A COMPARATIVE STUDY OF MULTIDIMENSIONAL TALENT IN FIELD HOCKEY AT DEVELOPMENT STAGE BETWEEN THE PLAYERS OF GERMANY AND PAKISTAN

The Faculty of Sports Science
University of Leipzig

Submitted

Dissertation

To obtain the Academic Grades

Doctor of Philosophy
(Dr. Phil.)

Presented by

Ejaz Asghar (Lecturer)
GC University, Lahore, Pakistan
Date of Birth: 2nd April, 1970

Leipzig: 2nd April, 2011

Abstract

The main purpose of this comparative study between German and Pakistani Field Hockey players at the talent development stage (12-18 years) was to reveal multidimensional performance characteristics, which may have power for predicting future talented elite Field Hockey players. In total 271 (German 127 & 144 Pakistani) participants took part in this comparative study to find out difference in psychological, physical and social profiles and their possible influences on the performance of the players on two occasions, each separated by a time interval of one year. The mean age for German players was 14.3 years and Pakistani players 16.3 years. Data were collected from players of various institutions and clubs of both countries. Later on, researcher included Bangladesh, India and Sri Lanka in the study to increase the number of participants considering that South Asian culture is similar and Field Hockey is a popular game in the region. This addition will give strength to the study to find out the real differences in the performance of South Asian and European countries. In total, (227) 41 Indian, 40 Bengali and 44 Sri Lankan, 52 Pakistani and 50 German athletes took part in the study. The mean age for Indian was 14.5 years, Sri Lankan 15.3 years, Bangladeshi 15.7 years, Pakistani 16.9 years and German athletes were 15.5 years old. The Deutsch and English language standard sport questionnaires were used to measure the variables and data were analysed with the help of SPSS - 17 version.

The following variables were put to test to find out the possible difference between the young players:

Goal orientation in sports, General sport ability & appearance, Perceived physical self-concept, Competition related anxiety, Coping strategies, Sport commitment, Parental support, Coaches behaviour, Motivational climate and Self-efficacy in sports.

The study shows that there were significant differences in psychological, physical and social profiles in the players of both countries. German players reported higher scores in motivation, perceived physical self-concept, self-confidence and commitment to the sport and found better to overcome anxiety and situation related problems. They were more social, and had full support from families, peers and coaches who can increase motivational climate to improve performance level, but contrary to expectations, Pakistani players reported a higher incidence of coping

strategies. Reasons for the results are discussed with regard to differences in competitive goals and differences in environmental factors between both groups.

Acknowledgements

In any major undertaking such as writing a PhD Thesis, there are always many people who offer support, encouragement and advice. This is an attempt to pay tribute to some of the many people who helped me to achieve this goal. I want to thank all of them. Allah May bless them with happiness and lifelong success.

First of all, I would like to thank and express my sincere appreciation to my primary advisor, Prof. Dr. Dorothee Alfermann, Head of the Department of Sport Psychology and Pedagogy, University of Leipzig, Germany for her great support and kind assistance throughout my study here. Her willingness to assist me and her outstanding academic mentorship made it possible for me to complete this comparative dissertation on talent development.

My research required the support of many clubs/Institutions in South Asia and Germany. I am grateful to all of the people at these clubs/institutions who provided access to data collections under their supervision. In particular Mr. Muhammad Shoaib Ahmed GC University, Lahore, Pakistan, Mr Vikas Kharadkar District Sports Officer Bhopal, India, Mr Khurshid Alam ,BKSP Bangladesh, Mr R H Sujith Prasanna, Sri Lanka and Mr Seven Strübin from University of Leipzig, Germany.

I am appreciative of my department colleagues, Ms Katja Linde and Dr Ines Pfeffer for their help and making my time at University of Leipzig a more enjoyable experience. I sincerely thank Ms Petra Raabe Secretary, Department of Sport Psychology and Pedagogy, University of Leipzig for her help during the study span.

I would like to express my deepest gratitude to my family: my mother, brothers, sisters, children and my sweet wife Chanda for her unwavering love and encouragement. Thank you for believing in me.

Finally, I would like to thank my friends Mr Tariq Ali Gujar Manager Sports NED University of Engineering & Technology, Karachi, and Mr Sajjad Haider Naqvi Career Advisor (CA) Beacon house School System Kharian, Pakistan for proof reading and technical support in making my thesis beautiful and presentable.

Dedication

In the name of Allah, the most Beneficent, the most Merciful.

I dedicate this thesis to my late father Muhammad Asghar Mughal who passed away on 7th November, 2009 during my PhD study. His untimely demise has caused a great void for family which is difficult to fill .May Allah rest his soul in peace. Amen!

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

Contents

Introduction

Field Hockey is a competitive sport in which players compete against their opponents at the same field of action. To achieve high performance in Field Hockey, players must excel in all domains, physically, mentally, technically, and tactically. Hockey is a high intensity non-continuous sport, change of pace during the running, dribbling of the ball, and moving quickly in a semi-crouched position need conditional and highly coordinative abilities. Field Hockey is a highly structured analytical sport in which players constantly have to deal with a complex and rapidly changing environment (F. Helsen, Hodges, Winckel, & Starkes, 2001) In order to be successful, they have to perform the right action at the right moment. Therefore, they have to acquire great tactical skills. Tactical expertise is a pre-requisite for performance in virtually all achievement domains (kannekens, Elferink-Gemser, & Visscher, 2009).

To perform at top level, players have to perform under pressure. It is therefore not surprising that psychological characteristics such as motivation, self-confidence, anxiety, mental preparation, team emphasis, and concentration often distinguish elite from non-elite performers (Mahoney, Gabriel, & Parkins, 1987). Excellent psychological skills can not only play a decisive role in an important match; they are also needed to develop a successful sport career. Commitment from the players is required since involvement in sports, training is not inherently motivating (Williams & Reilly, 2001).

The importance of sports in the life of nations cannot be over-emphasized. The importance given to sports by the advanced countries like Germany is no less than education. Sports at country are considered an integral part of Physical and Mental Training. These activities have a sound effect on the body and mind of the residents, who have ultimately enhanced their performance abilities and efficiency in day to day life. German leadership has provided full encouragement and a pertinent environment to the sports programme right from the beginning to develop worthwhile and enjoyable skills for purposeful free time activities, when we look in to the German society; it is strongly an individualistic society. In the field of sports, whether they are amateur or professionals, they are committed to gain excellence in life. Young talent can be highly motivated by following the path of their National Heroes in Field Hockey.

Due to the strong set-up of sports infrastructure and culture they are very advance in competitive sports like Field Hockey. It is worth mentioning that around 370 Field Hockey clubs are actively participating to provide the talent to the federation. League system is very organized and thousands of athletes are participating at national level. The people know the importance of sports in their lives as well as for the Nation.

German Teams Performance

The following table shows the tremendous performance of German Field Hockey teams at international level:-

Table 1

German Field Hockey Teams (Men, Women, Junior & Girls) performance at important competitions

• Olympics Champion	Men	1972 & 1992
• Olympics Champion	Women	2004 & 2008
• World Cups Champion	Men	2002 & 2006
• World Cups Champion	Women	1976 &1981
• World Cups Champion	Junior	1982, 1985, 1989 & 2009
• World Cups Champion	Girls	1989 &1993
• Champion's Trophy Champion	Men	1986,1987 ,1988,1991, 1992, 1995,1997, 2001,2007 & 2009
• Champion's Trophy Champion	Women	2006 & 2008

Pakistani Team Performance

Field Hockey is the National sport of Pakistan and the team was very much successful till the early 80, s. The following astounding record shows:

• Pakistan as Champion at World Cups	1971, 1978, 1982, 1994.
• Pakistan as Olympics Gold Medallist	1960, 1968 and 1984.
• Pakistan as Champions Trophy Champion	1978, 1980, 1994.
• Pakistan as Asian Games Champion	1958, 1962, 1970, 1974, 1982, 1990 & 2010

There seem to be several reasons why Pakistani team is not performing at sparkling level as compare to the past performance. Pakistani team lack psychological skills and behavioural qualities. Mental preparation and rehearsals are not frequently, coping with adversity, motivational climate, somatic and cognitive anxiety, self-confidence, and social factors like parental support and coaches' guidance. Perhaps there is no systematic talent development program available for Hockey in the country. Maybe sport culture is not developed for a particular game and religious beliefs also play vital role in the performance of the players. Sport system is not organized although government is struggling to provide full encouragement to the healthy activities in making the society crime free, developing infrastructure and environment. Sport bodies are making efforts within their limited resources to provide the pertinent environment to make them realize the importance of sports.

For many reasons this study has tried to identify the differences in Psychological profiles between the German and Pakistani Field Hockey players at development stage. Later on, researcher extended the area of study and included India, Sri Lanka and Bangladesh. The aim of this extension was to achieve a deeper insight into the multidimensional performance abilities important for high performance in Field Hockey. South Asian countries have similar environment and sport culture in the region and it is a popular game. Field Hockey is a national sport of India and Pakistan. Talking about India, the first Field Hockey club came up at Calcutta in 1885-86. Making its Olympic debut at the 1928 Amsterdam Games, Indian Field Hockey team cruised home to its first Olympic gold, without conceding a single goal. From 1928 to 1956, the Indian Field Hockey Team won six straight Olympic gold medals, while winning 24 consecutive matches. During this time, India scored 178 goals conceding only 7 in the process. Over all Indian team have won 8 Olympic, 1 World Cup, 2 Asian Games and 2 Asia cup gold medals for the country.

As far as Bangladesh was a part of Pakistan before 1971, same environment and facilities are available there. Both Sri Lanka and Bangladesh are good at Field Hockey but do not hold any major title (Olympics, world cups, Asian Championships) at International level.

Statement of the problem

The intention of this comparative study between Pakistan and Germany in the area of Field Hockey is to examine the different aspects of multidimensional talent at development stage (12 to 18 years). Talent is influenced by a wide variety of factors and no single factor can develop essentially talent to its potential i.e. psychological, social and cultural factors…. Where characteristics are similar as well as different from each other? Is there any real difference of performance in Field Hockey at development stage between Germany and Pakistan in relation to Socio-Psychological, Physical and Cultural differences; is the quest for this research? The study will help to find out whether there is significant difference of performance between German and Pakistani players at development stage in relation to their Multidimensional Talent.

Objectives of the Study

- To find out the possible differences in Psychological profiles (Motivation, self-efficacy, cognitive & somatic anxiety, self-confidence, and concentration) between Germany and Pakistan at the stage of development.
- To find out the existing differences in coping strategies of the players of both countries in Field Hockey.
- To identify the existing differences among the players in relation to their perceived Physical qualities (strength, endurance, speed, flexibility, co-ordination, sport competence, general sport ability & appearance) and Performance.
- To identify the existing differences in Parental support between German and Pakistani athletes at young age.
- To find out the possible difference in Coaches' behaviour and guidance for the players.
- To find out the possible difference in motivational climate created by the coaches of both countries.

Significance of the study

There is nobody who has studied this area systematically up till now in Pakistan. This research will try to dig the issue and provide some solid evidences and suggestions to contribute to Pakistan and German sports development in Field Hockey. The chosen area of study might help to find out whether there are any significant differences between the Pakistani and German Field Hockey players at the stage of development (12 to 18 years), which will also contribute to the enrichment of the Psychological research study theoretically in this area in Pakistan. This study could also function practically as a criterion for the guidance of the development of Pakistani young athletes in this developmental stage.

1. The Multidimensional Talent in Sports

1.1 What is Talent?

The ability of top-level coaches to be able to identify “true” talent is a highly sought-after quality that ensures that clubs or national teams does not lose time, money, and prestige by investing in the “wrong” players. However, the multidimensional activities enable athletes with widely different skills and abilities to excel in the sport (Hohmann & Seidel, 2003).

In other words, Field Hockey is a sport where the “good” and “bad” qualities are identified not through a single dimension but through multidimensional performance characteristics.

Since the beginning of the 1990s the amount of research into talent identification in soccer has increased considerably in both the natural and the social sciences (Williams & Reilly, 2001).This research was characterized on the one hand by the wish to identify talented players at an early stage in order to develop them over a longer period, and on the other by the discovery that precise criteria for talent identification are remarkably difficult to isolate (Morris, 2001). Recently, researchers have devoted their attention to contextual factors such as the early experiences of the athletes, the value framework of the coaches, environmental and economic opportunities, habits, and training traditions, all of which affect the identification and development of talent in sport (Howe, Davidson, & Sloboda, 1998); (Simonton, 1999) (Tranckle & Cushion, 2006).

There have been many attempts over the past century to define, “Talent” in sport from different perspectives. Howe, et al., (1998) perspective is that performers become highly successful as a result of environmental factors such as intense training rather than innate abilities. They believe that people often label performers as being talented because it helps them explain their success, and that such early assessments or “talent accounts” can be either very influential or prejudicial to the ultimate performance out comes of these individuals.

Howe and colleagues (1998) clearly adopted a view opposed to the “talent account” which refers to the notion that the attainment of exceptional performance depends on a special genetic potential that can be identified in certain children. They assigned the five following properties to talent:

1. It originates in genetically transmitted structures and hence is at least partly innate.
2. Its full effects may not be evident at an early age, but there will be some advance indications, allowing trained people to identify the presence of talent before exceptional levels of mature performance have been demonstrated.
3. These early indications of talent provide a basis for predicting who is likely to excel.
4. Only a minority are talented, for if all children were, there would be no way to predict or explain differential success.
5. Talents are relatively domain specific.

1.2. **Definition of Talent**

In ancient time a Talent represented a fortune that measured the equivalent of approximately 14 kilograms of pieces of silver. Today talent represents our most valuable human asset. It cannot simply be purchased; it is a basis of fantastic careers, of power and fame, but also in many cases of pain, sadness and misery." M. Maes (2004)

Talent is characterized by properties that are genetically transmitted and partly socialized". (Howe et al, 1998)

The encyclopedia of applied psychology defines talent as specific abilities in applied areas like mathematics, music, sport, or arts (Feldhusen, 2004).

Sports people use three related but different perspectives–biological, psychological, and social –in understanding athletic talent.

1.2.1 Biological Perspectives

Talent is referred to an athlete's innate potential or giftedness (e.g., anthropometric data, structure of muscles, and sensitivity of sensory systems), which is supposed to facilitate the processes of learning and mastering particular sport event(s).

1.2.2 Psychological Perspective

Talent is the athlete's acquired abilities, competencies, and skills that facilitate athletic performance and help achieve athletic excellence in the chosen sport(s).

1.2.3 Social Perspective

The term "talent" is often used in sport to refer to a young prospect. This can be viewed as the social perspective in understanding athletic talent, because it implies social evaluation and comparison between athletes.

1.3 Multidimensional Talent

Multidimensional Talent in sports is a wider term used for an athlete who possesses the talent with regard to his/her Physical, Physiological, Psychological and Sociological characteristics / Dimensions those are necessary for the development of the athletes.

1.4 Predictors of Sport Talent

1.4.1 Physical Predictors

The physical characteristics which predict the talent e.g. anthropometric data, structure of muscles, and sensitivity of sensory systems, which are supposed to facilitate the process of learning and mastering particular sport events.

1.4.2 Physiological Predictors

These characteristics are aerobic, anaerobic power, heart volume etc.

1.4.3 Psychological Predictors

These are the psychological performance and behavioural qualities like, motivation, self-efficacy, anxiety, decision making skills and anticipation etc.

1.4.4 Socio - Environmental Predictors

Athlete's background, parental support, coach-athlete interaction, learning abilities also helps to find out talent.

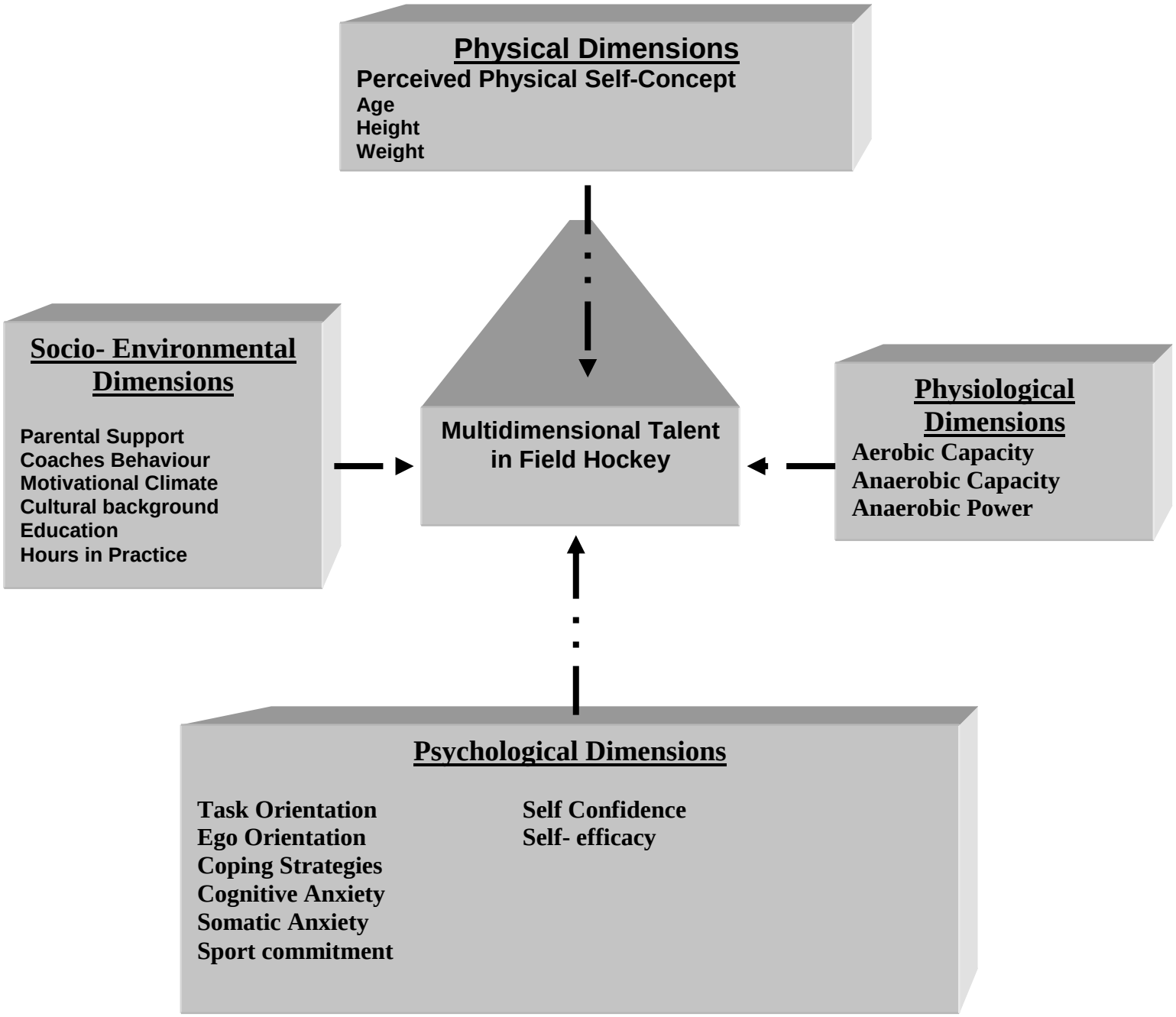


Figure 1 **Potential predictors of Talent in Field Hockey adapted from (Reilly, Williams, Nevill, & Franks, 2001).**

Stages to Find Sport Talent

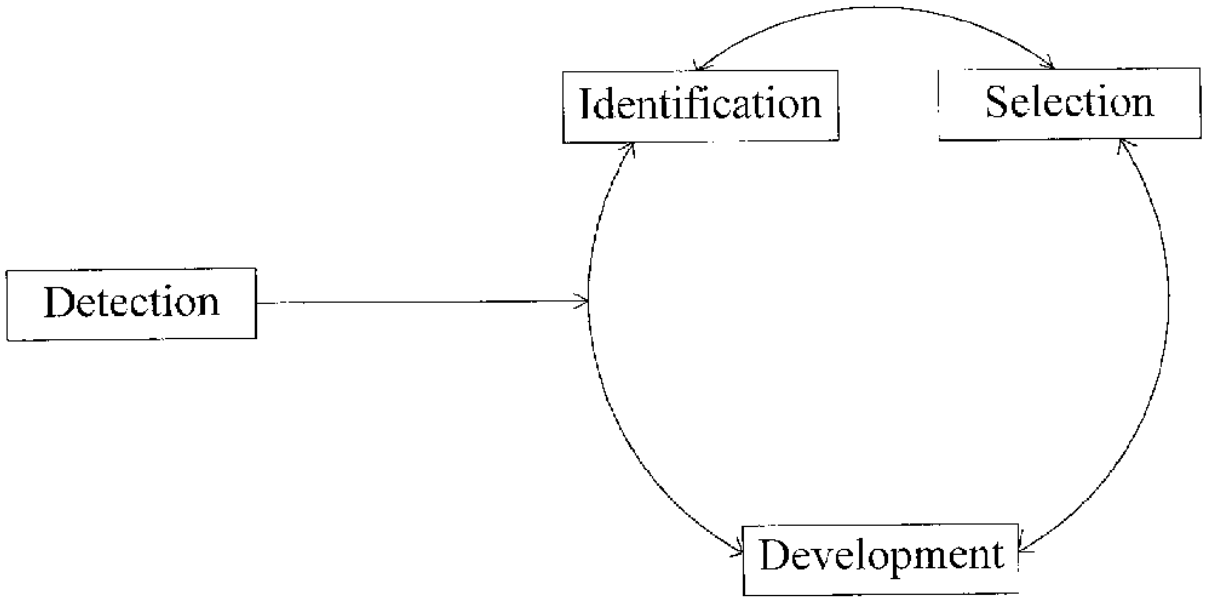


Figure 2 Key stages in the talent identification and development process adapted from (Williams & Franks, 1998)

1.5 According to Russell (1989), and Borms (1996), there are four stages to find the talent:-

1.5.1 Talent Detection

Talent detection refers to the discovery of potential performers who are currently not involved in sports. Because of the unpopularity of the Field Hockey and minimum number of participants it's very difficult to detect good talent instead of Soccer and Cricket.

1.5.2 Talent Identification

Talent identification refers to the process of recognizing current participants with the potential to become elite athlete. It entails predicting performance over various period of time by measuring, physical psychological, physiological and sociological attributes as well as technical abilities (Régnier, Salmela, & Russell, 1993).

1.5.3 Talent Selection

Talent selection involves the on-going process of identifying players at various stages that demonstrate prerequisite levels of performance inclusion in a given squad or team. Selection involves choosing the most suitable athletes to carry out the task

(Borms, 1996). It's very important in competitive games, like Soccer & Field Hockey that only 11 players can play at any one time.

1.5.4 Talent Development

Talent development implies that players are provided with a suitable learning environment so that they have the opportunity to realize their potential.

1.6 Talent development process in Field Hockey

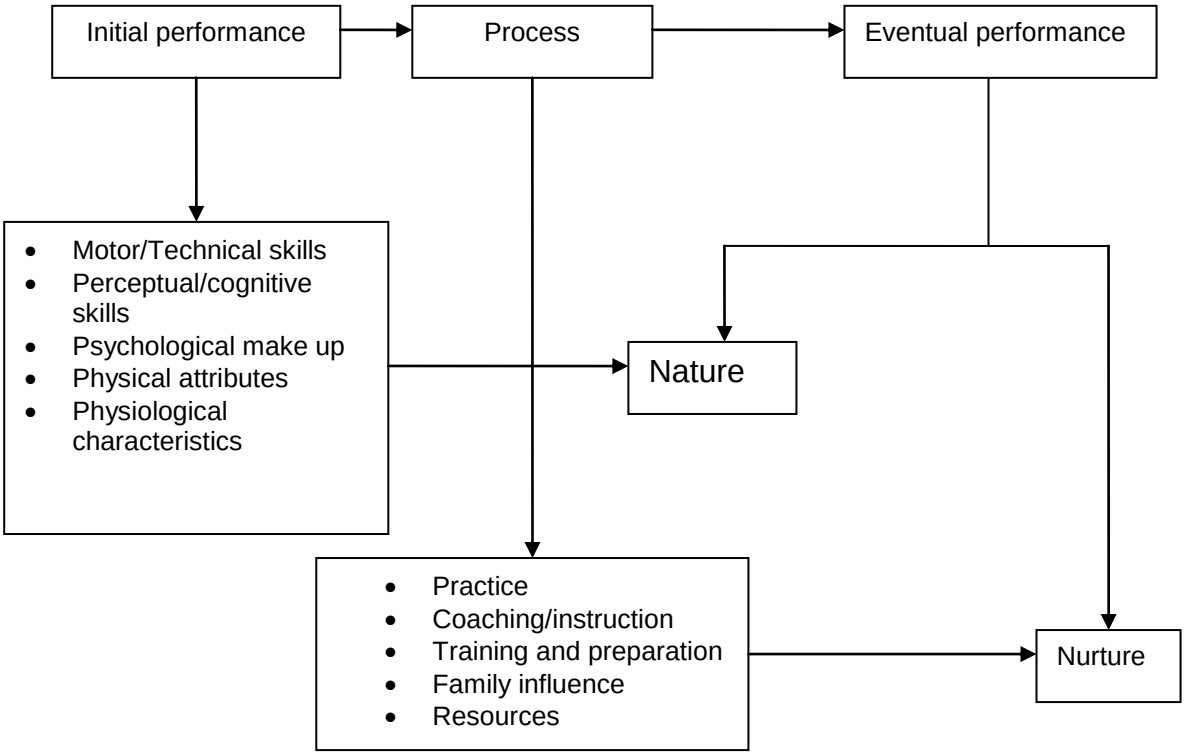


Figure 3 The role of nature and nurture in the development of Field Hockey players (Adapted from Bloom, (1976)

1.6.1 Research on talent development.

For many years scientists have tried to identify key predictor of talent in various sports (for review, see Regnier et al., and 1993). In this type of research, particularly evident in Australia and the former Eastern bloc countries, there are attempts to identify characteristics that differentiate skilled from less skilled performers and to determine the role of heredity and environment in the development of expertise.

There is research evidence to suggest that players anthropometric characteristics (e.g. Stature, mass, body composition, bone diameter, limb girth) are related to performance in important and sometimes complex ways (Borms, 1996). Physiological measures have also been used in an attempt to identify key predictors of performance (See Jankovic et al., 1997; Panfil et al., 1997; Janssen's et al., 1998; Reilly, Bansbo and Franks)

1.6.2 Psychological Profiling

Intuitively, it is thought that successful players are distinguished from less successful ones on the basis of psychological factors. The assumption is that a talented player possesses personality characteristics that facilitate learning, training and competition.

Personality traits are believed to be relatively stable over time and reflect a player's predisposition towards certain types of behaviour (e.g. aggression, extroversion, sensation-seeking, neuroticism). Although Personality traits are to a certain degree inherited, with heritability estimates between 30 and 60% (Plomin, Owen, & McGuffin, 1994; Saudino, 1997), research suggest that psychological skills are highly amenable to specialized training. Sport psychologists have made noteworthy progress in this regard and there is an extensive array of resources and suitably qualified sports psychologists to help facilitate this process (Hardy, Jones, & Gould, 1996), Morris, 1997; Williams, 1998). Motivation, anxiety management, concentration, self-confidence and attentional style, among others, are psychological skills that can be refined through appropriate training.

Cognitive factors and game intelligence are helpful to predict the talent and promising approach to talent identification involves the measurement of perceptual-cognitive skills such as anticipation and decision making. Consistent differences emerge when skilled and less skilled performers are tested on their anticipation and decision making skills (Williams and David's, 1995)

1.6.3 Family Influences

Sociological research places greater emphasis on the importance of environmental factors in "nurturing" talent. An important factor of success in sport, and particularly in Field Hockey is socialization into the particular culture. Therefore, the identification and development of Field Hockey talent in any country may require

a cultural analysis to complement behavioural and biological approaches. Parents typically introduce children to organize sports whereas friends, leaders and coaches have an important role to play by stimulating the child to further involvement. Parental support and positive attitude to the child's involvement in sport are extremely important during the entire period of growth (Cote, 1999). Social class has significant effect upon participation (Power & Woolger, 1994).

1.6.4 Facilities and Coaches

Facilities and coaches also play vital role in the development of talent. Coaches' behaviour and their involvement with a child are more important in the development of talent than initial ability (Carlson, 1993). The child's maturational readiness (biological, social psychological) for intense involvement in sport is also essential to experience satisfaction, fulfilment and enjoyment (Singer & Janelle, 1999). Good coaches know when to push players and when to reduce the intensity of training and their expectations.

1.7 Stages of Talent Development

Bloom's (1985) notion that the careers of exceptionally talented players in disparate performance and knowledge fields follow remarkably similar processes, provides a powerful conceptual tool for the analysis of talent development and its transitions.

This process revealed that there were three distinct career phases for the Initiation, development and Mastery of the talent performers. The stages provide excellent guidelines for performers who are going through this process, as well as teachers and parents, who play an important role throughout the career of these performers.

Table 2

Potential Characteristics of Talented Field Hockey Players, Coaches and Parents at various stages of their careers (adapted from Bloom 1985).

Individual	Career Phases		
	Initiation	**Development**	**Mastery**
Performer	Joyful, playful, Playful, Excited, "special"	hooked committed	obsessed, responsible
Coach/Mentor	Kind, cheerful, Caring, process Centred	demanding, respected, Skilled	Successful, feared, bonded emotionally
Parents	Shared positive Excitement Supportive, Sought, mentors Positive	made sacrifices, restricted activity	

Above mentioned Table-2 shows the fact that Bloom was able to make broad generalizations about talented youth, whether they are athletes, artists or scientists, is particularly significant. It explains the overall patterns of the three career phases and salient features of the performers, the mentors and parents.

1.7.1 Early Years and Stage of Initiation

Bloom (1985) discovered that the participants in his study went through an initiation stage, in which they were involved in fun, playful activities. As children, they were excited about their participation at this stage and relied heavily on their teachers or coaches for guidance and support. It was predominantly during this early stage that parents and teachers noticed certain children appearing to the gifted, talented, or "special" in same way. These attributions of the methods used for teaching.

Teachers or coaches generally adopted a process-oriented approach in their teaching, and thus encouraged and rewarded the young children for the process of

effort rather than the outcome of achievement. Although teachers and coaches were not necessarily technically advance at this stage, they provided the love and positive reinforcement the children needed to keep learning and performing activities. Bloom (1985) found that parents also played a very important role in the development of the children's talents. As a result of their interest in the particular field, the parents were often responsible for initially stimulating their children's interest in the same field or activity. In sharing their excitement, as well as being positive and supportive of their children, parents were an excellent source of energy and motivation.

1.7.2 Middle Years and stage of Development

Eventually, the participants moved on to a stage of development where they became, as Bloom (1985) termed it, "hooked" on their particular activity. For example, they were "Gymnasts" rather than "children who did gymnastics." Their pursuits evolved to a more serious nature and consequently, higher levels of dedication to succeed were witnessed. Teachers or coaches were usually more technically skilled than those at the previous level. They emphasized the development of proper technique, provided children with opportunities to evaluate their performance and expected results through discipline and a hard work ethic. Bloom found that teachers and coaches took a strong personal interest in the participants at this stage, and the loving relationship the children had with them during the initial stage was subsequently replace by one of respect.

Practice time was significantly increased at this stage. The participants became more achievement-oriented and competition became the yardstick for measuring progress. Sacrifices had to be made on the part of not only the performers but also the parents. As a result of the crucial demands at this level, parents had to provide both moral and financial support to sustain their children's involvement in their chosen activity. They also helped in restricting outside activities such as work and outings with friends, while still showing concern for the total development of their children.

1.7.3 Late years and Stage of Perfection

According to Bloom (1985), it was in the final stage, the one of perfection, that these individuals became experts. The participants were radically obsessed by their chosen activity, which dominated their lives at this point. The emphasis was now

placed on the development of very high level skills, and the participants were willing to invest the necessary time and effort required to achieve their ultimate performance goals. Furthermore, there was a shift in the responsibility for the training and competition from the teachers or coaches to the performers. The performers had to be autonomous and extremely knowledgeable. Bloom revealed that because the mentors or master teachers at this level placed enormous demands on the performers, they sometimes became feared, but always were respected. The parents played a lesser role at this stage because the participants were completely immersed in their actions and assumed total responsibility for them.

1.7.4 Retirement Phase

As compare to other walks of life the transition period comes earlier for the athletes and they gradually switched over to their normal lives.

1.8 Different levels of Talent development

The developmental model, integrating an athletic career with three non-athletic developments (Wylleman & Lavallee, 2004), presents the three stages of an athletic career described by Bloom (1985) with a discontinuation stage added by the authors. It also combines athletic career stages with three other levels in athlete's development: Psychological, Psychosocial, and academic-Vocational. The model directs researchers to consider athletic career demands together with:

a) Developmental tasks related to childhood, adolescence, or adulthood.
b) Changes in significant others, including coaches, parents, siblings, peers, and partners (Wylleman, De knop, Ewing, & Cumming, 2000).
c) Athletics 'progress through the steps in a corresponding educational system or in a vocational career.

Transitions in different spheres of life might overlap, and thus might create difficult life situations for athletes. It is really important to be able to predict such overlaps. Chronological age markers for the athletics and non-athletic transitions suggested by the model, "are averaged over many athletes and several sports"(Wylleman & Lavallee, 2004) and need to be specified in research for different sports, genders and cultures.

Table 3

Career Transition Model

AGE	10	15	20	25	30	35
Athletic Level	Initiation	Development		Mastery	Discontinuation	
Psycho-Logical Level	Childhood	Adolescence		Adulthood		
Psycho-Social Level	Parents Siblings Peers	Peer Coach Parents		Partner Coach	Family (Coach)	
Academic Vocational Level	Primary Education	Secondary Education	Higher Education		Vocational training Professional occupation	

The development career transition model (Wylleman and Lavallee, 2003)

2. The Development of Talent in Sport

Howe, et al., (1998) discussed that talent has many properties. First, talent is characterized by properties that are genetically transmitted and partly innate. Secondly, it may not be evident at an early age, but there will be few advance indications, helping experts to identify its presence before the elite level performance. Thirdly, early indicators provide the basis for prediction of athletes who are likely to excel in the field. Fourthly, only few are talented, if all individuals will be talented then there would be no way to discriminate success. Fifthly, Talent is relatively domain specific.

The main objective of talent identification is to recognize current players with the potential to excel in the specific field. Sports are a glamour and financial pressure and competition has influenced sports people to try their best to predict future potential performers at early stages. Although it's difficult to impose time duration due to the differences in age of elite level performance and stages of development, i.e. for a Gymnast peak performance age comes early than Field Hockey player. The prediction of success is easier in more "closed" (e.g. athletics, rowing) rather than "open" sports (Field Hockey) because in closed sports movements are less affected by the external factors.

According to Bloom (1985) development occurs in the performers at different learning stages. Each stage has its influence on talent development. Along with physiological and environmental factors, parents also play an important role in the lives of their children development in sports. During the 2nd stage athletes switch over to sport specialization and intensive training instead of recreational activities. Talent development is the result of deliberate practice - a process that is not only under the constraints of motivation, effort, and resources, but that is also affected by the family environment (Durand-Bush & Salmela, 2002).

The early assessment of talent may be confounded by social and environmental factors as well as the biological advantage of early maturation. Biological maturation has great impact on talent evaluation. It should be considered in the evaluation of performance capacity more than chronological age. Physical and physiological components used to determine sport performance change with the growth of children.

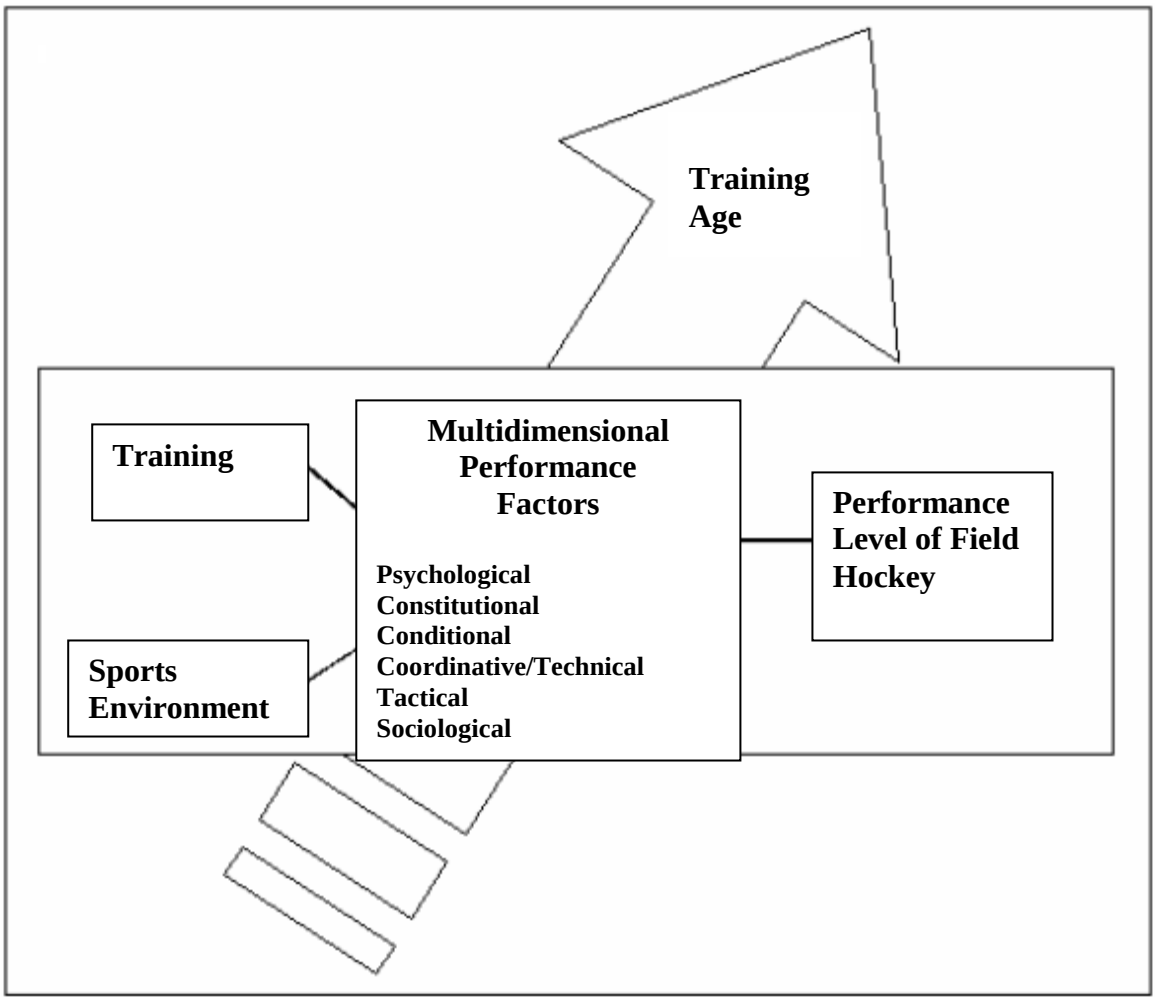


Figure 4: Multidimensional performance characteristics and level of performance in Field Hockey. Adapted from (Elferink - gemser, Visscher, Lemmink, & Mulder, 2001)

2.1 Talent Development in Different Perspectives

Sports people use three related but different perspectives – biological, psychological, and social–in understanding athletic talent.

2.1.1 Biological Perspective

According to the biological perspective, talent is referred to an athlete's innate potential or giftedness (e.g., anthropometric data, structure of muscles, and sensitivity of sensory systems), which is supposed to facilitate the process of learning and mastering particular sport event(s).

Field Hockey is high intensity non-continuous game in which physiological demands are considerable, placing it in the category of "heavy exercise' (e.g., Reily &

Borrie (1992).Technical experts use constitutional qualities to identify the talent for Field Hockey according to its demands. It has unique requirements like dribbling the ball in a semi-crouched position. Detection and selection is based on the giftedness of the players and then they separate them into different groups to provide them the best possible environment for training and competition. In this way expert ensure to choose the best talent for elite sports performance.

2.1.2 Psychological Perspective

The psychological perspective views talent as the athlete's acquired abilities, competencies, and skills that facilitate athletic performance and help to achieve athletic excellence in the chosen sport(s).

Field Hockey is a highly structured analytical game in which players constantly have to deal with a complex and rapidly changing environment (Starkes & Allard, 1993). In order to be successful, they have to perform the right action at the right moment. All players must have excellent psychological skills. Coaches with this perspective tend to develop conditions for successful development of all athletes who come to a particular sport and demonstrate a high motivation to succeed. Each athlete has unique innate potential. However, this potential is less important for athletic excellence than the athlete's motivation to participate in a particular sport and to continuously work and learn. If a sport system provides good conditions for the development of all young athletes, the best of them naturally build up reserves for elite sports.

2.1.3 Sociological Perspective

Finally, it should be acknowledged that the word talent is often used in sports to refer to a young prospect. This can be viewed as social perspective in understanding athletic talent, because it implies social evaluation and comparison between athletes.

Competitive sports like Field Hockey is a game in which 11 players can play at any one time from both sides. Performance is related to team effort and better combination of the team. All athletes must have strong cohesion between them. Coaches, parents, and managers use, comparative, personal and intuitive criteria to identify the talent performers. At the stage of development children start comparing with their peers and establish social and professional identities with the help of society of peers.

