15404	.11037	.928	-.5068	.1987
	Gediyo	Konta	1.17835*	.11037	.000	.8256	1.5311
		Segen	-.14457	.11037	.951	-.4973	.2082
		Woliyta	.97348*	.11037	.000	.6208	1.3262
		Daworo	.53030*	.11274	.000	.1700	.8906
		Debubomo	-.22790	.11037	.554	-.5806	.1248
		Gamogofa	-.09091	.11274	.998	-.4512	.2694
		Hadiya	1.21015*	.10931	.000	.8608	1.5595
		Hawassa	.98390*	.11037	.000	.6312	1.3366
		Kanbata	.15404	.11037	.928	-.1987	.5068
Coach athlete relationship in youth volleyball	Konta	Segen	-1.40530*	.13545	.000	-1.8382	-.9724
		Woliyta	-.00379	.13545	1.000	-.4367	.4291
		Daworo	-.55923*	.13850	.003	-1.0018	-.1166
		Debubomo	-1.42424*	.13545	.000	-1.8571	-.9914
		Gamogofa	-1.04270*	.13850	.000	-1.4853	-.6001
		Hadiya	-.00303	.13409	1.000	-.4316	.4255
		Hawassa	.11742	.13545	.997	-.3155	.5503
		Kanbata	-1.22348*	.13545	.000	-1.6564	-.7906
		Gediyo	-1.53857*	.13850	.000	-1.9812	-1.0960
	Segen	Konta	1.40530*	.13545	.000	.9724	1.8382
		Woliyta	1.40152*	.13545	.000	.9686	1.8344
		Daworo	.84607*	.13850	.000	.4035	1.2887
		Debubomo	-.01894	.13545	1.000	-.4518	.4139
		Gamogofa	.36260	.13850	.215	-.0800	.8052
		Hadiya	1.40227*	.13409	.000	.9737	1.8308
		Hawassa	1.52273*	.13545	.000	1.0898	1.9556
		Kanbata	.18182	.13545	.943	-.2511	.6147

		Gediyo	-.13326	.13850	.994	-.5759	.3093
	Woliyta	Konta	.00379	.13545	1.000	-.4291	.4367
		Segen	-1.40152*	.13545	.000	-1.8344	-.9686
		Daworo	-.55544*	.13850	.003	-.9980	-.1128
		Debubomo	-1.42045*	.13545	.000	-1.8533	-.9876
		Gamogofa	-1.03891*	.13850	.000	-1.4815	-.5963
		Hadiya	.00076	.13409	1.000	-.4278	.4293
		Hawassa	.12121	.13545	.997	-.3117	.5541
		Kanbata	-1.21970*	.13545	.000	-1.6526	-.7868
		Gediyo	-1.53478*	.13850	.000	-1.9774	-1.0922
	Daworo	Konta	.55923*	.13850	.003	.1166	1.0018
		Segen	-.84607*	.13850	.000	-1.2887	-.4035
		Woliyta	.55544*	.13850	.003	.1128	.9980
		Debubomo	-.86501*	.13850	.000	-1.3076	-.4224
		Gamogofa	-.48347*	.14148	.026	-.9356	-.0313
		Hadiya	.55620*	.13717	.003	.1178	.9946
		Hawassa	.67665*	.13850	.000	.2340	1.1193
		Kanbata	-.66426*	.13850	.000	-1.1069	-.2216
		Gediyo	-.97934*	.14148	.000	-1.4315	-.5272
	Debubomo	Konta	1.42424*	.13545	.000	.9914	1.8571
		Segen	.01894	.13545	1.000	-.4139	.4518
		Woliyta	1.42045*	.13545	.000	.9876	1.8533
		Daworo	.86501*	.13850	.000	.4224	1.3076
		Gamogofa	.38154	.13850	.159	-.0611	.8242
		Hadiya	1.42121*	.13409	.000	.9927	1.8497
		Hawassa	1.54167*	.13545	.000	1.1088	1.9745
		Kanbata	.20076	.13545	.898	-.2321	.6336
		Gediyo	-.11433	.13850	.998	-.5569	.3283
	Gamogofa	Konta	1.04270*	.13850	.000	.6001	1.4853
		Segen	-.36260	.13850	.215	-.8052	.0800
		Woliyta	1.03891*	.13850	.000	.5963	1.4815
		Daworo	.48347*	.14148	.026	.0313	.9356

		Debubomo	-.38154	.13850	.159	-.8242	.0611
		Hadiya	1.03967*	.13717	.000	.6013	1.4780
		Hawassa	1.16012*	.13850	.000	.7175	1.6027
		Kanbata	-.18079	.13850	.952	-.6234	.2618
		Gediyo	-.49587*	.14148	.019	-.9480	-.0437
	Hadiya	Konta	.00303	.13409	1.000	-.4255	.4316
		Segen	-1.40227*	.13409	.000	-1.8308	-.9737
		Woliyta	-.00076	.13409	1.000	-.4293	.4278
		Daworo	-.55620*	.13717	.003	-.9946	-.1178
		Debubomo	-1.42121*	.13409	.000	-1.8497	-.9927
		Gamogofa	-1.03967*	.13717	.000	-1.4780	-.6013
		Hawassa	.12045	.13409	.996	-.3081	.5490
		Kanbata	-1.22045*	.13409	.000	-1.6490	-.7919
		Gediyo	-1.53554*	.13717	.000	-1.9739	-1.0972
	Hawassa	Konta	-.11742	.13545	.997	-.5503	.3155
		Segen	-1.52273*	.13545	.000	-1.9556	-1.0898
		Woliyta	-.12121	.13545	.997	-.5541	.3117
		Daworo	-.67665*	.13850	.000	-1.1193	-.2340
		Debubomo	-1.54167*	.13545	.000	-1.9745	-1.1088
		Gamogofa	-1.16012*	.13850	.000	-1.6027	-.7175
		Hadiya	-.12045	.13409	.996	-.5490	.3081
		Kanbata	-1.34091*	.13545	.000	-1.7738	-.9080
		Gediyo	-1.65599*	.13850	.000	-2.0986	-1.2134
	Kanbata	Konta	1.22348*	.13545	.000	.7906	1.6564
		Segen	-.18182	.13545	.943	-.6147	.2511
		Woliyta	1.21970*	.13545	.000	.7868	1.6526
		Daworo	.66426*	.13850	.000	.2216	1.1069
		Debubomo	-.20076	.13545	.898	-.6336	.2321
		Gamogofa	.18079	.13850	.952	-.2618	.6234
		Hadiya	1.22045*	.13409	.000	.7919	1.6490
		Hawassa	1.34091*	.13545	.000	.9080	1.7738
		Gediyo	-.31508	.13850	.409	-.7577	.1275

	Gediyo	Konta	1.53857*	.13850	.000	1.0960	1.9812
		Segen	.13326	.13850	.994	-.3093	.5759
		Woliyta	1.53478*	.13850	.000	1.0922	1.9774
		Daworo	.97934*	.14148	.000	.5272	1.4315
		Debubomo	.11433	.13850	.998	-.3283	.5569
		Gamogofa	.49587*	.14148	.019	.0437	.9480
		Hadiya	1.53554*	.13717	.000	1.0972	1.9739
		Hawassa	1.65599*	.13850	.000	1.2134	2.0986
		Kanbata	.31508	.13850	.409	-.1275	.7577
*. The mean difference is significant at the 0.05 level.							