2.2 Biological Influence on Human Development

During childhood and adolescence there are measurable changes in body shape and structure. These changes relate to an integrated natural development of genes, hormones, nutrients and environmental factors that bring anatomical, neurological, muscular and metabolic/hormonal adaptations. Consequently, it has a direct impact upon the development of specific fitness components. A significant amount of evidence shows that the biological maturation is non-linear and dynamic, meaning an active variance in the development of fitness components between individuals.

Table 4 Talent development phase's model on Human Ontogenesis

Term (Years of Life)	Age	Phases
New born baby	0.1 - 0.3	Uncoordinated mass motion
Infant	0.4 – 1.0	First coordinative movements learnt
Toddler	1.1 – 3.0	varied forms of motion learnt
Early childhood	3.1 – 6/7	varied forms of movements improved and first combinations of movements learnt.
Middle childhood	7.1- 9/10	fast progress in motor learning ability
Late childhood	10/11- 11/12(Girls) 10/11- 12/13(Boys)	best motor learning age
Early youth (Pubescence)	11/12- 13/14(Girls) 12/13-14/14.5 (Boys)	motor abilities and skill are restructured
Late youth (Adolescence)	13/14-17/18(Girls) 14.6-18/19 (Boys)	sex-specific differentiation develops continued individualization and increased stabilization
Early adulthood	18/20-30	motor learning and performance ability
Middle adulthood	30-45/50	motor performance ability to starts to get weaker
Later adulthood	45/50-60/70	increased lessening of motor performance ability
Late adulthood	after 60/70	clear lessening of motor performance ability

2.3 Biological Phases of Development Motor Ontogenesis.

2.3.1 1st phase of learning (Acquisition/Introduction)

This stage is a beginning stage and before learning anything athletes must have knowledge about what they are trying to achieve. Coaches should explain the learners and show how to do the things but incorrect assumption that learners know is wrong. At this stage progress maybe slow, depending on the athletes and nature of the skill itself. The beginning stage is completed when the athletes can perform "rough" or "coarse" form of movement or skill, although many errors remain. The coach can help the learners to learn a new skill by:

- Briefly talking about the skill to be learned
- Demonstrating and explaining the skill
- Using the teaching method that allows the beginners to perform the skill well enough to begin practising it.

2.3.2 2nd Phase of learning (Improvement)

The intermediate stage is, when the athlete develops by regular practice, the motor programme that was initiated in the beginning stage. Practice alone is not enough to learn the skills correctly .Athletes need motivation to learn and to know what they are doing is correct. At this stage learner begins to perform the skills accurately and consistently but in a constant environment. When the skill becomes automatic the athlete has entered in the advanced stage.

2.3.3 3rd Phase of learning (Stabilization and Variation)

In the advance stage athletes are able to maintain a high level performance under a variety of competition - like environments. Athletes are confident and have a good understanding of their skills. This understanding and "feel for the skill means that they are able to evaluate themselves more effectively. Athletes need to be motivated to practise the skill as improvements are small and not so easily achieved."

Table 5

Presents the phases of learning during the growth

1st Phase of Learning	2nd Phase of Learning	3rd Phase of Learning
Quality of intake and Processing of information		
Optical information dominates, only rough understanding of demonstration	better differentiated understanding of demonstration	more peripheral vision, less central vision
Motor feeling still vague	motor feeling more differentiated	motor feeling highly accurate
Not yet conscious Kinaesthetic feelings	kinaesthetic feeling get more consciously	high accuracy of kinaesthetic perception
Motor feelings can only be described with inaccurate language	feelings can be described and verbal information is processed in detail	well-developed connection of feeling and speaking
Necessary conditions of training		
Movement only successful with **Easier conditions** full concentration	Movements successful under **normal conditions**	Movements successful under **more difficult conditions**
Conclusions for differentiated training methodical work		
Provide easier/more favourable conditions apply different visual aids	stimulate intellectual cooperation oral description of kinaesthetic feelings	Give higher physical and psychological load

2.4 Best Motor Learning Age for Talent Development

Late childhood is the best motor learning age for the talent development. At this age boys and girls have no new biological aspects up to the beginning of maturation. Ossification is still incomplete at this stage. Furthermore, extremely favourable psychological prerequisites, intellectual abilities, respect for the authority, willingness to do anything, optimistic mood, courage and self-confidence are very much there at this level. Children at this stage are highly motivated to do something to get attention.

2.5 Talent Development Performance Factors

The achievement of every sports performance depends on several conditions (factors). In competitive sports like Field Hockey, athlete needs to perform different abilities side by side. These all characteristics are prerequisite for the performance.

2.5.1 Psychological and Behavioural Qualities

At the stage of development practice is not enough to learn the techniques or skills perfectly unless child is motivated and have knowledge about the skill, intellectual abilities to understand and mental preparation to keep him away from psychological distractions. The one, who is strong enough in psychological skills and has temperament, will learn accurately because it's easy to learn simple skill but complex skill will take months to master the technique to reach the advance stage. Knowledge, intellectual capacity, perception capacity, imagination capacity, motivation, emotional capacities and temperament are really needed for sports.

2.5.2 Coordinative-Technical Abilities and Skills

Techniques are the building blocks of skilled performance and these are simply the quick way to fulfil the physical task. An athlete with excellent consistency in skills can perform far better and understand that when and how to use it at proper time. There are open and closed skills in sports. While performing at closed skill situation athletes can ignore the environment and concentrate on the technique but in open situation environment can affect the performance. Thus, Coordinative capacities and motor (sports technical) skills are necessary to be trained to perform perfectly at this development stage.

2.5.3 Tactical Abilities

Field Hockey is a game in which athlete has to deal with a difficult and quickly changing environment. Athletes have to perform the right action at the right moment. They have to perceive and decide to take fast actions according to related changing situation. Players acquire tactical skill at this stage to cope up with the changing environment. Tactical abilities are necessary for expert performance.

2.5.4 Conditional Abilities

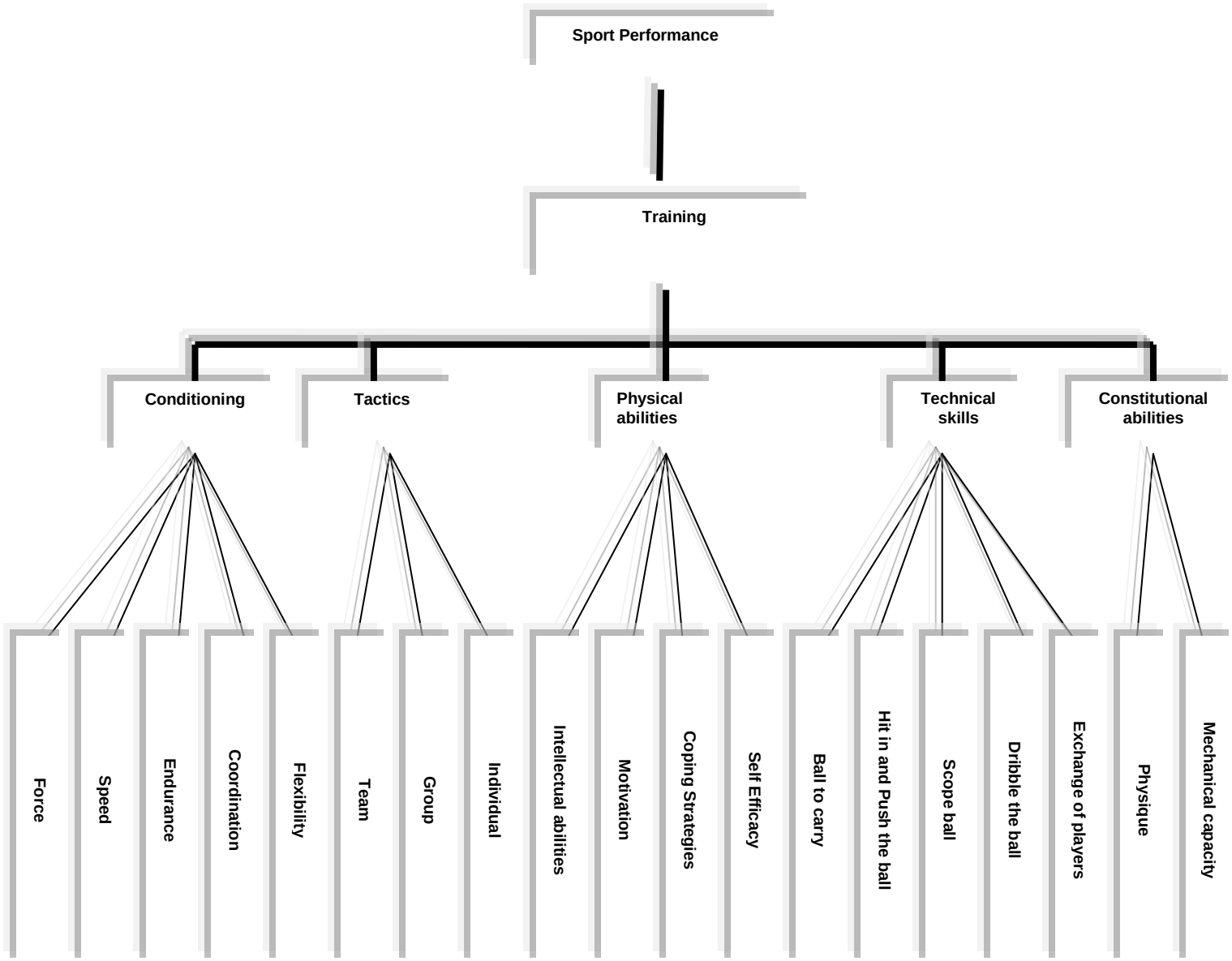
Field Hockey is a non-continuous high intensity game in which the physiological demands are considerable. Running requirements are very unique in Field Hockey and semi crouched position during the course of play need speed and strength. The changing of position with a stick, alternation of acceleration and deceleration while dribbling the ball is not possible without endurance.

2.5.5 Constitutional Abilities

These are the characteristics which help experts to predict talent for a specific sport. There are three main body types: Endomorph (tend to have a less well defined body and can become fat easily), Mesomorph (well-proportioned and muscular) and Ectomorph (thin and tend to be tall).Experts and Coaches normally predict talent by the help constitutional qualities according to the game demands.

Table 6

Field Hockey Development Specific Tasks (Adapted from Harre, Krug & Borde, 2003, S. 44)



2.6 Talent development Stages Model

Individuals are likely to encounter a range of long and short developmental stages and, perhaps more crucially and a greater challenge, transitions between these stages as they progress in their sport. Although these models describe development as a progression through different stages, they offer little insight into how individuals move through or between stages and different development pathways. While ability can be seen as the building block or defining feature of talent, the process of talent development occurs through a period of structured learning.

Benjamin Bloom (1985) presented three distinct phases of talent development and these provides excellent guidelines for performers who are going through this process as well as for teachers and parents who play important role in the development of career performers. Although the stages model have been developed in different parts of the world but it's possible to see overlaps among them. The development stage in Bloom's (1985), Salmela's (1994), Wylleman and Lavallee's (2004) models correspond to the Specializing years in Cote, (1999) model and intensive training in chosen sport in Stambulova's (1994) model.

Table 7

Athletic stages model summarized in career transitions and career termination by Dorothee Alfermann and Natalia Stambulova, (2007)

Phases	**Name**				
	Bloom (1985)	Salmela (1994)	Stambulova (1994)	Cote (1999)	Wylleman & Lavallee(2004)
1st Phase	Initiation	Initiation	Preparatory	Sampling years	Initiation
2nd Phase	Development	Development	Beginning of Specializing	Specializing Years	Development
3rd Phase	Perfection	Perfection	Intensive training in chosen sport	Investment Years	Perfection
4th Phase	Retirement	Discontinuation	Culmination stage	Recreational Years	Discontinuation
5th Phase			Discontinuation		

2.7 Psychological Influence on Talent Development

During the competitions, it is perceived that few athletes are very much focused and seem to be relax and confident. One can't predict that these athletes are born with abilities to motivate themselves, to cope with adversity, or focus under the most stressful conditions is still a question? However there are psychological characteristics and skills associated with performance and discriminate between exceptional and less skilled performers.

There is a relationship between psychological skills and performance level to gain the highest performance. Field Hockey is a rigorous game in which athletes have to deal with pressure and distractions from the surroundings. Sport commitment and quality of training, including the daily use of mental routines, setting realistic goals, mental preparation to cope with un-foreseen hurdles are pre requisite for sport success. Concentration, emotional control, self-confidence, control of nervousness or tension, use of imagery, and planning are the scales for the outcome of the performance.

Research has shown that elite athletes possess significantly higher level of mental skills than less elite players. The development and maintenance of psychological skills in sport is obviously important for the evolution of talent. It is noteworthy that commitment and self-confidence have consistently been found to be associated with high-level performance. In other words, expert athletes are extremely confident and dedicated individuals who are willing to do anything to be the best, even if this means sacrificing other important activities of their lives (Ericsson et al, 1993; Mahoney et al., 1987; Orlick, 1996; Orlick & Partington, 1988). These variables should certainly be given special attention in future research attempting to further investigate the concept of talent.

2.8 Psycho-Sociological influence on Talent development

2.8.1 Family

A number of key social/environmental factors can affect participation and involvement in sports during early and at development stage. There is evidence of the importance of factors, such as the family, socio-economic status, educational background, gender, ethnicity, peers and identity. The most influential factor seems to be the family. It is clear that family support systems and networks are fundamental considerations. Socio-economic status is also important as, for example, the cost of kit, fees, transport to and from training and match places is vital for involvement in many sports and more crucial as the performer gets older and wishes to participate at a higher level. This optimistic achievement-oriented climate created by parents and to develop the confidence and motivation among their children is very much needed for future success. At the same time parents emphasize the attitude, “if you are going to do it, do it right.”

A participant's educational background is also important. Those attending fee-paying schools have an advantage of more physical education/sport time and, often, professional coaches over state-funded schools. So, time, opportunity and provision are important. The issues of gender, peer influence and ethnicity also cannot be forgotten.

2.8.2 The Role of Coaches

Like parents, coaches also play vital role and have influence on the athlete's psychological development. They emphasize hard work, discipline and create re-creational environment between them. They have the qualities to develop athlete's self-confidence and motivation. Coach-athlete relationship is very important for the development of young athletes. In term of Bloom's (1985) career phases, a win focus on the part of coaches does not emerge for most athletes until the middle years. High expectations, standards, hard work and discipline seem to be important at this stage. Coaches create motivational climate that encourage young athletes in "good way." They help them to prepare mentally to cope with adversities.

3. Understanding Culture and Cultural Differences

3.1 What is culture?

The word "culture" stems from a Latin root that means the tilling of the soil, like in agriculture. In many modern languages the word is used in a figurative sense, with two meanings:

The first, most common, meaning is "civilization", including education, manners, arts and crafts and their products. It is the domain of a "mystery of culture".

The second meaning is driven from social anthropology, but in the past decades it has entered common parlance. It refers to the way people think, feel, and act. Hofstede (G. H. Hofstede, Hofstede, & Minkov, 2010) has defined it as "the collective programming of the mind distinguishing the members of one group or category of people from another". The "category" can refer to nations, regions within or across nations, ethnicities, religions, occupations, organizations, or the genders. A simple definition is “The unwritten rules of the social game”.

Culture is defined as “a social system of shared symbols, meanings, perspectives and social actions that are mutually negotiated by people in their relationships with others” (Stead, 2004, p. 392) or, even shorter as “A historically transmitted pattern of meanings embodied in symbols”.

According to Hofstede “culture” is the collective programming of the mind which distinguishes the members of one group of people from another. Geert Hofstede calls culture the ‘Software of the mind’. From another point of view, “culture” is defined as network of knowledge, consisting of learned routines of thinking, feeling, and interacting with other people, as well as a corpus of substantive assertions and ideas about aspects of the world (Barth, 2002; see Chiu & Hong, 2007). Importantly, culture as a knowledge tradition is unique in that it is: (a) shared (albeit incompletely) among a collection of inter-connected individuals, who are often demarcated by race, ethnicity, or nationality, (b) externalized by rich symbols, artefacts, social constructions and social institutions (e.g., cultural icons, advertisements, and news media), (c) used to form the common ground for communication among members, (d) transmitted from one generation to the next or

from old to new members, and (e) undergoing continuous modifications as aspects of the knowledge tradition may be falsified or deemed not applicable by new social order and reality.

3.2 Influence of Culture on Human Body - Culture as Mental Programming

Human culture is the result of hundreds of thousands of years of evolution. During most of this time, competition between bands of gatherer-hunters was a powerful evolutionary pressure. As a result our social and intellectual skills have become ever bigger. But we did not lose the elements of our behaviour that identify us as social mammals. Fight for dominance, competition for partner, a wish to belong and to know who does not belong - all of these basic drives are alive in us. No wonder that culture revolves around basic issues that have to do with group membership, authority, gender roles, morality, anxiety, emotions and drives. Culture affects our love lives, our professional lives, our wars and our dreams. Every person carries within him or herself patterns of thinking; feeling; and potential acting which were learned throughout the person's life time. Much of it was acquired in early childhood, because at that time a person is most susceptible to learning and assimilating. As soon as certain patterns of thinking; feeling and acting have established themselves within a person's mind, he/she must unlearn these before being able to learn something different; and unlearning is more difficult than learning for the first time. Using the analogy of the way in which computers are programmed, and such patterns of thinking; feeling; and acting mental programs, or, as per the book's sub-title, "Software of the mind". This does not mean; of course, that people are programmed the way computers are. A person's behaviour is only partially predetermined by her or his mental programs: he has a basic ability to deviate from them, and to react in ways that are new, creative, destructive, and unexpected. Culture is always a collective phenomenon, because it is at least partly shared with people who live or lived within the same social environment, which is where it was learned. It is the collective programming of the mind which distinguishes the members of one group or category of people from others. Culture is learned, not innate. It derives from one's social environment rather than from one's genes. Culture should be discriminate from human nature on one side and from individual's personality on the other, although exactly where the borders lie between nature and culture and between culture and personality.

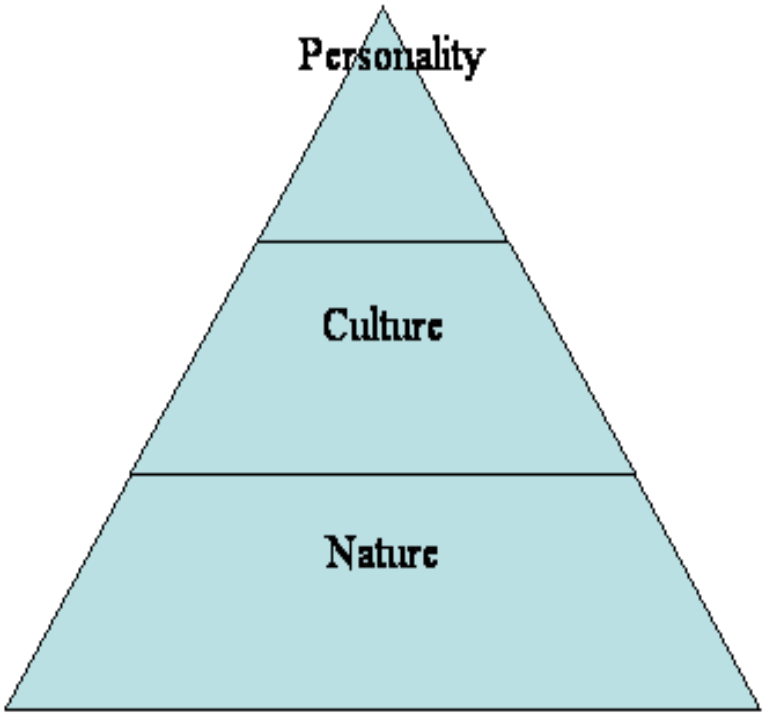


Figure 5 Hofstede's book Cultures & Organizations

Hofstede has operated in an international environment since 1965, and his curiosity as a social psychologist led him to the comparison of nations, first as a travelling international staff member of a multinational (IBM) and later as a visiting professor at an international business school in Switzerland. His book Culture's Consequences combined his personal experiences with the statistical analysis of two unique data bases. The first and largest comprised answers of matched employee samples from 40 different countries to the same attitude survey questions. The second consisted of answers to some of these same questions by his executive students who came from 15 countries and from a variety of companies and industries. Systematic differences between nations in these two data bases occurred in particular for questions dealing with values. Values, in this case, are "broad preferences for one state of affairs over others", and they are mostly unconscious.

3.3 Cultural Dimensions

The values that distinguished countries (rather than individuals) from each other grouped themselves statistically into four clusters. They dealt with four anthropological problem areas that different national societies handle differently: ways of coping with inequality, ways of coping with uncertainty, and the relationship of the individual with her or his primary group, and the emotional implications of having been born as a girl or as a boy. These became the (G. Hofstede & Bond, 1984) dimensions of national cultures: Power Distance, Uncertainty Avoidance, Individualism versus Collectivism, and Masculinity versus Femininity. Between 1990 and 2002, these dimensions were largely replicated in six other cross-national studies on very different populations from consumers to airline pilots, covering between 14 and 28 countries.

3.3.1. Individualism & Collectivism

The core element of individualism is the assumption that individuals are independent of one another. Hofstede (1984) defined individualism as a focus on rights above duties, a concern for oneself and immediate family, an emphasis on personal autonomy and self-fulfilment, and the base of one's identity on one's personal accomplishments. On the individualist side we find societies in which the ties between individuals are loose, everyone is expected to look after herself / himself and her / his immediate family.

On the other side the core element of collectivism is the assumption that groups bind and mutually obligate individuals. According to Schwartz (1990), collectivist societies are communal societies characterized by diffuse and mutual obligations and expectations based on ascribed statues. In these societies, social units with common fate, common goals, and common values are centralized; the person is simply a component of the social, making the in-group. Collectivism as a social way of being, oriented toward in groups and away from out-groups (Oyserman & Markus, 1993), Because in-groups can include family, clan, ethnic, religious, or other groups. On the collectivist side, we find societies in which people from birth onwards are integrated into strong, cohesive in-groups, often extended families (with uncles, aunts and grandparents) which continue protecting them in exchange for unquestioning loyalty. The word collectivism in this sense has no political meaning: it refers to the group, not to the state. Again, the issue addressed

by this dimension is an extremely fundamental one, regarding all societies in the world.

3.3.2 Masculinity & Femininity

Masculinity versus its opposite, femininity refers to the distribution of emotional roles between the genders which is another fundamental issue for any society to which a range of solutions are found. The IBM studies revealed that (a) women's values differ less among societies than men's values; (b) men's values from one country to another contain a dimension from very assertive and competitive and maximally different from women's values on the one side, to modest and caring and similar to women's values on the other. The assertive pole has been called masculine and the modest, caring pole feminine. The women in feminine countries have the same modest, caring values as the men; in the masculine countries they are more assertive and more competitive, but not as much as the men, so that these countries show a gap between men's values and women's values.

3.3.3 Power Distance

Power distance is the extent to which the less powerful members of organizations and institutions (like the family) accept and expect that power is distributed unequally. This represents inequality (more versus less), but defined from below, not from above. It suggests that a society's level of inequality is endorsed by the followers as much as by the leaders. Power and inequality, of course, are extremely fundamental facts of any society and anybody with some international experience will be aware that “all societies are unequal, but some are more unequal than others".

3.3.4 Uncertainty Avoidance

Uncertainty avoidance deals with a society's tolerance for uncertainty and ambiguity. It indicates to what extent a culture program its members to feel either uncomfortable or comfortable in unstructured situations. Unstructured situations are novel, unknown, surprising, and different from usual. Uncertainty avoiding cultures try to minimize the possibility of such situations by strict laws and rules, safety and security measures, and on the philosophical and religious level by a belief in absolute Truth: "there can only be one truth and we have it". People in uncertainty

avoiding countries are also more emotional, and motivated by inner nervous energy. The opposite type, uncertainty accepting cultures, are more tolerant of opinions different from what they are used to; they try to have as few rules as possible, and on the philosophical and religious level they are relativist and allow many currents to flow side by side. People within these cultures are more phlegmatic and contemplative, and not expected by their environment to express emotions.

3.3.5 Long-Term Orientation

Research by Michael Bond and colleagues among students in 23 countries led him in 1991 to adding a fifth dimension called Long- versus Short-Term Orientation. In 2010, research by Michael Minkov allowed to extend the number of country scores for this dimension to 93, using recent World Values Survey data from representative samples of national populations. Long- term oriented societies foster pragmatic virtues oriented towards future rewards, in particular saving, persistence, and adapting to changing circumstances. Short-term oriented societies foster virtues related to the past and present such as national pride, respect for tradition, preservation of "face", and fulfilling social obligations.

3.4 Dimension Scores are Relative

The country scores on these dimensions are relative - societies are compared to other societies. These relative scores have been proven to be quite stable over decades. The forces that cause cultures to shift tend to be global or continent - wide - they affect many countries at the same time, so that if their cultures shift, they shift together, and their relative positions remain the same.

3.5 Scores around the World

Power distance scores are high for Latin, Asian and African countries and smaller for Anglo and Germanic countries. Uncertainty avoidance scores are higher in Latin countries, in Japan, and in German speaking countries, lower in Anglo, Nordic, and Chinese culture countries. Individualism prevails in developed and Western countries, while collectivism prevails in less developed and Eastern countries; Japan takes a middle position on this dimension. Masculinity is high in Japan, in some European countries like Germany, Austria and Switzerland, and moderately high in Anglo countries; it is low in Nordic countries and in the

Netherlands and moderately low in some Latin and Asian countries like France, Spain and Thailand.

Long-term orientation scores are highest in East Asia, moderate in Eastern and Western Europe, and low in the Anglo world, the Muslim world, Latin America and Africa. Indulgence scores are highest in Latin America, parts of Africa, the Anglo world and Nordic Europe; restraint is mostly found in East Asia, Eastern Europe and the Muslim world.

3.6 Ancient Roots of Culture

The grouping of country scores points to some of the roots of cultural differences. These should be sought in the common history of similarly scoring countries. All Latin countries, for example, score relatively high on both power distance and uncertainty avoidance. Latin countries (those today speaking a Romance language i.e. Spanish, Portuguese, French, Italian or Romanian) have inherited at least part of their civilization from the Roman Empire. The Roman Empire in its days was characterized by the existence of a central authority in Rome, and a system of law applicable to citizens anywhere. This established in its citizens' minds the value complex which we still recognize today: centralization fostered large power distance and a stress on laws fostered strong uncertainty avoidance. The Chinese empire also knew centralization, but it lacked a fixed system of laws: it was governed by men rather than by laws. In the present-day countries once under Chinese rule, the mind-set fostered by the empire is reflected in large power distance but medium to weak uncertainty avoidance. The Germanic part of Europe, including Great Britain, never succeeded in establishing an enduring common central authority and countries which inherited its civilizations show smaller power distance. Assumptions about historical roots of cultural differences always remain speculative but in the given examples they are plausible. In other cases they remain hidden in the course of history.

3.7 Cultural Differences

A good example of cultural difference is in the very different cultures view time. In traditional (i.e. most Eastern and African) cultures, trust and friendship is more important than time. One does not hurry on to business matters – first one chats with those one will be dealing with, even if this delays the start of the meeting. In this way, one builds trust and relationships. In the West (i.e. Western Europe, the U.S., Australia and much of South America) one's schedule is to be adhered too strictly. Business dealings do not generally involve friendship. By prolonging a meeting's length, one is likely to upset one's associates and to give an impression of untrustworthiness because one appears unable to keep faithfully to one's schedule and appointments.

Table 8

We may thus compare the following: The chart is taken from Paul Hebert's book, Cultural Anthropology:

Time in	**Traditional Society**	**Time in Western Society**
5 minutes before	---	
Appointed time	servants on time	everyone on time
5 minutes after	---	mumbled apology advisable
10 minutes after	Servant's late	Slight apology needed
15 minutes after	---	Mildly insulting
20 minutes after	---	Full apology needed
30 minutes after	---	Rude
1 hour late	On time	Very insulting
1¼ hour late	late	unforgivable

Westerners feel that Easterners are dishonest and rude when they come 20 minutes to half an hour late to an appointment. However, when an Easterner says ’11:00’ he or she means “between 11 and 12”.In contrast Westerners divide time into strictly-measured hours, minutes and seconds, into which one carefully arranges one’s plans, appointments, and activities so as to fit exactly and not cause delays to one’s own or anyone else’s plans. Neither is ‘right’ or ‘wrong’ necessarily, but they certainly are different, and when persons with different assumptions come into contact, there is great room for misunderstanding.

3.8 Future of culture

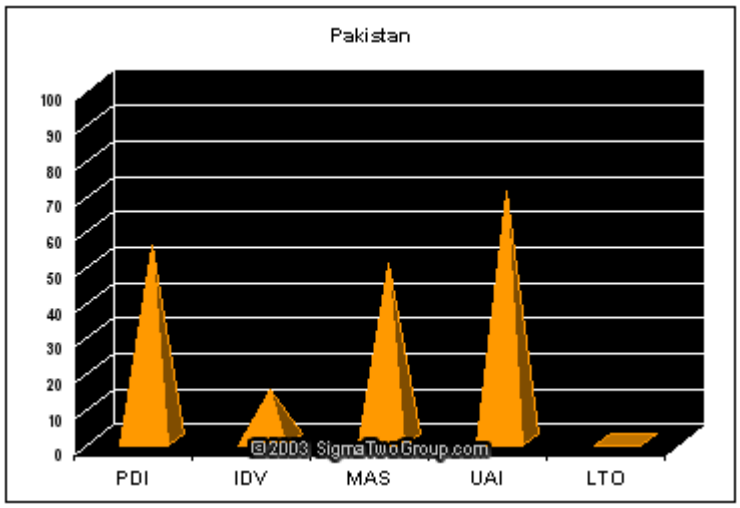
Today, despite information technologies such as the World Wide Web, there is no “global village culture" and we have not reached Francis Fukuyama's '"end of history". Repeated measurements of culture show that countries that get richer get more individualistic. For the other dimensions, no such trends are apparent. Since worldwide differences in wealth are on the rise, this would point to increasing cultural differences, not cultural convergence.

3.9 Cultural Dimensions for Pakistan

The Hofstede model of dimensions of national culture has been applied in the practice of many domains of human social life, from the interpersonal to the national, in public domains and in business, in education and in health care.

Figure 6

Cultural Differences in Pakistan

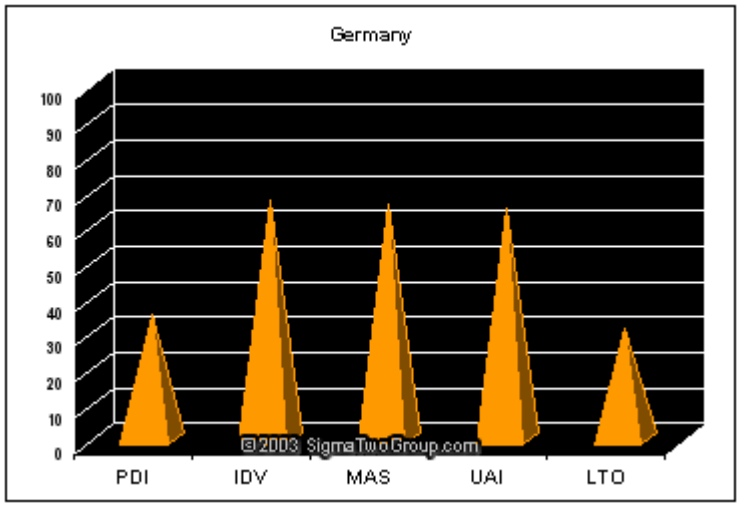


The combination of these two high scores (UAI) and (PDI) create societies that are highly rule-oriented with laws, rules, regulations, and control in order to reduce the amount of uncertainty, while inequalities of power and wealth have been allowed to grow within the society. When these two Dimensions are combined, it creates a situation where leaders have virtually ultimate power and authority, and the rules, laws and regulations developed by those in power, reinforce their own leadership and control. It is not unusual for new leadership to arise from armed insurrection – the ultimate power, rather than from diplomatic or democratic change.

3.10 Cultural Dimensions for Germany

Figure 7

Cultural Differences in Germany



As far as German culture is concerned, it is totally an individualistic society, a concern for oneself and immediate family, focus on personal autonomy and self-fulfilment. Everybody is responsible for his/her own matters, respecting the integrity of others. There is a freedom of choice. The Geert Hofstede analysis for Germany shows their emphasis on individualism, masculinity, and uncertainty avoidance. Power distance and long-term orientation are both ranked considerably lower than the others. This illustrates German's belief in equality and opportunity for each citizen, as well as its ability to change and adapt rapidly.

3.11 Cultural Influence on Talent Development

The people living in the different societies have different experiences of day to day life. Does culture influence talent development? What are the effects of individualism, Collectivism, Masculinity and Femininity on the society, especially Pakistani and German societies?

Pakistani culture is highly influenced by collectivism, common values are centralized and people from birth onwards are integrated in to strong, cohesive in-groups, often extended families (with uncles, aunts and grandparents) which continue protecting them in exchange for unquestioning loyalty. Country culture mostly follows the caste system that does not allow significant upward mobility of its citizens.

On the other hand Pakistan is also a Masculine or male dominant society. Masculinity stands for a society in which men are supposed to be assertive, tough, and focused on material success and Women are supposed to be more modest, tender, and concerned with the quality of life.

Women in the society are not allowed to take decision by themselves. Sporting culture is not developed in the country especially for women. They are not allowed to participate in extracurricular activities except few examples from city areas.

It appears that environmental effect involves a complex combination of multiple processes. In sport, this means that the existence of a caring and supportive network, including family, friends, team-mates, coaches, managers, fitness trainers, and psychologists have strong influence on the talent development.

As far as German culture is concerned it is highly influenced by individualism as a focus on personal autonomy, self-fulfilment, responsibility and freedom of choice. In individualistic society one is responsible for his/her own family.

3.12 Influence of Individualism and Collectivism on Physical Self Concept

The self-concept is the accumulation of knowledge about the self, such as beliefs regarding personality traits, physical characteristics, abilities, values, goals, and roles. Beginning in infancy, children acquire and organize information about them as a way to enable them to understand the relation between the self and their social world. This developmental process is a direct consequence of children's emerging cognitive skills and their social relationships with both family and peers. During early childhood, children's self-concepts are less differentiated and are centred on concrete characteristics, such as physical attributes, possessions, and skills. During middle

childhood, the self-concept becomes more integrated and differentiated as the child engages in social comparison and more clearly perceives the self as consisting of internal, psychological characteristics.

Individualism is associated with concern for maintaining and enhancing self-esteem and defining the self through unique traits rather than social roles, whereas collectivism is associated with diminished certainly of self-concept and viewing the self as part of larger social groups and endeavours.(Oyserman, Coon, & Kemmelmeier, 2002).

3.13 Cultural Influence on Motivation

South Asian country like Pakistan has totally a different cultural heritage from Germany. The main focus is on Education, inter-personal harmony, modesty and cooperation. Education is priority for people but educational system is traditional and selective. Competition with other students for education is a basic source of motivation for Pakistani students.

Cross-cultural work comparing students from different ethnic or cultural backgrounds within the United States supports the notion that achievement goal orientations in sport vary as a function of culture (Duda, 1986). For example, in her study of Anglo-American. African-American and Hispanic-American students, Duda, (1986) reported that Anglo- American males were more likely to define sport success in terms of social comparison than African-American and Hispanic-Americans males and Anglo-American females. African-American females tended to emphasize social comparison-based sport success, whereas African-American males tended to view sport success to the mastering of skills. Anglo-American males placed a greater emphasis on social comparison based sport failure than Hispanic-American males and Hispanic-American males tended to stress mastery-based sport failure.

On the other hand some studies conducted outside the USA found that the tendency to emphasize task and ego–involved goals and the association between achievement goals and attributional beliefs for the success remain constant across different cultures in sport settings (Duda, Fox, Biddle & Armstrong, 1992; Guivernau & Duda, 1994; (Papaioannou, 1995).

3.14 Self-efficacy and Culture

Self-efficacy has been defined as a personal judgement of "How well one can execute courses of action required dealing with perspective situations" (Bandura, 1982), p. 122. Individuals who perceive themselves as highly efficacious activate sufficient effort that, if well executed, produces successful outcomes, whereas those who perceive low efficacy are likely to cease their efforts prematurely and fail on task (Bandura, 1986, 1997b.)

Culture plays an important role in the development of the individual's orientation to learning (Smith, 1990). Cultural influences can impact on many educationally relevant variables such as motivation, orientation toward learning, ways of thinking, and unconscious beliefs and values. (The American Psychological Association, 2001; Claxton, 1999; Matsumato, 1994; Munro; Schumaker & Carr S.(1997), Dembo & Eaton(1997) note that cultural factors reflect and shape an individual's mental functioning as well as his beliefs and behaviour.

Research has explored the relationship between culture and an individual's sense of self-efficacy (Earley, Gibson, & Chen (1999); Oettingen, 1995) achievement goals, (Stipek, 1998) attributions (Alderman, 1999; Fan & Karnilowicz, 1999; Kurman, 2001). Culture also has been examined in its relationship to the individual's learning behaviour such as self-regulation (Chye, Walker & Smith 1997; Kurman, 2001)

In conclusion, cultural factors, impact on the way in which individual's define and interpret „self-directedness", what it means to be self-directed in learning may reflect specific cultural settings through the impact of culture on self-efficacy, achievement goals, attributions, self-regulation and volitional behaviour.

3.15 Cultural Differences between Germany and Pakistan

The study shows significant differences in both German and Pakistani societies both have long cultural history. Pakistani Culture is highly influenced by collectivism as well German's are individualistic. Pakistan is a Masculine country one can say a male dominant society but its opposite in Germany. It is an Islamic state and due to the religious beliefs Women in the society are not allowed to take decision at their self. Sporting culture is not developed in the country especially for women. They are not allowed to participate in extra-curricular activities except few

examples from city areas. Language and food preferences are also different from German's. As far as German culture is concerned it is highly influenced by individualism as a focus on personal development and freedom of choice. The focus is on personal matters and direct concern to the family.

3.16 Problems in Comparing Culture

The problem in the measurement of all the five dimensions of culture is that different respondent groups may need different ways of measuring, because the issues related to the common syndrome are not the same for all the categories of respondents. The 40 IBM subsidiary populations studied in Culture's Consequences were exceptionally homogeneous as to their work situation, which led to a shared perception of the various work goal items, even across countries. This perception however, is not necessarily the same for other, non-IBM populations. What this means is that for different populations, different survey items (From those conceptually related to the dimension) may have to be chosen in order to replicate the results.

In cultural consequences (Hofstede, 1980), mentioned that differences found do not imply that everyone in these nations shares the same mental programming. In fact he considered to be "national cultures" were dominant mental programs those shared by the majority of the middle classes of these countries. He justified this by his argument that middle classes serve as the stabilizing element in national societies (Hofstede, 1998). Mental program can include a lot of things, from religious beliefs, food preferences, and aesthetic choices to attitudes toward authority. (Hofstede, 1991, P. 7ff).His research on national culture differences was based on the study of values, self-scored by matched samples from the populations of the nation studied.

The comparison of socialization in middle class families from different companies with the same degree of modernization in the Federal Republic and in Japan occur such equivalence problems, because in Japan the membership to the middle class from a completely different class and social differentiation consciousness marked than in the Federal Republic (Sasaki & Suzuki, 2002) .

The equivalence problem is not only in inter-cultural comparison; also intra-cultural comparisons, for example for questions of the relationship between

socialization and social change can be important and require additional testing methods based on the theoretical issues to those branches.

Other problems of the research are finally in the comparison of organizational cultures, for example nature of the involvement of foreign colleagues, the public official, of the subjects, the type of infrastructure for data acquisition and processing and ethical issues in carrying out the research.

Equivalence problems also exist with regard to the sampling choice. Thus, social class criteria in the selection of subjects according to different cultures are ensured. Socialization practices in Mexico compared to North American Middle class families are not there for that social structure representative in the same way, but they meet the same social functions in relation to the socialization of each generation (Tallman, Marotz-Baden, & Pindas, 1983).

The problem of measurement equivalence is discussed mainly in developmental psychology and in the cross-cultural psychology (Eckensberger, 1973), Rokkan,1968, van de Vijver & Poortinga, (1997).It is about the question of whether instruments that were designed for different age groups or cultures to measure the same psychological variables fulfil that purpose. Closely related to the concept of measurement equivalence, the concepts of fairness and cultural fairness test (Anastasi, 1964); Cleary, 1968; Jensen, (1980).As unfair is a test, when in different groups or cultures because diagnostically irrelevant factors (such as familiarity with the test tasks) vary in difficulty, selective or valid and diagnostic decisions on the basis of the test (e.g., access to higher education, personnel selection) to the disadvantage of certain groups are (Wotton & Amelio, 1980).

Difficult to clarify the equivalence is the proving particularly in that it ultimately requires that knowledge can be gained only through the use of instruments whose equivalence is in question i.e. the construction of age-equivalent intelligence tests knowledge about the development of intelligence ahead of the development without the use of appropriate intelligence tests cannot be won. Likewise, the cultural fairness of a measuring instruments to be assessed, if the true cultural difference is known. This can be without a measuring instrument with established cultural fairness is not

empirically determined. Finally, the question of whether an overt difference in the performance between groups of a fairness problem, ultimately, only with knowledge of the true performance, answered their determination but require a fair test. The availability of a validation criterion (e.g. job performance as a criterion of suitability tests) does not extend in principle, for the criterion itself may be unfair (Darlington, 1971).

4 Career Development in Sport

4.1 Athletic Careers

Career is defined by the Oxford English Dictionary as an individual's "course or progress through life (or a distinct portion of life)". It is usually considered to pertain to remunerative work (and sometimes also formal education).

Athletic career consists of several years spent with the objective of achieving peak performance in voluntarily chosen competitive sport. Athletic career can be national or international or it can be amateur or professional.

An athletic career starts at the age of around 7 to 10 years and sometimes even earlier, depending on the type of sport. Normally it takes 10 years of deliberate practice to reach an expert performance level in sport (Ericsson & Charness, 1994).

4.2 Transition in Sports

Transition is a fact of life whether it is from school to college or from amateur to professional sport. Some transitions are planned, some are unexpected and unpredictable. Transition is a part of every player's life. Regardless of the type of transition, the main objective for success is perception and attitude during transition.

In a broader sense, a transition is "an event or non-event which results in a change in assumptions about oneself and the world and thus requires a corresponding change in one's behaviour and relationships" (Schlossberg, 1981). Athletic career transition can be of two types: normative and non-normative.

Normative transitions are relatively predictable and include, for example, the transition from junior to senior level, from amateur to professional sports. Career termination is the clearest example of a normative transition. Non normative transitions on the other hand are unpredictable and do not occur according to schedule but are the results of important events that take place in an individual's life.

These transitions are situation-related, idiosyncratic, and less predictable, (Schlossberg, 1984), for example, transitions caused by injury, overtraining, changing one's team or club, changing one's coach or sport partner.

4.3 Stages of Transitions

Wylleman, and Lavallee, 2004 presented life span model which shows the normative stages and transitions faced by athletes at different psychological, psycho-social, academic and vocational levels.

The initiation stage (6-7 years of age), during which the players are introduced into competitive sports. The development stage (8-13years) during which athletes are

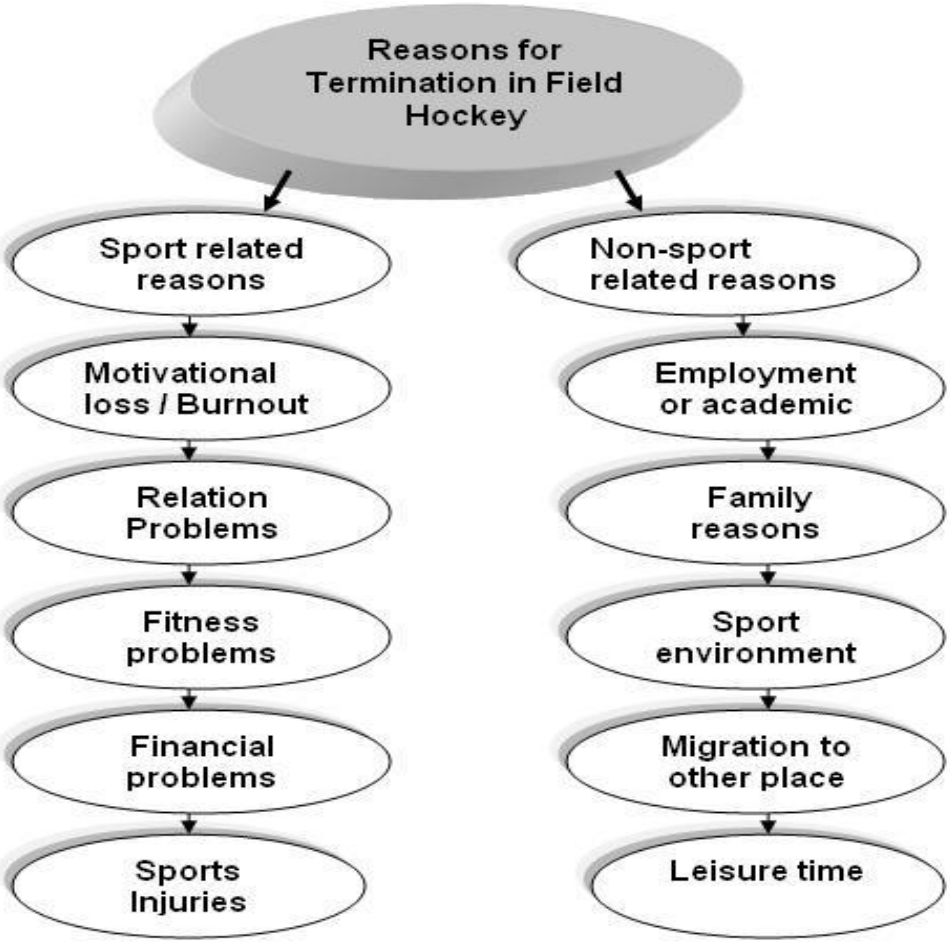
considered talented and this follows intensive training and participation in competitions. Third stage is Mastery stage (14-19 years) in which athletes switch over to high intensive training at highest competitive level and discontinuation stage describes the elite athlete's transition out from the competitive sports.

4.4 Causes of Career Termination

Career termination is an important turning point in the life of any athlete, but it is not the only one, and not necessarily a negative one. The career termination is the last in a series of transitions that athletes experience during their career. Termination from sports involves a variety of unique experiences that sets it apart from typical retirement concerns, including the early age of career termination, the need to find another career to pursue, and diverse ways in which athletes choose to or are forced to leave their sport.

Table 9

Field Hockey Reasons for Athletic Career Termination



4.5 Adaptation to the Post Career

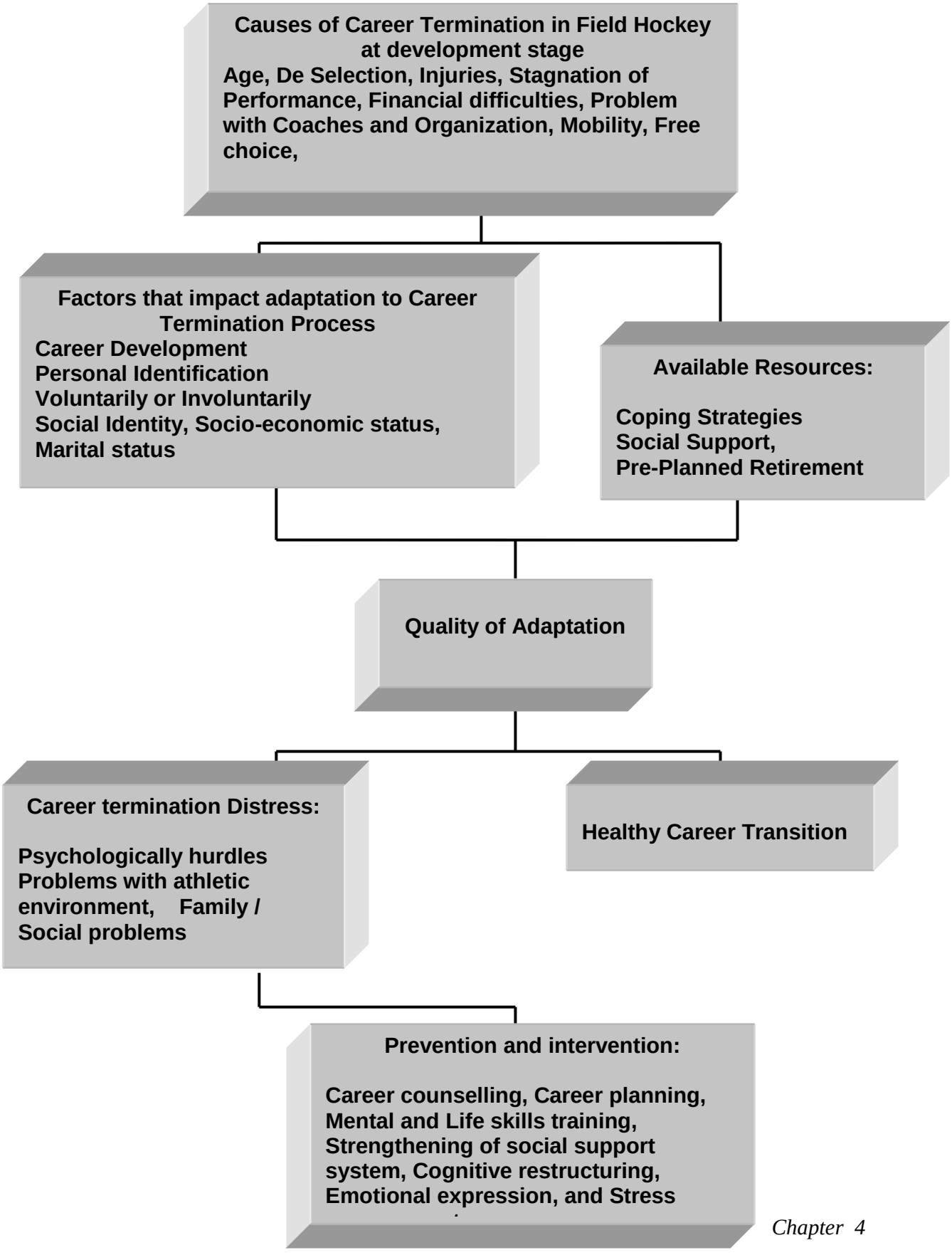
There are four main factors those are mainly responsible for the quality of adaptation to career transition .First the causes of career termination, voluntarily or involuntarily. Second planning the post career .Third athletic identity and fourth, the athlete's personal and social resources (Wylleman, Alfermann, & Lavallee, 2004). To finish an athletic career voluntarily always helps in adaptation to post career. Planning the post career always has great advantages for a healthy transition. Athletes who planned their retirement adapt faster to the post career and experience more positive emotions and greater life satisfaction (Alfermann et al., 2004; Perna et al., 1999; (Torregrosa, boixados, Valiente, & Cruz, 2004); Wheeler et al., 1996).

Athlete's available resources are very important. The capabilities to cope with the new situation and the social support system have great implications for adaptation to career transition. Athletes can use cognitive strategies, such as mental rehearsals of behavioural strategies in the post career, or set goals for the post career. When the career ends friends from outside the world of sports are very helpful. For an athlete's post career, it is therefore essential to have a social network outside sports (Bussmann & Alfermann, 1994).

Conceptual model of adaptation (Taylor & Ogilvie, 1994) presents the forms and begins with the causes of retirement at the top level and descends to include factors related to adaptation to retirement and available resources at the second level. The factors noted above resulted in what was called quality of career transition (third level) with either a healthy career transition or a career transition distress resulting in adjustment difficulties (fourth level),which should be followed by a special intervention (fifth level) to decrease the career transition distress.

Table 10

Adapted from Conceptual model of athletic career termination (Taylor & Ogilvie, 1994)



4.6 Transitions in Psychological Development

At this stage athlete enters into the intensive stage of training. During this stage young athletes are motivated to participate in sports because of their own interest in and attraction to the activity. Player's readiness for structured sports competition can be seen at this stage because during early years participation in organized sport may reflect parental decision. From a cognitive point of view readiness refers to the child's capacity for abstract reasoning and an understanding of roles, responsibilities, and relational qualities that are relevant to the athletic setting. Children at this stage cannot effectively distinguish achievement outcomes among the various contributors so that they have to rely on adults for information about their competence. Young athletes thus need to be cognitively and motivationally mature to be able to develop in sports. An Athlete's self-identity has also been found to play vital role in making a successful transition.

4.7 Transitions in Social Development

The social development can be characterized in terms of specific stages and transitions (Trickett & Buchanan, 1997). During the adolescence children need to learn how to build up relations with peers as well as emotional independence from parents and adults. The athlete's psycho-social development their role within the social environment and the role other relationships play in the quality of athletes, sport environment throughout the athletic life span. The role of relationships is important throughout the sport career in view of the support they can provide to the athletes.

The athlete's social network is consists of coaches, parents, and peers. The Coach-athlete, parent-athlete and coach-parents relationships have become known as a network, namely as "The athletic triangle**"** (Martin, Jackson, Richardson, & Weiller, 1999), or as the Primary family of sport (Scanlan & Lewthwaite, 1988).

4.8 Parental Involvement

As shown in the career stages model, parental involvement in athletic development can be described in terms of stages, namely the initiation, development, mastery and discontinuation stages.

4.8.1 Initiation Stage

This stage generally starts between ages 6 to 8 years. During the early years children are introduced to the basic demands of organized sports. Normally children participate in two to three different sports. Parental influence during this period of life has greater and more lasting impact on children's sport involvement than in the other periods of development.

Parents can influence children's perceptions of their ability and sport involvement through their own beliefs and values (Fredricks & Eccles, 2004). Cote, (1999) found that elite athlete's parents encouraged all their children to try different sports for enjoyment rather than for any specific aim and provided opportunities to have fun and develop motor skills.

4.8.2 Development Stage

This stage in the athletic career begins as young athletes are identified as talented and capable of achieving high level athletics achievements. It generally starts from the age of 14 to 15 (Wylleman et al., 1993). Athletes become more dedicated to their sport. Parental influence remains important.(Hellstedt, 1990), who studied the parents-athlete relationships of 12 and 13 years old elite ski racers as they made the transition into the development stage of their ski career .These athletes found that their parents have strong influence on their sport career via for example, parental coaching and support to continue the sports.

4.8.3 Mastery stage

The mastery stage, during which athletes are required to perform at their highest level in a consistent way for as long as possible (Wylleman et al., 2004), generally starts when the talented athletes moves from junior to senior category. During this athletic stage family is reported to remain a support system and emotional refuge from the stress of competition (Bloom, 1985). Durand-Bush et al., (2004) found that when athletes were asked that who had played important role during their career, several referred to their families.

4.8.4 Discontinuation stage

This stage can occur sooner and cut short previous stages. For example, due to lack of enjoyment a young athlete may drop out during the initiation stage, a career

–ending injury may cut short a talented athlete's career during the development stage, or a talented athlete may favour an academic career over an athletic career when the

Table 11

Field Hockey Developmental Model adapted from Developmental Model "general" (Wylleman & Lavallee, 2004)

Age		**10**	**16**	**18**	**21**	**25**	**35**
Field Hockey		**Initiation**	**Development**		**Mastery**		**Discontinuation**
		Beginner	Junior level Player		Senior level player		Established Senior Player
		Basic Skills	Specific Competitive Skills		National / International		
Individual		Childhood	Adolescence		Adulthood		
Psycho-Social		Parents Peers	Parents, Sports Peers		Coach, Sports Peers, Partner		Sports Peers, Coach
Academic vocational		Primary Education	Secondary Education	Higher Secondary	University/Professional occupation		

4.9 Career Stages Descriptive Models

These models divide athletic career in to several stages and describe the changes in athletes and in their social environment. None of these models explains the transition processes, but describe and predict the existence and order of athletes' normative career transitions that derive from the logic of the career development process.

4.10 Career Transition Explanatory Models

Career transition model explains the performance outcome and concentrate on the reasons and demands. The process to cope and which factors can affect coping process. According to these models, coping processes are central in a transition and include all approaches the athletes use to adjust to the particular set of transition demands.

The human adaptation to transition model (Schlossberg, 1981, 1984; Schlossberg, Waters, & Goodman, 1995) explains the process and outcomes of a transition by an interaction of four sets of factors (the 4 S systems):

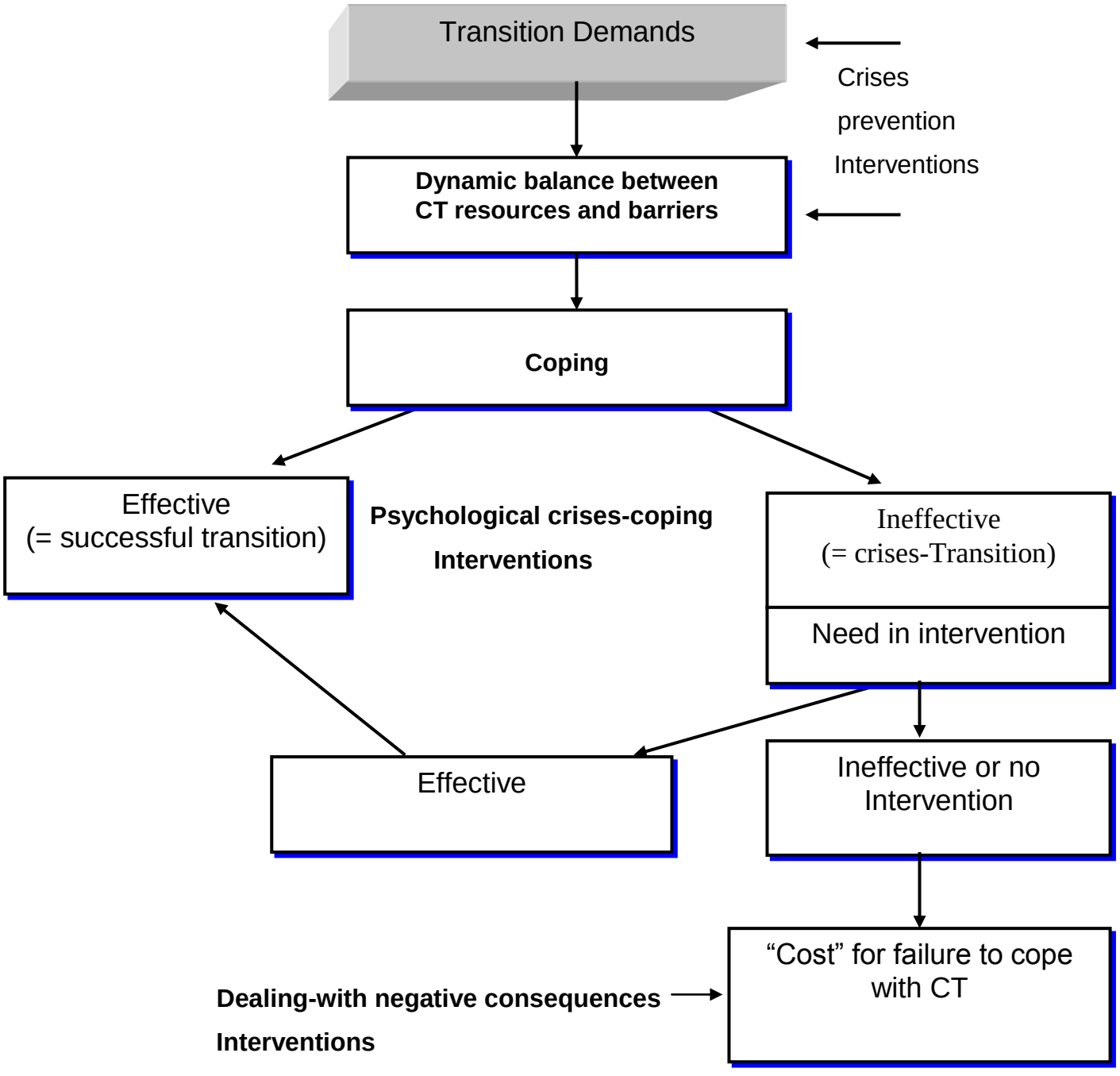
1**. Situation** (e.g., event or non-event transition and how it is perceived by the person)
2. **Self** (e.g., individual peculiarities of the athlete)
3. **Support** (e.g., availability of different kinds of social support)
4. **Strategies** (e.g., information seeking, direct action, inhibition of action)

Strategies to cope with a transition are key elements in the model, and the other three can be seen as group of factors influencing coping. This model is not sport-specific and was developed as a counselling model for adults experiencing critical life events.

The athletic career transition model (Stambulova, 1997, 2003) follows the tradition of considering career transition as a process and not as a single event (Wylleman et al., 1999).The sense of this process is coping with a set of specific demands (challenges), which is necessary for successfully continuing athletic career. In this model transition resources imply all internal and external factors that facilitate coping processes (e.g., the athlete's knowledge, skills, personality traits, motivation, and availability of social and financial support), whereas transition barriers cover all internal and external factors that interfere with effective coping (e.g., lack of necessary knowledge or skills, interpersonal conflicts, non-existence of good conditions for training, lack of financial or social support, difficulties in combining sport and education or work).

Figure 8

Athletic Career Transition Model Stambulova, (2003)



4.11 Career Transition Intervention Models

Based on career transitions research, a need to help athletes to prepare and go through transitions was clearly recognized in sport psychology, and corresponding applied approaches have been developed. Now days, the career/developmental perspective in applied work with athletes in transition unifies several interrelated approaches or principles for example: A Whole career approach, a whole person approach, a developmental approach, a cultural specific approach, multidimensional approach that are important for an effective intervention.

4.12 Interventions for Career Termination

The need to help athletes coordinate their sport participation with other activities and to prepare for athletic career retirement. The aim at preparing athletes for transitions is to develop resources for effective coping. Intervention normally involves evaluation, career planning and goal setting, education, and counselling, mental training and quality of relationships (e.g., family, friends) in the context of sport and academic / professional occupation. There are number of transition programs developed around the world (Lavallee, Kremer, Moran, & Williams, 2004) (Wylleman, Alfermann, & Lavallee, 2004); (Wylleman et al., 1999).These programs focus on preparing athletes for athletic career termination and starting an occupational career or helping athletes to coordinate sports , education or work.

4.13 Role of Deliberate Practice in Sports

Elite level performance is not possible without the intensive training in sports for a longer period of time. Normally it takes 10 years of deliberate practice to reach an expert performance level in sport (Ericsson & Charness, 1994). Deliberate practice is a term use to describe the training activities that leads to greatest improvement in performance. Expert performers spend thousands of hours of practice to reach at peak level performance. It usually starts from early childhood and continue till early adulthood. The number of hours practice increases in adolescence stage and main focus is to improve skills and techniques at this stage. In Mastery stage main focus is on individualizing performance in specific domain.

In competitive sports like Field Hockey participants engaged themselves in more practice of the individual motor sport skills before the age of 15-16 at national level and practice normally take place separately from the team. By 15 or 16 years of

age, the players at elite level spend more time in practice with the team mates. International Field Hockey players engaged themselves approximately 3.5 hours per week at age 9 and slightly more than about 4 hours per week at age 12.

5. Psychological Influences on Athletic Talent Development

The following psychological variables have great influence on performance and contribute to develop the sport talent at development stage.

5.1 Task and Ego Orientation

Achievement motivation is a state of individual efforts to have expertise in his/her task, gain excellence and overcome hurdles to perform better than others. It is a person's orientation to strive for task success, persist in the face of failure, and experience pride in accomplishments (Gill & Williams, 2008). According to the achievement goal theory, three factors influence one's motivation, achievement goals, perceived ability and achievement behaviour. Task goal oriented people focuses on comparing performance with personal standard and personal improvement. They perceive abilities and success from self-referenced point of view. Task oriented people do not fear failure because their perception of ability is based on their personal performance and standard and it's easy for them to feel good and enjoy the activity. The main objective is to gain competency in an activity through learning, personal development, mastery and goal enjoyment. The task oriented people are motivated to initiate realistic tasks and put best efforts in the learning process rather than the outcome of activity. As well as ego oriented people perceive abilities and performance through normative point of view and compare personal performance and standards with others. Their perceptions of ability are high, and always choose challenging tasks and exert efforts. An athlete with an ego orientation holds a differentiated view of ability and that ability and efforts are clearly separate from each other (Nicholls, Cheung, Lauer, & Patashnick, 1989).

The achievement goal theory (AGT) represents a theoretical approach to understanding player's motivation and achievement behaviour in a physical activity setting. The central proposition of AGT revolves around the manner in which individuals determine their goals in achievement settings such as sport, Physical education, and the classroom (Murphy, 2004).

5.2 Physical Self Concept

A healthy self-concept includes being self-confident, sociable and competent, as well as having a positive attitude toward one's body. The global conceptualization involves a general evaluation of oneself derived from knowledge and evaluation of

competencies and skills in different areas such as social relationships, academics subjects and physical tasks. This general evaluation of the self is called self-esteem. But the term self-concept encompasses more than that. It comprises self-knowledge and self-evaluation on several dimensions of competence and skills. Bracken and Lamprecht, (2003) proposed six dimensions; namely, physical, family, academic, social, affect and competence.

The physical self-concept develops and passes through different changes during the life. At early stage it's difficult for children to discriminate about their abilities such as speed, strength, coordination than aged people. Children's perception at this stage regarding their own qualities is different and in a more general way for example, "Being good at Sports". At development stage athlete's cognitive and physical characteristics are developed and they can better differentiate between different sub domains of physical abilities.

Hypothetical model of physical self-concept

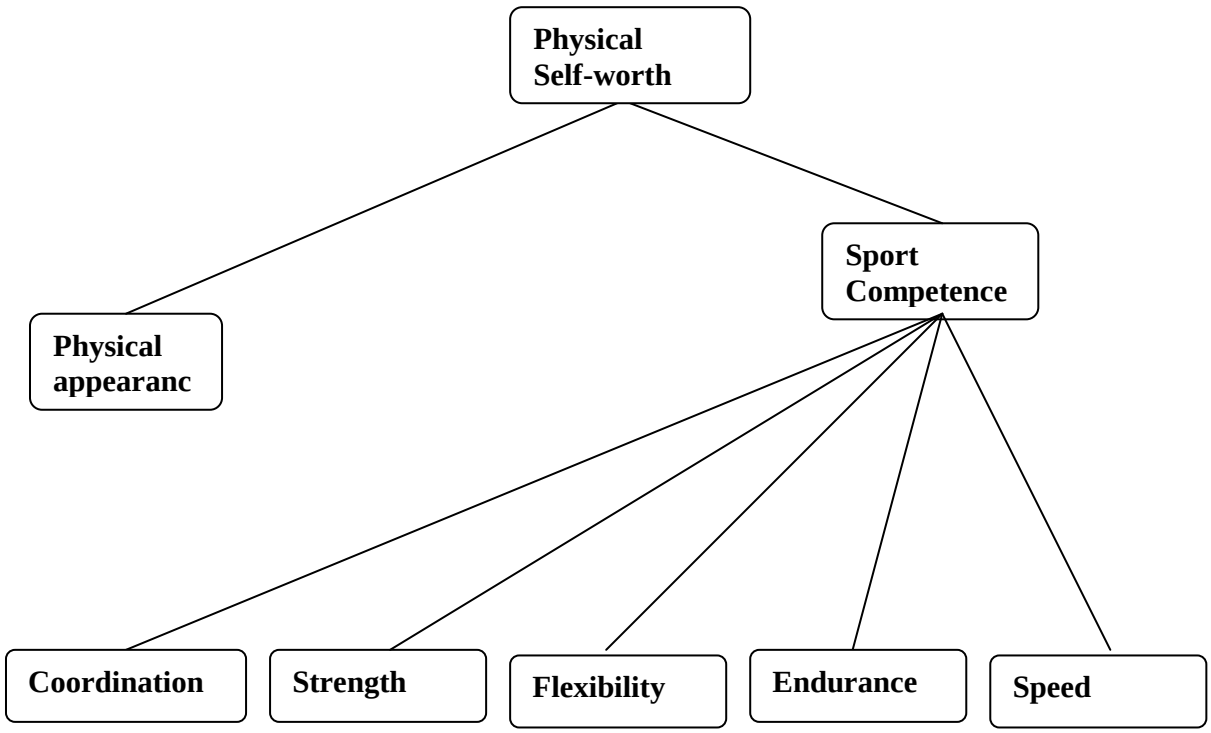


Table 12

Adapted from J. Stiller, S.Würth and D. Alfermann, 2004, (The measurement of physical self-concept-on developing the PSK-scales for children, adolescents, and young adults).Zeitschrift fur differentielle und Diagonostische Psychologie, 25, 239 - 257.

Self-concept can be conceptualised as more global or more differentiated. Global self-concept is defined as the general evaluation of one's competencies and skills. This general evaluation is called self-esteem. The differentiated self-concept comprises not only global self-esteem but also a differentiated structure of self-knowledge and self-evaluation on various dimensions of competencies and skills. The development of self-concept relies on biological factors (for example, maturity), cognitive factors (such as information integration) and social factors (particularly informational and evaluative feedback from social agents). Thus self-concept is the result of a cognitive and social construction process. This is why motor tests indicate only a moderate relationship between physical abilities and self-concept.

Physical self-concept is only the one facet of the self and is of particular importance in sports. It mainly depends on athletes interpretations and social feedback from teachers, coaches etc. It means that environment helps to learn motor skills and improve their competencies and may also improve their physical self-concept. Physical self.-concept may itself influence behaviour and thus determine, for example, the player's initiative, motivation and goal setting in sports. Self-concept, including the physical domain, develops over the life span. At developmental stage it becomes more differentiated, depending on the person's cognitive, physical and social development.

5.3 Coping Strategies/Skills

Participating in competitive sport places athletes especially at development stage under intense physical and psychological demands.These rigorous challenges require athletes not only to use automated technical and tactical skills but also to develop and employ an arsenal of cognitive and behavioural coping skills to achieve performance success and satisfaction (P. R. Croker, Alderman, & Smith, 1988); (Gould, Finch, & Jackson, 1993); The investigation of how athletes cope with sport-related stress has been recognized for both its practical and theoretical importance (Croker, Kowalski, & Graham, 1998).

Sport researchers have begun to identify how athletes cope or believe they would cope, under varying sport-related conditions (Crocker 1992; Crocker & Graham, 1995; Gould, Eklund, et al. 1993; Madden, 1990).These studies have reported how athletes cope with not only match related demands, but also the

requirements of managing time, interpersonal relationships, media , injury, and finances.

5.3.1 Definition of Coping

"A process of constantly changing cognitive and behavioural efforts to manage specific external and/or Internal demands or conflicts appraised as taxing or exceeding one's resources" (Lazarus & Folkman, 1984), P.141.

5.3.2 Categories of Coping

The most widely accepted coping categories are problem-focused coping and emotion-focused coping. Problem-focused coping involves efforts to manage the problem that is causing the stress for the individual concerned. It includes such specific behaviours or categories as information gathering, pre-competition and competition plans, goal setting, time management skills, problem solving, increasing effort, self-talk, and adhering to an injury rehabilitation program. Emotion-focused coping entails regulating the emotional responses to the problem that cause stress for the individual. Lazarus & Folkman (1984) suggested that problem-focused coping is used more often when situations are amenable to change, and emotion-focused coping is used more often when situations are not amenable to change.

5.4 Coping in Sports

According to Dale (2000) as well as Gould, Dieffenbach, & Moffett (2002), and Jackson (1992a, 1992b) mostly elite level athletes use the following coping strategies before and during the competition:-

- Thought control (blocking distractions, using coping thoughts such as "I can do it").
- Task focus (narrowing focus).
- Rational thinking and self-talk (taking a rational approach to oneself and the situation)
- Positive focus and orientation(focusing on belief in one's ability)
- Pre-competitive mental preparation and anxiety management (mental practice, pre-competition routines, relaxation strategies.
- Time management (making time for personal growth and daily goals).

Research by Gould and his colleagues on Olympic athletes (e.g., Gould, Guinan, Greenleaf, Medbery, & Peterson, 1999; (Greenleaf, Gould, & Dieffenbach, 2001) has revealed the following consistent findings:

- Athletes who prepared for unexpected events (e.g., bad call by an official, loud room-mate) were more successful than athletes not preparing for these events.
- Psychological skills (e.g., mental preparation, mental skills, use of routines) are important for effectively coping with psychological (e.g., anxiety, loss of concentration, lack of confidence) and non-psychological (e.g., poor housing, injury) stressors.
- All athletes reported on the importance of some aspects of mental preparation and stated that mental preparation had a positive impact on performance.
- Negative factors that were perceived to undermine Olympic performance included departures from the normal routine, media distractions, coach issues, injury, and over training.

The following **coping strategies / skills** are necessary in the development of athletes**:-**

5.4.1 Coping with Adversity

Athletes should learn a broad spectrum of coping strategies to use in different situations and for different sources of stress (Hardy, Jones, & Gould, 1996). Athletes change strategies across situations. Successful athletes vary in their coping strategies, but all have skills that work when they need them most. For example:-

"I did a lot of visualization, a lot of that... It's a coping strategy. It felt like you did more run-throughs. You went through the program perfectly (many) times. So, it gives you a sense of security and understanding about what was to take place and how it was supposed to go. It just gives you a claimer, more serene way".

----U.S. National Champion Figure Skater (Gould, Finch, & Jackson, 1993), P. 458).

5.4.2 Goal Setting & Mental Preparation

Goal setting is an extremely powerful technique for enhancing performance, but it must be implemented correctly. Goals always direct attention to important elements of the skill being performed and activate performer efforts. Goals prolong performer persistence in the activity but one should be careful while setting up the goals and mentally prepared before and during the competition

5.4.3 Confidence & Achievement Motivation

Self-confidence is the most obvious characteristic in athletes who perform successfully. Without exception it is clear that the successful athletes believed more in themselves that unsuccessful athletes did.

Achievement motivation refers to a person's efforts to master a task, achieve excellence, overcome obstacles, perform better than others, and take pride in exercising talent (Murray, 1938). It is a person's orientation to strive for task success, persist in the face of failure, and experience pride in accomplishment (Gill, 2000).

It includes the precise characteristics that allow athletes to achieve excellence, exercisers to gain high levels of fitness, and students to maximize learning. Achievement motivation is the tendency to strive for success, persist in the face of failure, and experience pride in accomplishments. Achievement motivation in Sport is popularly called competitiveness.

5.4.4 Concentration

Top athletes have the ability to put them into a special state of mind during the competition and focus all their attention on the performance; that means their action and thoughts. They can cope with moments of stress in competition and quickly refocus when they are being disturbed. Donovan Bailey (Olympic champion -100m dash) said:-

"I was not thinking about the world record. When I used to go into race thinking about times, I was always screwed up so I was thinking about my start and tried to relax, just focus on doing the job in hand"

Concentration is the ability to maintain focus on relevant environmental cues. When the environment changes rapidly, attentional focus must also change rapidly. Thinking of the past or the future raises irrelevant cues that often lead to performance errors.

5.4.5 Peaking Under Pressure

Stress occurs when there is a substantial imbalance between the physical and psychological demands placed on an individual and that person's response capability and under conditions in which failure to meet the demand has important consequences.

High level of competition always put athletes especially development stage under intense situation and sends signals of stress, causing different kind of disturbances. The athletes with greater mental power, those have practiced their mental skills will peak under pressure and end up successfully.

5.4.6 Free from Worry

The better athletes experienced less worry or nervousness before and during competition. They could also control their worries to a better level because they saw their activation in a positive manner.

5.4.7 Coach ability

The ability of coaches to use the skills and attitude that create resilience and allow players to overcome the hurdles that stands in the way of reaching their goals. The coaches' primary role is to facilitate the process of athlete's development through achievement of athletic potential. Players consider their coaches as role models and rely on their coaching abilities.

5.5 Competitive Anxiety

Field Hockey is a competitive sport in which players have to play under stress. Competition can cause athletes to react both physically (somatic) and mentally (cognitive) in a manner which can negatively influence their performance abilities. Stress, arousal and anxiety are terms used to describe this condition. The term arousal is related to the activation of the autonomic nervous system as a response to stimulus. The major problem in competition is letting your mind work against you rather than for you. You must accept anxiety symptoms as part and parcel of the competition experience; only then will anxiety begin to facilitate your performance.

According to Martens, Vealey, & Burton's (1990) multidimensional theory, there are two basic dimensions of anxiety: Cognitive anxiety and Somatic anxiety. Cognitive anxiety refers to the negative expectations about performance in sports and concerns about the situation at hand and its consequences of a potential failure.

As well as somatic anxiety refers to the physiological and affective elements of anxiety, like rapid heart rate, breathe shortening, tension in stomach and muscles etc. Both types' of anxieties are produced due to the different sources and influence behaviour. According to the theory there will be a negative but linear relationship between cognitive anxiety and performance. An increase in cognitive anxiety will lead towards the decline in performance. An increase in somatic anxiety will improve the performance of the players up to an optimal level and further increase in somatic anxiety will decreases the performance.

Anxiety is a negative emotional state in which feelings of nervousness, worry, and apprehension are associated with activation or arousal of the body. Thus anxiety has a thought component (e.g., worry and apprehension) called cognitive anxiety. It also has a somatic anxiety component, which is the degree of physical activation or perceived.

5.5.1 State Anxiety

Anxiety is a stable component of the personality but it can be described in a changing mood state. State anxiety refers to the ever-changing mood component. It is defined more formally as an emotional state" characterized by subjective, consciously

Perceived feelings of apprehension and tension, accompanied by or associated with activation or arousal of the autonomic nervous system" (Spielberger, Gonzalez, Taylor, Algaze, & Anton, 1978).Cognitive state anxiety concerns the degree to which one worries or has negative thoughts, whereas somatic state anxiety concerns the moment to moment changes in perceived physiological activation. Somatic state anxiety is not necessarily a change in one's physical activation but rather one's perception of such a change.

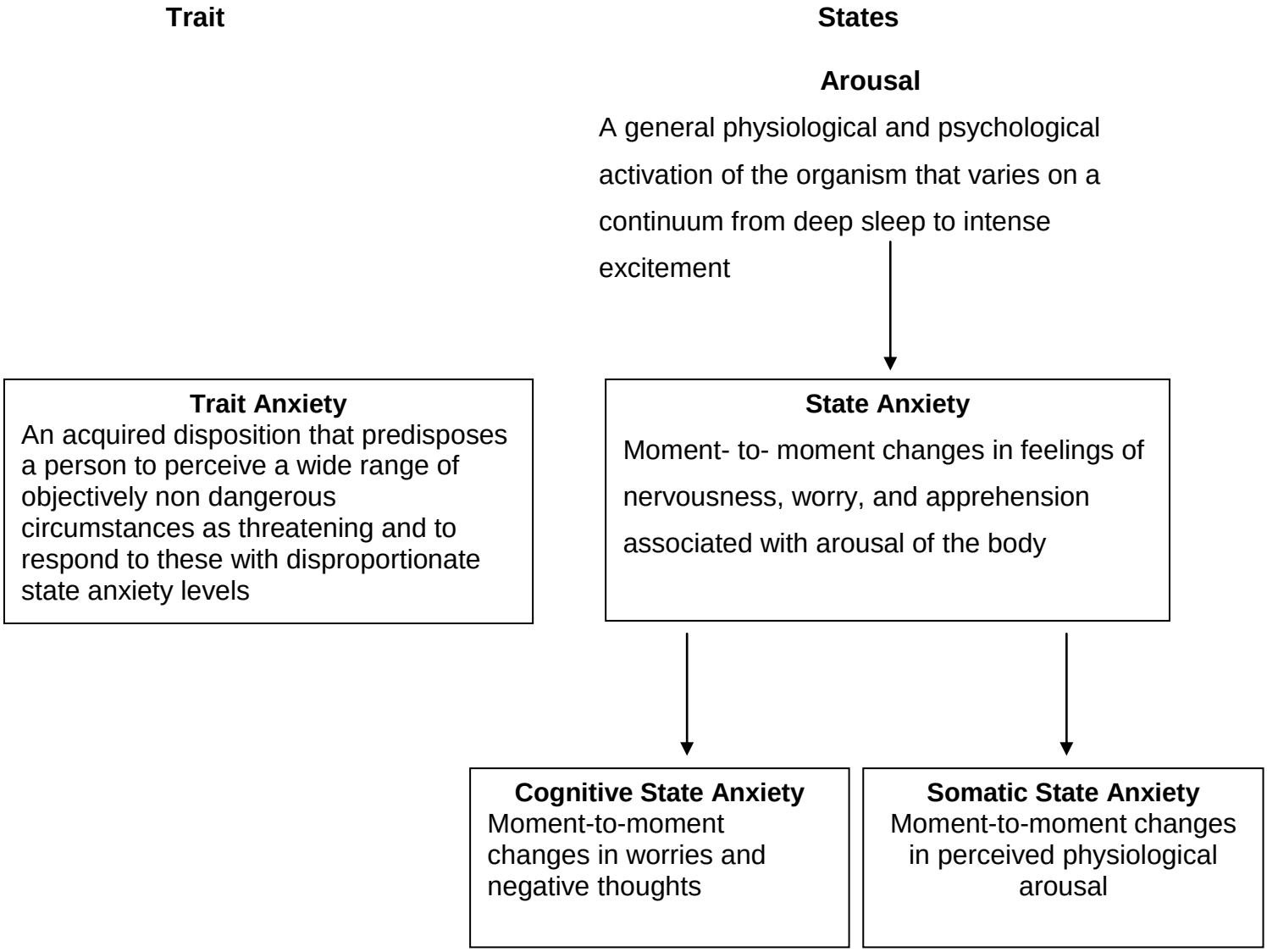
5.5.2 Trait Anxiety

Unlike state anxiety, trait anxiety is a part of the personality, an acquired behavioural tendency or disposition that influences behaviour. In particular, trait anxiety predisposes an individual to perceive as threatening a wide range of circumstances that objectively are not actually dangerous physically or psychologically. The person then responds to these circumstances with state anxiety

reactions or levels that are disproportionate in intensity and magnitude to the objective danger (Spielberger, 1966, p.17).