Appendix D: Descriptive Statistics and ANOVA for Coach's Level of education

		N	Mean	SD	Std. Error	95% Confidence Interval for Mean		Min	Max
						Lower Bound	Upper Bound		
Quality of youth volleyball	Diploma	5	3.2571	.23474	.10498	2.9657	3.5486	3.00	3.57
	Degree	12	3.4167	.26870	.07757	3.2459	3.5874	3.00	3.86
	Masters	3	3.2381	.29738	.17169	2.4994	3.9768	3.00	3.57
	Total	20	3.3500	.26413	.05906	3.2264	3.4736	3.00	3.86
Current practice in youth volleyball	Diploma	5	2.3158	.30689	.13725	1.9347	2.6968	1.79	2.53
	Degree	12	2.2632	.26459	.07638	2.0950	2.4313	1.89	2.79
	Masters	3	2.2456	.53242	.30739	.9230	3.5682	1.63	2.58
	Total	20	2.2737	.30143	.06740	2.1326	2.4148	1.63	2.79
Perceived experience in youth volleyball	Diploma	5	2.2182	.50860	.22745	1.5867	2.8497	1.55	2.73
	Degree	12	1.8939	.36122	.10427	1.6644	2.1234	1.36	2.55
	Masters	3	2.0000	.50616	.29223	.7426	3.2574	1.45	2.45
	Total	20	1.9909	.42013	.09394	1.7943	2.1875	1.36	2.73
Perceived challenges in youth volleyball	Diploma	5	2.6667	.13176	.05893	2.5031	2.8303	2.50	2.83
	Degree	12	2.7569	.12542	.03621	2.6773	2.8366	2.58	3.00
	Masters	3	2.6111	.19245	.11111	2.1330	3.0892	2.50	2.83
	Total	20	2.7125	.14172	.03169	2.6462	2.7788	2.50	3.00
Coach athlete relationship in youth volleyball	Diploma	5	2.7272	.11134	.04979	2.5890	2.8655	2.63	2.90
	Degree	12	2.6136	.15565	.04493	2.5147	2.7125	2.36	2.90
	Masters	3	2.6969	.10497	.06060	2.4362	2.9577	2.63	2.81
	Total	20	2.6545	.14328	.03203	2.5874	2.7216	2.36	2.90

Appendix E: Descriptive Statistics and ANOVA for trainees' level of education

Variables	Grade level	N	Mean	SD	Std. Error	95% Confidence Interval for Mean		Min	Max
						Lower Bound	Upper Bound		
Quality of youth volleyball	7th grade	13	2.8924	.25021	.06940	2.7412	3.0436	2.39	3.34
	8th grade	73	2.7482	.28590	.03346	2.6814	2.8149	2.16	3.31
	9th grade	61	2.8179	.32930	.04216	2.7335	2.9022	2.12	3.68
	10th grade	38	2.8548	.32623	.05292	2.7475	2.9620	2.19	3.50
	11th grade	24	2.9076	.24369	.04974	2.8047	3.0105	2.58	3.41
	12th grade	6	2.8373	.34349	.14023	2.4768	3.1978	2.39	3.34
	Total	215	2.8158	.30348	.02070	2.7750	2.8566	2.12	3.68
Current practice of youth volleyball TID	7th grade	13	2.0648	.18627	.05166	1.9522	2.1773	1.74	2.32
	8th grade	73	2.1081	.23123	.02706	2.0542	2.1621	1.42	2.79
	9th grade	61	2.0656	.22010	.02818	2.0092	2.1219	1.53	2.63
	10th grade	38	2.0235	.26093	.04233	1.9378	2.1093	1.53	2.58
	11th grade	24	2.0395	.28586	.05835	1.9188	2.1602	1.68	2.58
	12th grade	6	1.7281	.20632	.08423	1.5116	1.9446	1.53	2.11
	Total	215	2.0602	.24339	.01660	2.0275	2.0929	1.42	2.79
Perceived experience in youth volleyball	7th grade	13	2.6224	.25129	.06970	2.4705	2.7742	2.27	3.00
	8th grade	73	2.6227	.29948	.03505	2.5528	2.6925	1.91	3.27
	9th grade	61	2.6602	.27768	.03555	2.5891	2.7313	2.00	3.18
	10th grade	38	2.6388	.31384	.05091	2.5356	2.7419	1.91	3.55
	11th grade	24	2.6288	.32714	.06678	2.4906	2.7669	1.91	3.18
	12th grade	6	2.5303	.25335	.10343	2.2644	2.7962	2.18	2.91
	Total	215	2.6342	.29313	.01999	2.5948	2.6737	1.91	3.55
Perceived challenges in youth volleyball	7th grade	13	3.1090	.74721	.20724	2.6574	3.5605	2.08	4.33
	8th grade	73	3.5228	.69323	.08114	3.3611	3.6846	2.25	4.67
	9th grade	61	3.4454	.65030	.08326	3.2788	3.6119	2.25	4.58
	10th grade	38	3.3991	.61700	.10009	3.1963	3.6019	2.42	4.58
	11th grade	24	3.0590	.55084	.11244	2.8264	3.2916	2.50	4.08
	12th grade	6	3.3472	.74799	.30537	2.5623	4.1322	2.58	4.33

	Total	215	3.3973	.66862	.04560	3.3074	3.4872	2.08	4.67
Coach athlete relationship in youth volleyball	7th grade	13	3.1538	.70063	.19432	2.7305	3.5772	2.55	4.82
	8th grade	73	3.6762	.75712	.08861	3.4996	3.8529	2.36	5.00
	9th grade	61	3.5604	.81450	.10429	3.3518	3.7690	2.36	4.91
	10th grade	38	3.4761	.81296	.13188	3.2089	3.7433	2.18	4.73
	11th grade	24	3.2462	.75132	.15336	2.9290	3.5635	2.00	4.64
	12th grade	6	3.0909	1.08331	.44226	1.9540	4.2278	2.18	4.55
	Total	215	3.5121	.79971	.05454	3.4045	3.6196	2.00	5.00

Appendix F: Post hoc analysis between youth volleyball trainees' level of education

Multiple Comparisons							
Tukey HSD							
Dependent Variable	(I) education level of respondents	(J) education level of respondents	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Quality of youth volleyball	7th grade	8th grade	.14426	.09085	.607	-.1171	.4056
		9th grade	.07453	.09219	.966	-.1906	.3397
		10th grade	.03764	.09697	.999	-.2413	.3166
		11th grade	-.01517	.10393	1.000	-.3141	.2838
		12th grade	.05511	.14895	.999	-.3733	.4835
	8th grade	7th grade	-.14426	.09085	.607	-.4056	.1171
		9th grade	-.06973	.05235	.767	-.2203	.0809
		10th grade	-.10662	.06037	.490	-.2803	.0670
		11th grade	-.15944	.07101	.222	-.3637	.0448
		12th grade	-.08915	.12817	.982	-.4578	.2795
	9th grade	7th grade	-.07453	.09219	.966	-.3397	.1906
		8th grade	.06973	.05235	.767	-.0809	.2203
		10th grade	-.03689	.06237	.992	-.2163	.1425
		11th grade	-.08971	.07272	.820	-.2989	.1195
		12th grade	-.01942	.12913	1.000	-.3908	.3520
	10th grade	7th grade	-.03764	.09697	.999	-.3166	.2413
		8th grade	.10662	.06037	.490	-.0670	.2803
		9th grade	.03689	.06237	.992	-.1425	.2163
		11th grade	-.05281	.07869	.985	-.2792	.1735
		12th grade	.01747	.13258	1.000	-.3639	.3988
	11th grade	7th grade	.01517	.10393	1.000	-.2838	.3141
		8th grade	.15944	.07101	.222	-.0448	.3637
		9th grade	.08971	.07272	.820	-.1195	.2989
		10th grade	.05281	.07869	.985	-.1735	.2792
		12th grade	.07029	.13775	.996	-.3259	.4665

	12th grade	7th grade	-.05511	.14895	.999	-.4835	.3733
		8th grade	.08915	.12817	.982	-.2795	.4578
		9th grade	.01942	.12913	1.000	-.3520	.3908
		10th grade	-.01747	.13258	1.000	-.3988	.3639
		11th grade	-.07029	.13775	.996	-.4665	.3259
Current practice in youth volleyball	7th grade	8th grade	-.04337	.07148	.990	-.2490	.1622
		9th grade	-.00080	.07254	1.000	-.2094	.2078
		10th grade	.04123	.07630	.994	-.1782	.2607
		11th grade	.02530	.08177	1.000	-.2099	.2605
		12th grade	.33671	.11719	.050	-.0004	.6738
	8th grade	7th grade	.04337	.07148	.990	-.1622	.2490
		9th grade	.04257	.04119	.906	-.0759	.1611
		10th grade	.08460	.04750	.480	-.0520	.2212
		11th grade	.06867	.05587	.822	-.0920	.2294
		12th grade	.38008*	.10085	.003	.0900	.6701
	9th grade	7th grade	.00080	.07254	1.000	-.2078	.2094
		8th grade	-.04257	.04119	.906	-.1611	.0759
		10th grade	.04203	.04907	.956	-.0991	.1832
		11th grade	.02610	.05722	.997	-.1385	.1907
		12th grade	.33750*	.10160	.013	.0453	.6297
	10th grade	7th grade	-.04123	.07630	.994	-.2607	.1782
		8th grade	-.08460	.04750	.480	-.2212	.0520
		9th grade	-.04203	.04907	.956	-.1832	.0991
		11th grade	-.01593	.06191	1.000	-.1940	.1622
		12th grade	.29548	.10431	.056	-.0046	.5955
	11th grade	7th grade	-.02530	.08177	1.000	-.2605	.2099
		8th grade	-.06867	.05587	.822	-.2294	.0920
		9th grade	-.02610	.05722	.997	-.1907	.1385
		10th grade	.01593	.06191	1.000	-.1622	.1940
		12th grade	.31140	.10838	.050	-.0003	.6231
	12th grade	7th grade	-.33671	.11719	.050	-.6738	.0004
		8th grade	-.38008*	.10085	.003	-.6701	-.0900