Table 13

The interrelationships among arousal, trait anxiety, and state anxiety by (Spielberger, 1966, p.17)



5.5 Sport Commitment

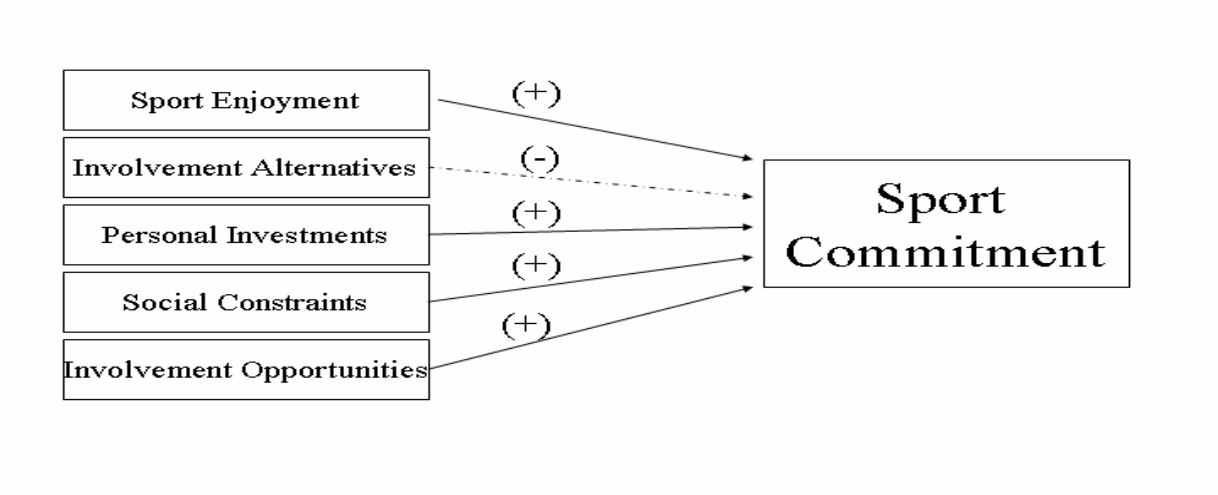
The Sport Commitment Model (Scanlan et al., 1993) defines sport commitment as a psychological state representing the desire to resolve or continue sport participation. Sport commitment was posited as having five determinants including sport enjoyment, involvement alternatives, personal investments, social constraints, and involvement opportunities**.**

Sport enjoyment is defined as a positive affective response to the sport experience that reflects generalized feelings such as pleasure, liking, and fun. Involvement alternatives are defined as the attractiveness of the most preferred alternative(s) to continued participation in the current endeavour. The personal resources that are put into the activity which cannot be recovered if participation is discontinued are explained within the personal investments category. Social constraints are the social expectations or norms that create feelings of obligation to remain in the activity. Involvement opportunities are the valued opportunities that are present only through continued involvement. Overall, sport enjoyment, personal investments, social constraints, and involvement opportunities were predicted to have a positive relationship to sport commitment, while the presence and strength of involvement alternatives were posited as having a negative relationship to sport commitment.

According to Bloom (1985) at the stage of development children are “hooked” on their particular activities. They are highly motivated and committed to their sport and made sacrifices like, gives more time to practice instead of other outdoor activities.

Figure 9 :

Sport Commitment Model (Scanlan et al. 1993)



5.7 Self-efficacy

Self-efficacy is an individual phenomenon regarding the belief one has in one’s ability to execute the specific task successfully. Self-efficacy focuses on individuals' beliefs about their performance capabilities in a particular domain (Tschannen-Moran & Woolfolk, 2001). Self-efficacy beliefs influence on the choices individuals make and the courses of action they pursue (Pajares, 1996).Self-efficacy is related to

achievement goals and self-regulation and due to these factors, describe the degree to which players take part in their own learning.

Self-efficacy refers to an individual's "belief in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p. 3), and in sport it has consistently been shown to be an important predictor of positive cognitions (Kane, Marks, Zaccaro, & Blair, 1996), and behaviour (Beauchamp, Bray, & Albinson, 2001)

Self-efficacy relates to a person's perceived abilities to perform tasks independently. In sporting contexts, athletes mostly spend time in training, performing, and working with team-mates, coaches etc., and in such an environment efficacy beliefs should also be considered in relation to the interactive and independent tasks athletes perform. According to social-cognitive theory (Bandura, 1986), in which individuals are considered to be both products and producers of their environment, personality, and actions. Theory is concerned with how people develop judgements and expectations about their own capabilities and the ability to successfully meet various demands and challenges. Theory shows that one's feelings of self-efficacy are derived from six principle sources of information: Performance accomplishments, vicarious experiences (modelling), verbal persuasion, imaginable experiences, physiological and emotional states.

In team sports like Field Hockey self-efficacy plays vital role in the development of athletes. It relates to the team members, perceptions about the team's collective abilities. Bandura (1977) defines collective efficacy as a "group's shared belief in their conjoint capabilities to organize and execute the courses of action required to produce given attainment".

5.8 Parental Involvement in Sports

The research by Bloom (1985) and colleagues is focused on the development events that happen in the lives of exceptionally talented artists, musicians, mathematicians, scientists, athletes etc. Analysis shows that talent development is not only based on three learning stages but parents have strong impact and valuable contributions in the development of their children in sports. No doubt without the help of family and peers development of players is difficult.

During the early years or initiation stage parents introduce their children to different sports and main stress is on fun loving activities. Parents provide guidelines

and also make sure regarding the coaching plans and training sessions which can improve the performance of their children. They are supportive and friendly to their children and try their best to provide suitable atmosphere created by coaches and never stress children to achieve competitive outcome before they comes to take interest in sports. Children take part in entry level competitions and recreational and fun loving activities at this stage.

At the stage of development children switch over to specific and higher level of practice and competitions. Parents help and encouragement for their children also increases because of the intensive atmosphere and outcome-oriented environment. Parents scarify and provide financial and moral support to the children. They are engaged in pick and drop to the play fields. Parents try their best to ensure their presence during the competitions and practice sessions. Families invest time and energy in school activities and to be more energetic and determined. These family characteristics increase the adolescent's chances to develop their talents.

In the stage of perfection athletes participate at national and international level and parents play less immediate role in the training environment but still they provide social and financial support to their children.

5.9 Leadership in Sports

Leadership might broadly be considered" the behavioural process of influencing individuals and groups toward set goals" (Barrow, 1977). In sports it means to influence the behaviour of athletes to make decisions, motivate participants, establishing personal relationships, and guiding the athletes or teams confidently. In sports coaches, managers, teachers are the leaders who can play important role in the development of the athletes and increase performance abilities. Coaches as leaders provide directions towards setting realistic goals motivate and support athletes to convert their vision into reality. Coaches always provide pertinent environment to develop technical and tactical skills of the game.

Smoll and smith (1989) proposed theoretical model of leadership behaviour that emphasis relationships among situational, cognitive, behavioural, and individual difference variables. The multidimensional model of sport leadership (Chelladurai & Saleh, 1978) focuses on the leader effectiveness in sports depending on the qualities of the players and constraints of the situation. According to this model there are three main states of leader behaviours: Required behaviour, preferred behaviour and actual behaviour. The situational characteristics are related to group goals, type of

tasks and the social and cultural context of the group. Leader should be demanding and directing when coaching an elite athletes but at the stage of development should be soft and gentle with the players.

Preferred behaviour is concerned with the preferences of players for guidance, instructions, social support and feedback. These are function of members characteristics, including personality and ability related to the task. The required behaviour can be defined by the nature of group as well as preferred behaviour is a reflection of individual differences within the groups. The group can be different from another with regard to age, gender, skill level etc. It means that required leadership behaviour may be different from one group to another like university teams or youth teams. The actual behaviour is connected with the qualities of leader, like personality, expertise and experience.

The coaches play significant role in the development of athletes especially at the practice sessions, through training plans and deliberate practice. At this stage coaches enhance the performance abilities of the athletes. They gradually enhance the mental, social and emotional capabilities which in turn increase performance level. During this learning process athlete enters from joyful, fun loving stage to committed or development stage where athletes need hard work and motivation. Coaches' creative vision, inspirational communication, intellectual abilities, social supportive behaviour, directive leadership and personal recognition promote the athletes sporty behaviour and performance abilities.

Coaches and athletes normally build alliances with each other through which coaches are able to provide professional guidance and support to the athletes. These relations based on trust, co-operation, respect, belief, support, communication and understanding between each other. These relationship components contribute to performance success. As well as lack of trust, lack of respect, verbal, physical, and sexual exploitations are considered to be components that undermine athletes and coaches. Psychological well-being and performance enhancement lie in the heart of the coach- athlete relationship.

5.10 Motivational Climate in Sports

The learning atmosphere in sports is called as motivational climate. It has different motivational patterns such as positive attitudes, increased effort, effective learning strategies. There are two dimensions of motivational climate mastery and performance, in sports and physical activity. Mastery (task-involving) climate refer to

structure that support effort, cooperation, and emphases on learning and task mastery. As far as performance (ego-involving) climate refer to situations that enhance normative comparisons, intra-team competition and disciplinary approach by coaches to mistakes committed by players.

A mastery climate is related to player's perception that all athletes will be treated equally in the same way and great efforts will be rewarded by their coaches. This learning process can increase individual skills. As far as goal orientation is concerned athlete's perceptions for team-mates that they try to out-perform one another but it's limited to only few elite players. Mastery climate encourages learners to develop task orientation and intrinsic motivation, to put best efforts in the sports and skill development than a performance climate.

The social environment in which a player works has significant role for achievement motivation and competitiveness and can create positive or negative motivational climate. Teachers and coaches create motivational climate directly or indirectly. They define tasks or games as competitive or cooperative, group children in certain ways and differentially emphasize task or outcome goals (Roberts, Treasure, & Balague, 1998).

Being an expert one can play vital role in creating the motivational climate that increase the player's achievement motivation. Coaches and parents can recognize interactional influences on achievement motivation and emphases individual task goals instead of outcome goals. They can provide feedback and discuss when is suitable to take part in competition or compare themselves socially. Achievement motivation and competitiveness develop through different stages that include an autonomous stage when player concentrate on mastery of environment. In a social comparison stage in which children compare themselves with other team-mates, an individual both focuses on self-improvement and uses social comparison.

6 Hypotheses (1st Study - Germany and Pakistan)

The following scientific questions and hypothesis were raised during the follow-up study. The data were collected in two phases with one year apart to find out the possible differences between the German and Pakistani Field Hockey players at the stage of development. The individual and cultural influences were also placed to validate the study.

6.1 Hypotheses Part 1 (Psychological profiles)

There might be significant differences among the Field Hockey players of Germany and Pakistan at development stage in relation to their Psychological profiles:-

1.1 German athletes might have higher motivation.

1.2 Maybe German players are more social than Pakistani players.

1.3 Pakistani players might be ego-oriented as well as Germans are task-oriented in sports.

1.4 Pakistani athletes might be higher in competitive anxiety.

1.5 Pakistani athletes seem to be less self-confident than German players.

1.6 German player seems to be mentally stronger than Pakistani players.

1.7 Pakistani athletes can't peak under pressure because they might not be using mental rehearsals before and during the competition.

1.8 To enhance confidence and achievement motivation, German players might practice specific plans.

1.9 German athletes might be better in coping with adversity.

1.10 Pakistani players maybe rely more on coach abilities.

1.11 German Players might set specific goals and mentally trained themselves for competition.

1.12 German athletes might be more committed to their sport than Pakistani players.

1.13 Pakistani players might invest personally more in the game.

1.14 German athletes might be higher in self-efficacy.

6.2 Hypotheses: Part 2 (Physical profiles)

There might be significant differences among the Field Hockey players of Germany and Pakistan at development stage in relation to their Perceived Physical Self -Concept profiles:

2.1 German athletes might have higher perceived physical self-concept.

2.2 Pakistani athletes maybe have less perceived physical characteristics

2.3 Germans players might be good at conditional qualities than Pakistani players

6.3 Hypotheses: Part 3 (Social profiles)

There might be significant differences among the Field Hockey players of Germany and Pakistan at development stage in relation to their Social profiles:-

3.1 Pakistani athletes have less parental support due to the non-sporting environment.

3.2 German coaches might create motivational climate in their athletes.

3.3 German Coaches maybe provide equal opportunities to athletes.

3.4 German athlete's parents are actively involved in the physical activities of their children.

3.5 Pakistani parents might have directive behaviour towards them.

3.6 German coaches might be good at communication skills and instructing their athletes.

3.7 Pakistani athletes might get less positive feedback and support from their coaches.

3.8 German coaches might be democratic and Pakistani's autocratic in styles.

6.4 The following hypotheses were formulated for South Asian and German Field Hockey players at the stage of development (12-18 years).

6.4.1 Hypotheses Part 1 (Psychological profiles)

1.1 German athletes might have higher motivation than South Asian players.

1.2 Maybe German players are more social than South Asian players.

1.3 South Asian players might be ego-oriented as well as German might be task oriented in sports.

1.4 South Asian athletes might be higher in competitive anxiety.

1.5 South Asian athletes seem to be less self-confident than German players.

1.6 German player seems to be mentally stronger than South Asian players.

1.7 South Asian athletes can't peak under pressure because they might not be using mental rehearsals before and during the competition.

1.8 To enhance confidence and achievement motivation, German Field Hockey players maybe practice specific plans.

1.9 German athletes might be better in coping with adversity.

1.10 South Asian Field Hockey players maybe rely more on coach abilities.

1.11 German Field Hockey Players might set specific goals and mentally trained themselves for competition.

1.12 German athletes might be more committed to their sport than South Asian players.

1.13 South Asian Field Hockey players might invest more in the game.

1.14 German athletes might be higher in self-efficacy than South Asian players.

6.4.2 Hypotheses Part 2 (Physical profiles)

2.1 German athletes might have higher perceived physical self-concept than South Asian players.

2.2 German players might be good at conditional qualities than South Asian players.

6.4.3 Hypotheses: Part 3 (Social profiles)

3.1 South Asian athletes might have less parental support due to the non-sport environment.

3.2 German coaches might create motivational climate in their athletes.

3.3 German coaches maybe provide equal opportunities to all athletes.

3.4 German athlete's parents are maybe actively involved in the physical activities of their children.

3.5 South Asian parents might have directive behaviour towards their children.

3.6 German coaches might be good at communication skills and instructing their athletes.

3.7 South Asian athletes might get less positive feedback and support from their coaches.

3.8 German coaches might have democratic style than South Asian coaches.

7 Methodology

The current part of research is the practical implementation of the investigation. It presents the research design and explains the data collection procedure and the target groups of the study. The data analyses instruments and procedure is also discussed in detail.

The data were collected on two occasions in order to increase the number of Participants.

Follow- up study:	**Data collection 1**	**Data Collection 2**
Time duration (German):	**October, 2008**	**October, 2009**
Time duration (Pakistan):	**January , 2009**	**January , 2010**
Pakistani athletes:	**97**	**47 Total = 144**
German athletes:	**85**	**42 Total = 127**

7.1 Reasons to Select Field Hockey

The following were the reasons to select the Field Hockey for research work:-

- Field Hockey is a competitive game and players have to perform under intense conditions. Psychological characteristics play vital role to improve the performance in team sport.
- To increase level of performance one has to be mentally, physically and socially fit in his / her sport.
- Field Hockey is a famous game in both the countries and this comparative study will help to improve the talent development.
- No doubt the Germans are the most successful in this game at international level but their famous sport is Football.

- The Field Hockey is national game of Pakistan and country has glorious past in this game but now a days it is on decline.
- The findings of the study will help out young Field Hockey players of Pakistan to enhance the performance at the stage of development.

7.2 Participants

The samples for the present study were comprised of the young Field Hockey players of Pakistan and Germany between the ages of 12 to 18 years. All the players were at developmental stage, involved in training and representing their teams/clubs at different levels.

Table 14

Detail of German Field Hockey Clubs

Name of Club	Participants October , 2008	Participants October , 2009
ATV Leipzig (1845)	31	13
Elster Hockey Club 49 Leipzig	12	-
Leipziger Sport Club (1901) Leipzig	14	-
HCLG, Leipzig	18	-
SG Motor Gohlis-Nord Leipzig	10	-
Sportverein Zehlendorfer Wespen 1911,Berlin	12	12
Postsportverein Chemnitz	-	05
Fortuna Marzahn Berlin	-	01
VFB Stuttgart 1893	-	05
ESV Dresden	-	06
Total athletes:	85	42

Table 15

Detail of Pakistani Field Hockey Clubs

Name of Club	Participants January , 2009	Participants January, 2010
Tauqeer Dar Hockey Academy, Lahore	37	-
Pak Hero Hockey Club, Lahore	25	-
Wohaib Hockey Club, Lahore	35	-
The Gojra Sports Hockey Club, Gojra	-	47
Total athletes:	97	47

7.3 Implementation of the Design

7.3.1 Procedure for Data Collection

To access the participants all the clubs in Leipzig and other cities were traced. Information was taken through internet and letters, emails or phone calls were made to make contacts and permission. The clubs and trainers gave their permission for the study. The players were informed before time so that questionnaires could be distributed according to the convenience of the respondents. Deutsch version questionnaires were distributed to the German players and English version to the Pakistani athletes.

According to the schedule all the questionnaires were delivered to the concerned clubs so that they could ask players to fill them out before the practice sessions. All clubs took around 1 month to complete the process in Germany because athletes have different practice sessions according to their age categories. In Pakistan athletes were asked to fill out the questionnaires at the training spots. All the filled copies were sent back through post which was a time consuming procedure. During the first and second studies 150 and 100 questionnaires were distributed among the German participants of different clubs and institutions. Turnout was not up to the expectations as it was just 57.7% and 42% respectively. The reason might be the length of questionnaire or at the age of development it seems difficult to sit for 40-45 minutes or maybe lack of interest or fear to share personal information. Another reason maybe the off season and especially in Germany these days are too cold and sometimes temperature goes down up till minus twenty five (- 25).

As well as 100 questionnaires in first and 50 in next study were distributed among Pakistani players and turnout was 97% and 94 % respectively. Maybe it was due to the differences in weather conditions or cultures because Pakistani players mostly rely on coaches and managers and act according to their instructions.

Table 16

Turn out of the investigation

Nation	Handout copies (2008)	Received Copies (2008)	%	Handout copies (2009)	Received copies (2009)	%
Pakistan	100	97	97	50	47	94
Germany	150	85	57.7	100	42	42
Total	250	182	72.8	150	89	59.3

7.4 Description of the Samples

7.4.1 Athlete's Age

In total 271 participants between the ages of 12 to 18 years old (144 Pakistani and 127 German players) took part in the study. The combine mean age of Pakistani players (M= 16.3 & SD = 1.29) and for German players (M = 14.3 & SD = 1.78). German athletes were 2 year younger than Pakistani players.

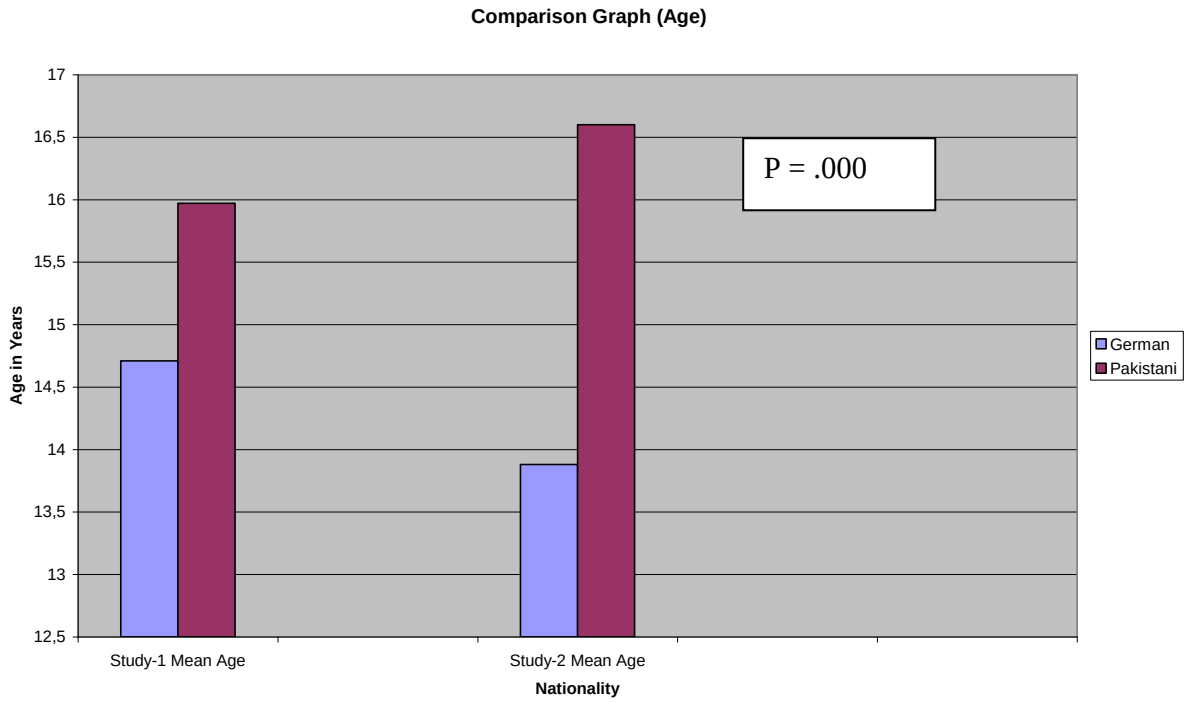
Table 17

Participants "Age"

Nationality	Study-1 Mean Age	SD	Study-2 Mean Age	SD	Total Mean Age	Total SD
German	14.71	2.18	13.88	1.37	14.3	1.78
Pakistani	15.97	1.46	16.60	1.12	16.3	1.29

Figure 10

Participants "Age"



7.4.2 Athlete's Weight

The mean body weight for Pakistani players in both studies (M= 57.35 kg & SD = 7.99) and for German athletes (M= 57.39kg & SD= 11.23).Minor differences in body weight were found in the players but due to the age differences German players were healthier than Pakistani athletes.

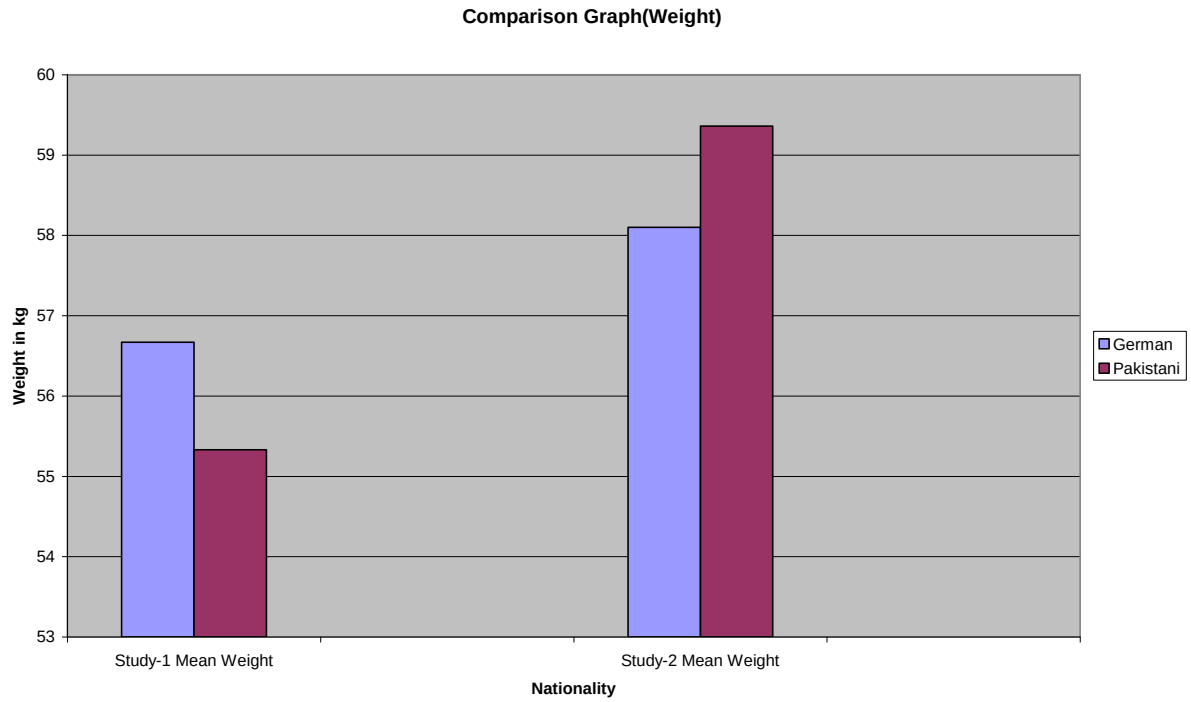
Table 18

Participants "Weight"

Nationality	Study-1 Mean Weight	SD	Study-2 Mean Weight	SD	Total Mean Weight	Total SD
German	56.67	11.09	58.10	11.36	57.39	11.23
Pakistani	55.33	10.01	59.36	5.97	57.35	7.99

Figure 11

Participants "Weight"



7.4.3 Athlete's Height

The mean height of Pakistani and German athletes was M= 162.78 cm and 167.69 cm respectively. The difference of 4.91 cm was found between the Pakistani and German athletes. The German athletes were two years younger than Pakistani Players at the stage of development even then they were taller in height and significant differences were seen among them.

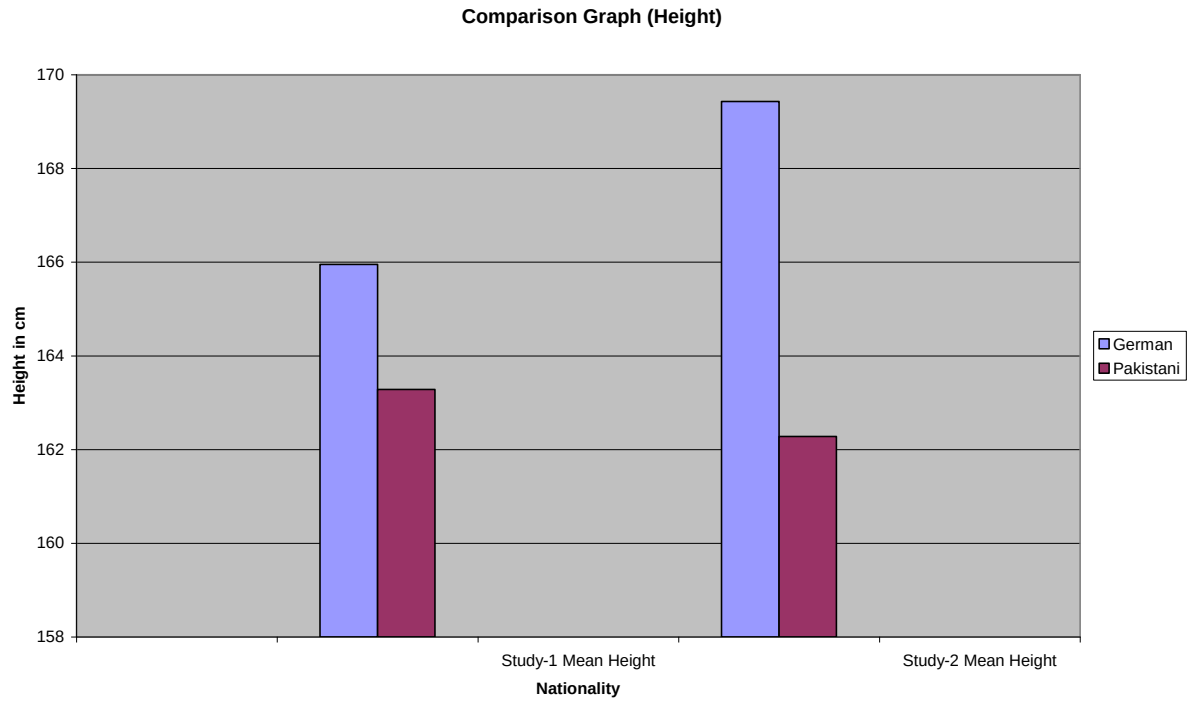
Table 19

Participants "Height"

Nationality	Study-1 Mean Height	SD	Study-2 Mean Height	SD	Total Mean Height	Total SD
German	165.95	9.71	169.43	9.60	167.69	9.66
Pakistani	163.28	9.23	162.28	8.72	162.78	8.96

Figure 12

Participants "Height"



7.4.4 Comparison of Constitutional Qualities

In brief according to the research findings German players were found better in constitutional qualities as there were significant differences in Height (4.91 cm) body weight (0.04 kg) and Age (2 years) of the athletes of both nations.

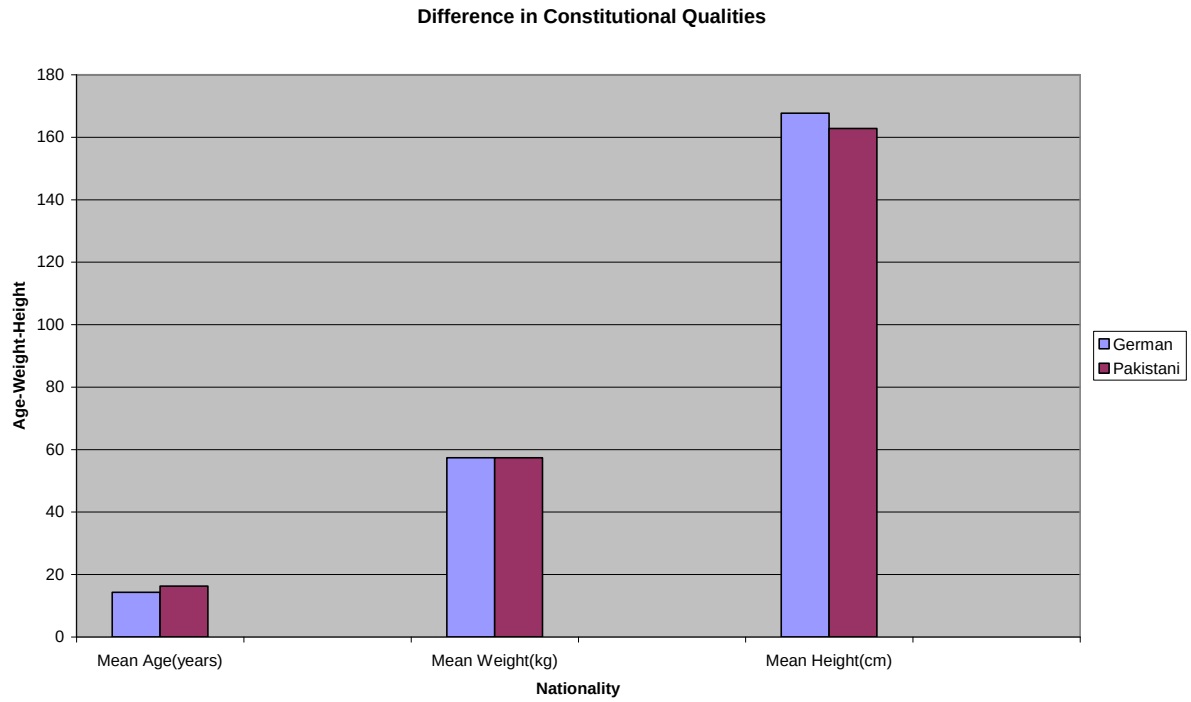
Table 20

"Constitutional qualities"

Nation	Mean Age Years	SD	Mean Height(cm)	SD	Mean B.Weight(kg)	SD
German	14.30	1.78	167.69	9.66	57.39	11.23
Pakistani	16.30	1.29	162.78	8.96	57.35	7.99
Differences	2.00 Y	0.49	4.91 cm	0.7	0.04 kg	3.24

Figure 13

Constitutional Qualities



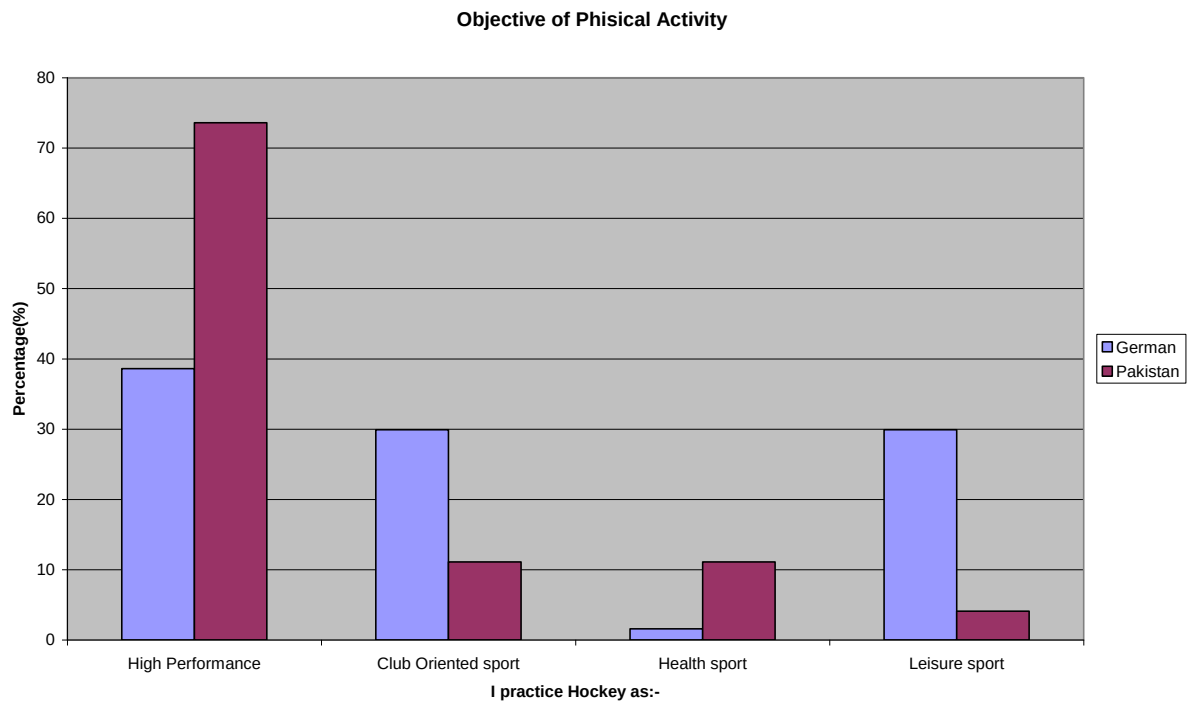
7.5 General Information of the Subject

In general when we look at German's development in Field Hockey it seems that they are always motivated towards performance sport. In current study 127 athletes participated and 38.6 % athletes considered the game as high performance sport, 29.9% as competition-club oriented sport, while 29.9% took as leisure sport and only 1.57 % players regarded it as health sport.

As well as Pakistani athletes were concerned they always considered Field Hockey as high performance sport due to the infrastructure and sporting environment in the country few people comes toward sports. This survey validate the researcher point of view because 144 athletes were included in the study and 73.6 % athletes were agreed that it is a high performance sport and 11.1% players took it as club oriented and health sport. Only 4.1% athletes considered it as leisure sport.

Figure 14

Objective of Physical activity

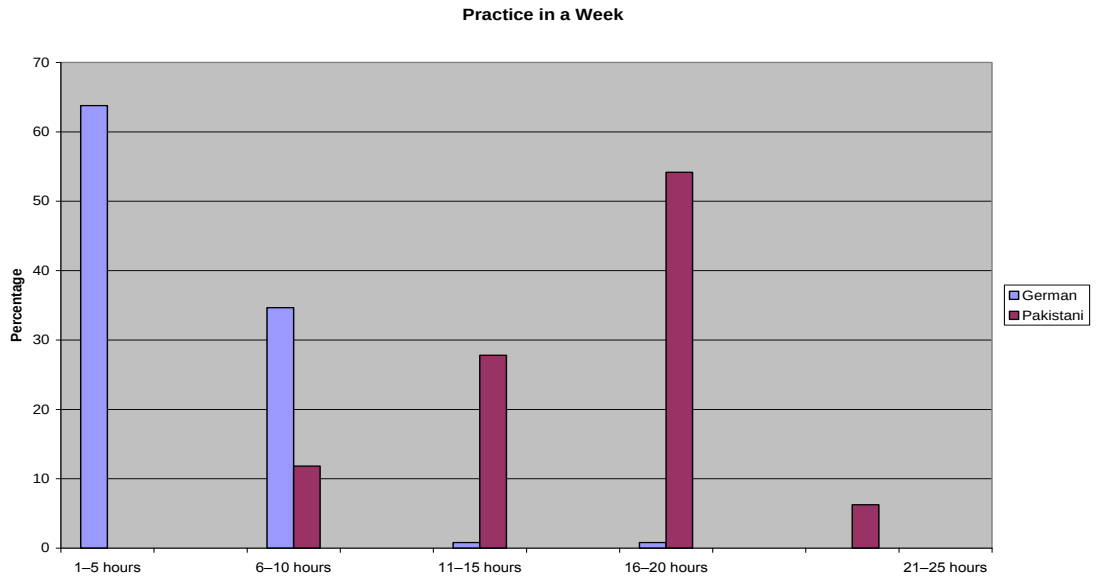


7.5.1 Training in a Week

Pakistani players practice Field Hockey more than 15 hours per week. Only 11.81 % Pakistani's were found to practice less than 10 hours per week. As far as 63.78 % German athlete practice less than 5 hours and 36.22 % practice more than 10 hours per week.

Figure 15

Training Hours per Week

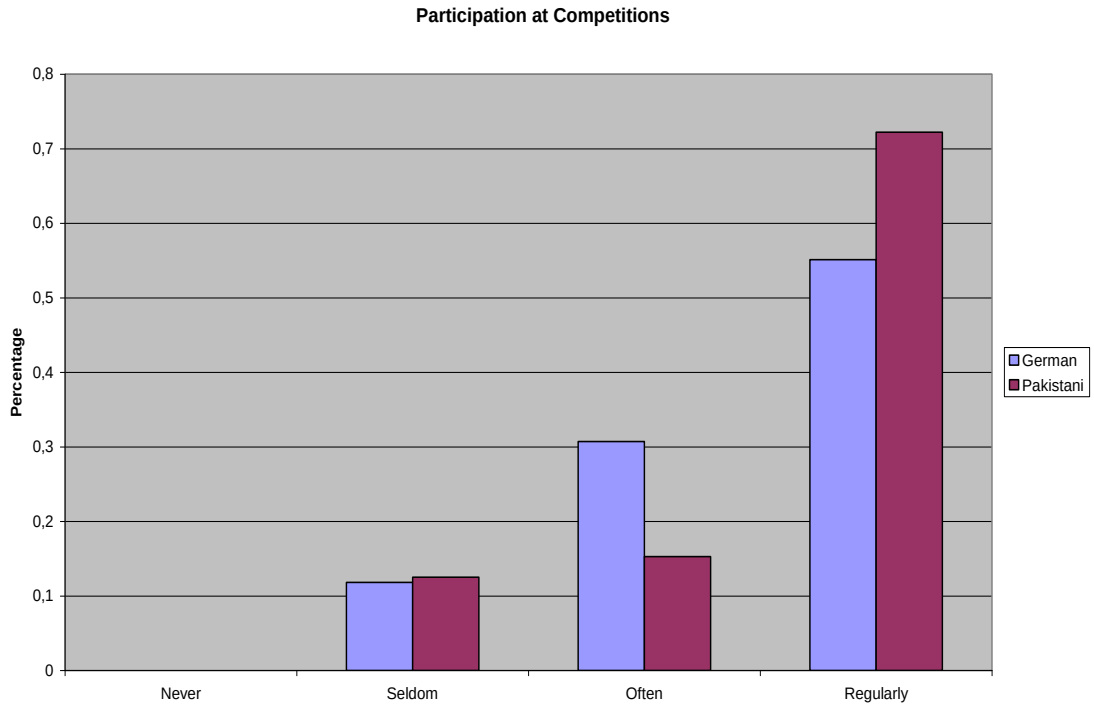


7.5.2 Participation in Competitions

In total 144 Pakistani and 127 German athletes were of the view that how often they participate in competitions. About 72.2% Pakistani athletes were taking part regularly in competitions, 15.3% often and only 12.5 % marked seldom. As well as 55.1 % German athletes were regularly playing matches, 30.7% often taking part,11.8% seldom and 2.4% were not playing in the competitions.

Figure 16

Participation in Competitions

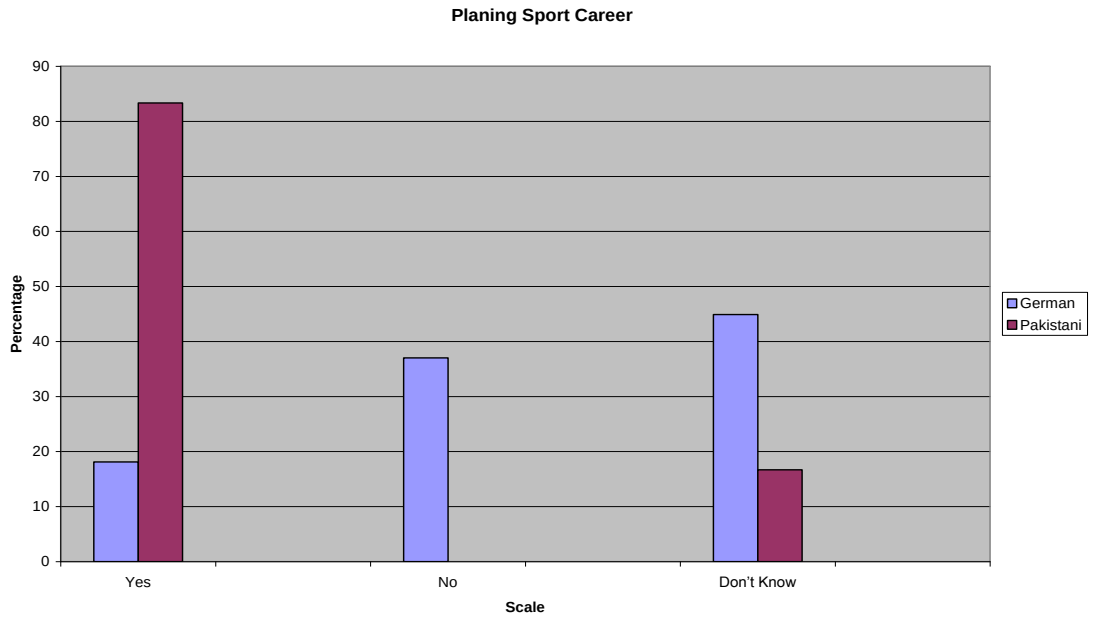


7.5.3 Planning Sport Career

Normally players at the stage of development start planning their sport career. According to the given interview schedule 83.3% Pakistani athletes were of the view to carry on their performance sport in future. Only 16.7% athletes did not have clear picture in their mind and marked don't know. Unexpectedly 18.1% German were interested to carry on performance sport, 37% refused to adopt it as profession and 44.7 have no idea and mentioned don't know about it.

Figure 17

Sport Career

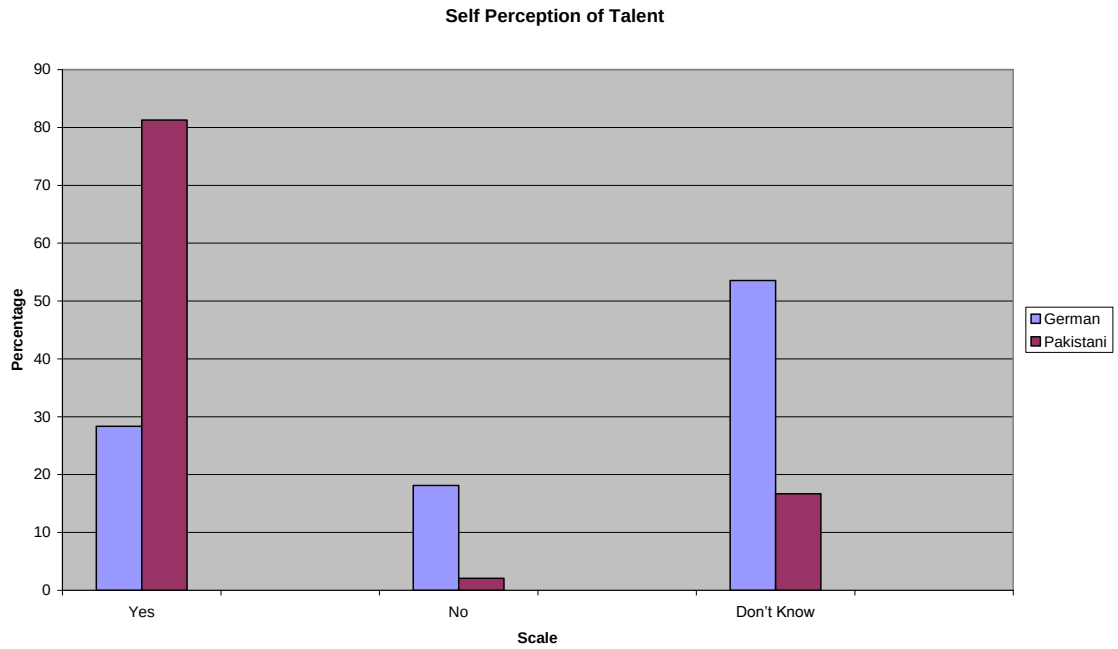


7.5.4 Self-Perception of Talent

In total 81.1 % Pakistani athletes considered themselves as talent for Field Hockey, 16.7 % marked don't know and 2.1% players did not consider themselves as talent. In total 127 German athletes filled questionnaires and 53.5% players mentioned that they don't have an idea, 18.1 % replied in no and 28.4 % athletes regarded themselves as talent.

Figure 18

Talent Perception



7.6 Instruments

In the current study individual and environmental features of German and Pakistani young Field Hockey players were observed. The equivalence of instrument and language is very important for both cultures. The collected data will be tested through the standard criteria set for instruments. All the questionnaires have already been tested by original authors as well German version questionnaires were used by Xinsheng Wang, (2010) in his comparative study between German and Chinese young football players at the stage of development

The following variables were put to test for data collection:

- Goal Orientation in Sports
- General Sport Ability & Appearance
- Perceived Physical Self Concept
- Cognitive and Competitive Anxiety
- Coping Startegies in Sports
- Sport Commitment
- Parental Involvement in Sports
- Coaches Behaviour in Sports
- Motivational Climate in Sports
- Self - Efficacy

Table 21

Overview of the Measurement Scales

Task & Ego Orientation in Sports Questionnaire	
Description	**Source**
TEOSQ: 3-dimensional 19 items scale measuring Task orientation, Ego orientation and Social approval. 4 – point - Likert scale (disagree, rather disagree, rather agree & agree)	English version Joan. L. Duda (1992). German version by Rethorst & Wehrmann (1998); Alfermann et al. (1997).

Physical Attractiveness	
Description	**Source**
KSK-J : (German version) One dimension 9 items scale measuring physical attractiveness (General sports ability & appearance) KSK-J: (English version) 10 items scale 4 - point - Likert – scale (strongly disagree, disagree, agree & strongly agree)	Alfermann & Stoll, 1995 ; modified by Alfermann, Würth & Saborowski , (1997)

Physical Self description Questionnaire	
Description	**Source**
PSDQ: 6 dimensional 36 items scale measuring Speed, strength, Flexibility, Endurance, Coordination and Sport competence 4 - point - Likert – scale (disagree, rather disagree, rather agree & agree)	English Version : Marsh et al. (1994) German version: Stiller, Würth & Alfermann (2004)

The Competitive State Anxiety Inventory-2	
Description	**Source**
CSAI-2: 3 dimensional 27 items scale measuring Cognitive Anxiety, Somatic anxiety and self confidence 4 - point - Likert – scale (not at all, somewhat, moderately so, & very much so)	German version: Wang (2010) English version:Martens et al. (1990)

Athletic Coping Skills Inventory - 28	
Description	**Source**
ACSI -28: 7 dimensional Inventory with 28 items measuring Coping with Adversity, Peaking under Pressure, Goal setting & Mental preparation, Concentration, Free from Worry, Confidence & Achievement motivation and Coach ability. 4 - point - Likert – scale (almost never, sometimes, often & almost always)	German version: Wang (2010) English version: Smith, Schutz, Smoll & Ptacek (1995)

Sport Commitment	
Description	**Source**
SPC: 5 dimensional 19 items scale measuring Sport Commitment, Enjoyment, Personal Investment, Social Constraints and Perceived Positive ness. 5 - point - Likert – scale 1. (Not at all) to 5.(very much)	German version: Antje Hoffman (2009) English version: Scanlan et al. (1993)

Parental Involement in Sports Questionnaire	
Description	**Source**
PISQ: 4 dimensional 19 items scale measuring Directive Behaviour, Praise & Understanding, Active Involvement and Pressure. 5 - point - Likert – scale (never, seldom, sometimes, often & always)	German version: by Würth (2001) English version: Lee & MacLean (1997)

Perceived Motivational Climate in Sport	
Description	**Source**
PMCSQ: 2 dimensional 15 items scale measuring Mastery Climate and Competitive Climate. 4 - point - Likert – scale (disagree, rather disagree, rather agree & agree)	German version: Saborowski, (2001) English version: Seifriz et al (1992)

Leadership Scale for Sports	
Description	**Source**
LSS: 4 dimensional 21 items scale measuring Training and Instructions, Democratic style, Positive Feedback and Social Support. 5 - point - Likert – scale (never, seldom, sometimes, often & always)	German version: Alfermann et al (1997) English version: Lee et al.(1997) and based on Chelladurai & Saleh (1980)

Self - Efficacy	
Description	**Source**
One dimension with 10 items scale measuring general self-efficacy in sports. 4 - point - Likert – scale (Not at all, Hardly true, Moderately true, Exactly true.)	German version: Wang (2010) English version: Ralf Schwarzer,(1993)

7.7 Data Analysis

To check the hypotheses and possible differences of the psychological characteristics between the German and Pakistani youth Field Hockey players at development stage first the data were entered. The reliability of the scales was checked statistically and separately for each nation. In addition, the Pakistani version was also checked. All the individual subscales were checked through reliability analysis test. It was a cross sectional study which allows the comparison between the German and Pakistani selected groups. The multivariate analysis of variance was made through the SPSS-17 version to find out the possible differences among two nations.

8 Results

This part includes the data analysis in the investigation through the help of SPSS-17 version. All the results were concluded according to the hypotheses mentioned in the chapter 6 in two phases. Individual and environmental factors which influence the performance of young players were analysed to find out the possible differences at the stage of development between the German and Pakistani Field Hockey players. The general characteristics and possible differences in the variables were tested in terms of nationality and age groups. Mainly two statistical procedures were used to check the hypotheses, analyses of variance for dependent variables and analyses of variance for independent variables. The Levene's test was used and during the presentation of results, p-values, $p < .05$, $p < .01$ and $p < .001$ were used to estimate the effect size of variance.

8.1 Individual influential factors at the stage of development

8.1.1 Goal Orientation in Sports

Hypotheses: There might be significant differences among the Hockey players of Germany and Pakistan at development stage in relation to their Psychological profiles:-

- German athletes might have higher motivation
- Maybe German players are more social than Pakistani players.
- Pakistani players might be ego-oriented as well as Germans are task-oriented in sports

The three subscales, task orientation, ego orientation and social approval of goal orientation were assessed and study shows significant differences in the athletes of both nations at the stage of development. The multivariate analyses, $MF (3,267) = 10.31$, $p < .001$, $Es = .10$.

Results shows German players were more task oriented than Pakistani players as $F (1,269) = 8.95$, $p < .05$, $Es = 0.032$. They focused on personal performance and improvement rather than Pakistani players concentrated on the outcome of the task. In ego orientation Pakistani athletes scored higher than German players as, $F (1,269) = 12.02$, $p < .05$, $Es = 0.043$.They were ego oriented and concentrated on the outcome of performance. As well as social goal orientation is also an important factor in increasing the performance of the players when they are in team and have strong cohesiveness. German athletes were social goal oriented

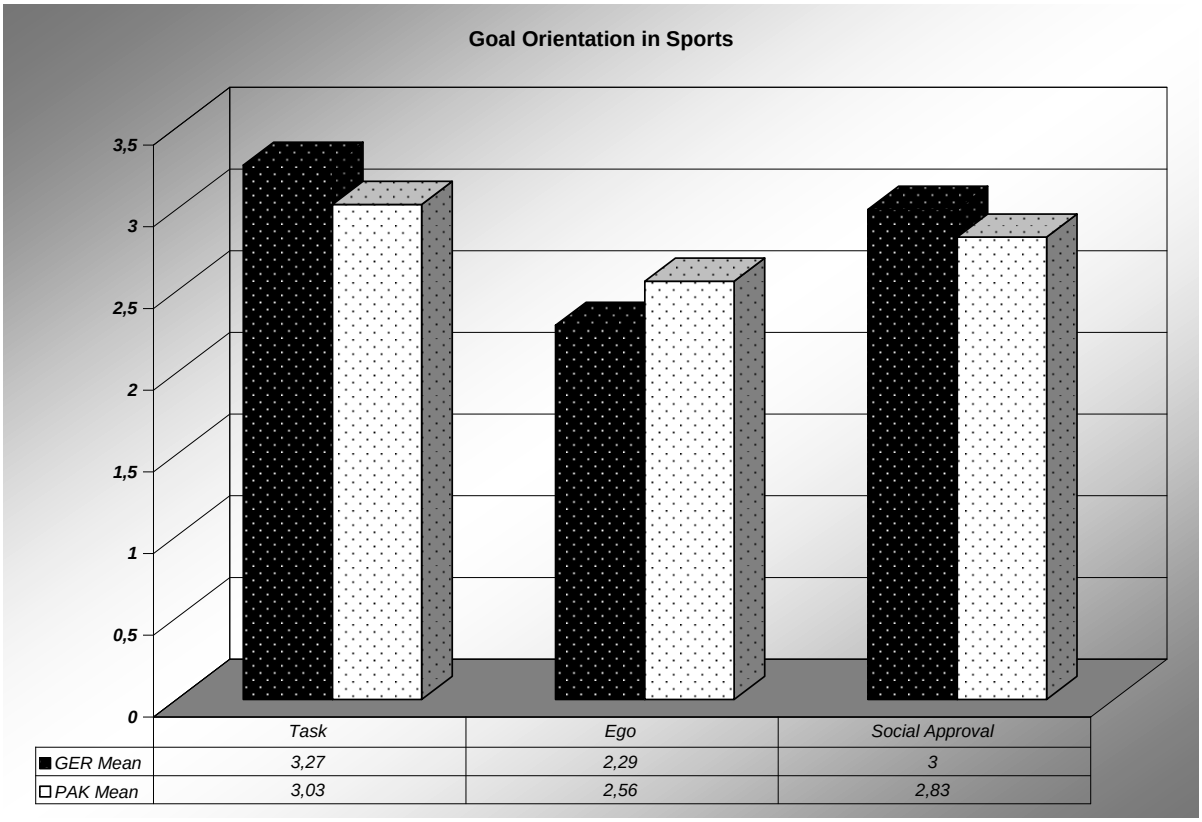
and more social in behaviour than Pakistani athletes. The data shows that F (1,269) = 6.33, p< .05, Es = .023. The study confirms the hypotheses on goal orientation in sports.

Table 22

Descriptive Statistics and Analyses of Variance for "Goal Orientation"

Variable	GER Mean	GER SD	PAK Mean	PAK SD	F	df	df (Error)	P	Eta Square
Task	3.27	0.46	3.03	0.81	8.95	1	269	.003	.032
Ego	2.29	0.74	2.56	0.52	12.02	1	269	.001	.043
Social Approval	3.00	0.56	2.83	0.56	6.33	1	269	.012	.023

Figure 19



8.1.2 Perceived Physical Self-Concept

Hypotheses: There might be significant differences among the Hockey players of Germany and Pakistan at development stage in relation to their Perceived Physical Self -Concept profiles:

- German athletes might have higher perceived physical self-concept.
- Pakistani athletes maybe have less perceived physical characteristics.
- Germans players might be good at conditional qualities than Pakistani players.

To find out the possible difference in perceived physical self-concept one way multivariate analyses of seven subscales, Physical appearance, Speed, Strength, Endurance, Flexibility, Coordination and Sport Competence was made. Result shows significant differences in perceived physical self-concept of German and Pakistani Field Hockey players at the stage of development. The multivariate effect shows significant differences between both nations as MF (7,263) = 8.29, $p < .001$, Es = .17. The large differences were observed between the both groups.

In Perceived Physical Attractiveness F (1,269) = 11.65, $p<.01$, Es = .042 , Speed F(1,269) = 4.30, $p <.05$,Es = .016, Endurance F(1,269) =.095, $p > .05$, Es = .000, Strength F(1,269) = 2.51 , $p > .05$, Es = .009, Flexibility F(1,269) = 9.29, $p < .01$, Es = .033, Coordination F(1,269) = .53, $p > .05$, Es = .002 and Sport Competence F(1,269) = 30.75, $p< .001$, Es= .103. German players scored higher in perceived physical self-concept. Small differences were observed in Perceived Physical attractiveness, Speed, Strength, Flexibility and Coordination and medium differences were found in sport competency in Field Hockey and no differences were observed in Endurance. German players were better than Pakistani athletes in physical self-concept.

The study confirms the hypotheses on perceived physical self-concept, there are significant differences in the perceived physical attractiveness and perceived physical abilities of the players of Germany and Pakistan.

Table 23

Descriptive Statistics and Analyses of Variance for "Perceived Physical Self-Concept" in sports

Variable	GER Mean	GER SD	PAK Mean	PAK SD	F	df	df (Error)	P	Eta Square
Physical Attractiveness	3.04	0.59	2.83	0.39	11.65	1	269	.001	.042
Speed	3.06	0.65	2.91	0.46	4.3	1	269	.039	.016
Endurance	3.06	0.63	3.04	0.54	0.09	1	269	.76	.000
Strength	2.88	0.58	2.77	0.54	2.51	1	269	.12	.009
Flexibility	3.03	0.59	2.83	0.53	9.29	1	269	.003	.033
Coordination	3.00	0.57	2.95	0.47	0.53	1	269	.47	.002
Sport Competence	3.21	0.54	2.88	0.46	30.75	1	269	.000	.103

Figure 20

Shows Mean for Perceived Physical Attractiveness

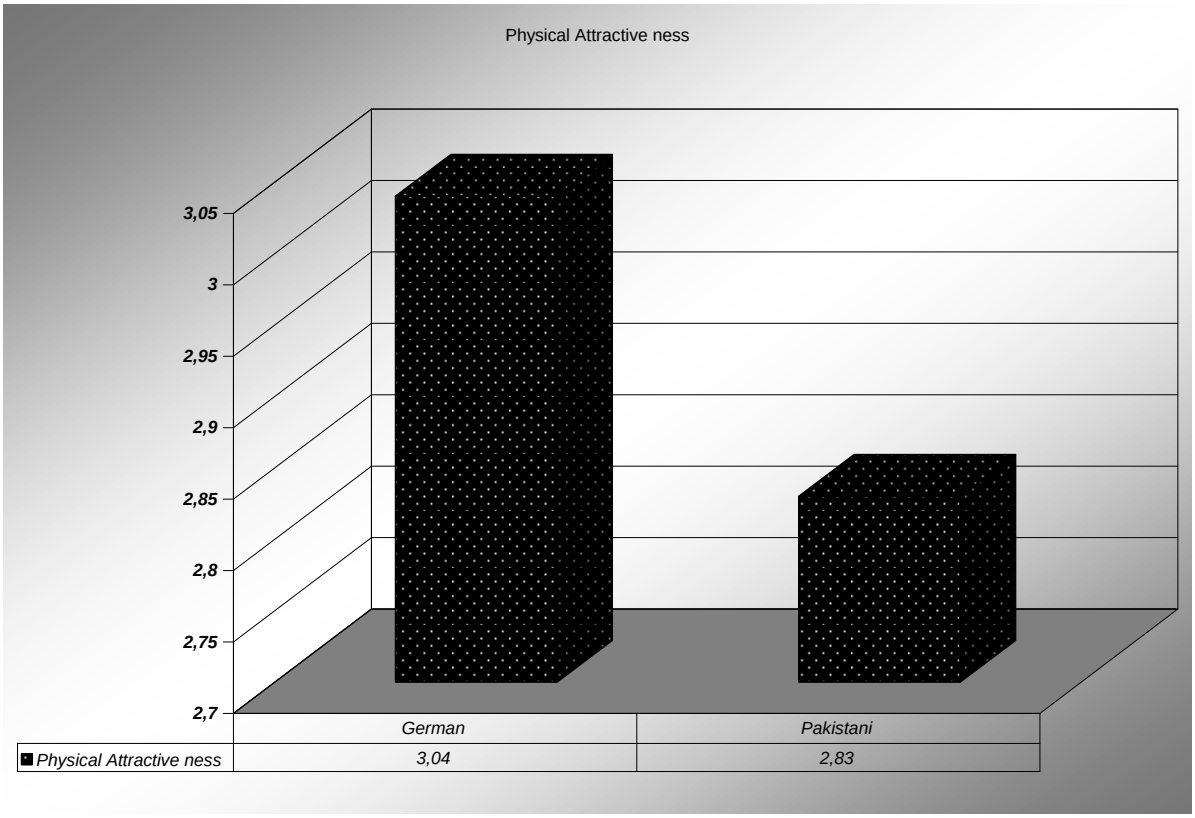


Figure 21

Shows mean for Perceived Physical abilities

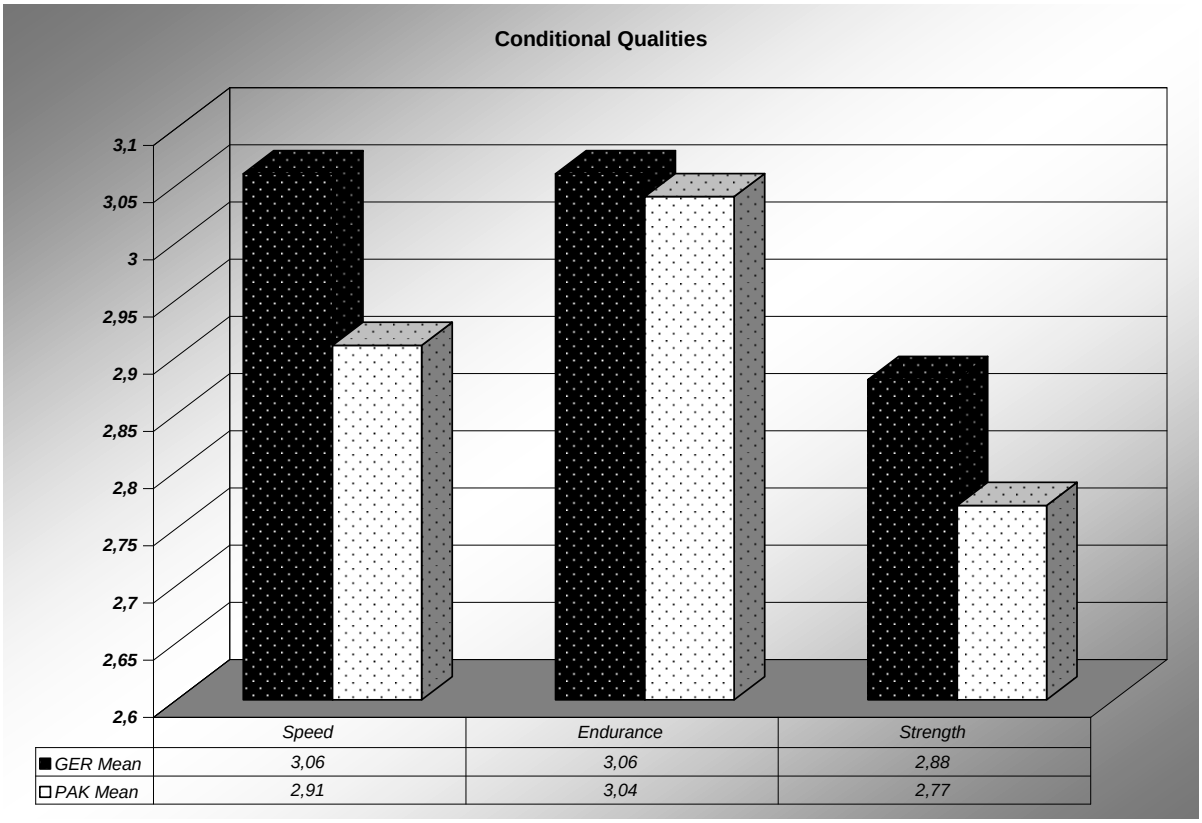
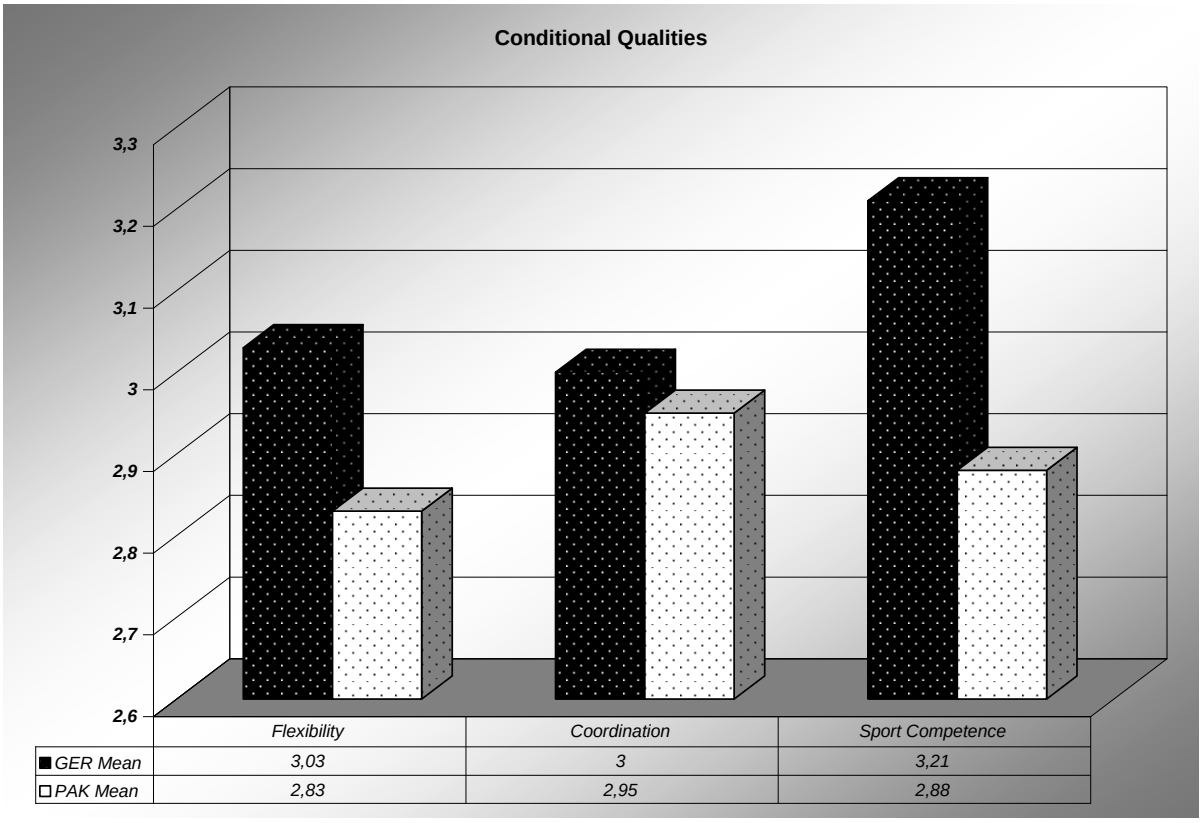


Figure 22

Shows mean for Perceived Physical abilities



8.1.3 Competition-related Anxiety

Hypotheses:

- Pakistani athletes might be higher in competitive anxiety.
- Pakistani athletes seem to be less self-confident than Germans.
- German player seems to be mentally stronger than Pakistani players.

Participating at competitive sport like Field Hockey places athletes especially at young age under rigorous physical demands. These challenges need players not only to use automated technical and tactical skills but to develop cognitive coping skills to achieve performance. Anxiety is a negative factor and it can influence the performance of the athletes especially at young age. Multivariate analyses for three subscales Cognitive anxiety, Somatic anxiety and self-confidence was made to investigate the differences among the Field Hockey players of Pakistan and Germany. The Multivariate analyses shows significant differences in main nation effect as, MF (3,267) = 23.63, $p < .001$, Es = .210.

In individual variables, Cognitive anxiety F (1,269) = 54.34, $p < .001$, Es = .17, Somatic anxiety F (1, 269) = 30.80, $p < .001$, Es = .10 and Self-confidence F (1, 269) = 3.23, $p > .05$, Es = .01. Pakistani athletes were significantly higher in cognitive and somatic anxiety than German players and large scale differences were observed between the players of both nations. As well as small differences were observed in self-confidence and Pakistani athletes were better than German players.

The study confirms the hypotheses on competition related anxiety;

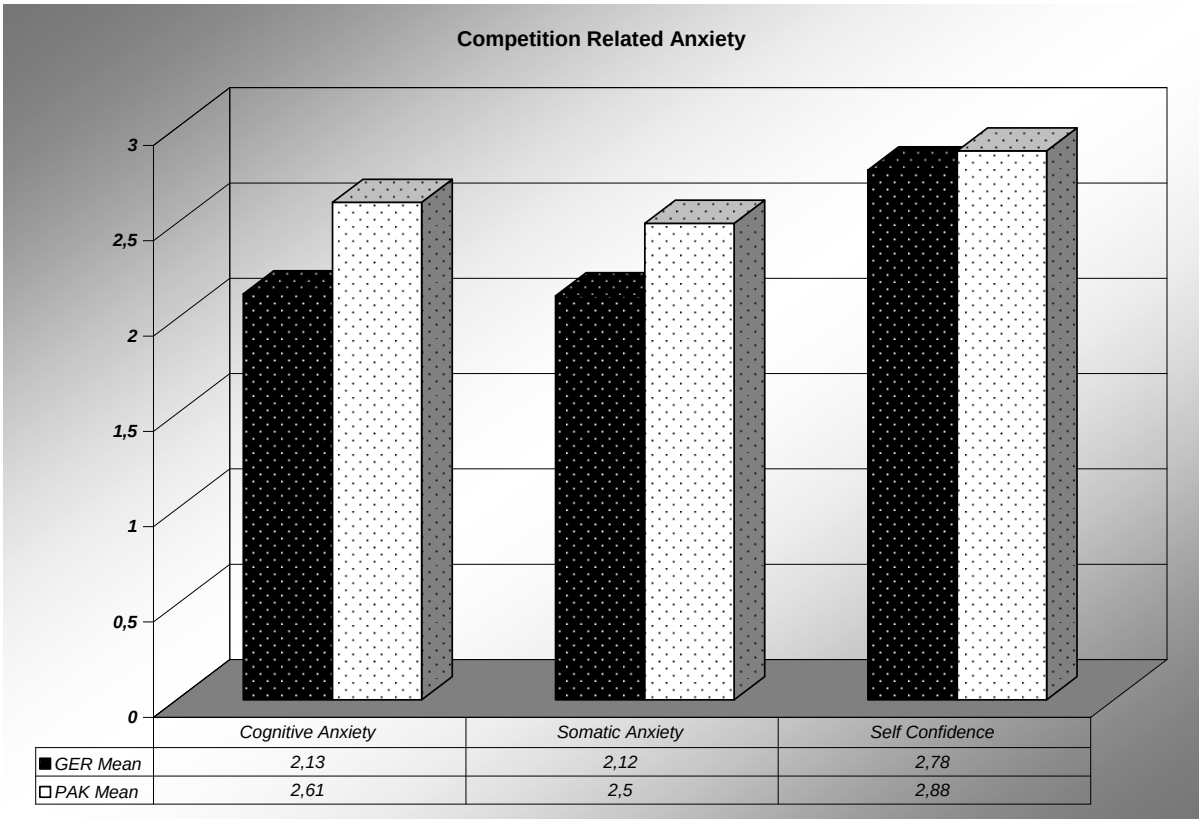
Table 24

Descriptive Statistics and Analyses of Variance for "Competitive-related anxiety" in sports

Variable	GER Mean	GER SD	PAK Mean	PAK SD	F	df	df (Error)	P	Eta Square
Cognitive Anxiety	2.13	.59	2.61	.48	54.34	1	269	.000	.168
Somatic Anxiety	2.12	.49	2.50	.49	30.80	1	269	.000	.103
Self Confidence	2.78	.51	2.88	.43	3.23	1	269	.073	.012

Figure 23

Shows Mean for Competition Related Anxiety



8.1.4 Coping Strategies in Sports

Hypotheses:

- Pakistani athletes can't peak under pressure because they might not be using mental rehearsals before and during the competition.
- To enhance confidence and achievement motivation, German players might practice specific plans.
- German athletes might be better in coping with adversity.
- Pakistani players maybe rely more on coach abilities.
- German Players might set specific goals and mentally trained themselves for competition.

In competitive sports like Field Hockey, it is not possible to compete with your opponent unless you have strong coping skills. To find out the possible differences in coping skills and strategies multivariate analyses for seven subscales, coping with adversity, peaking under pressure, goal setting & mental preparation, concentration, freedom from worry, confidence & achievement motivation and coach

ability was made. The multivariate analyses shows significant differences in both nations as MF (7, 263) = 19.63, p < .001, Es = .34 and in individual variables, coping adversity F (1,269) = 19.89, p < .001, Es = .069, peaking under pressure F (1,269) = 11.24, p < .001, Es = 0.040, goal setting & mental preparation F (1,269) = 65.54, p < .001, Es =.196, concentration F (1,269) = 2.28, p > .05, Es = .008, freedom from worry F(1,269) = 6.18, p < .05, Es = 0.22, confidence & achievement motivation F (1,269) =.192, p > .05, Es = .001 and in coach ability F (1,269) = 21.81, p < .001, Es =.075.

Analyses show medium scale differences and Pakistani players were better in coping with adversity and German athletes in coach abilities. Pakistani players were good at peaking under pressure as well German's in concentration and freedom from worry and small scale differences were observed. Large scale differences were found in goal setting and mental preparation and Pakistani players were better than German athletes and no differences were found in confidence & achievement motivation.

The study shows significant differences in psychological coping strategies and contrary to expectations Pakistani players reported a higher incidence of coping skills than German players and study did not confirm the researcher hypotheses on coping strategies.

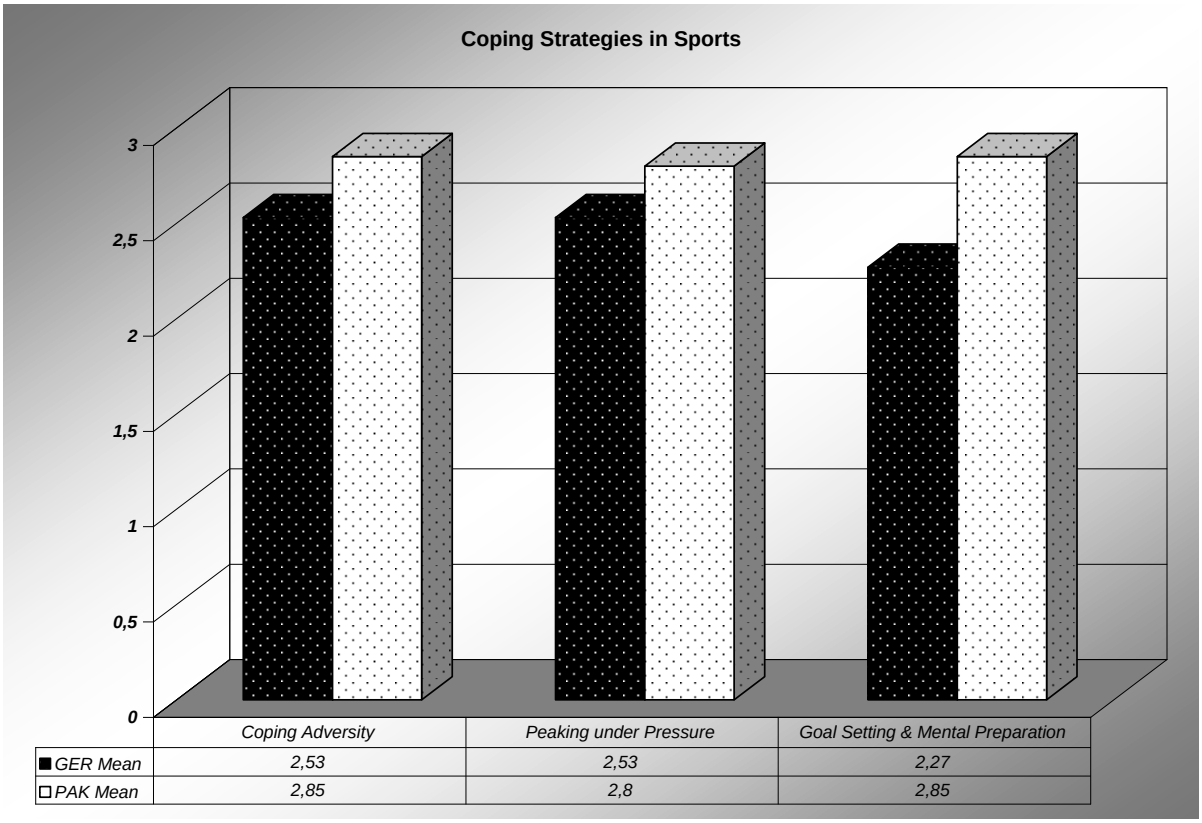
Table 25

Descriptive Statistics and Analyses of Variance for "Coping strategies" in sports

Variable	GER Mean	GER SD	PAK Mean	PAK SD	F	df	df (Error)	P	Eta Square
Coping Adversity	2.53	0.60	2.85	0.59	19.89	1	269	.000	.069
Peaking under Pressure	2.53	0.77	2.80	0.53	11.24	1	269	.001	.040
Goal Setting & Mental Preparation	2.27	0.63	2.85	0.55	65.54	1	269	.000	.196
Concentration	2.93	0.53	2.83	0.51	2.28	1	269	.132	.008
Freedom from worry	2.55	0.73	2.34	0.61	6.18	1	269	.014	.022
Confidence & Achievement Motivation	2.87	0.53	2.90	0.54	.192	1	269	.662	.001
Coach ability	3.18	0.57	2.81	0.72	21.81	1	269	.000	.075

Figure 24

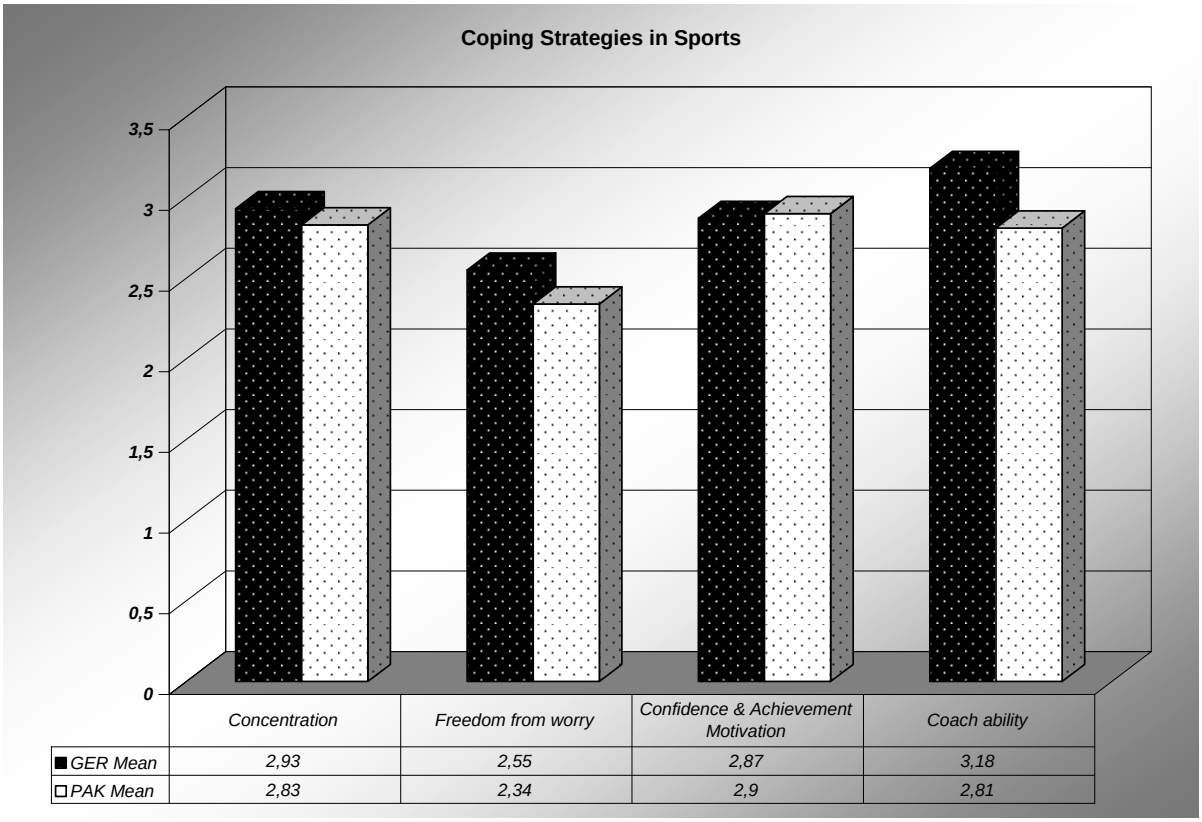
Shows Mean for Coping Strategies



	Coping Adversity	Peaking under Pressure	Goal Setting & Mental Preparation
GER Mean	2,53	2,53	2,27
PAK Mean	2,85	2,8	2,85

Figure 25

Shows Mean for Coping Strategies



	Concentration	Freedom from worry	Confidence & Achievement Motivation	Coach ability
GER Mean	2,93	2,55	2,87	3,18
PAK Mean	2,83	2,34	2,9	2,81

8.1.5 Sport Commitment

Hypotheses:

- German athletes might be more committed to their sport than Pakistani players.
- Pakistani players might invest personally more in the game.

To check the level of sport commitment of German and Pakistani players at development stage multivariate data analyses was made to find out the possible differences in five subscales, sport commitment, enjoyment, personal investment, social constraints and perceived positive ness. The multivariate effect MF (5,265) = 80.81, $p < .001$, Es = .60 shows significant differences in sport commitment between both nations.

In individual variables, sport commitment F (1,269) = 50.54, $p < .001$, Es = .157, enjoyment F (1,269) = 279.87, $p < .001$, Es = .510, personal investment F (1,269) = 5.77, $p < .05$, Es = .021, social constraints F (1,269) = 18.95, $p < .001$, Es = .066 and perceived positive ness F (1,269) = 60.82, $p < .001$, Es = .184.The German players showed higher incidence of sport commitment than Pakistani players and large differences were found in Sport commitment, enjoyment and perceived positive ness, medium in Social Constraints and small in personal investment in sports. It shows that German players can persist longer in the deliberate practice which is necessary to reach at high performance level. The study confirms the hypotheses related to sport commitment.