		9th grade	-.33750*	.10160	.013	-.6297	-.0453
		10th grade	-.29548	.10431	.056	-.5955	.0046
		11th grade	-.31140	.10838	.050	-.6231	.0003
Perceived experience in youth volleyball	7th grade	8th grade	-.00029	.08900	1.000	-.2563	.2557
		9th grade	-.03783	.09031	.998	-.2976	.2219
		10th grade	-.01638	.09499	1.000	-.2896	.2569
		11th grade	-.00641	.10181	1.000	-.2993	.2864
		12th grade	.09207	.14592	.989	-.3276	.5118
	8th grade	7th grade	.00029	.08900	1.000	-.2557	.2563
		9th grade	-.03754	.05129	.978	-.1851	.1100
		10th grade	-.01609	.05914	1.000	-.1862	.1540
		11th grade	-.00612	.06957	1.000	-.2062	.1940
		12th grade	.09236	.12556	.977	-.2688	.4535
	9th grade	7th grade	.03783	.09031	.998	-.2219	.2976
		8th grade	.03754	.05129	.978	-.1100	.1851
		10th grade	.02145	.06110	.999	-.1543	.1972
		11th grade	.03142	.07124	.998	-.1735	.2363
		12th grade	.12991	.12650	.908	-.2339	.4937
	10th grade	7th grade	.01638	.09499	1.000	-.2569	.2896
		8th grade	.01609	.05914	1.000	-.1540	.1862
		9th grade	-.02145	.06110	.999	-.1972	.1543
		11th grade	.00997	.07709	1.000	-.2118	.2317
		12th grade	.10845	.12988	.961	-.2651	.4820
	11th grade	7th grade	.00641	.10181	1.000	-.2864	.2993
		8th grade	.00612	.06957	1.000	-.1940	.2062
		9th grade	-.03142	.07124	.998	-.2363	.1735
		10th grade	-.00997	.07709	1.000	-.2317	.2118
		12th grade	.09848	.13494	.978	-.2897	.4866
	12th grade	7th grade	-.09207	.14592	.989	-.5118	.3276
		8th grade	-.09236	.12556	.977	-.4535	.2688
		9th grade	-.12991	.12650	.908	-.4937	.2339
		10th grade	-.10845	.12988	.961	-.4820	.2651

		11th grade	-.09848	.13494	.978	-.4866	.2897
Perceived challenges of youth volleyball	7th grade	8th grade	-.41386	.19813	.297	-.9838	.1560
		9th grade	-.33638	.20106	.551	-.9147	.2419
		10th grade	-.29015	.21147	.744	-.8984	.3181
		11th grade	.04995	.22665	1.000	-.6020	.7019
		12th grade	-.23825	.32484	.978	-1.1726	.6961
	8th grade	7th grade	.41386	.19813	.297	-.1560	.9838
		9th grade	.07748	.11417	.984	-.2509	.4059
		10th grade	.12371	.13166	.936	-.2550	.5024
		11th grade	.46380*	.15487	.036	.0184	.9093
		12th grade	.17561	.27952	.989	-.6284	.9796
	9th grade	7th grade	.33638	.20106	.551	-.2419	.9147
		8th grade	-.07748	.11417	.984	-.4059	.2509
		10th grade	.04623	.13602	.999	-.3450	.4375
		11th grade	.38633	.15859	.149	-.0698	.8425
		12th grade	.09813	.28160	.999	-.7118	.9081
	10th grade	7th grade	.29015	.21147	.744	-.3181	.8984
		8th grade	-.12371	.13166	.936	-.5024	.2550
		9th grade	-.04623	.13602	.999	-.4375	.3450
		11th grade	.34010	.17161	.356	-.1535	.8337
		12th grade	.05190	.28913	1.000	-.7797	.8835
	11th grade	7th grade	-.04995	.22665	1.000	-.7019	.6020
		8th grade	-.46380*	.15487	.036	-.9093	-.0184
		9th grade	-.38633	.15859	.149	-.8425	.0698
		10th grade	-.34010	.17161	.356	-.8337	.1535
		12th grade	-.28819	.30041	.930	-1.1523	.5759
	12th grade	7th grade	.23825	.32484	.978	-.6961	1.1726
		8th grade	-.17561	.27952	.989	-.9796	.6284
		9th grade	-.09813	.28160	.999	-.9081	.7118
		10th grade	-.05190	.28913	1.000	-.8835	.7797
		11th grade	.28819	.30041	.930	-.5759	1.1523
	7th grade	8th grade	-.52237	.23767	.243	-1.2060	.1612

Coach athlete relationship in youth volleyball		9th grade	-.40651	.24117	.543	-1.1002	.2872
		10th grade	-.32223	.25367	.801	-1.0519	.4074
		11th grade	-.09237	.27188	.999	-.8744	.6897
		12th grade	.06294	.38966	1.000	-1.0579	1.1837
	8th grade	7th grade	.52237	.23767	.243	-.1612	1.2060
		9th grade	.11586	.13696	.958	-.2781	.5098
		10th grade	.20014	.15793	.802	-.2541	.6544
		11th grade	.43000	.18577	.193	-.1043	.9643
		12th grade	.58531	.33530	.503	-.3791	1.5497
	9th grade	7th grade	.40651	.24117	.543	-.2872	1.1002
		8th grade	-.11586	.13696	.958	-.5098	.2781
		10th grade	.08428	.16316	.995	-.3850	.5536
		11th grade	.31415	.19024	.566	-.2330	.8613
		12th grade	.46945	.33779	.733	-.5022	1.4411
	10th grade	7th grade	.32223	.25367	.801	-.4074	1.0519
		8th grade	-.20014	.15793	.802	-.6544	.2541
		9th grade	-.08428	.16316	.995	-.5536	.3850
		11th grade	.22986	.20585	.874	-.3622	.8220
		12th grade	.38517	.34683	.877	-.6124	1.3828
	11th grade	7th grade	.09237	.27188	.999	-.6897	.8744
		8th grade	-.43000	.18577	.193	-.9643	.1043
		9th grade	-.31415	.19024	.566	-.8613	.2330
		10th grade	-.22986	.20585	.874	-.8220	.3622
		12th grade	.15530	.36036	.998	-.8812	1.1918
	12th grade	7th grade	-.06294	.38966	1.000	-1.1837	1.0579
		8th grade	-.58531	.33530	.503	-1.5497	.3791
		9th grade	-.46945	.33779	.733	-1.4411	.5022
		10th grade	-.38517	.34683	.877	-1.3828	.6124
		11th grade	-.15530	.36036	.998	-1.1918	.8812
*. The mean difference is significant at the 0.05 level.							