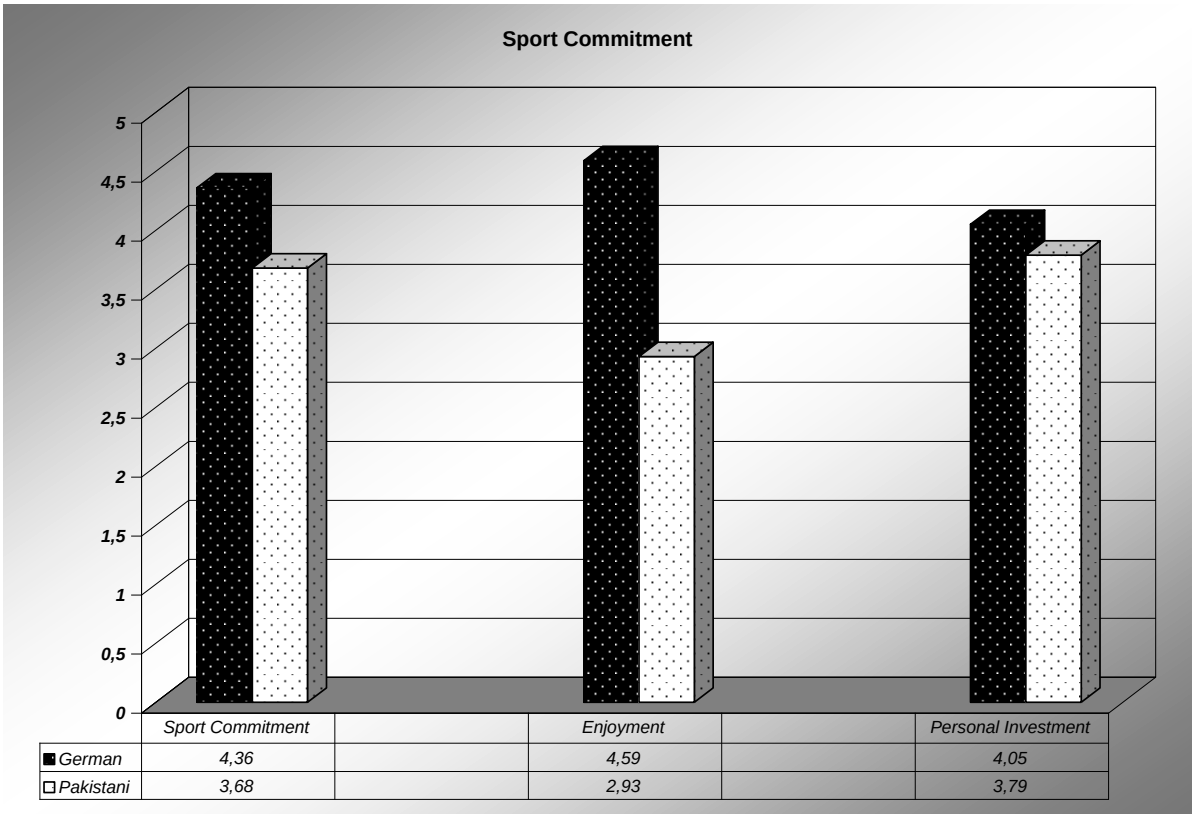
Table 26

Descriptive Statistics and Analyses of Variance for "Sport Commitment" in sports

Variable	GER Mean	GER SD	PAK Mean	PAK SD	F	df	df (Error)	P	Eta Square
Sport Commitment	4.36	.67	3.68	.86	50.24	1	269	.000	.157
Enjoyment	4.59	.60	2.93	.96	279.87	1	269	.000	.510
Personal Investment	4.05	.87	3.79	.93	5.77	1	269	.017	.021
Social Constraints	2.06	1.08	2.64	1.10	18.95	1	269	.000	.066
Perceived Possitiveness	4.25	.81	3.53	.81	60.82	1	269	.000	.184

Figure 26

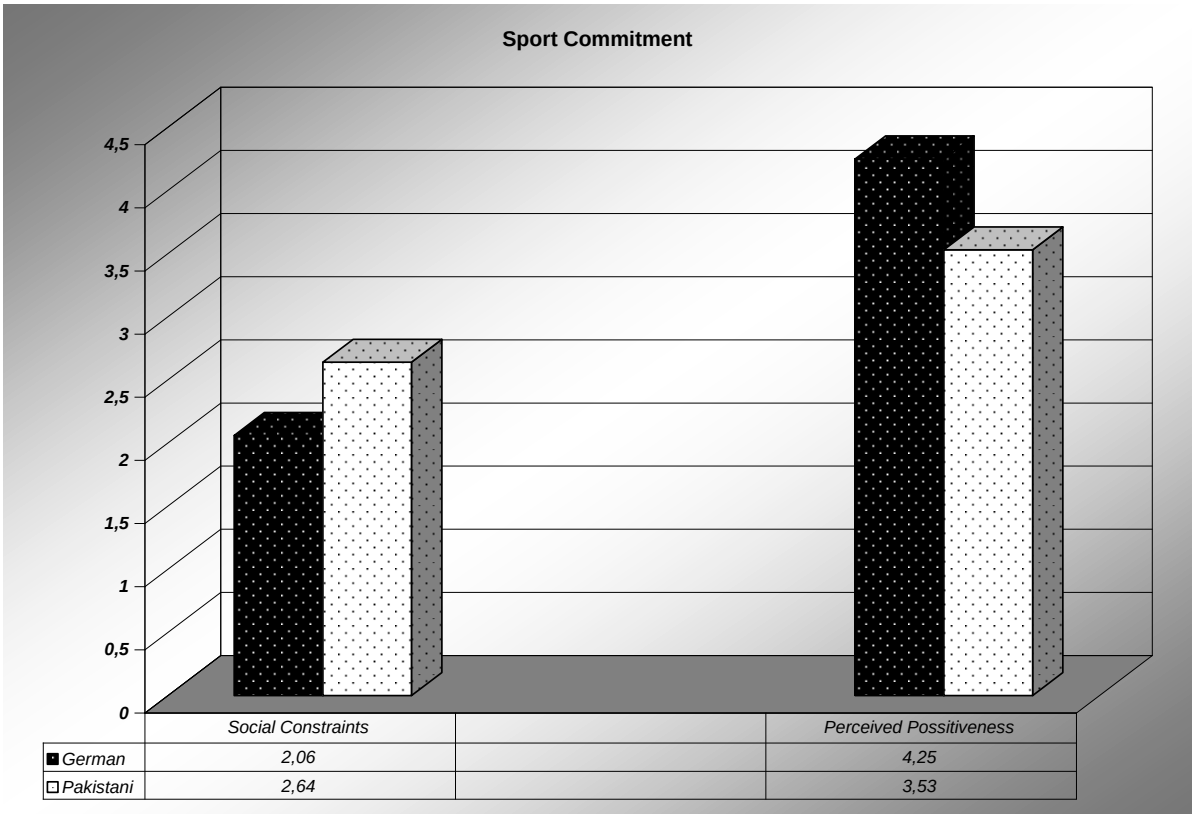
Shows Mean for Sport Commitment



	Sport Commitment		Enjoyment		Personal Investment
German	4,36		4,59		4,05
Pakistani	3,68		2,93		3,79

Figure 27

Shows Mean for Sport Commitment



	Social Constraints		Perceived Possitiveness
German	2,06		4,25
Pakistani	2,64		3,53

8.1.6 Parental Involvement in Sports

Hypotheses

There might be significant differences among the Hockey players of Germany and Pakistan at development stage in relation to their Social profiles:-

- Pakistani athletes have less parental support due to the non-sport environment.
- German athlete's parents are actively involved in the physical activities of their children.
- Pakistani Parents might have directive behaviour towards their children.

The four subscales of parental involvement in sports, directive behaviour, praise & understanding, active involvement and pressure were checked through multivariate analyses to find out the possible differences between the athletes of Germany and Pakistan at the stage of development. Parents and peers play important role in the lives of young players to improve their performance.

Multivariate analyses shows main nation effect MF (4, 266) = .57, $p < .001$, Es = .43.Result shows differences in individual variables as, parents directive behaviour F (1,269) = 114.00, $p < .001$, Es = .298, praise & understanding F (1,269) = 3.60, $p > .05$, Es = .013, active involvement F (1,269) = 3.57, $p > .05$, Es = .013 and Pressure F (1,269) = 136.22, $p < .001$, Es = .34.

Large scale differences were observed in directive behaviour and pressure. Pakistani players rated their parents higher in directive behaviour and pressure. Small differences were found in praise & understanding and active involvement. German parents were good at praise & understanding as well Pakistani's at active involvement. The study confirms the hypotheses on parental support.

Table 27

Descriptive Statistics and Analyses of Variance for "Parental Involvement" in sports

Variable	GER Mean	GER SD	PAK Mean	PAK SD	F	df	df (Error)	P	Eta Square
Directive Behaviour	2,03	,98	3,09	,63	114.00	1	269	.000	.298
Praise & Under standing	3,32	,74	3,16	,60	3.60	1	269	.059	.013
Active Involvement	2,42	1,23	2,70	1,18	3.57	1	269	.060	.013
Pressure	1,94	,94	3,11	,70	136.22	1	269	.000	.336

Figure 28

Shows Mean for Parental Involvement in Sports

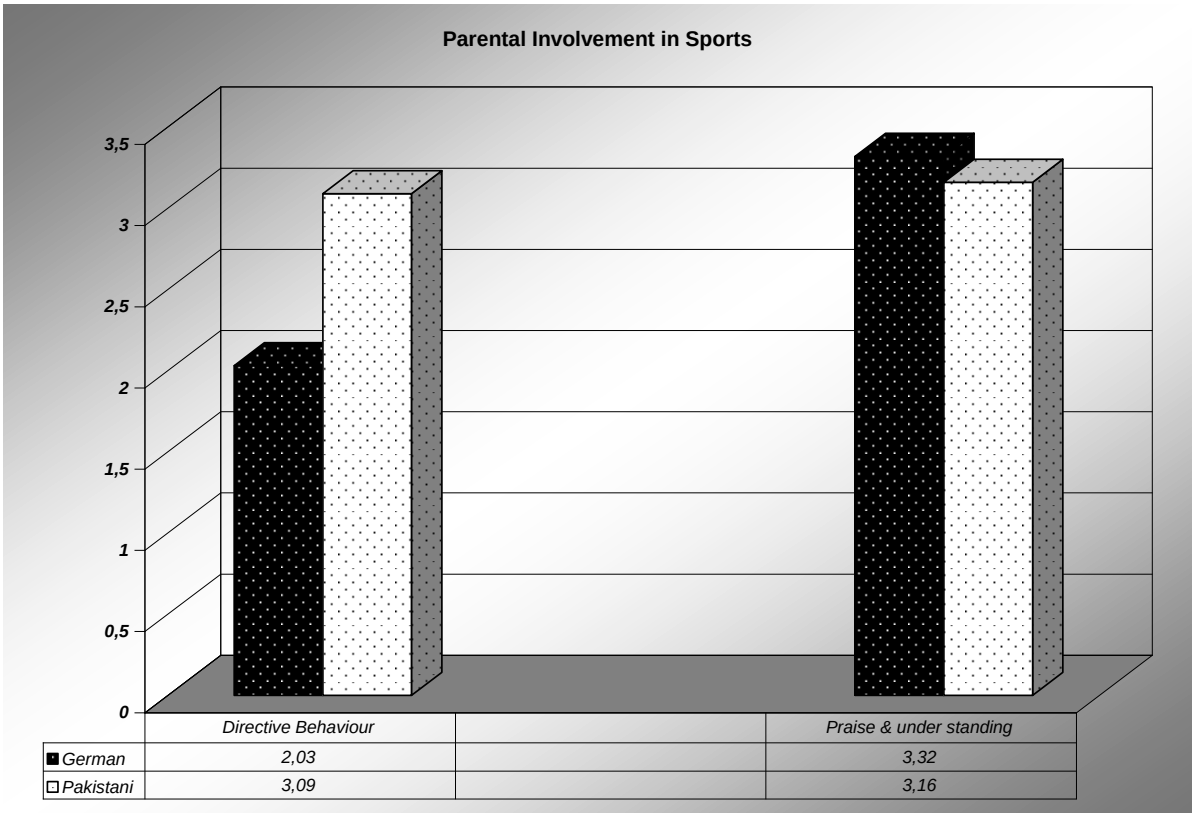
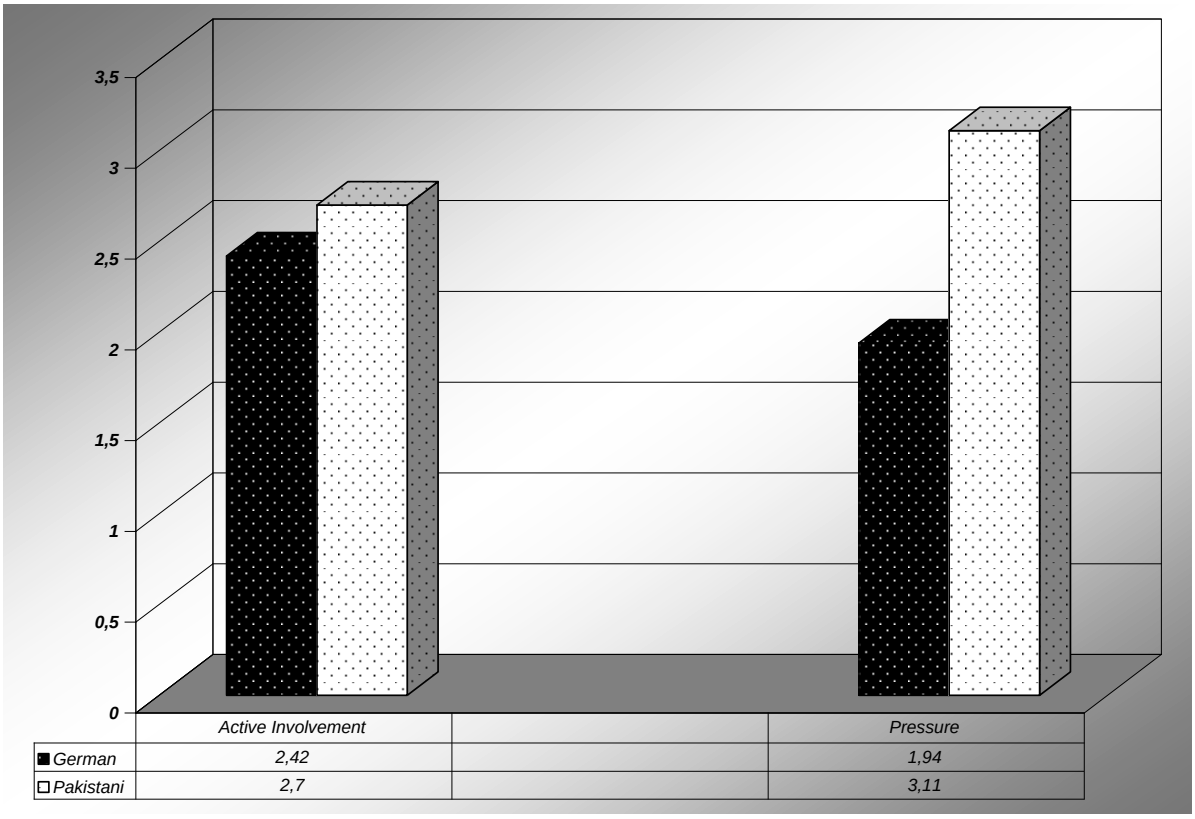


Figure 29

Shows Mean for Parental Involvement in Sports



8.2.7 Leadership in Sports

Hypotheses:

- German coaches might be good at communication skills and instructing their athletes.
- Pakistani athletes might get less positive feedback from their coaches.
- German coaches might have democratic style than Pakistani coaches.
- Pakistani athletes may get less support from coaches.

To find out possible differences in coaches behaviour and support to the athletes multivariate analyses for four subscales, training instructions, democratic style, positive feedback and social support was made. The multivariate analyses show significant difference in leadership style of both nations' coaches as MF (4, 266) = .94, $p < .01$, Es = .06. Analyses shows that in training instructions F (1,269) = 3.27, $p > .05$, Es = .012, democratic style F (1,269) = .008, P > .05, Es = .000,

positive feedback F (1,269) = 4.67, p < .05, Es = .017 and social support F (1,269) = 8.28, p < .01, Es = .030.

According to the perception of German players their coaches scored slightly higher than Pakistani coaches. Small scale differences were observed in training instructions, positive feedback and social support and no differences were found in democratic style. The study confirms the hypotheses on leadership behaviour of the coaches.

Table 28

Descriptive Statistics and Analyses of Variance for "Leadership" in sports

Variable	GER Mean	GER SD	PAK Mean	PAK SD	F	df	df (Error)	P	Eta Square
Training Instructions	3,86	,58	3,72	,69	3.27	1	269	.072	.012
Democratic style	3,58	,67	3,57	,74	.008	1	269	.931	.000
Positive Feedback	3,85	,71	3,65	,82	4.67	1	269	.032	.017
Social support	3,63	,79	3,38	,57	8.28	1	269	.004	.030

Figure 30

Shows Mean for Leadership in Sports

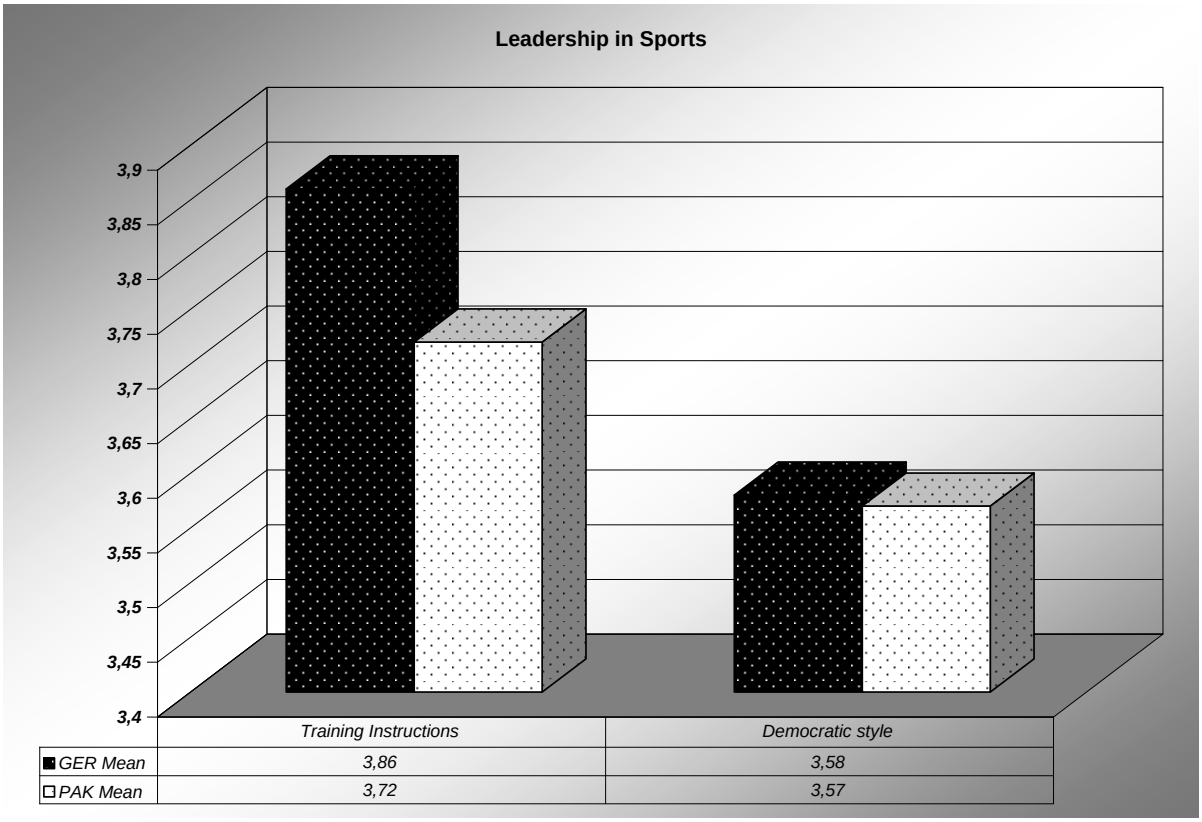
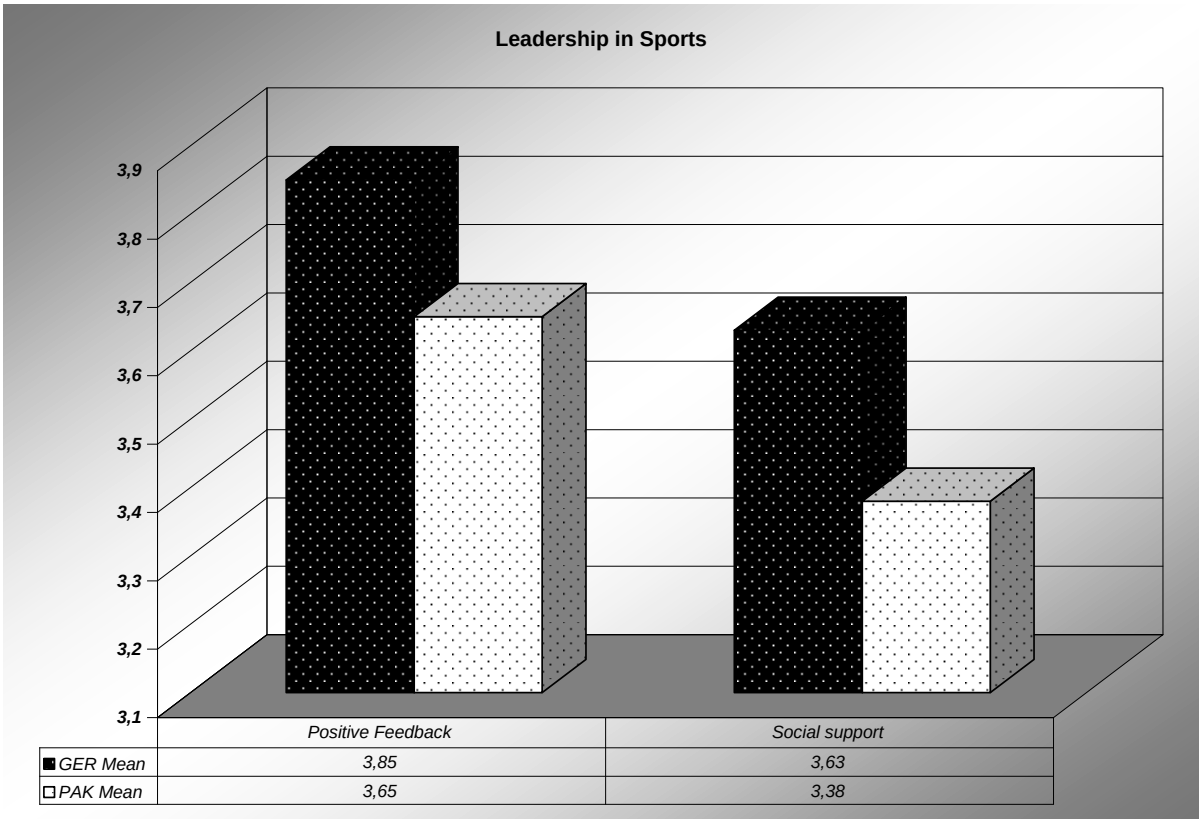


Figure 31

Shows Mean for Leadership in Sports



8.2.8 Perceived Motivational Climate

Hypotheses:

- German coaches create motivational climate in their athletes.
- Pakistani coaches maybe stress more on technical skills.
- German coaches maybe provide equal opportunities to athletes.

To find out the possible differences in perceived motivational climate multivariate analyses was made for two subscales, mastery climate and competitive climate. The multivariate analyses show significant differences in main nation effect MF (2,268) = .66, p<, .001, Es = .35.

The significant differences individual variables were observed in the players of both the countries. Mastery climate F (1,269) = 17.60, P < .001, Es = .061 and in competitive climate F (1,269) = 114.65, P < .001, Es = .299.

German players scored higher in mastery climate. It shows that German coaches always create motivational climate which can increase their performance abilities. Medium scale differences were found in mastery climate of the players

and German coaches showed higher incidence of mastery climate. As well as large scale differences were observed in competitive climate and Pakistani coaches were higher in scores which shows that always create competitive climate among players.

The study confirms the hypotheses on motivational climate of the players.

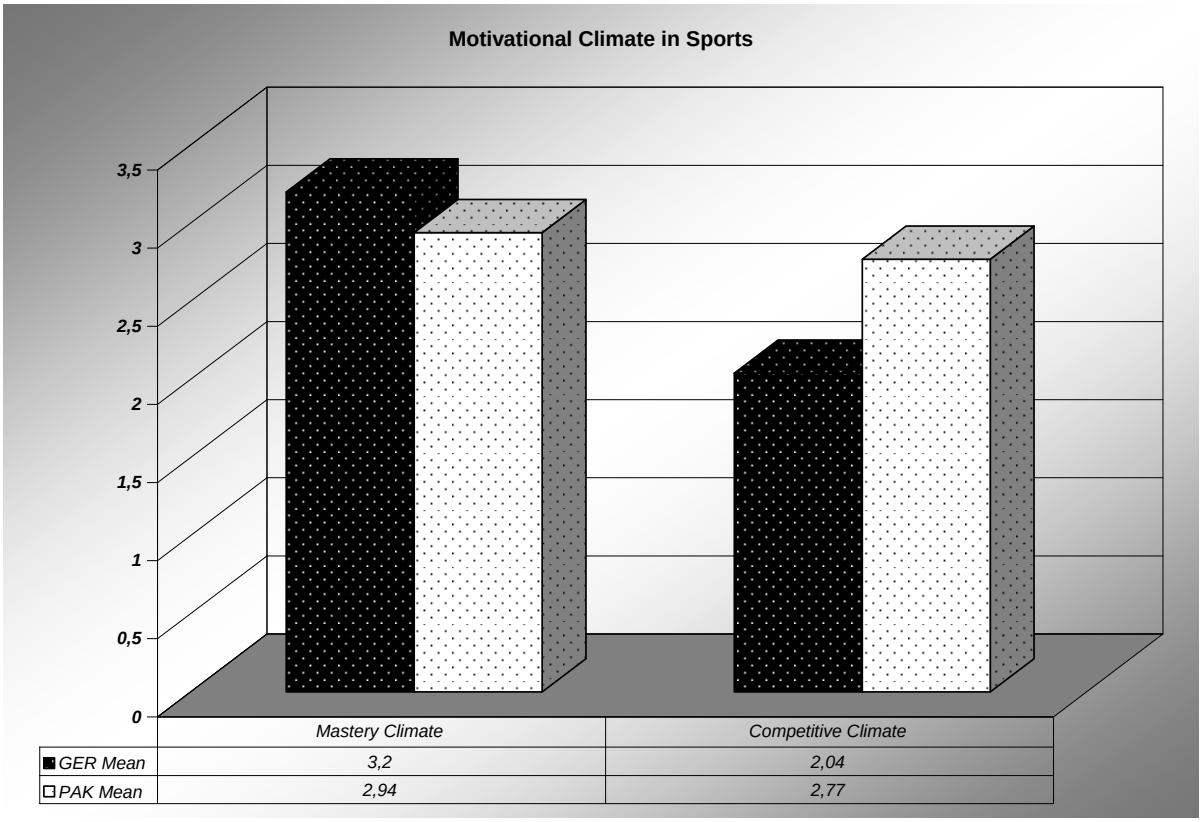
Table 29

Descriptive Statistics and Analyses of Variance for "Perceived Motivational climate" in sports

Variable	GER Mean	GER SD	PAK Mean	PAK SD	F	df	df (Error)	P	Eta Square
Mastery Climate	3,20	,48	2,94	,54	17.60	1	269	.000	.061
Competitive Climate	2,04	,64	2,77	,46	114.65	1	269	.000	.299

Figure 32

Shows Mean for Motivational Climate in Sports



8.1.10 Self-Efficacy in Sports

Hypotheses

- German athletes might be higher in self-efficacy.

To find out the possible differences in self-efficacy multivariate analyses was made. Main affect for nation on self-efficacy, F (1,269) = .59, P < .01, Es = .002.

Pakistani players were slightly higher in scores than German athletes but no differences were observed in self-efficacy and study did not confirm the hypotheses.

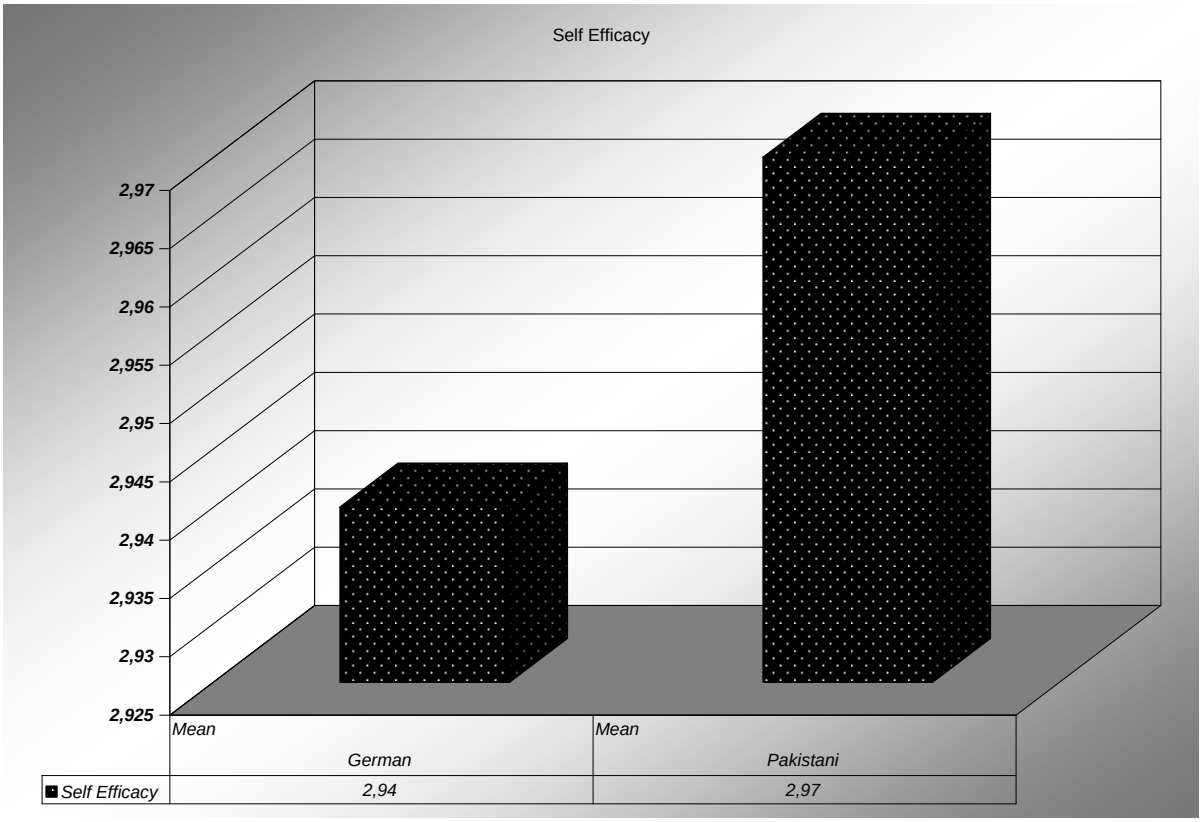
Table 30

Descriptive Statistics and Analyses of variance for "Self-efficacy" in sports

Variable	GER Mean	GER SD	PAK Mean	PAK SD	F	df	df (Error)	P	Eta Square
Self-Efficacy	2.94	.44	2.97	.35	.59	1	269	.44	.002

Figure 33

Shows Mean for Self-Efficacy in Sports



9. Summary (German & Pakistani Players)

The objective of the current study was to reveal the differences in multidimensional characteristics, psychological profiles and performance level with possible effects on Field Hockey between the talented young players of Germany and Pakistan at developmental stage (12 to 18 years). Researcher tried to compare the psychological and environmental factors which can influence the performance in terms of individual factors at development phase, goal orientation, perceived physical self-concept, competition related anxiety, coping strategies, sport commitment, parental involvement in sport, leadership behaviour, motivational climate and self-efficacy. A multivariate analysis shows significant differences between the German and Pakistani players and German players were found better in personal assessment.

9.1 Individual Influential Factors

9.1.1 Hypothesis Part 1 (Psychological Profiles)

- In terms of goal orientation, the German players were more task-oriented, competition orientated and social recognized oriented than Pakistani players. As well as Pakistani players were ego oriented. The main nation effect for goal orientation is confirmed.
- In regard to competition related anxiety Pakistani players have higher incidence of competition related anxiety which is negative factor and reduce the performance of the athletes and main nation effect shows significant differences in competition related anxiety but Pakistani players found slightly better in self-confident. The main nation effect for competition related anxiety is confirmed.
- In coping skills Pakistani athletes were better than German players as they can cope with any situation related adversities thus the main nation effect is confirmed.
- The main nation effect is also confirmed with regard to sport commitment as German players were more committed towards their sport.
- No differences were observed in self-efficacy but Pakistani players scored slightly higher than German players and believe in their abilities and main nation effect is confirmed.

9.1.2 Hypotheses Part 2 (Physical Profiles)

- German athletes were better in physical attractiveness and conditional qualities than Pakistani players and main nation effect is confirmed.

9.1.3 Hypotheses Part 3 (Social Profiles)

- In concerned with parental support significant differences were observed between the parents of German and Pakistani players. German parents were better in praise and understanding as well as Pakistani parents have directive behaviour and actively involved in activities but players have too much pressure from them thus the main nation effect is confirmed.
- As far as leadership in sports is concerned German coaches were better in training instructions and social support and scored slightly higher than Pakistani coaches. No differences were observed in democratic style and positive feedback. The main nation effect is confirmed.
- To create motivational climate among the players German coaches were better in creating motivational climate among the players and Pakistani coaches scored higher in creating competitive climate among players. The main nation effect is also confirmed.

9.2 Discussion

To gain more insight into the multidimensional characteristics of future elite talented Field Hockey players a comparative study was conducted to investigate the relationship and differences in the performance level of the young Field Hockey players of Germany and Pakistan. In general view of the subject 38.6 % German and 73.6 % Pakistani athletes considered Field Hockey as high performance sport and regularly practicing the game more than 15 hours per week as well as German players less than 5 hours per week. About 72% Pakistani and 55.1 % German athletes were regularly taking part in competitions. Approximately 83.3% Pakistani and 18.1 % German athletes were looking forward to carry on professional career in this game. Pakistani athletes were over all better in general subject information than German players maybe due to the game structure and environment of the game. Pakistani players also had very close association with Field Hockey because it is the national sport of Pakistan but it is opposite in Germany and regarded as royal sport in the country.

Researcher have compared both groups at the stage of development (12 to 18 years) with regards to psychological profiles (goal orientation, competition related anxiety, coping strategies, sport commitment and self-efficacy), physical profiles (personal appearance, perceived physical self-concept (speed, strength, endurance, flexibility, coordination and sport competence) and social profiles(parental support, coaches behaviour and motivational climate. German players have reported higher incidence of scores in anthropometric, psychological, perceived physical self-concept and environmental factors. There are various possible reasons and angles to explain differences between the both groups. Field Hockey is a highly competitive sport and to become expert in this game these players should be strong in all four domains of performance characteristics, psychologically, physiologically, sociologically and technically / tactically. In addition, anthropometric characteristics are also important because Field Hockey is a high intensity non continuous game which requires the good physical condition of the players.

The multivariate analyses of variance show significant differences between the anthropometric characteristics of German and Pakistani players. German players were better in height and weight even they were 2 years younger than Pakistani players. During Human ontogenesis (see: Chapter 2) measurable changes comes in body shape especially at developmental stage and these have direct influence on the development of specific fitness component.

German players were better in physical appearance and attractiveness. In perceived physical self-concept they were much faster, good at endurance, strong, more flexible, had well-coordinated movements and better in sport competency. In Field Hockey if talented players have these characteristics they are successful in the game. It is fact that if one can passes the ball accurately over a distance, can cover the short distance quickly, have good control on body while dribbling the ball, flexible enough to control the body posture during running position, keeps good stamina and competent enough in his sport skills. German players performed better at the age of 14 because they developed these qualities better at the age of development although older Pakistani players were training more hours and regularly participating at competitions at national and international level. Maybe it is because of the inherited genetic conditions those are favourable for success in Field Hockey. According to Howe et al. (1998), talent is characterized by properties that are genetically transmitted and partly innate.

German players found better in task orientation and social recognition and it leads to a strong work ethic, persistence in the face of failure, optimal performance and task orientation always protect from frustration and during the lack of performance especially when opponents are strong and performing better in the competition. In task orientation concentration is only on personal performance instead of others in this way one can have good control, motivated and persist longer in the face of failure. Social goal orientation is also an important factor in increasing the performance of the players when they are in team and have strong cohesiveness. Athletes measure personal abilities and standard of performance relative to their own and other team members. As well as Pakistani players were ego oriented and focused on the outcome of the performance and compared themselves with others. There is a strong relationship between motivation and performance.

In coping strategies / skills contrary to expectation Pakistani players' reports higher incidence than German players. In competitive sport like Field Hockey players have to perform under intense conditions and these requires rigorous physical demands, psychological and mental preparation for the sport. Pakistani players were using these skills regularly maybe due to age differences, regularly participation at competitions and more training hours. Their confidence level was high to cope with situation related problems because of these skills.

In sport commitment German players were higher on average scores than Pakistani players and to reach at the top level one has to invest many years in training. According to Ericsson et al (1993), only those who are highly committed to their sport can stay longer in deliberate practice. It is therefore players have to be highly motivated towards their sport if they want to get chance to reach at the top level.

As compare to Individual sport, in team sport like Field Hockey environment characteristics change constantly, which make mental preparation more difficult. Spectators and sounds during the practice and competition can distract athlete's concentration. As a result stress and anxiety take places and impede the performance. Pakistani players were facing this situation because they did not prepare themselves mentally for competition related anxieties. They were low in concentration and high in cognitive and somatic type anxieties. Athletes can overcome these situation related anxieties by preparing themselves mentally and avoid environmental distracters.

The research by Bloom (1985) and colleagues is focused on the development events that happen in the lives of talented young people from different fields. Parents play vital role in the development of their children in sports and its fact without the help of family development of players is difficult. Analyses show that parents of Pakistani players were more directives in behaviour may be due to the cultural values in the country because parents always expect their children to obey them in all matters. Parents were actively involved and put unnecessary pressure upon their children without any appreciation, which is the greatest motivational factor of the performance for children. As well as German parents were good at appreciation and democratic in instructions they always went according to the wishes of their children and never put pressure on them.

The German coaches showed higher incidence in leadership behaviour according to the perception of their athletes. Coaches were trying to improve the skills, techniques and strategies by emphasizing and facilitating high intensity training. They were good at training instructions and coordinating the activities in a suitable manner. They permitted their players to decide group goals, game plans and strategies for competitions. Coaches were concerned about the welfare of the athletes and trying to build strong relationships between them. Positive feedback and appreciation increases the performance of the players.

The importance of coaches to the performance is apparent to everyone and they matter in the real world of sport. The coach's behaviour, thoughts and feelings can influence the athlete's performance, anxiety and enjoyment in the sport or maybe the players drop out from sport. German coaches were capable to create motivational climate. They provided positive feedback and training instructions to increase the performance. Always enforce mastery goals to improve the competency in skills. As well as Pakistani coaches were ego oriented or competitive oriented and created motivational environment among the players. In particular, ego-involving motivational climate coaches provide less positive feedback and social support which causes stress and performance related worries.

In team sports like Field Hockey self-efficacy plays vital role in the development of athletes. It is related to the team members, perception about the team's collective abilities. Pakistani players scored slightly higher on self-efficacy. The perception of one's ability to perform a task successfully has a regular impact on the performance and self-efficacy is related to achievement goals and self-regulation.

9.3 Cultural Influences on Measured Variables

9.3.1 Perceived Physical Self Concept

Self-concept is made up of self-esteem and self-image. It means "The sum total of ways in which we think about ourselves. There are many factors that can influence one's concept like, life experiences, age, appearance, gender, education, relationships, and culture. Children are mature enough to compare themselves at the stage of development by means of appearance, relationships, liking, disliking etc. From cultural point of view different people have different traditions and ways of thinking. German and Pakistani athletes both belong to different religion and societies. Pakistani community or family have different expectations and beliefs than German's. These influences can affect the way one thinks and are called cultural influences. Different cultures have different opinions and views of what is right or wrong and people act according to these norms. Parents who don't smoke will discourage their children from smoking, in Pakistani society sex before marriage is prohibited but not in German society. In German culture people would like to have un-extended family or like to stay alone but in Pakistani culture its normal to have extended families. In German culture one is free to wear any type of cloths but its opposite in Pakistani society women should cover their bodies. One's self concept will be affected if he/she hears negative news from society. Pakistan is an Islamic state and one's self concept will be based on Islamic religious beliefs and tenets of Islam and being a Muslim one should follow the path of his forefathers. According to these norms one's self concept can be changed and we can say culture have strong influence on self-concept. Pakistani culture is highly influenced by collectivism and German culture is influenced by individualism. According to Oyserman (2002) Individualism is associated with concern for maintaining and enhancing self-esteem and defining the self through unique traits rather than social roles, whereas collectivism is associated with diminished certainly of self-concept and viewing the self as part of the larger social groups and endeavours.