Appendix G: Descriptive Statistics and ANOVA for Coache level of coaching license

Variables	License level	N	Mean	SD	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Quality of youth volleyball	Beginner	4	3.1786	.13678	.06839	2.9609	3.3962
	Level I	5	3.5429	.15649	.06999	3.3485	3.7372
	Level II	8	3.2679	.29014	.10258	3.0253	3.5104
	Instructor	3	3.4762	.29738	.17169	2.7375	4.2149
	Total	20	3.3500	.26413	.05906	3.2264	3.4736
Current practice of youth volleyball	Beginner	4	2.0789	.39503	.19751	1.4504	2.7075
	Level I	5	2.1684	.27449	.12276	1.8276	2.5092
	Level II	8	2.4474	.22855	.08081	2.2563	2.6384
	Instructor	3	2.2456	.26491	.15294	1.5875	2.9037
	Total	20	2.2737	.30143	.06740	2.1326	2.4148
Perceived experience in youth volleyball	Beginner	4	1.5000	.11736	.05868	1.3132	1.6868
	Level I	5	1.8182	.25713	.11499	1.4989	2.1375
	Level II	8	2.2727	.38569	.13636	1.9503	2.5952
	Instructor	3	2.1818	.27273	.15746	1.5043	2.8593
	Total	20	1.9909	.42013	.09394	1.7943	2.1875
Perceived challenges in youth volleyball	Beginner	4	2.7917	.10758	.05379	2.6205	2.9629
	Level I	5	2.7500	.10206	.04564	2.6233	2.8767
	Level II	8	2.6458	.12400	.04384	2.5422	2.7495
	Instructor	3	2.7222	.25459	.14699	2.0898	3.3547
	Total	20	2.7125	.14172	.03169	2.6462	2.7788
Coach athlete relationship in youth volleyball	Beginner	4	2.5454	.12856	.06428	2.3408	2.7500
	Level I	5	2.6000	.15212	.06803	2.4111	2.7888
	Level II	8	2.7045	.13527	.04782	2.5914	2.8176
	Instructor	3	2.7575	.05248	.03030	2.6271	2.8879
	Total	20	2.6545	.14328	.03203	2.5874	2.7216

Appendix H: Post-Hoc Comparisons for Coaches level of coaching license

Tukey HSD							
Dependent Variable	(I) Level of coaching license	(J) Level of coaching license	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Quality of youth volleyball	Beginner	Level I	-.36429	.16088	.148	-.8246	.0960
		Level II	-.08929	.14686	.928	-.5095	.3309
		Instructor	-.29762	.18317	.393	-.8217	.2264
	Level I	Beginner	.36429	.16088	.148	-.0960	.8246
		Level II	.27500	.13672	.225	-.1162	.6662
		Instructor	.06667	.17514	.981	-.4344	.5678
	Level II	Beginner	.08929	.14686	.928	-.3309	.5095
		Level I	-.27500	.13672	.225	-.6662	.1162
		Instructor	-.20833	.16236	.586	-.6729	.2562
	Instructor	Beginner	.29762	.18317	.393	-.2264	.8217
		Level I	-.06667	.17514	.981	-.5678	.4344
		Level II	.20833	.16236	.586	-.2562	.6729
Current practice of youth volleyball	Beginner	Level I	-.08947	.18941	.964	-.6314	.4524
		Level II	-.36842	.17290	.186	-.8631	.1263
		Instructor	-.16667	.21565	.866	-.7836	.4503
	Level I	Beginner	.08947	.18941	.964	-.4524	.6314
		Level II	-.27895	.16096	.340	-.7395	.1816
		Instructor	-.07719	.20620	.981	-.6671	.5127
	Level II	Beginner	.36842	.17290	.186	-.1263	.8631
		Level I	.27895	.16096	.340	-.1816	.7395
		Instructor	.20175	.19115	.720	-.3451	.7486
	Instructor	Beginner	.16667	.21565	.866	-.4503	.7836
		Level I	.07719	.20620	.981	-.5127	.6671
		Level II	-.20175	.19115	.720	-.7486	.3451
Perceived experience in youth volleyball	Beginner	Level I	-.31818	.20511	.432	-.9050	.2687
		Level II	-.77273*	.18724	.004	-1.3084	-.2370
		Instructor	-.68182*	.23353	.045	-1.3500	-.0137
	Level I	Beginner	.31818	.20511	.432	-.2687	.9050
		Level II	-.45455	.17431	.081	-.9533	.0442
		Instructor	-.36364	.22330	.391	-1.0025	.2752
	Level II	Beginner	.77273*	.18724	.004	.2370	1.3084
		Level I	.45455	.17431	.081	-.0442	.9533
		Instructor	.09091	.20700	.971	-.5013	.6831
	Instructor	Beginner	.68182*	.23353	.045	.0137	1.3500
		Level I	.36364	.22330	.391	-.2752	1.0025
		Level II	-.09091	.20700	.971	-.6831	.5013
Perceived challenges in youth volleyball	Beginner	Level I	.04167	.09392	.970	-.2271	.3104
		Level II	.14583	.08574	.355	-.0995	.3911
		Instructor	.06944	.10694	.914	-.2365	.3754
	Level I	Beginner	-.04167	.09392	.970	-.3104	.2271
		Level II	.10417	.07982	.573	-.1242	.3325

		Instructor	.02778	.10225	.993	-.2648	.3203
	Level II	Beginner	-.14583	.08574	.355	-.3911	.0995
		Level I	-.10417	.07982	.573	-.3325	.1242
		Instructor	-.07639	.09479	.851	-.3476	.1948
	Instructor	Beginner	-.06944	.10694	.914	-.3754	.2365
		Level I	-.02778	.10225	.993	-.3203	.2648
		Level II	.07639	.09479	.851	-.1948	.3476
Coach athlete relationship in youth volleyball	Beginner	Level I	-.0545455	.08806	.924	-.306505	.197414
		Level II	-.1590909	.08039	.237	-.389097	.070916
		Instructor	-.2121212	.10026	.190	-.498990	.074747
	Level I	Beginner	.0545455	.08806	.924	-.197414	.306505
		Level II	-.1045455	.07484	.519	-.318670	.109579
		Instructor	-.1575758	.09587	.384	-.431875	.116723
	Level II	Beginner	.1590909	.08039	.237	-.070916	.389097
		Level I	.1045455	.07484	.519	-.109579	.318670
		Instructor	-.0530303	.08887	.932	-.307312	.201252
	Instructor	Beginner	.2121212	.10026	.190	-.074747	.498990
		Level I	.1575758	.09587	.384	-.116723	.431875
		Level II	.0530303	.08887	.932	-.201252	.307312
*. The mean difference is significant at the 0.05 level.							

Appendix I: Descriptive Statistics and ANOVA for Coaches level of coaching experience

Variables	Category	N	Mean	SD	Std. Error	95% Confidence Interval for Mean		Min	Max
						Lower Bound	Upper Bound		
Quality of youth volleyball	Less than 5 years of experience	4	3.3214	.21429	.10714	2.9805	3.6624	3.14	3.57
	5-10 years of experience	14	3.3163	.27552	.07364	3.1572	3.4754	3.00	3.86
	Greater than 10 years of experience	2	3.6429	.10102	.07143	2.7353	4.5504	3.57	3.71
	Total	20	3.3500	.26413	.05906	3.2264	3.4736	3.00	3.86
Current practice of youth volleyball	Less than 5 years of experience	4	2.1842	.39736	.19868	1.5519	2.8165	1.79	2.53
	5-10 years of experience	14	2.3008	.28711	.07673	2.1350	2.4665	1.63	2.79
	Greater than 10 years of experience	2	2.2632	.37216	.26316	-1.0806	5.6069	2.00	2.53
	Total	20	2.2737	.30143	.06740	2.1326	2.4148	1.63	2.79
Perceived experience in youth volleyball	Less than 5 years of experience	4	1.7955	.47745	.23873	1.0357	2.5552	1.36	2.45
	5-10 years of experience	14	2.0195	.41915	.11202	1.7775	2.2615	1.45	2.73
	Greater than 10 years of experience	2	2.1818	.38569	.27273	-1.2835	5.6471	1.91	2.45
	Total	20	1.9909	.42013	.09394	1.7943	2.1875	1.36	2.73
Perceived challenges in youth volleyball	Less than 5 years of experience	4	2.7083	.10758	.05379	2.5371	2.8795	2.58	2.83
	5-10 years of experience	14	2.7202	.14838	.03966	2.6346	2.8059	2.50	3.00

	Greater than 10 years of experience	2	2.6667	.23570	.16667	.5490	4.7844	2.50	2.83
	Total	20	2.7125	.1417	.03169	2.6462	2.7788	2.50	3.00
Coach athlete relationship in youth volleyball	Less than 5 years of experience	4	2.6818	.05248	.02624	2.5983	2.7653	2.63	2.72
	5-10 years of experience	14	2.6363	.16340	.04367	2.5420	2.7307	2.36	2.90
	Greater than 10 years of experience	2	2.7272	.12856	.09090	1.5721	3.8823	2.63	2.81
	Total	20	2.6545	.14328	.03203	2.5874	2.7216	2.363	2.90

Appendix J: Descriptive Statistics and ANOVA for trainees' level of training experience

Variables	Category	N	Mean	SD	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Quality of youth volleyball	3 years of training experience	64	2.7367	.26833	.033	2.669	2.803
	4 years of training experience	148	2.8428	.31165	.025	2.792	2.893
	5 years of training experience	3	3.1713	.06479	.037	3.010	3.332
	Total	215	2.8158	.30348	.021	2.775	2.856
Current practice of youth volleyball	3 years of training experience	64	2.0584	.22508	.028	2.002	2.114
	4 years of training experience	148	2.0612	.25201	.020	2.020	2.102
	5 years of training experience	3	2.0526	.27348	.157	1.373	2.732
	Total	215	2.0602	.24339	.016	2.027	2.092
Perceived experience in youth volleyball	3 years of training experience	64	2.6605	.30227	.037	2.585	2.736
	4 years of training experience	148	2.6327	.28332	.023	2.586	2.678
	5 years of training experience	3	2.1515	.20995	.121	1.630	2.673
	Total	215	2.6342	.29313	.019	2.594	2.673
Perceived challenges in youth volleyball	3 years of training experience	64	3.6185	.60963	.076	3.466	3.770
	4 years of training experience	148	3.3176	.67163	.055	3.208	3.426

	5 years of training experience	3	2.6111	.09623	.055	2.372	2.850
	Total	215	3.3973	.66862	.045	3.307	3.487
Coach athlete relationship in youth volleyball	3 years of training experience	64	3.7358	.68467	.085	3.564	3.906
	4 years of training experience	148	3.4287	.83205	.068	3.293	3.563
	5 years of training experience	3	2.8485	.05249	.030	2.718	2.978
	Total	215	3.5121	.79971	.054	3.404	3.619

Appendix K: Post-Hoc Comparisons for trainees' level of training experience

Tukey HSD							
Dependent Variable	(I) training experience of respondents	(J) training experience of respondents	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Quality of youth volleyball	3 years of training experience	4 years of training experience	-.106*	.044	.047	-.2113	-.0009
		5 years of training experience	-.434*	.176	.038	-.8501	-.0192
	4 years of training experience	3 years of training experience	.106*	.044	.047	.0009	.2113
		5 years of training experience	-.328	.173	.144	-.7386	.0816
	5 years of training experience	3 years of training experience	.434*	.176	.038	.0192	.8501
		4 years of training experience	.328	.173	.144	-.0816	.7386
Current practice of youth volleyball	3 years of training experience	4 years of training experience	-.002	.036	.997	-.0891	.0836
		5 years of training experience	.005	.144	.999	-.3352	.3467
	4 years of training experience	3 years of training experience	.002	.036	.997	-.0836	.0891
		5 years of training experience	.008	.142	.998	-.3281	.3451
	5 years of training experience	3 years of training experience	-.005	.144	.999	-.3467	.3352
		4 years of training experience	-.008	.142	.998	-.3451	.3281
Perceived experience in youth volleyball	3 years of training experience	4 years of training experience	.027	.043	.795	-.0740	.1297
		5 years of training experience	.509*	.170	.009	.1068	.9112
	4 years of training experience	3 years of training experience	-.027	.043	.795	-.1297	.0740
		5 years of training experience	.481*	.168	.013	.0841	.8783
	5 years of training experience	3 years of training experience	-.509*	.170	.009	-.9112	-.1068
		4 years of training experience	-.481*	.168	.013	-.8783	-.0841
	3 years of training experience	4 years of training experience	.300*	.097	.006	.0712	.5307

Perceived challenges in youth volleyball		5 years of training experience	1.007*	.384	.025	.1002	1.9145
	4 years of training experience	3 years of training experience	-.300*	.097	.006	-.5307	-.0712
		5 years of training experience	.706	.379	.152	-.1891	1.6020
	5 years of training experience	3 years of training experience	-1.007*	.384	.025	-1.9145	-.1002
		4 years of training experience	-.706	.379	.152	-1.6020	.1891
Coach athlete relationship in youth volleyball	3 years of training experience	4 years of training experience	.307*	.117	.026	.0291	.5849
		5 years of training experience	.887	.464	.139	-.2100	1.9846
	4 years of training experience	3 years of training experience	-.307*	.117	.026	-.5849	-.0291
		5 years of training experience	.580	.458	.417	-.5030	1.6635
	5 years of training experience	3 years of training experience	-.887	.464	.139	-1.9846	.2100
		4 years of training experience	-.580	.458	.417	-1.6635	.5030
*. The mean difference is significant at the 0.05 level.							

Appendix L: Correlations

Correlations						
		1	2	2	4	5
Quality of youth volleyball	Pearson Correlation	1	.653**	.179**	-.721**	.690**
	Sig. (2-tailed)		.000	.006	.000	.000
	N	235	235	235	235	235
Current practice in youth volleyball	Pearson Correlation	.653**	1	-.008	-.738**	.697**
	Sig. (2-tailed)	.000		.908	.000	.000
	N	235	235	235	235	235
Perceived experience in youth volleyball	Pearson Correlation	.179**	-.008	1	-.085	.048
	Sig. (2-tailed)	.006	.908		.195	.461
	N	235	235	235	235	235
Perceived challenges in youth volleyball	Pearson Correlation	-.721**	-.738**	-.085	1	-.812**
	Sig. (2-tailed)	.000	.000	.195		.000
	N	235	235	235	235	235
Coach-athlete relationship in youth volleyball	Pearson Correlation	.690**	.697**	.048	-.812**	1
	Sig. (2-tailed)	.000	.000	.461	.000	
	N	235	235	235	235	235
**. Correlation is significant at the 0.01 level (2-tailed).						

Appendix M: Regression analysis

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.284	.036		7.957	.000
	Current practice in youth volleyball	.122	.034	.234	3.618	.000
	Perceived experience in youth volleyball	.017	.005	.140	3.288	.001
	Perceived challenges in youth volleyball	-.223	.053	-.335	-4.200	.000
	Coach-athlete relationship in youth volleyball	.013	.004	.248	3.322	.001
a. Dependent Variable: The status of youth volleyball development and its contribution for elite players						

Appendix N: Key informants' profiles

Pseudonym		R1	R2	R3	R4	R5
Age		55	45	46	43	38
Gender		Male	Male	Male	Male	Male
Level of Education	**Diploma**					✓
	Degree		✓	✓	✓	
	Master	✓				
Playing experience	**Club,**	✓	✓	✓	✓	✓
	Regional	✓	✓	✓	✓	✓
	National team		✓	✓		✓
Coaching experience	**Club**	✓	✓	✓		✓
	Regional	✓	✓	✓	✓	✓
	National team		✓			
Level of coaching license	**I level**				✓	
	II level	✓	✓			✓
	III level			✓		

Appendix O: Table of thematic matrix topics by cases

	R1	R2	R3	R4	R5
Q1	lack of coordinated structural organization and support top to down the structure of youth sports, lack of coordination with the media to support the volleyball sport, lack of appropriate budget, lack of training and coaching facilities and equipment's for volleyball sport, etc.	...we do not have a permanent national team; we can conclude that it is not in a good status. Due to mismanagement practice in youth sport project, the status of volleyball in SNNPR, it is deteriorating from time to time.	The current status of youth volleyball sport in Ethiopia is not developed	The current status of youth volleyball sport in Ethiopia is not developed	The current status of youth volleyball sport in Ethiopia is not developed
Q2	"Volleyball in other areas who do not have clear and transparent information regarding youth volleyball sport projects and experts with poor attitude towards volleyball the attitude towards the volleyball game is not positive as	Volleyball sport is highly practiced in some areas like Wolyta, Hadiya, Kembata, Gamogofa and Sidama zones. Peoples consider volleyball as a cultural sport and practice in a day-to-day activity	I think the attitude of the community in SNNPR towards is very good and they believe volleyball sport as their cultural game. The family of the trainers has positive attitude, but it needs awareness creation by the respective authorities leading the sport. However, but the sport leaders have a	Experts and sport leaders have less positive attitudes towards volleyball sport and they only focus on some sports which they believe have good results. Whereas some parents are not	The projects are not really implemented in our country, especially SNNPR. Despite the fact that the community loves the sport, minimum opportunities given for volleyball players, low income generated from volleyball sport and mismanagement of the projects and the