9.3.2 Cultural Influences on Motivation

Social and cultural influences are key factors to child's motivation and learning. The environment helps to provide the base to set goals. At development stage children get motivation by their parents, peers, and family members or from surroundings to build positive self-concept and this helps in learning or obtaining goals that are accepted by the family but it is important to promote intrinsic and

extrinsic motivation. Players those belong to economically sound families will perform better due to their positive support from family and will have strong motivation. Comparing both groups, German players were task oriented and Pakistani players were ego oriented due to their different cultural backgrounds. Pakistani culture is highly influenced by collectivism and common values are centralized and due to this reason people have collective task or goals and one's motivation is conditional and related to mutual understanding or bindings. Another reason that Pakistani society is a male dominant society and it's difficult for women to set their tasks at their own. As far as German culture is concerned, it is totally an individualistic and feminine society, a concern for oneself and immediate family and concentration is on personal goals. Men and women have equal rights and freedom of choice. It appears that cultural effect involves a complex combination of multiple processes and this mean that the existence of a caring and supportive network, including family, traditions prevailing in the environment, religious beliefs, and educational system has strong influence on motivation and the talent development.

9.3.3 Cultural Influences on Sport Commitment

According to Ericsson et al (1993), only those who are committed to their sport can persist in deliberate practice. The main reason of drop outs from the sport is lack of dedication to the game. Athletes have to invest more years in training to reach at the top level. Players have to be motivated and committed to the sport. German young Field Hockey players were more committed to their sports and also they enjoyed the sport throughout the training sessions and putting more efforts than Pakistani players. They were more social and have strong relations with other team members and their perception toward players and coaches were positive. Pakistani players were lacking sport commitment maybe it's because of the cultural and environmental factors that both nations have different cultures and perspectives.

9.3.4 Cultural Influences on Parental Support

The research by Bloom (1985) and colleagues focus on the development events that occur in the lives of exceptionally talented players from all walks of life. Talent development is not only consisted of three learning stages but parents also play an important role in the development of children during the stages of learning. As far as German Field Hockey players are concerned they were getting appreciation from their parents and taking part in sports without any pressure. Parents were more

democratic in style and let their children to take decisions at their own but it was opposite in Pakistan. Pakistani parents had directive behaviour towards them and players were receiving less appreciation from them which is a great source of motivation. Parents put pressure on them and actively observed their activities. It was maybe due to the cultural differences that parents have different perspectives and expectations from their children and also education was 1st priority of the parents due to economic conditions and family matters. Religious beliefs also do not allow Pakistani women's upward mobility in sports.

9.3.5 Cultural influences on Leadership behaviour

Coaches play an imperative role in the development of players. According to Bloom (1985) and Salmela (1994) stages of talent development that coaches have important role especially at the stage of development and mastery where players spend most of the time with their trainers. Coaches, parents and athletes have strong relationship and make triangle. Coaches influence the behaviour of the players to make decisions, motivate them, to build personal relationships, and guide the athletes towards the right direction. Coach's effectiveness depends on his leadership qualities. Pakistani and German coaches were different from each other with regard to skills, traditions, religious beliefs and environment and have different leadership behaviours toward players. German coaches were democratic in style but Pakistani's were directive in behaviour. Coaches gradually enhance the mental, social and emotional abilities of the athletes to increase the performance and their supportive behaviour and personal recognition promote the athletes sporty behaviour and performance abilities. Both the nations have different cultural values and norms and perception of players regarding the coaches was very much influenced by the native cultures. In Pakistani society one has to obey the elders unless he will be considered disobedient. There is a classification among the people due to the different educational systems in the country so each group is different than other. Field Hockey is a national sport of country but belong to middle or poor class. Elite class of the country is inclined towards the individual sports like Tennis, Golf, Squash, and Horse Ridding etc. It is fact that culture has strong influence on leadership behaviour.

9.4 Theoretical Considerations

The present dissertation contributes to a clearer understanding of the relationship between multidimensional performance characteristics and the

performance level of the athletes at development stage in Field Hockey. It is a first step to set the criterion for the guidance of Pakistani young athletes at this developmental stage. This study will also contribute to the enrichment of the psychological research study theoretically and practically in Pakistan. Players were taken in the study by the help of trainers and it was difficult to decide whether they were at development stage? Researcher considered age to define the development stage not the training ages. The present thesis provides the deep insight into the on-going process of talent development of the players already involved in Field Hockey. German and Pakistani both groups were compared to reveal the differences and information on the multidimensional characteristics that are important for the current and future successes in Field Hockey. The current topic of study is highly recommended for further research.

9.5 Recommendations for Future Research

Although this present dissertation revealed multidimensional characteristics that can distinguish German and Pakistani Field Hockey players at development stage, still it is unclear how to train the athletes psychologically to cope with situation related adversities. If more insight can be given to this mystery, Field Hockey can be benefited and this study will increase in value when the Field Hockey players at the stage of development will follow to reach at elite performance level. This study is first step in the area of sport psychology for Pakistani future researchers and the next step is to implement the psychological and mental training to increase the performance of the athletes to meet the international standard in the area of Field Hockey. Furthermore, to construct talent development programs to identify the talent performers for this sport. Mental training programs and coping strategies specific for Field Hockey can be introduced to increase the multidimensional performance characteristics of the athletes.

9.6 Conclusion and Implications

The main objective of this research study was to reveal the differences within the young Field Hockey players of Germany and Pakistan at the stage of development by measuring multidimensional characteristics in a sports-specific way, and following talented players across time by adopting a follow up study. These young players were not at peak level, and acknowledging the limitations of the

current study, it is concluded that a talented Field Hockey players of both countries with the greatest chance to reach at expertise level are players with a relatively high level of performance in Field Hockey specific psychological, physiological and social profiles, excellent technical and tactical skills, along with mental preparations, rehearsal, coping strategies to overcome situation related anxieties, high motivation and commitment to the sport at the stage of development. Elite level players need less time to develop these characteristic than the players at young age. Players have to improve their performance abilities regularly by persisting in a deliberate practice for many years. This study will provide the guidelines and relevant information to the trainers, coaches, managers, parents and Field Hockey experts. The following suggestions can be given:

- Acknowledge the multidimensional nature of a Field Hockey performance the talented young players are more than technically gifted players.
- Goal orientation plays vital role in the development of young Field Hockey players.
- Mental rehearsals are necessary to overcome situation related problems.
- Coping skills/strategies should be practice to learn the techniques to overcome adversities.
- Physical self-concept should be maintained to build up confidence level.
- Coaches have to create motivational climate to improve the performance abilities of the athletes.
- In addition Field Hockey is a high intensity non continuous game, it need to improve coordinative abilities.

It is recommended to the talented young Field Hockey players and their coaches to prepare the performance profile on regular basis throughout the development stage. In this way the characteristics of the talented Field Hockey players can be compared to other talented athletes or peers. In this way athletes record can be maintained and in future it will be easy to solve situation related problems of the players including the considerations for the national teams.

Chapter 10 Comparative Study on South Asian and German Players

10.1 Results

This part of study is related to Field Hockey players of South Asian countries namely Pakistan, India, Sri Lanka, Bangladesh and a European country Germany currently playing at the stage of development. Among European countries Germany, Holland, Spain have very strong infrastructure of Field Hockey. When we look towards the performance of the teams whether senior or junior it's commendable due to their multidimensional talent in this competitive game. They have really captured the game due to their multidimensional characteristics needed for this game. As well as when we look towards the past South Asian countries especially India and Pakistan were at the top for many years and Asian style Field Hockey was unbeatable. Now days this game have really lost its popularity and there are certain reasons behind this downfall. Researcher included these countries later on to probe that where is the real difference in the game? Which performance factors are similar or different in the players of South Asia and Germany? Are there any real differences in cultures of both countries? This study will also give strength to previous study between Pakistani and Germany.

10.2 Description of South Asian and German Samples

Table 31

Presents the descriptive data for "Constitutional qualities"

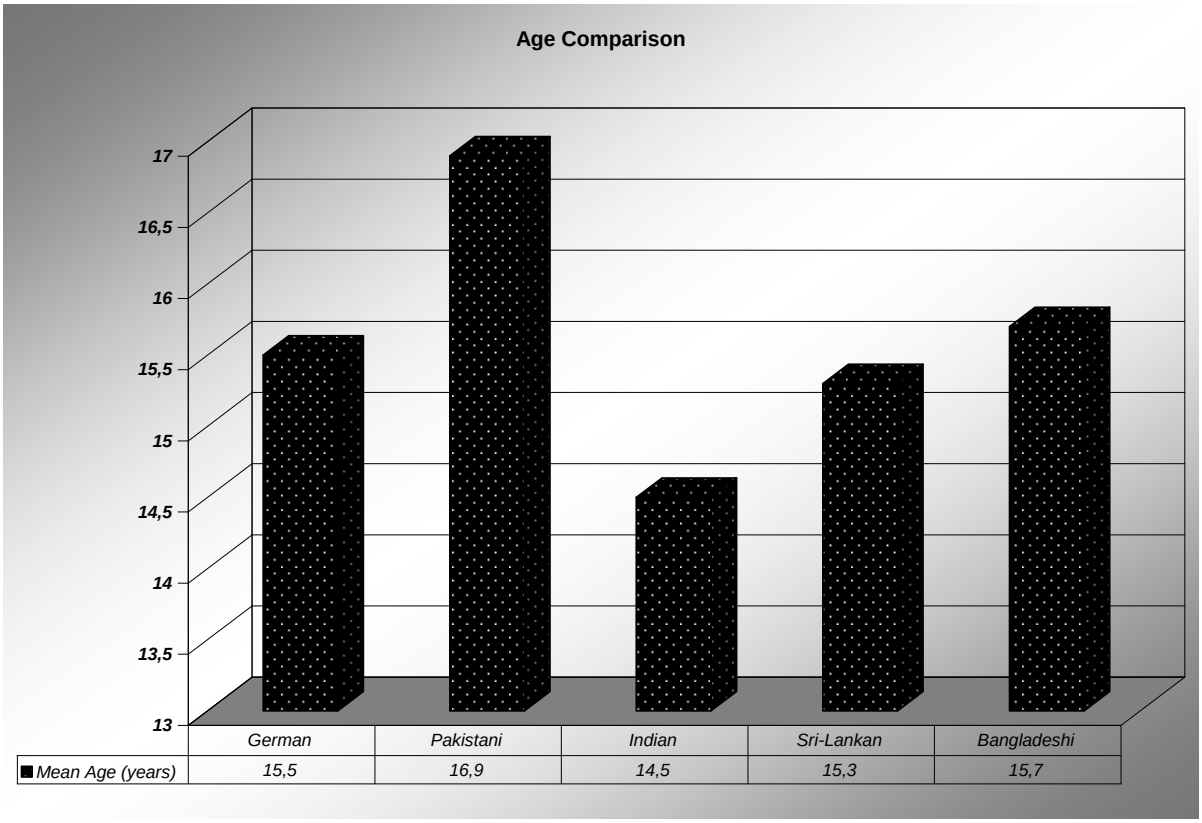
Nationality	Mean Age(years)	S.D	Mean Height(cm)	S.D	Mean Weight(kg)	S.D
German	15.5	1.49	168.2	11.18	55.8	10.42
Pakistani	16.9	1.10	158.8	9.24	53.8	9.72
Indian	14.5	2.24	154.7	10.63	44.4	14.84
Sri-Lankan	15.3	1.18	160.3	8.76	46.8	9.82
Bangladeshi	15.7	1.67	170.4	5.20	60.9	5.16

10.2.1 Athlete's Age

In total 227 participants between the ages of 12 to 18 years old (52 Pakistani, 50 German, 41 Indian, 44, Sri Lankan and 40, Bangladeshi players) took part in the study. The mean age for Pakistani players (M= 16.9), German players (M = 15.5), Indian players (M= 14.5), Sri Lankan players (M= 15.3) and Bangladeshi players (M= 15.7).Indian players were the youngest with the mean age of 14.5 years and Pakistani athletes were older than all groups and big differences were found in age of German, Sri-Lankan and Bangladeshi players.

Figure 34

South Asian & German "Age" Comparison



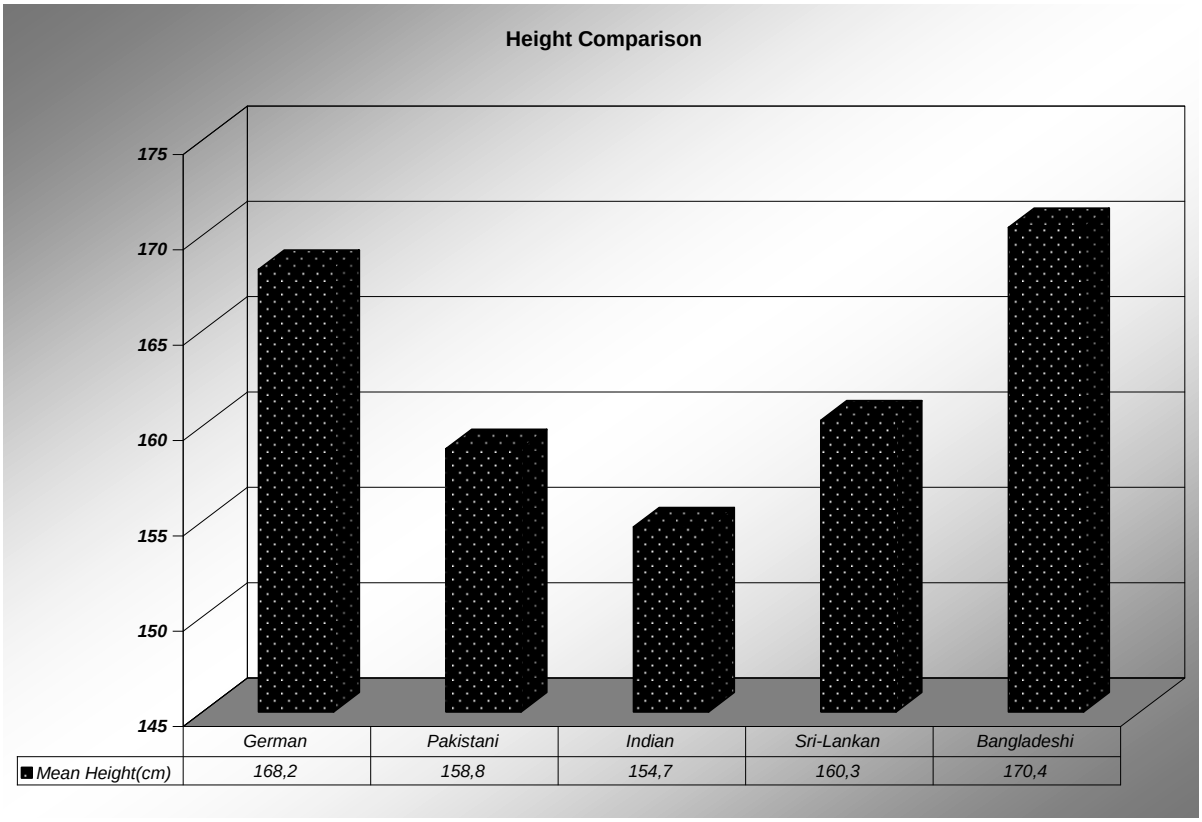
10.2.2 Athlete's Height

In total 227 participants took part in this study. Statistical Anova was made to measure the mean height (cm) for German and South Asian groups. The mean height for German athlete's (M =168.2 cm), Pakistani (M= 158.8 cm), Indian (M= 154.7cm), Sri Lankan (M= 160.3cm) and Bangladeshi athletes were at the

height of (M= 170.4cm). According to the results Bangladeshi players were the tallest among all nations and Indian athletes were the shortest from all groups.

Figure 35

South Asian & German "Height" Comparison

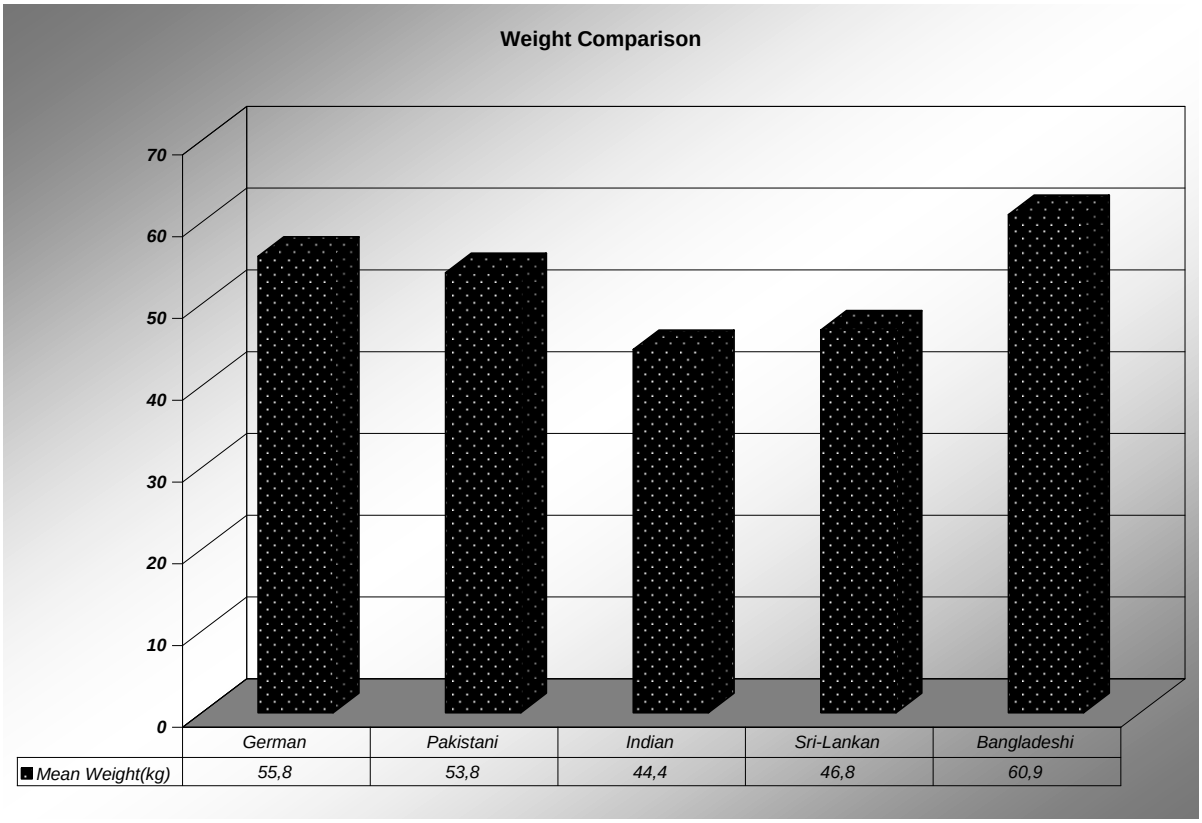


10.2.3 Athlete's Body Weight

In total 227 participants took part in this study. Statistical Anova was made to measure the body weight (kg) of the players. The mean body weight for German athlete's (M =55.7 kg), Pakistani (M= 53.8 kg), Indian (M= 44.4 kg), Sri-Lankan (M= 46.8 kg) and Bangladeshi athlete's body weight was (M =60.9 kg). According to the results Bangladeshi players were good at body weight among all and Indian athletes were at the lowest point.

Figure 36

South Asian & German "Weight" Comparison



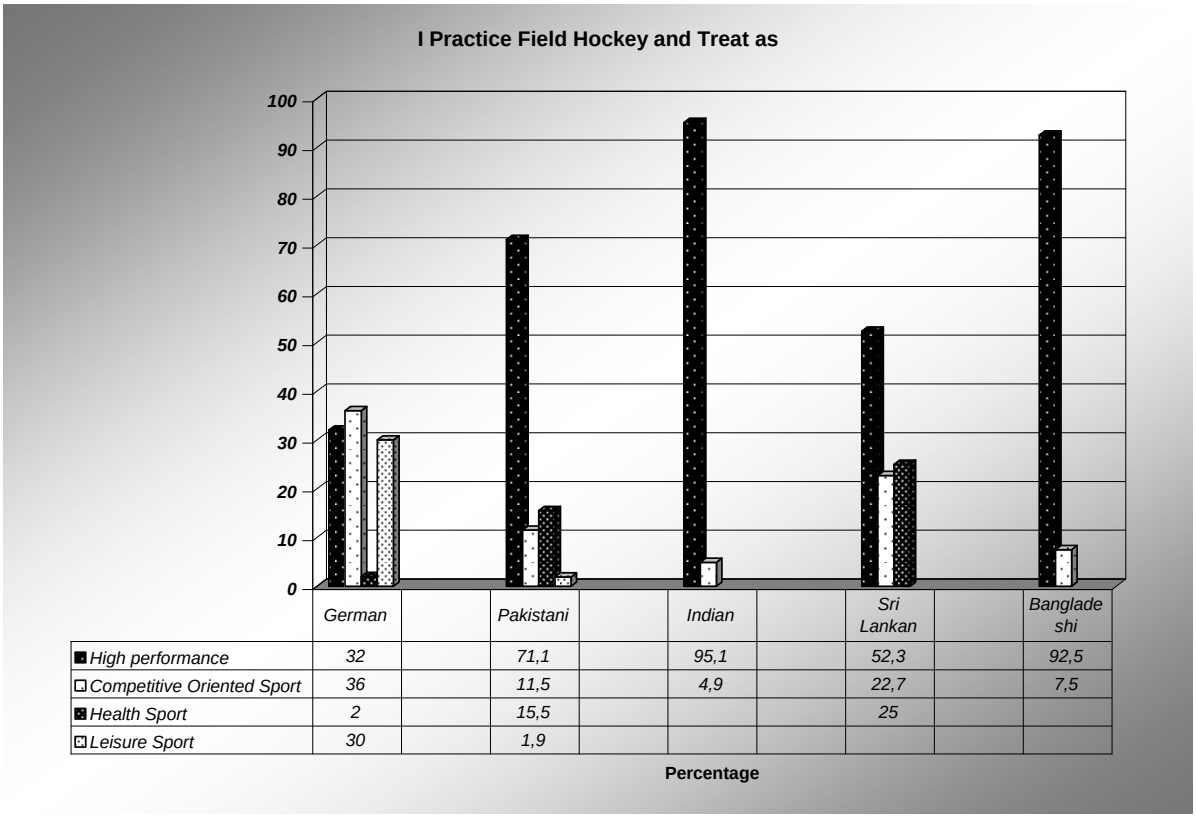
10.3 General Information of the Subject

In general 227 athletes participated in this study .Field Hockey is very much popular in South Asia especially Pakistan, India, Sri Lanka and Bangladesh. It is a national sport for Pakistan and India. Both countries have been very successful before 80's at international events like, World cups, Olympics and Asian championships but now days both are at decline due to various reasons. As well as Sri-Lanka and Bangladesh are also strong competitors due to same level of infrastructure and environmental factors prevailing in the region? Another reason maybe the British influence in the sub-continent. According to the research findings 32 % German athletes considered Field Hockey as high performance sport, 36 % as competition-club oriented sport, while 30% took as health sport and only 2 % players were of the view that it is a leisure sport.

As far as the consideration of the sport is concerned, 71.1 % Pakistani athletes took Field Hockey as High performance sport, 11.5 % competition oriented club sport, 15.4 % health sports and only 1.9 % considered it as leisure sport. Out of

50 participants 95.1 % Indian players considered it performance sport and just 4.9 % responded that Field Hockey is a competition oriented club sport. 52.3% Sri-Lankan players also considered it as performance sport, 22.7 % competition oriented club sport, and 25% health sport. 92.5 % Bangladeshi players considered it as performance sport and only 7.5 % athletes mentioned that Field Hockey is a competition oriented club sports.

Figure 37



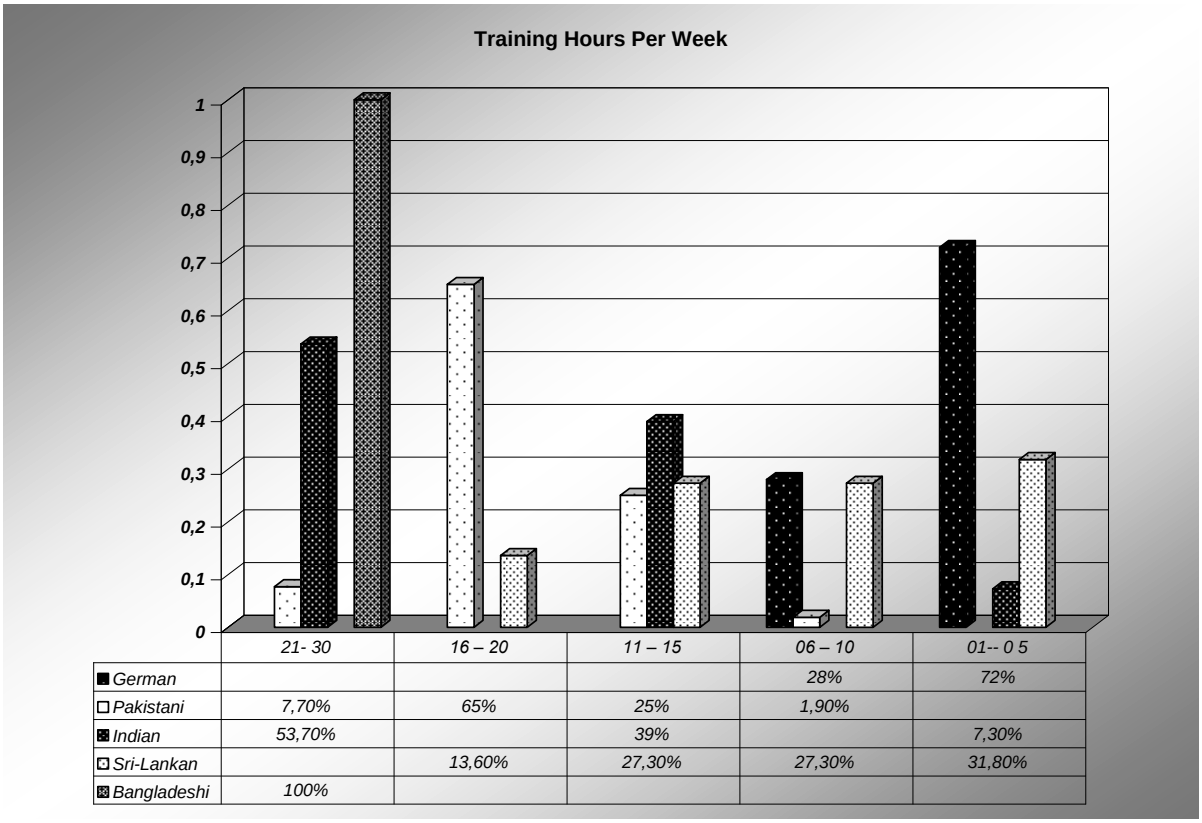
10.3.1 Training in a week

According to the respondents Bangladeshi athletes were following training sessions more than 22 hours per week. Maybe it was due to the Bangladeshi Sports Sciences department that all students should take part in extracurricular activities according to the schedule. As well as 53.7 % Indian players were practicing Hockey more than 30 hours in a week ,39% athletes in between 11 to 15 hours and only 7.3 % players were below 5 hours per week because they were not in the Indian Field Hockey camp but from local clubs.

In Sri Lanka 31.8 % athletes were training under 5 hours, 27.3 % 06 to 10 hours, 27.3 % 11 to 15 hours and 13.6 % were playing more than 20 hours per week.

As well as 72 % German athletes were training less than 5 hours and 28.22 % more than 6 to 10 hours per week

Figure 38

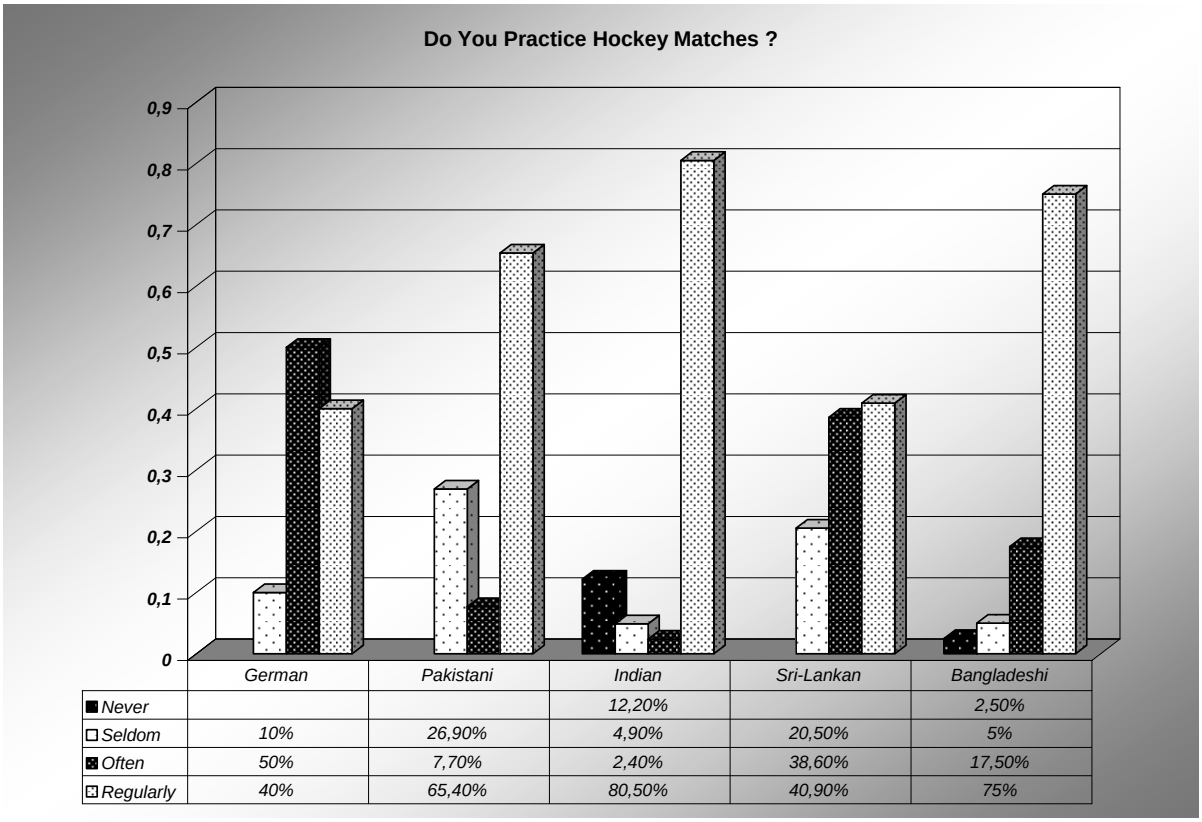


	21- 30	16 – 20	11 – 15	06 – 10	01-- 0 5
German				28%	72%
Pakistani	7,70%	65%	25%	1,90%	
Indian	53,70%		39%		7,30%
Sri-Lankan		13,60%	27,30%	27,30%	31,80%
Bangladeshi	100%				

10.3.2 Participation in Competitions

In total 227 South Asian and German athletes were of the view that how often they participate in competitions. Around 65.4 % Pakistani, 40 % German, 80.5 % Indian, 40.9 % Sri Lankan and 75 % Bangladeshi athletes were taking part regularly in competitions. In total 7.7 % Pakistani, 50 % German, 2.4 % Indian, 38.6 % Sri Lankan and 17.5 % Bangladeshi players said that they play matches often. About 26.9 % Pakistani, 10 % German, 4.9 % Indian, 20.5 % Sri Lankan and 5 % Bangladeshi athletes marked seldom and 12.2 % Indian and 2.5 % Bangladeshi players never played matches at all.

Figure 39

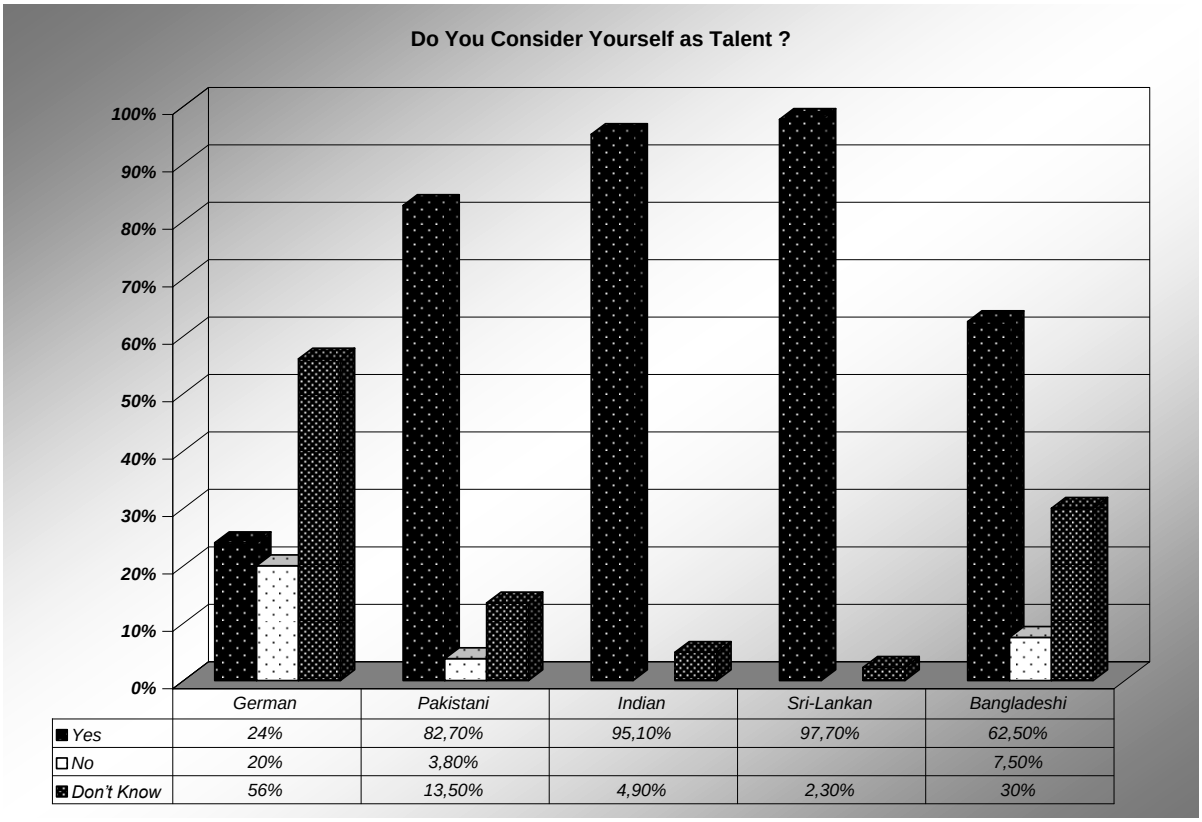


	German	Pakistani	Indian	Sri-Lankan	Bangladeshi
Never			12,20%		2,50%
Seldom	10%	26,90%	4,90%	20,50%	5%
Often	50%	7,70%	2,40%	38,60%	17,50%
Regularly	40%	65,40%	80,50%	40,90%	75%

10.3.3 Self-Perception of Talent

In total 82.7 % Pakistani, 24 % German, 95.1 % Indian, 97.7 Sri Lankan and 62,5 Bengali athletes considered themselves as talent in Field Hockey, 20 % German, 3.8 % Pakistani and 7.5 Bengali athletes mentioned that they are not talented and 56 % German, 13.5% Pakistani, 4.9 % Indians, 2.3 % Sri Lankan and 30 % Bengali athletes didn't know whether they are talent or not.

Figure 40

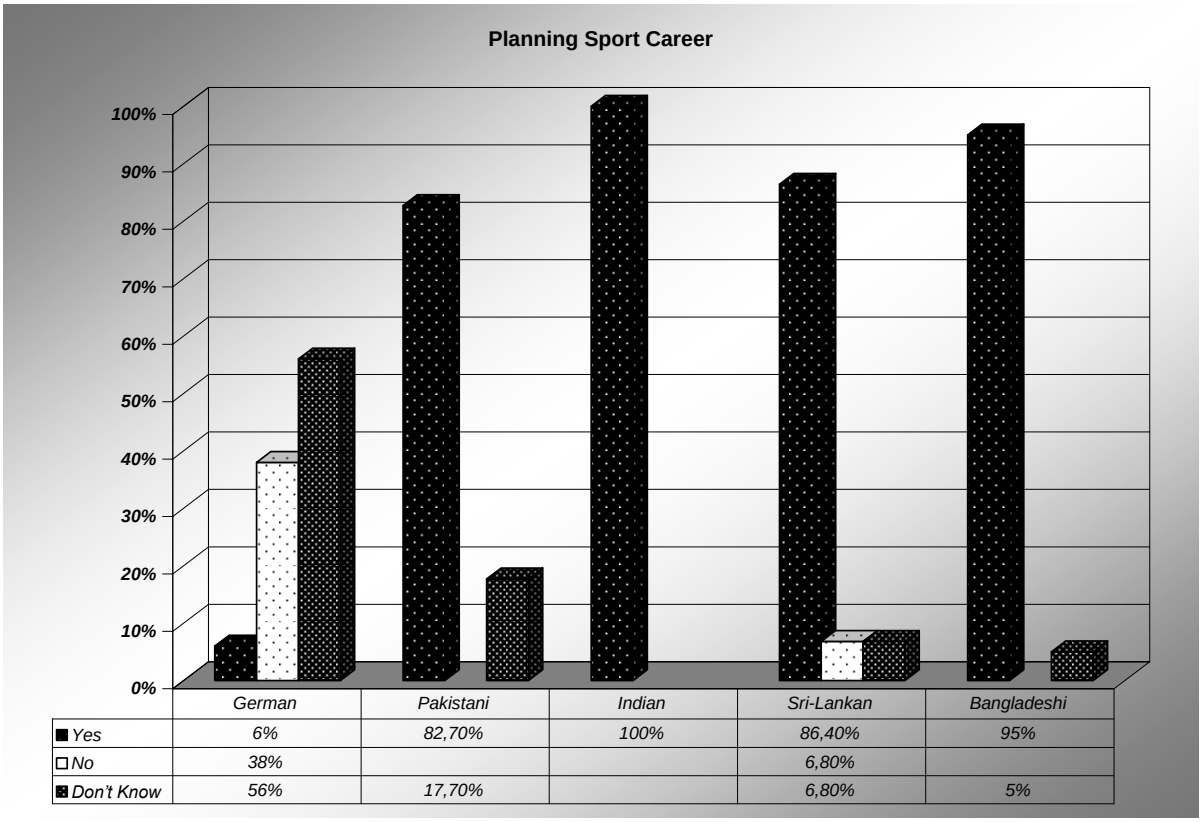


	German	Pakistani	Indian	Sri-Lankan	Bangladeshi
Yes	24%	82,70%	95,10%	97,70%	62,50%
No	20%	3,80%			7,50%
Don't Know	56%	13,50%	4,90%	2,30%	30%

10.3.4 Planning Sport Career

In total 82.7 % Pakistani, 6 % German, 100 % Indian, 86.4 % Sri Lankan and 95% Bangladeshi athletes mentioned that they would like to carry their sport in future professionally, 38 % German, and 6.8 % Sri Lankan refused to adopt it as career, 56 % German, 17.3% Pakistani, 6.8 % Sri Lankan and 5 % Bangladeshi athletes marked don't know.

Figure 41



	German	Pakistani	Indian	Sri-Lankan	Bangladeshi
Yes	6%	82,70%	100%	86,40%	95%
No	38%			6,80%	
Don't Know	56%	17,70%		6,80%	5%

10.4 Individual influential Factors

10.4.1 Goal Orientation in Sports

Hypotheses: There might be significant differences among the Field Hockey players of South Asia and Germany at development stage in relation to their Psychological profiles:-

- German athletes might have higher motivation than South Asian players.
- Maybe German players are more social than South Asian players.
- South Asian players might be ego-oriented as well as German's are task-oriented in sports.

The goal orientation in sports was assessed through three subscales, task orientation, ego orientation and social approval. The result shows significant differences in the athletes of South Asian and European countries.

Analyses shows MF (12,582) = 16.71, p < 001, Es =.23. As far as main effect between players is concerned in task orientation, F (4,222) = 36.63, p < .001, Es = .40, ego orientation, F (4,222) = p < .001, Es =.09 and in social approval F (4,222) = 30.20, P < .001 Es = .35

Results show large scale differences in goal orientation between the South Asian and German players. Sri Lankan and Bangladeshi players were highly task oriented as well as Indian and Pakistani players were less in task orientation respectively. As far as German players were in the middle of the scores between all nations in task orientation and less ego orientated than Pakistani, Indian and Bangladeshi athletes. Sri Lankan players over all scored higher in goal orientation as they were task oriented, better in social orientation and have less ego orientation.

According to the results study did not validate above mentioned hypotheses related to goal orientation.