	other sport like football		poor attitude towards volleyball development of the game in the region.	aware of youth sport projects; so, they consider it as a waste of time and have a low attitude to the projects. Therefore, awareness creation should be made about the projects and the benefits attached to youth sports.	attitude towards volleyball sport is very low.
Q3	I believe the current practice of applying youth sport talent identification and development in SNNPR is not effective because all the activities related to talent identification and development done by unqualified personnel with poor experience towards the sport. Coaches	In my opinion, the practice of talent identification, selection and development of youth volleyball done blindly because the coaches are not well trained to perform talent identification and development system effectively. In addition, there is a lack of proper and adequate facilities and materials	In my opinion, the practice of youth volleyball sport training and development is not effective. The practice of talent identification, selection and development is performed by those who do not have experience and coaching skills; I think this is the result	The current practice of youth volleyball talent identification and development is not well managed because all activities related to youth volleyball are	I think that the practice of youth volleyball talent identification, selection and development in SNNPR is not properly performed because the program leading these projects such as the experts, coaches and etc. are not well experienced and has

	involved in this program lacks qualified training in volleyball sport and these coaches are assigned based on personal relationship rather their experience and qualification towards the sport. Despite the fact that there are many determining factors for poor practice of youth volleyball sport in the region, very committed and interested volleyball players practicing the sport by themselves without the help of the coaches or having little assistance are joining many clubs found in our country this indicates that the region is a potential for volleyball sport. However, the practice of youth volleyball talent	delivered to trainees and coaches. Most of the time, there is poor management and control system of youth projects. We can conclude that the practice of youth volleyball in the region is unproductive.	of poor strategy in general and poor project management system in particular. Youth projects are directed to be performed in schools and to be given by school PE teachers who do not have proper experience and coaching skills. Therefore, I can generalize that the practice of youth volleyball talent identification and development is ineffective. In order to change this proper talent identification and development system that could be applied to all zones and woredas should be designed; besides, delivery of adequate and proper facilities and equipment's for coaching and trainees, assigning qualified and experienced coaches and proper	performed by coaches with poor experience and skill of coaching therefore the productivity of the program is under expectation. Talent identification and development needs proper coaching skill and good management system leading the project, but what we observe reflects that the practice is done only for reporting purposes.	not proper management and coaching skills. Therefore, we can conclude that the practices of youth sport projects are not effective or not attained what they are planned to achieve.

	identification and development does not contribute for elite players' development.		youth sport project management system should be in place.		
Q4	In my opinion, the coaches' practice of youth volleyball projects in SNNPR region could not show what is expected especially in producing elite players. The poor youth sports project management and low attitude by the respective authorities towards volleyball sport in particular and sport in general. This implies that poor management, poor project evaluation, poor athletes and coach's carrier development system leads to low outcome from the youth sport project. On the other hand, coaches	Though the role of the coach for youth volleyball development is unquestioned, the coaches leading the project in SNNPR lacks proper skill and experience to perform the task. In addition, the respective authority leading sport in the region does not consider coaches development through training. For example, many players playing in clubs are from SNNPR; however, their technical and tactical performances of players are not scientifically trained players. This depicts that they practice traditionally without	The overall status of coaches leading youth volleyball projects in SNNPR is not satisfactory to lead the project. Most of the coaches are not qualified in coaching and lacks experience as a result they could not apply proper talent identification system and coaching youths properly.	The current practice of youth volleyball talent identification and development is not well managed because all activities related to youth volleyball is performed by coaches with poor experience and skill of coaching therefore the productivity of the program is not as expected. Talent	Coaches leading youth projects are not qualified because coaching youth volleyball requires coaching skill and experience of coaching, but I believe most of the coaches are not qualified to lead these projects.

	leading youth projects are not well experienced as well as lack of proper coaching skills they need. There are no proper mechanisms used for evaluating the quality of coaches leading the project and also no coach's development plan to develop the skill of coaches through training. Therefore, we can ensure that one of the major factors for producing elite youth volleyball players are the result of unqualified coaches leading them.	coaches' support by themselves.		identification and development needs proper coaching skill and good management system leading the project; but, what we observe reflects that the practice is done only for reporting purpose.	
Q5	I believe youth volleyball projects could not contribute to the development of elite volleyball players which may represent our country. In addition,	In my opinion based on the stated problematic facts towards youth volleyball, I believe most players have developed by themselves not with	The practice of youth volleyball project is implemented more than ten years, but good results are not attained. For example, if you see volleyball players of the clubs in	In my understanding , youth volleyball projects are not effective; therefore, elite player's	I think, youth volleyball projects in our country in general and SNNPR in particular, the projects are not effective or do not attain what they

	if we see the regional volleyball competitions many players are out youth volleyball projects which are practiced by themselves or traditionally.	the help of these projects. Therefore, I believe that the practice of youth volleyball in SNNPR doesn't contribute for elite volleyball player's development. Besides, we do not have volleyball national team representing our country; therefore, this could be the best example for unproductively of the youth volleyball projects.	Ethiopian volleyball premier league, the players are those playing for many years no new successors are observed. Besides, it is evident that the country has no volleyball national team represented by new elite players. This realizes that the program does not contribute for the elite player's development so the government needs to examine the overall activities of the program.	production without effective youth volleyball training is not possible. In addition, the way the projects are managed in SNNPR it is not fair and effective. Hence, this shows that youth volleyball projects do not contribute to elite players.	need to attain; therefore, it has not or little contribution towards elite player's development.
Q6	I believe that there is no clear, scientific and formal talent identification, selection and development system.	In my understanding, the major challenges are like lack of trained and qualified coaches, lack of proper talent identification and development methods to be used as a model, lack of proper training and coaching facilities	The main problems are low attitude and inefficiency of experts leading youth sport projects, the attitude towards all sports needs to be equal and fairly treated because currently high emphasis is given for	There is no scarcity of budget in the region to lead the program; but the way youth sports are led by respective authorities and	There are several problems related to this problem, but the major problems are lack of qualified and experienced coaches, lack of budget for the projects to deliver appropriate

		and equipment's, lack of proper project management skills, lack of effective monitoring and evaluation of projects, lack of proper competition organized for trainees at each stage, lack of coordination between stakeholders especially Ministry of Education and Sport to develop youth projects, etc.	some sports like football and athletics. In addition, lack of qualified and experienced coaches and lack of regional volleyball sports academy.	lack scientific implementation.	materials and equipment's, lack of appropriate management system leading the projects, lack of coordination between stakeholders to develop and support the projects, etc. needs to be examined by the government leading the program.

Appendix P: Table of Thematic Matrix by Code, Category and Theme

Code	Category	Theme
ST1	• Positive perception • Negative perception	Perception of stakeholders towards quality of youth volleyball
AY1	• Negative attitude • Positive attitude	The attitude towards youth volleyball sport projects
PY1	• Poor practice • Good practice	The practice of youth volleyball
CA1	• Effective practice • Ineffective practice	Coach athlete relationship in youth volleyball
PC1	• Physical factor • Economical factor • Motivational factor • Political factor	Perceived challenges of youth volleyball
C1	• High contribution • Low contribution	Contribution of youth volleyball to elite players development

Appendix Q: Questionnaire designed for measuring the status of youth volleyball development and its contribution for elite players development

Bahir Dar University

Sport Academy

Department of Sport Science

Research Questionnaire to be filled by Youth volleyball Coaches and Trainees

Dear respondents:

This questionnaire is prepared to obtain data for the research entitled "The status of youth volleyball development and its contribution for the development of future elite players in SNNPR, Ethiopia" in partial fulfillment of the requirements for the award of Doctor of Philosophy in Volleyball Coaching at Bahir Dar University. Your participation to the study is valuable; and it involves completing a questionnaire, which should take approximately 15 minutes. As there are, no right or wrong answers respond to the statements as honestly as possible relevant to how you personally feel without any reservation. Please note that any information that you give to each item of the questionnaire are anonymous and kept completely confidential.

Best regards

Abdulaziz Mussema Hassen

Part One: Background information of respondents

Direction: This section contains items pertaining to background information of respondents. Hence, please read the statements carefully, write your correct answer for items, which requires writing on the space provided, and from choice items provided, underline your best alternatives.

1. Age ----------
2. Sex ----------
3. Academic profession----------
4. Qualification A. Certificate B. Diploma C. Degree D. Masters E. PhD
5. Professional experience in Year A. < 5 B. 6-10 C. 11-15 D. 16-20 E. > 20
6. Level of coaching A. Beginner B. Level -I C. Level -II D. Level -III E. Instructor
6. Coaching experience in Year A. < 5 B. 6-10 C. 11-15 D. 16-20 E. > 20

Part Two: The quality of youth volleyball.

Direction: This questionnaire contains items pertaining to assess the quality of youth volleyball. Hence, please read the statements carefully and underline the answer relevant to how you personally feel using the rating scales presented and rated 1 to 5 from strongly disagree to strongly agree (1-strongly disagree, 2-disagree, 3-undecided, 4-agree, and 5-strongly agree).

No.	Question Item	Strongly disagree	Disagree	Un decided	Agree	Strongly agree
1	**Financial support**					
	There is sufficient financial support for sport generally from collective sources nationally through sport governing bodies (Olympic, National federations, etc.).	1	2	3	4	5
	There is sufficient regional level financial support for sport generally.	1	2	3	4	5
	There is sufficient regional level financial support for youth sport development specifically.	1	2	3	4	5
	There is sufficient financial support for elite sport specifically from national and regional level.	1	2	3	4	5

	There is sufficient financial support from national and regional level for coaching education and coaches' development	1	2	3	4	5
	The financial support delivered for youth sport program contributed for elite players development	1	2	3	4	5
2.	**An integrated system to youth sport development**					
	There is a well-structured national and regional system for youth sport development.	1	2	3	4	5
	There is evidence of long-term planning for youth sport and elite players' development.	1	2	3	4	5
	There is an unbroken line communication through all levels of sport agencies in youth sport development.	1	2	3	4	5
	There is a structured cooperation and communication strategy with other regions, commercial partners and the media.	1	2	3	4	5
	There is strong coordination of all stakeholders involved in youth sport development, with clear task descriptions and no overlap of different tasks.	1	2	3	4	5
	Resources are targeted towards few sports through identifying those that have a real chance of success at National/ regional level.	1	2	3	4	5
	A full-time staff member in the National and regional federations are responsible for the youth sport development process.	1	2	3	4	5
	There is a national objective measurement system with explicit criteria to improve the quality-of-service delivery in sports associations and clubs	1	2	3	4	5
	There is effective controlling and monitoring mechanism for the overall process of your sport development.	1	2	3	4	5
	An integrated system generated to youth sport development contributed for elite players development	1	2	3	4	5
3.	**Participation in sport**					

	Children have opportunities to participate in sport at school, during PE or extra-curricular activities.	1	2	3	4	5
	There is sufficiently high weekly average amount of time given for PE in education.	1	2	3	4	5
	There are regular extra-curricular school sport competitions (at least twice a month).	1	2	3	4	5
	There is an organization responsible for coordination of extra-curricular school sport competitions.	1	2	3	4	5
	There is time for students after school so that children get opportunities to play sport during the day.	1	2	3	4	5
	There are high general sport participation percentages of people who participate in sport at least once per week.	1	2	3	4	5
	The status of sport participation contributed for the development of elite players.	1	2	3	4	5
4.	**Quality of Talent identification and development system**					
	There is an effective system for the identification of young talented athletes, so that the maximum number of potential top-level athletes is reached at the right time/age.	1	2	3	4	5
	There is nationally coordinated planning for sport governing bodies to develop an effective system for the development of young talented athletes in their sports.	1	2	3	4	5
	Talented young athletes receive multidimensional support services appropriate to their age and level needed to develop them as young athletes at the highest level.	1	2	3	4	5
	Talented young athletes receive national and regional coordinated support for the combination of sports development and academic study.	1	2	3	4	5
	National and regional sport agency or governing bodies implement an objective system to improve the quality of volleyball talent development in clubs.	1	2	3	4	5

	National and regional governing bodies/other organizations receive specific funding to improve the quality of youth volleyball development in their sport federations/associations/.	1	2	3	4	5
	There is a national policy and strategy to improve talent development programs in sports.	1	2	3	4	5
	There is clear and precise national talent identification and development model/system/ specific to a particular sport.	1	2	3	4	5
	There is a national strategy to evaluate quality in the 'fundamental' stage period before young people train to compete at a higher level in order to help develop sport competences.	1	2	3	4	5
	There is scientifically recognized talent identification and development process.	1	2	3	4	5
	The talent identification and development system generated in the country contributed for the development of elite players	1	2	3	4	5
5.	**Sport facilities for youth sport and elite players**					
	There is nationally coordinated planning for sport facilities for youths and elite players throughout the country.	1	2	3	4	5
	There is a database available of sport for all/ grassroots sport facilities nationally and region wise including their characteristics regarding availability and quality for use.	1	2	3	4	5
	There is a network of high quality national/regional elite sports center facilities, where athletes can train in appropriate conditions at any time.	1	2	3	4	5
	Sufficient and adequate quality of sport facilities delivered to youths and elite players	1	2	3	4	5
	There are sufficient and adequate quality of sport facilities delivered for coaches to train youths and elite players effectively	1	2	3	4	5
	There is a national policy and strategy for quality control, management and use of sport facilities in general, youth sport facilities in particular.	1	2	3	4	5

	Sport facilities delivered to youth sport and elite players contributed for the development of elite players	1	2	3	4	5
6	**Elite players Post career support**					
	There is a national and regional coordinated support system for elite athletes' program.	1	2	3	4	5
	The individual living circumstances of elite players are sufficient so that they can concentrate on their sport full-time.	1	2	3	4	5
	The employers are supportive of elite players' careers.	1	2	3	4	5
	There is a national and regional coordinated support program to support the junior to senior transition.	1	2	3	4	5
	Elite players can receive post career support and are adequately prepared for life after their sports career.	1	2	3	4	5
	Elite players Post career support contributed for future elite players' development.	1	2	3	4	5
7	**Coaching provision and coach development**					
	There is a national policy and strategy for professional development of coaches.	1	2	3	4	5
	There are a sufficient number of well trained and experienced national elite players coaches.	1	2	3	4	5
	There are a sufficient number of well trained and experienced regional youth volleyball sport coaches	1	2	3	4	5
	There is a database for national and regional coaches with full details of coaches' profile	1	2	3	4	5
	Coaches get sufficient opportunities to develop their coaching career to become an excellent elite coach.	1	2	3	4	5
	Coaches have an organized structure to get sufficient opportunities to develop their coaching career to become an excellent youth volleyball coach.	1	2	3	4	5

	There is a national system for coaches' quality control and monitoring mechanism.	1	2	3	4	5
	Coaches' individual income and living circumstances are sufficient for them to become professional coaches.	1	2	3	4	5
	The status and recognition of coaches is valuable throughout the country.	1	2	3	4	5
8	**National and Regional competition**					
	There is nationally coordinated planning to increase the number of national events that are organized in the country in a wide range of sports.	1	2	3	4	5
	There is national coordination and long-term planning of events and funding for youth sports	1	2	3	4	5
	There are number of international events organized in the country over the past five years for junior and senior volleyball players	1	2	3	4	5
	Elite volleyball players can participate sufficiently in national team events.	1	2	3	4	5
	There are efficient and adequate opportunities and funding for national and regional youth volleyball competitions.	1	2	3	4	5
	The national volleyball competition has relatively high standard compared with the international standards.	1	2	3	4	5
	National and Regional competitions organized at national and regional levels contributed for the development of elite players.	1	2	3	4	5
9	**Scientific research and innovation**					
	National research and scientific findings collected, and disseminated to all youth sport programs in the country.	1	2	3	4	5
	Scientific research on youth sport is conducted, coordinated and disseminated among coaches and governing bodies accordingly to the lower level.	1	2	3	4	5

	There is scientific support and collaboration with universities and research centers to develop youth sport.	1	2	3	4	5
	There is responsible organization for funding, developing and coordinating research on youth sports.	1	2	3	4	5
	There are database of scientific research Sport science information and coaching	1	2	3	4	5
	Sport science support is provided at each level of youth sport and elite sport development.	1	2	3	4	5
	National scientific research and innovation contributed to the development of youth volleyball in the country.	1	2	3	4	5

Appendix R: Questionnaire designed for current practice, perceived experience, perceived challenges and coach athlete relationship in youth volleyball

Bahir Dar University

Sport Academy

Department of Sport Science

Questionnaire to be filled by Youth volleyball coaches and trainees

Dear respondents:

This questionnaire is prepared to obtain data for the research entitled "The status of youth volleyball development and its contribution for the development of future elite players in SNNPR, Ethiopia" in partial fulfillment of the requirements for the award of Doctor of Philosophy in Volleyball Coaching at Bahir Dar University. Your participation to the study is valuable; and it involves completing a questionnaire, which should take approximately 15 minutes. As there are, no right or wrong answers respond to the statements as honestly as possible relevant to how you personally feel without any reservation. Please note that any information that you give to each item of the questionnaire are anonymous and kept completely confidential.

Best regards

Abdulaziz Mussema Hassen

Part One: Background information of trainees involved in the study

Direction: This section contains items pertaining to background information of respondents. Hence, please read the statements carefully, write your correct answer for items, which requires writing on the space provided, and from choice items provided, underline your best alternatives.

1. Age ----------
2. Sex ----------
3. Zone----------
4. Woreda----------
5. Project Name----------
6. Training experience in Year ----------
7. Level of education----------

Part Two: Current practice of youth volleyball program

Direction: This questionnaire contains items pertaining to assess the current practice of youth volleyball program. Hence, please read the statements carefully and underline the answer relevant to how you personally feel using the rating scales presented and rated 1 to 5 from strongly disagree to strongly agree (1-strongly disagree, 2-disagree, 3-undecided, 4-agree, and 5-strongly agree).

No.	Questions items	Strongly disagree	Disagree	Un decided	Agree	Strongly agree
1.	**Current practice of youth volleyball program**					
	Coaches involve trainees in planning and other activities in youth volleyball training.	1	2	3	4	5
	Coaches involved in youth volleyball projects are well trained and educative to give training.	1	2	3	4	5
	There is selection parameters used to select trainees in youth volleyball program.					
	Volleyball coaches involved in youth training strictly follow and apply scientific training principles.	1	2	3	4	5
	There is an encouraging environment for volleyball trainees to develop their skill.	1	2	3	4	5
	There is an encouraging environment for volleyball coaches to practice their coaching activities.	1	2	3	4	5
	Coaches give quality training and develop a variety of volleyball drills to develop players' skill.					

	Volleyball coaches have good motivation and encouragement to practice their work.	1	2	3	4	5
	Youth volleyball coaches deliver quality training and education so that players are motivated and satisfied.	1	2	3	4	5
	Coaches' development strategies are applied to develop the skill of coaches through training and education					
	There are quality training facilities and materials available for youth volleyball training.					
	There are appropriate volleyball training courts specially that trainees are free to practice any time they needed.					
	Sufficient and adequate materials are delivered for both coaches and trainees in time.					
	There are competitions organized for youth volleyball trainees at different stages to evaluate their performance.					
	Trainees are encouraged to transfer from one stage to the other stage based on their skill performance.					
	There is regional volleyball training centers for talented youth volleyball trainees for further development of their skills.					
	There are opportunities for trainees to join regional and national youth training centers after the final stage					
	Youth volleyball trainees' dropout is high as compared to other youth sports.					
	Youth sport training coordinators apply regular and scheduled follow-up and give appropriate feedback for youth volleyball coaches.					

Part Three: Perceived experience in youth volleyball

Direction: This questionnaire contains items pertaining to assess Perceived experience in youth volleyball. Hence, please read the statements carefully and underline the answer relevant to how

you personally feel using the rating scales presented and rated 1 to 5 from strongly disagree to strongly agree (1-strongly disagree, 2-disagree, 3-undecided, 4-agree, and 5-strongly agree).

No.	Questions items	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
	I think the community (players, parents, school community. etc.) feels happy towards the application youth volleyball programs.	1	2	3	4	5
	I think the perception of my parents helps me to develop my volleyball skill	1	2	3	4	5
	I believe there is less consideration and emphasis given for volleyball projects.	1	2	3	4	5
	I think youth volleyball program is given less emphasis by national and regional as compared to other youth sports.	1	2	3	4	5
	I think the application of youth volleyball TID systems is not appropriate.	1	2	3	4	5
	I believe coaches emphasize the need for constant work on fundamental and basic volleyball skills.	1	2	3	4	5
	I think current practice of youth volleyball do contribute for elite players development.	1	2	3	4	5
	I believe the training environment is conducive for coaches' and trainees to develop their performance.	1	2	3	4	5
	I think training in youth volleyball is specifically designed to help trainees develop effectively in the long term.	1	2	3	4	5
	I believe the experience and quality of coaches contributed for youth volleyball development.	1	2	3	4	5
	I believe youth volleyball program contribute for the development of elite players development.	1	2	3	4	5

Part Four: Perceived challenges of youth volleyball

Direction: This questionnaire contains items pertaining to assess major challenges of youth volleyball program. Hence, please read the statements carefully and underline the answer relevant to how you personally feel using the rating scales presented and rated 1 to 5 from strongly disagree to strongly agree (1-strongly disagree, 2-disagree, 3-undecided, 4-agree, and 5-strongly agree).

No.	Questions items	Strongly disagree	Disagree	Un decided	Agree	Strongly agree
	Lacks of clear and precise strategy /guideline/ to implement youth sport program					
	Lacks of appropriate and qualified youth volleyball coaches involved in the program.					
	Lacks of appropriate follow-up and control by youth sport projects coordinators across the structure.					
	Lacks of sufficient and adequate training and coaching materials used for trainees and coaches in youth volleyball					
	Lacks of appropriate training courts for volleyball training and practice					
	Lacks of competitions organized at each stage of youth projects U-13, U-15, U-17					
	Lacks of appropriate talent identification and development system to follow					
	Lacks of financial support for coaches and trainees involved in youth volleyball					
	Lacks of effective collaboration system used between stakeholders towards youth sport					
	Lacks of scientific research findings and innovation to be used in for youth volleyball					

Part five: Coach-athlete relationship in Youth volleyball projects

Direction: This questionnaire contains questions items pertaining to coach-athlete relationship. Please read carefully the statements below and underline the answer that indicates whether you agree or disagree in regards to your relationship.

No.	Questions items	Strongly disagree	Disagree	Un decided	Agree	Strongly agree
1	**Commitment**					
1.1	I feel close to my athlete/Coach/					
1.2	I feel I am committed to my athlete/Coach/					
1.3	I feel my coaching/Training/ career with my athlete is promising					
2	**Closeness**					
2.1	I like my athlete/Coach/					
2.2	I trust my athlete/Coach/					
2.3	I respect my athlete's efforts/Coach/					
2.4	I appreciate the sacrifice my athlete/Coach/ has experienced in order to increase his performance					
3	**Complimentary**					
3.1	I feel at ease when I coach my athlete's/Coach/					
3.2	I feel responsive when I coach my athlete's/Coach/					
3.3	I am ready to do my best when I coach my athlete's/Coach/					
3.4	I adopt a friendly stance when I coach my athlete's/Coach/					

Appendix S: Results of Confirmatory Factor Analysis

Questionnaire domain	No of items	Reliability	Remark
Current practice	19	0.865	Adapted
Player's experience	11	0.872	>>
Perceived challenge	10	0.845	>>
Coach-athlete relationship	11	0.80 (Jowett & Ntoumanis, 2004)	Adopted
Perceived quality of talent identification and development system	11	0.793	Adapted
Participation in youth volleyball,	7	0.818	>>
Integrated system for youth volleyball	10	0.871	>>
National and regional volleyball competitions	7	0.825	>>

Appendix T: Interview questions for key informants

My name is Abdulaziz Mussema and I am conducting research for my PhD degree in Volleyball Sports Coaching at Bahirdar University Ethiopia. This study aimed to investigate the quality of youth volleyball. Specifically, it is to gain a greater understanding of the current practice, perceived experience, perceived challenges, and coach athlete relationship in youth volleyball.

To gain this information, experts working as project coordinator in the youth and sports offices will be interviewed. The interview will be recorded using mobile phone and then transcribed. Participants will be encouraged to talk freely about their experiences within sport and specifically in volleyball. The interviews should last between 20 and 30 minutes.

Anyone who takes part in the study will have their identities kept completely confidential. At no stage, will the participant's identities have made public. Participants are free to withdraw from the study at any time.

1. What are your opinions on the status of youth volleyball development in Ethiopia in general and SNNPR in particular?
2. What are your opinions on the practice of youth volleyball projects in SNNPR in general?
3. How could you describe the perceptions of stakeholders such as administrators, coaches, athletes, parents and the community in general towards youth sports project?
4. What are the major challenges on the actual practice of youth volleyball projects; and how it could give solutions for the future?
5. What are your opinions of the coach athlete relationship existed in youth volleyball projects?
6. What are your opinions on the contributions of youth volleyball projects for the development of future volleyball elites?

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