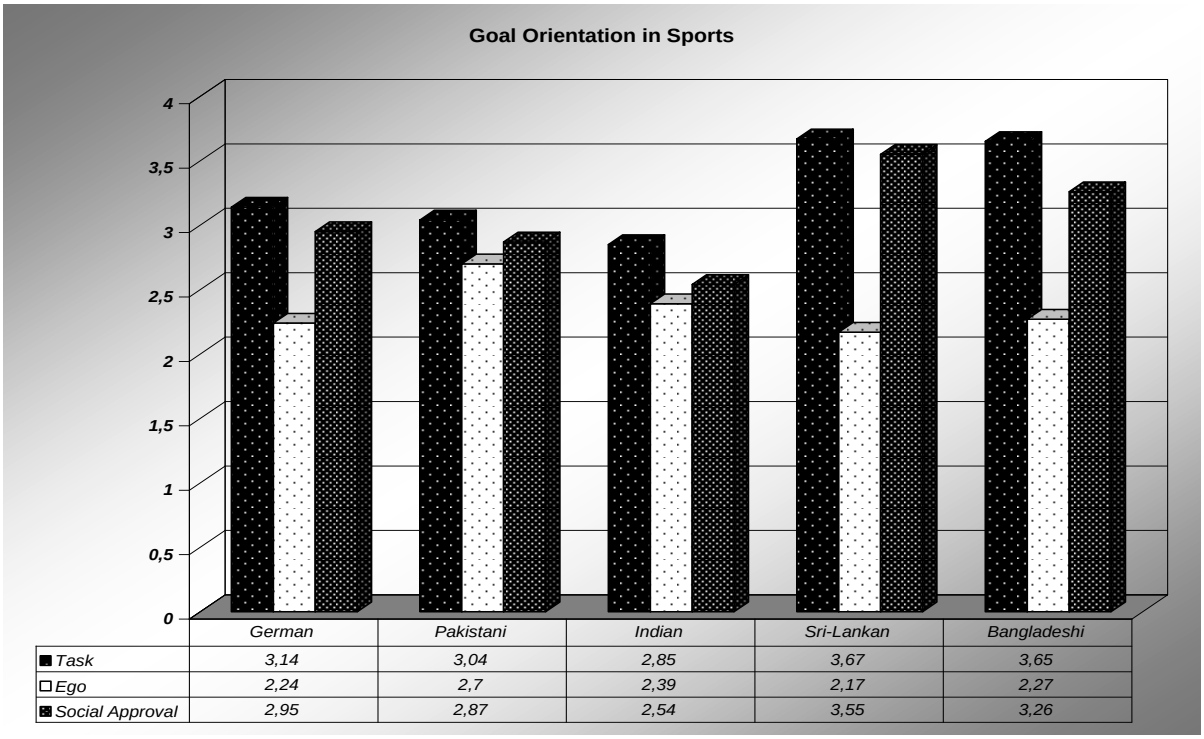
Table 32

Descriptive Statistics and Analyses of Variance for "Goal Orientation" in sports (South Asia & Germany)

Variable	PAK (M)	S.D	GER (M)	S.D	IND (M)	S.D	SRL (M)	S.D	BAN (M)	S.D	F	df	df (e)	P	Es
Task	**3.04**	**.49**	**3.14**	**.44**	**2.85**	**.28**	**3.67**	**.31**	**3.65**	**.39**	**36.7**	**4**	**222**	**.000**	**.40**
Ego	**2.70**	**.45**	**2.24**	**.70**	**2.39**	**.37**	**2.17**	**.60**	**2.27**	**.91**	**5.46**	**4**	**222**	**.000**	**.09**
Social Approval	**2.87**	**.40**	**2.95**	**.58**	**2.54**	**.37**	**3.55**	**.42**	**3.26**	**.47**	**30.2**	**4**	**222**	**.000**	**.35**

Figure 42

Goal Orientation in Sports (South Asian & German)



10.4.2 Perceived Physical Self Concept.

Hypotheses: There might be significant differences among the Field Hockey players of South Asia and Germany at development stage in relation to their Physical profiles:

- German athletes might have higher perceived physical self-concept.
- South Asian Field Hockey players maybe have less perceived physical characteristics.
- German players might be good at conditional qualities than south Asian players.

To find out the possible difference in perceived physical self-concept multivariate analyses for seven subscales, Physical self-attractiveness, Speed, Strength, Endurance, Flexibility, Coordination and Sport Competence was made. Result shows significant differences in the physical self-concept of German and South Asian Field Hockey players at the stage of development. Multivariate analysis shows main nation effect MF (28,780) = 4.68, $p < .001$, Es=.13.

In attractiveness F (4,222) = 6.07, $p < .001$, Es = .10 , Speed F(4,222) = 5.87, $p < .001$,Es = .10, Endurance F(4,222) =1.40, $p < .05$, Es = .02, Strength F(4,222) =4.18, $p < .01$, Es = .07, Flexibility F(4,222) = 14.41, $p < .001$, Es = .20, Coordination F (4,222) = 6.20, $p < .001$, Es = .10 and Sport Competence F(4,222) = 3.56, $p < .01$, Es= .06.

According to the analyses German players were good at physical attractiveness than South Asian countries and medium scale differences were seen in the players of both continents.

The result shows the significant differences in perceived physical characteristics, Indian players were better at speed, Bangladeshi in endurance and flexibility, as well as Sri Lankan players were in coordination and sport competence at the stage of development. German players were in the middle of scores at strength, flexibility, coordination and sport competence. Pakistani athletes were at the bottom in conditional qualities among German and South Asian players. Medium level differences were observed in speed, strength, coordination and sport competence, small differences were in endurance and large scale differences were observed in flexibility of South Asian and German players.

The study confirms the hypotheses on physical attractiveness as well as did not proof the hypotheses on perceived physical self-concept.

Table 33

Descriptive Statistics and Analyses of Variance for "Physical Self Concept" in sports (South Asia & Germany)

Variable	PAK (M)	S.D	GER (M)	S.D	IND (M)	S.D	SRL (M)	S.D	BAN (M)	S.D	F	df	df (e)	P	Es
Physical Attractiveness	2.83	.40	3.08	.44	2.76	.17	2.99	.39	2.82	.36	6.07	4	222	.000	.10
Speed	2.80	.40	3.12	.53	3.26	.60	3.17	.54	3.23	.60	5.87	4	222	.000	.10
Endurance	3.05	.43	3.10	.60	3.22	.50	3.17	.66	3.30	.58	1.40	4	222	.238	.02
Strength	2.78	.37	3.00	.60	3.00	.53	3.22	.57	3.13	.68	4.18	4	222	.003	.07
Flexibility	2.72	.42	3.08	.52	3.07	.36	3.31	.48	3.33	.46	14.41	4	222	.000	.20
Coordination	3.03	.48	3.12	.49	3.14	.41	3.43	.50	3.40	.51	6.20	4	222	.000	.10
Sport Competence	3.00	.45	3.21	.48	3.12	.65	3.41	.45	3.20	.55	3.56	4	222	.008	.06

Figure 43

Physical Self Concept (South Asian & German)

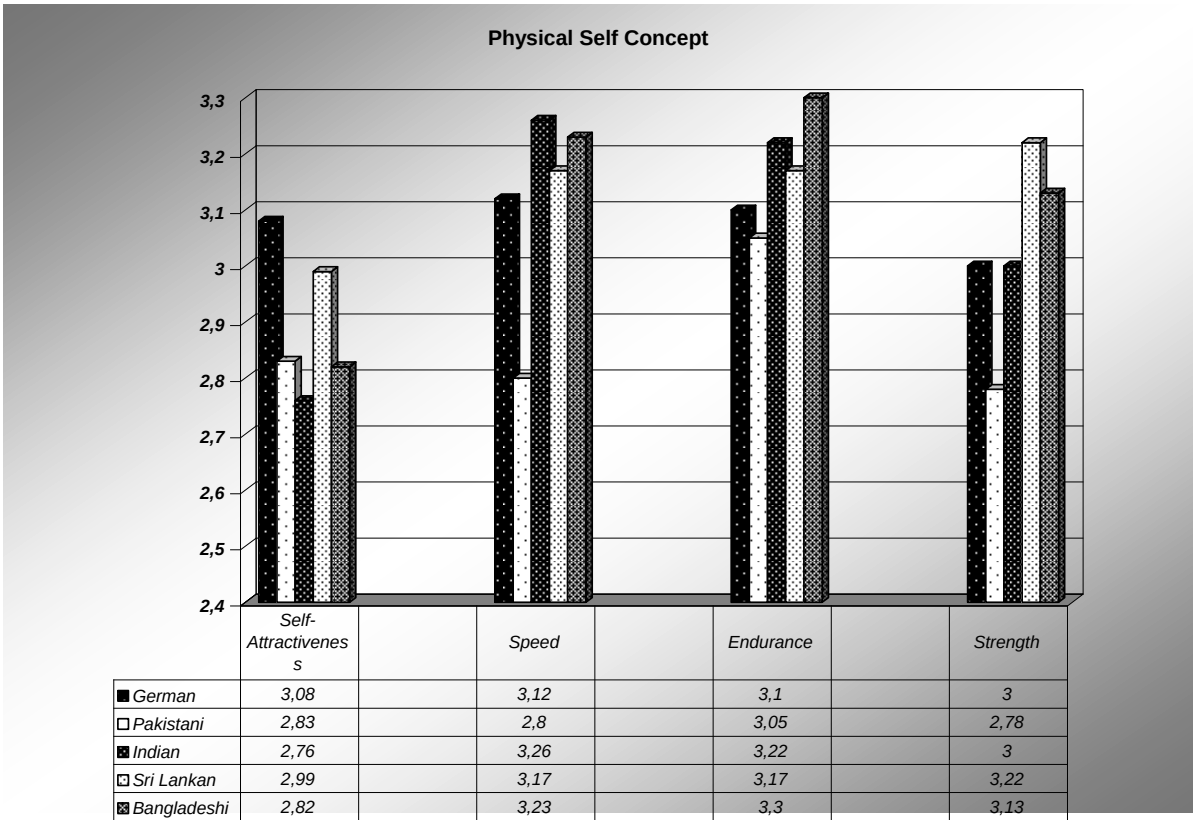
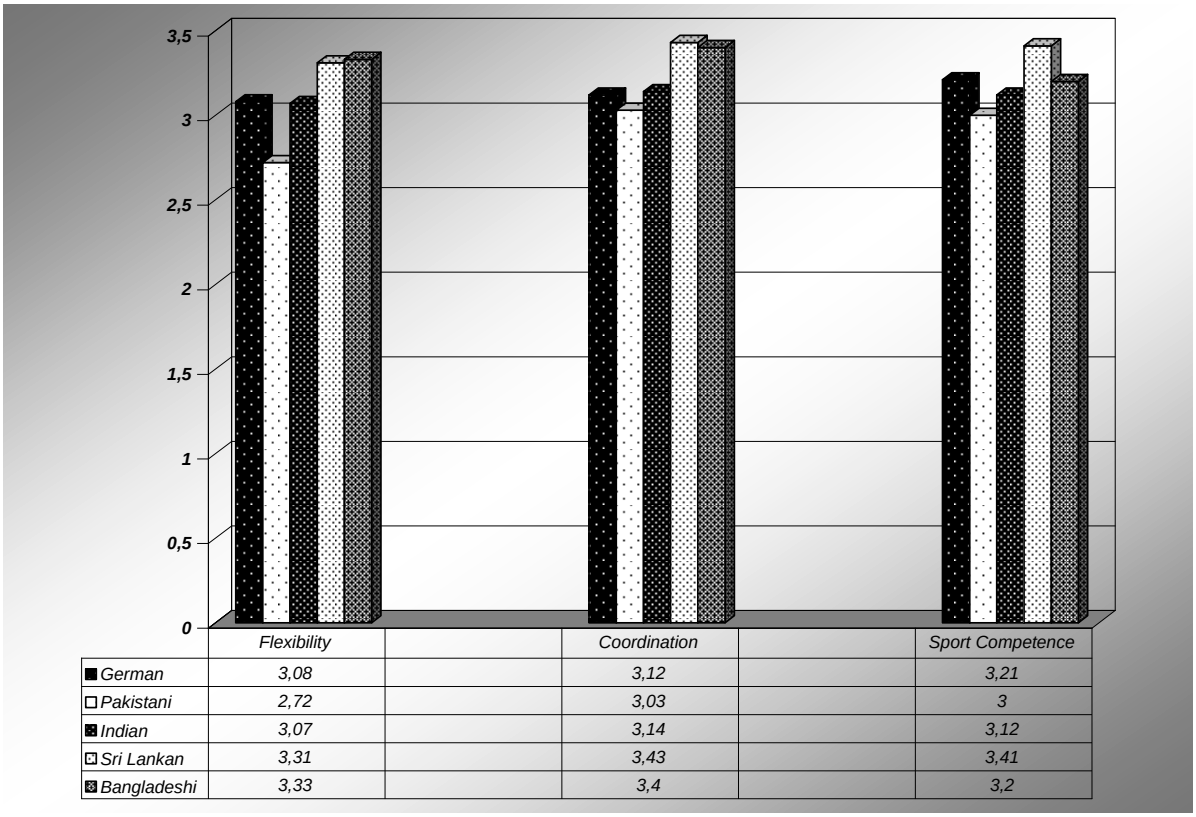


Figure 44

Physical Self Concept (South Asian & German)



	Flexibility		Coordination		Sport Competence
German	3,08		3,12		3,21
Pakistani	2,72		3,03		3
Indian	3,07		3,14		3,12
Sri Lankan	3,31		3,43		3,41
Bangladeshi	3,33		3,4		3,2

10.4.3 Competition-related Anxiety

Hypotheses:

- South Asian athletes might be higher in competitive anxiety than German players.
- South Asian athlete seems to be less self-confident than German's.
- German player seems to be mentally stronger than South Asian Field Hockey players.

Multivariate analyses for three subscales cognitive anxiety, somatic anxiety and self-confidence was conducted to investigate the differences among the Field Hockey players of South Asia and Germany. Results shows nation effect as MF (12,582) = 19.77, $p < .001$, Es= .26. As far as main effect in players cognitive anxiety F (4,222) = 31.05, $p < .001$, Es = .40, somatic anxiety F (4, 222) = 24.19, $p < .001$, Es = .30 and self-confidence F (4, 222) = 16.19, $p < .001$, Es = .23.

The analyses show small differences in cognitive and somatic anxieties as well as large scale differences in self-confidence of the players of South Asia and Germany.

According to the results Indian players showed higher incidence of cognitive anxiety and Pakistani athletes at somatic anxiety. Bengali athletes scored higher in self-confidence.

The study confirms the hypotheses related to competition related anxiety.

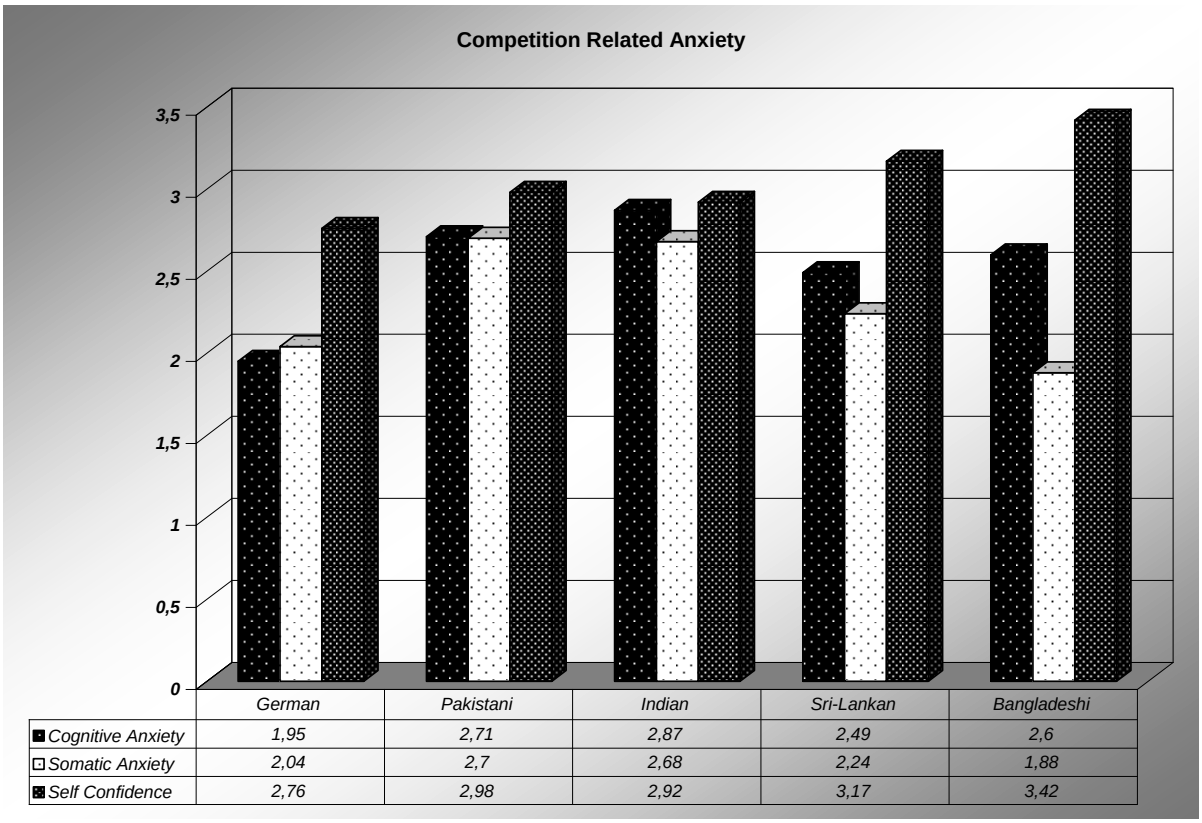
Table 34

Descriptive Statistics and Analyses of Variance for "Competitive-related Anxiety" in sports (South Asia & Germany)

Variable	PAK (M)	S.D	GER (M)	S.D	IND (M)	S.D	SRL (M)	S.D	BAN (M)	S.D	F	df	df (e)	P	Es
Cognitive Anxiety	**2.71**	**.33**	**1.95**	**.56**	**2.87**	**.32**	**2.49**	**.50**	**2.60**	**.38**	**31.05**	**4**	**222**	**.000**	**.40**
Somatic Anxiety	**2.70**	**.40**	**2.04**	**.59**	**2.68**	**.32**	**2.24**	**.61**	**1.88**	**.53**	**24.19**	**4**	**222**	**.000**	**.30**
Self Confidence	**2.98**	**.42**	**2.76**	**.42**	**2.92**	**.30**	**3.17**	**.44**	**3.42**	**.53**	**16.19**	**4**	**222**	**.000**	**.23**

Figure 45

Competition related Anxiety (South Asian & German)



10.4.4 Coping Strategies in Sports

Hypotheses:

- South Asian athletes can't peak under pressure because they might not be using mental rehearsals before and during the competition.
- To enhance confidence and achievement motivation, German Field Hockey players maybe practice specific plans.
- German athletes might be better in coping with adversity.
- South Asian Field Hockey players maybe rely more on coach abilities.
- German Field Hockey Players might set specific goals and mentally trained themselves for competition.

In competitive games like Field Hockey it is impossible to compete with your opponents unless you have strong coping skills. To find out the possible differences in coping skills and strategies multivariate analyses for seven subscales, coping with adversity, peaking under pressure, goal setting & mental preparation, concentration, freedom from worry, confidence & achievement motivation and coach ability was made.

The study shows significant differences among the players of South Asia and Germany as MF (28,780) = 10.32, p< .001, Es = .25 as well as main nation effect shows that in coping adversity F (4,222) = 13.20, p < 001, Es = .19, peaking under pressure F (4,222) = 14.17, p < .001, Es = 0.20, goal setting & mental preparation F (4,222) = 23.39, p < .001, Es = .30 concentration F (4,222) = 4.02, p < .01, Es = .07, freedom from worry F(4,222) = 15.37, p < .001, Es = 0.22, confidence & achievement motivation F (4,222 = 19.74, p < .001, Es = .26 and coach ability F (4,222) = 16.49, p < .001, Es = .23. Large scale differences were observed in coping with adversity, peaking under pressure, goal setting & mental preparation, free from worry, confidence & achievement motivation and coach ability as well medium scale differences were found in concentration of the players.

According to results South Asian countries showed higher incidence of coping strategies; Sri Lankan athletes scored high in coping with adversity, Bangladeshi players in peaking under pressure, goal setting & mental preparation, concentration and confidence & achievement motivation as well as German players showed higher incidence of coach ability and free from worry.

The study did not confirm the hypotheses related to coping strategies in sports.

Table 35

Descriptive Statistics and Analyses of Variance for "Coping strategies" in sports (South Asia & Germany)

Variable	PAK (M)	S.D	GER (M)	S.D	IND (M)	S.D	SRL (M)	S.D	BAN (M)	S.D	F	df	df (e)	P	Es
Coping Adversity	2.89	.56	2.68	.46	2.50	.23	3.20	.52	3.07	.67	13.20	4	222	.000	.19
Peaking Pressure	2.96	.49	2.62	.71	2.54	.40	3.14	.60	3.32	.66	14.17	4	222	.000	.20
Goal setting and MP	2.87	.52	2.23	.65	2.89	.50	3.01	.58	3.34	.56	23.39	4	222	.000	.30
Concentration	2.92	.49	3.04	.55	2.76	.43	2.96	.57	3.22	.64	4.02	4	222	.004	.06
Free from Worry	2.10	.62	2.81	.70	2.18	.32	2.28	.53	1.95	.59	15.37	4	222	.000	.21
Confidence & Ach Motivation	2.97	.41	2.87	.53	2.81	.28	3.31	.55	3.54	.44	19.74	4	222	.000	.26
Coachability	2.60	.36	3.20	.57	2.68	.41	3.14	.60	3.14	.49	16.49	4	222	.000	.23

Figure 46

Coping Strategies in Sports (South Asian & German)

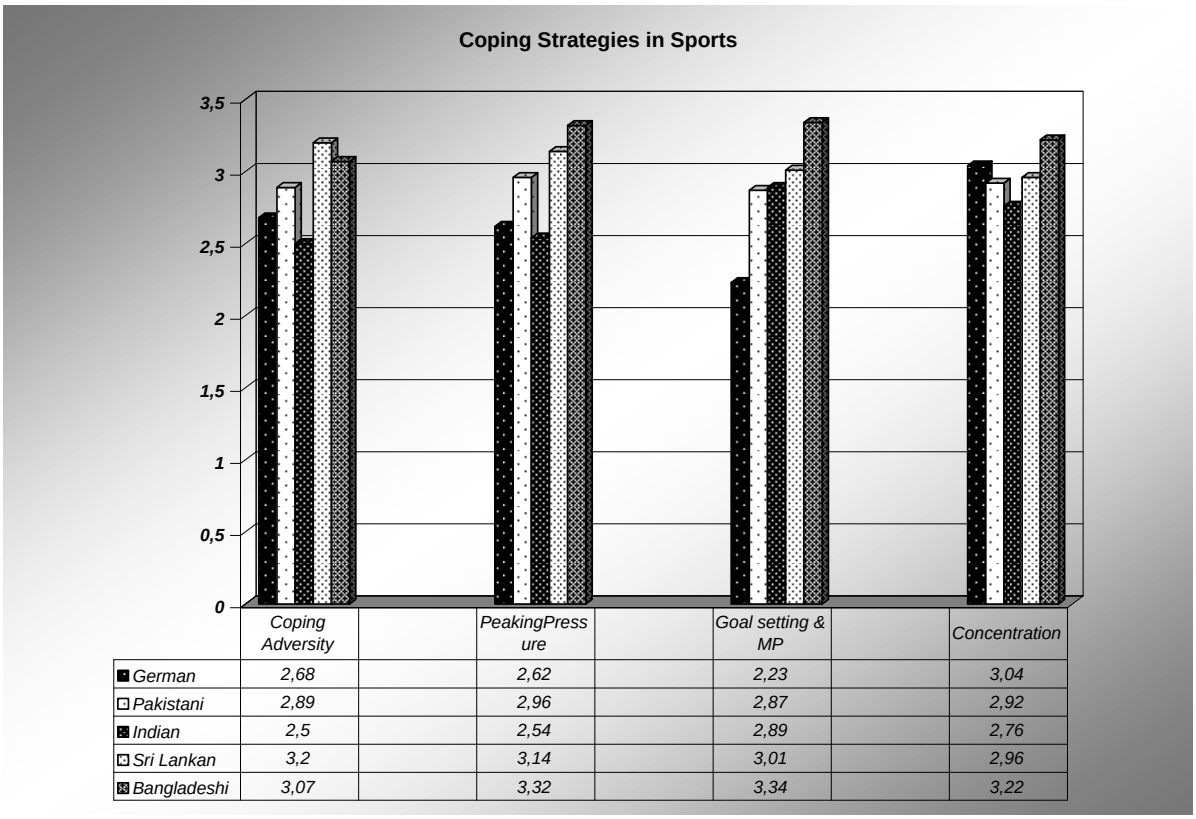
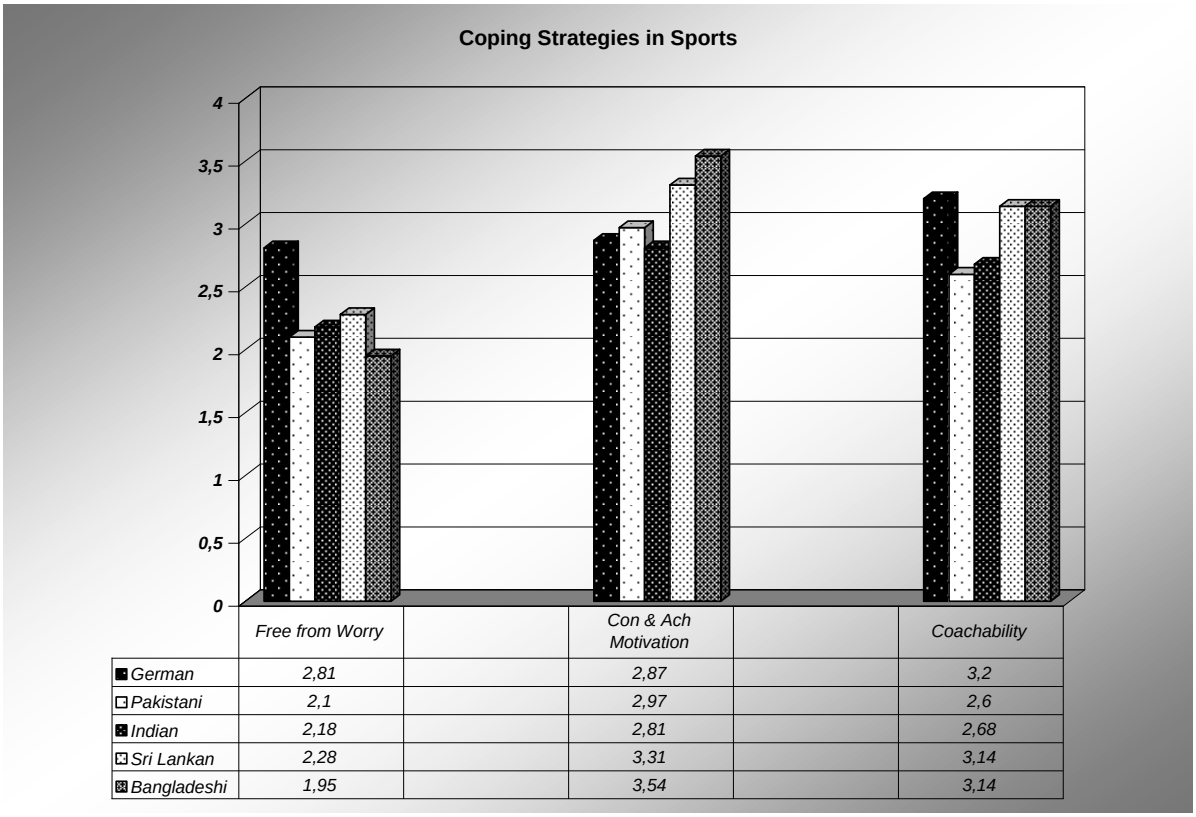


Figure 47

Coping Strategies in Sports (South Asian & German)



	Free from Worry		Con & Ach Motivation		Coachability
German	2,81		2,87		3,2
Pakistani	2,1		2,97		2,6
Indian	2,18		2,81		2,68
Sri Lankan	2,28		3,31		3,14
Bangladeshi	1,95		3,54		3,14

10.4.5 Sport Commitment

Hypotheses:

- German athletes might be more committed to their sport than South Asian players.
- South Asian players might invest personally more in the game.

To check the level of sport commitment of South Asian and German players at development stage, multivariate analyses was made to find out the possible differences in five subscales, sport commitment, enjoyment, personal investment, social constraints and perceived positiveness.

The result shows significant differences in sport commitment of the athletes of South Asian and German players as Multivariate effect, MF (20, 723) = 17.44, $p < .001$, Es = .28. Main effect between nations in sport commitment F (4,222) = 15.97, $p < .001$, Es = .22, enjoyment F (4,222) = 36.25, $p < .001$, Es = .39, personal investment F (4,222) = 17.14, $p < .001$, Es = .24, social constraints F (4,222) = 18.76, $p < .001$, Es = .25 and perceived positive approach. F (4,222) = 21.09, $p < .001$, Es = .27.

Analyses show that Bengali players were at the top in sport commitment and Pakistani athletes were at the bottom among all groups. Large scale differences were observed in sport commitment, enjoyment, personal investment and perceived positive ness between German and South Asian players.

The study confirms the hypotheses related to sport commitment.

Table 36

Descriptive Statistics and Analyses of Variance for "Sport Commitment" in sports (South Asia & Germany)

Variable	GER (M)	S.D	PAK (M)	S.D	IND (M)	S.D	SRL (M)	S.D	BAN (M)	S.D	F	df	df (e)	P	Es
Sport Commitment	4.16	.72	3.62	.71	4.15	.98	4.31	.71	4.82	.82	15.97	4	222	.000	.22
Enjoyment	4.47	.60	3.01	1.0	3.94	1.3	4.80	.43	4.71	.51	36.25	4	222	.000	.39
Person al Investment	3.43	.71	3.83	.97	3.67	.86	4.10	.72	4.72	.51	17.14	4	222	.000	.24
Social Constraints	2.22	1.2	2.86	1.0	3.65	.90	2.93	1.36	4.18	1.3	18.76	4	222	.000	.25
Perceived Positive ness	4.04	.91	3.60	.61	3.82	.62	3.64	1.2	4.96	.17	21.09	4	222	.000	.27

Figure 48

Sport Commitment (South Asian & German)

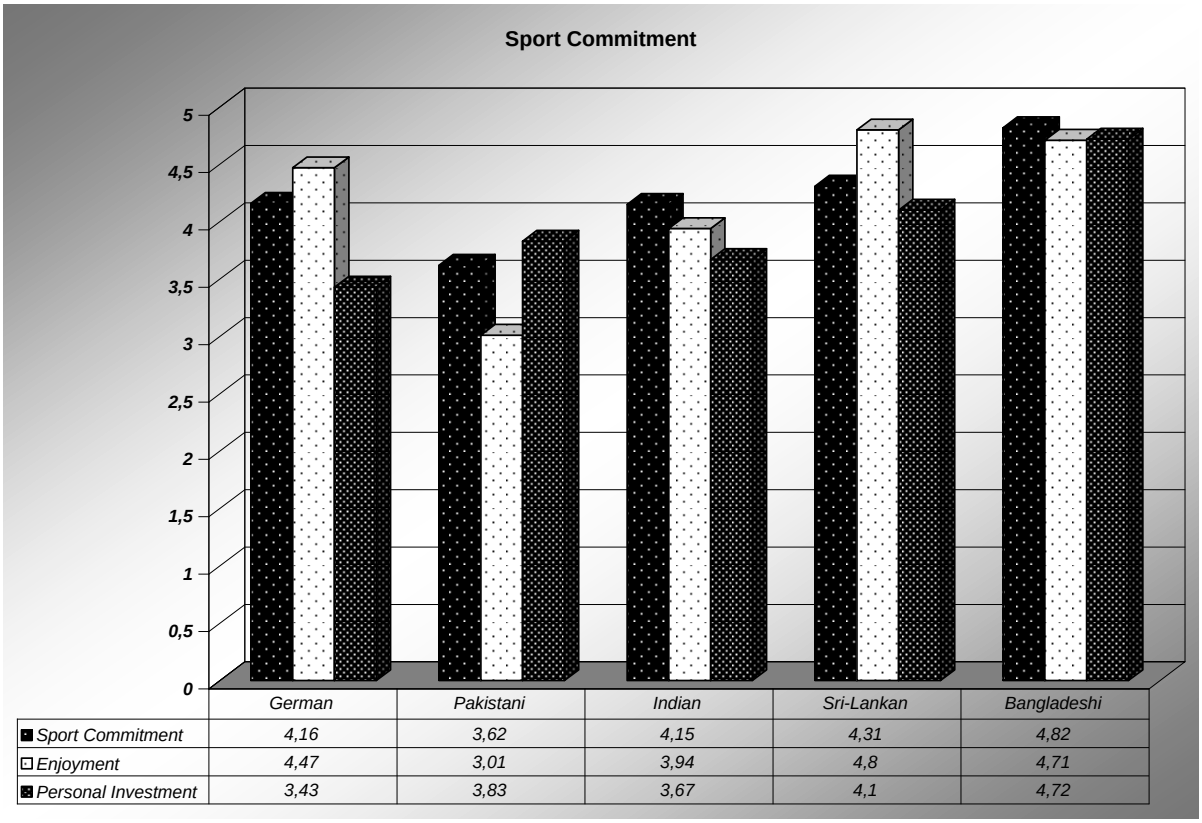
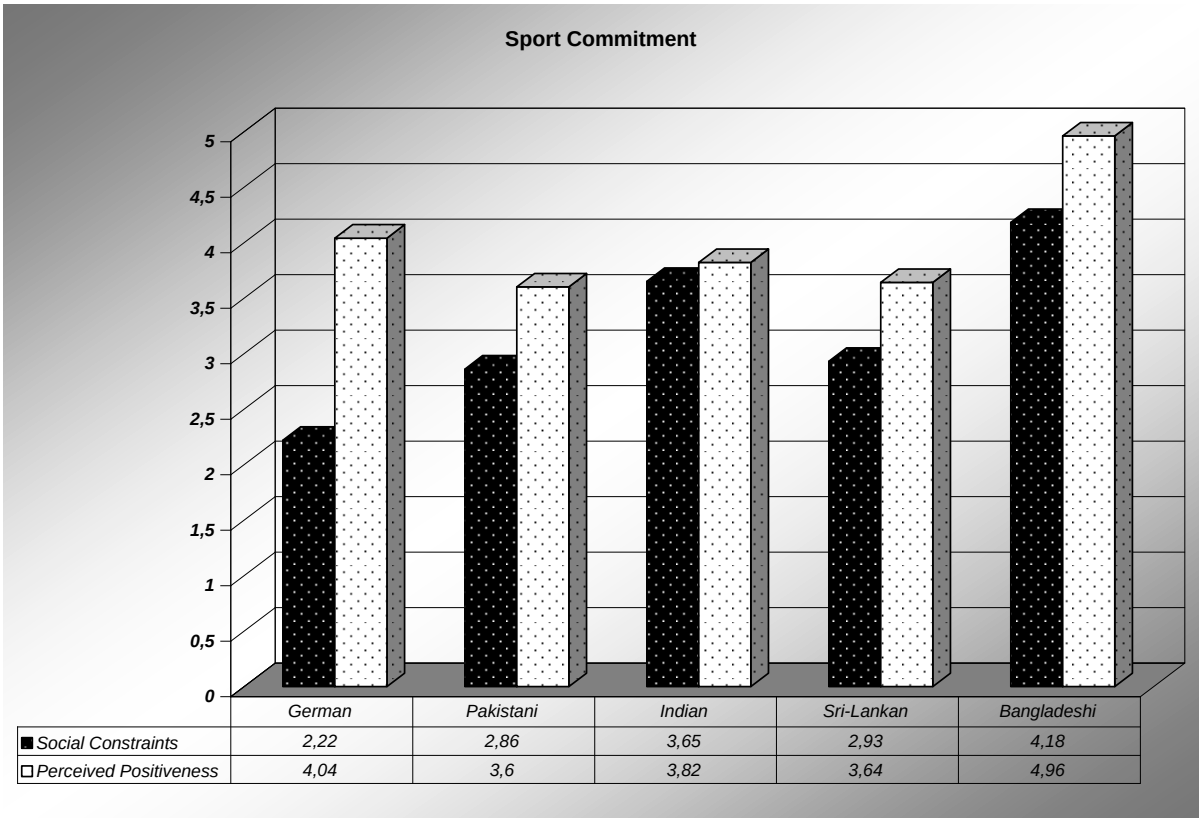


Figure 49

Sport Commitment (South Asian & German)



	German	Pakistani	Indian	Sri-Lankan	Bangladeshi
Social Constraints	2,22	2,86	3,65	2,93	4,18
Perceived Positiveness	4,04	3,6	3,82	3,64	4,96

10.4.6 Parental Involvement in Sports

Hypotheses: There might be significant differences among the Hockey players of Germany and South Asia at development stage in relation to their Social profiles:-

- South Asian athletes might have less parental support due to the non-sport environment in the region
- German athlete's parents are maybe actively involved in the physical activities of their children.
- Parents of South Asian players might have directive behaviour towards them.

The four subscales of parental involvement in sports, directive behaviour, praise & understanding, active involvement and pressure were put into test to find out the possible differences between the athletes of Europe and South Asia at the stage of development. Parents and peers play important role in the lives of young

players to improve their performance. The results shows nation effect that MF (16, 669) = 19.55, p < .001, Es = .25.

In individual variables result shows that parents directive behaviour F (4,222) = 29.21, p < .001, Es = .34, praise and understanding F (4,222) = 21.68, p < .001, Es = .28, active involvement F (4,222) = 27.64, p < .001, Es = .33 and Pressure F (4,222) = 34.43, p < .001, Es = .38.

The large scale differences were seen in directive behaviour of parents, praise and understanding, active involvement and pressure. Sri Lankan athlete's parents were higher in directive behaviour, Bengali parents were good at praise & understanding as well in putting much pressure on children, Indian parents were actively involved in the activities of their children.
The study did not confirm the hypotheses related to parental support.

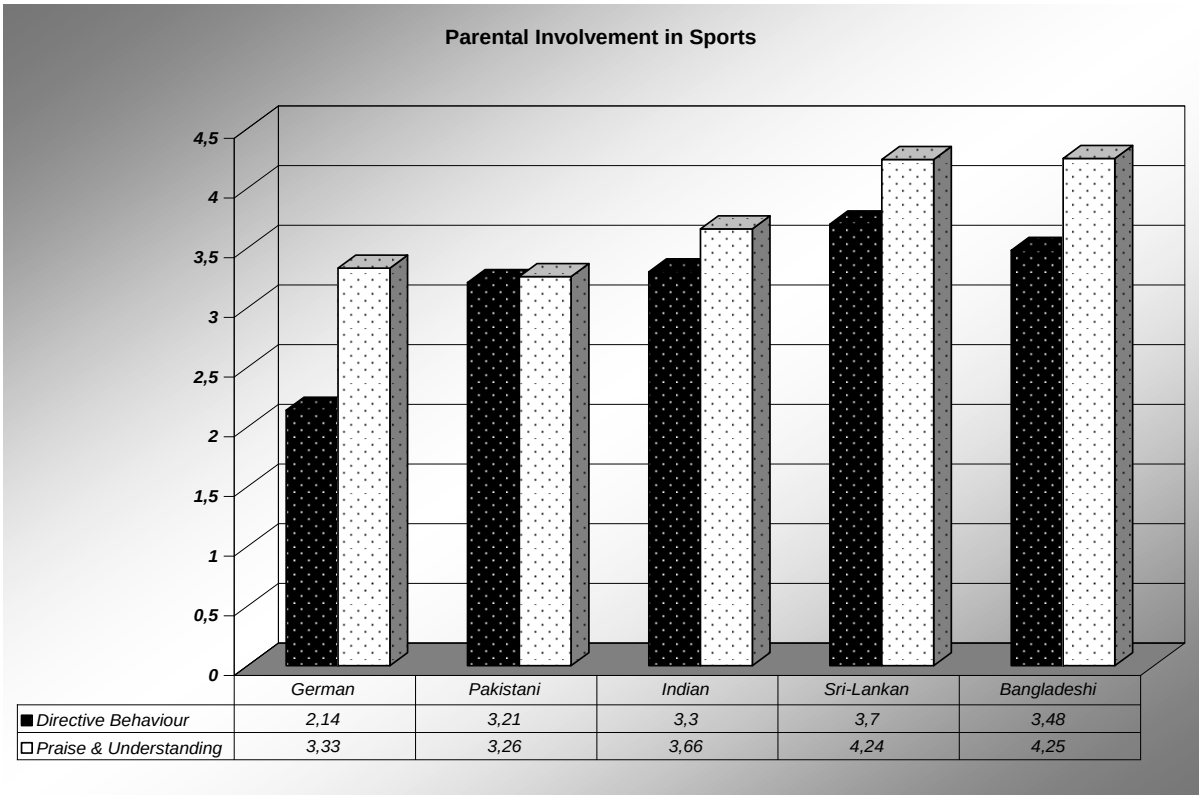
Table 37

Descriptive Statistics and Analyses of Variance for "Parental Involvement" in sports (South Asia & Germany)

Variable	GER (M)	S. D	PAK (M)	S. D	IND (M)	S. D	SRL (M)	S.D	BA N (M)	S. D	F	df	df (e)	P	Es
Directive Behaviour	2.14	.92	3.21	.61	3.30	.40	3.70	.86	3.48	.93	29.21	4	222	.000	.34
Praise and Understanding	3.33	.78	3.26	.63	3.66	.46	4.24	.75	4.25	.79	21.68	4	222	.000	.28
Active Involvement	2,29	1.2	2.74	1.1	4.24	.50	3.75	.92	3.15	1.1	27.64	4	222	.000	.33
Pressure	2.01	.86	3.31	.74	3.65	.66	3.40	.89	3.73	.94	34.43	4	222	.000	.38

Figure 50

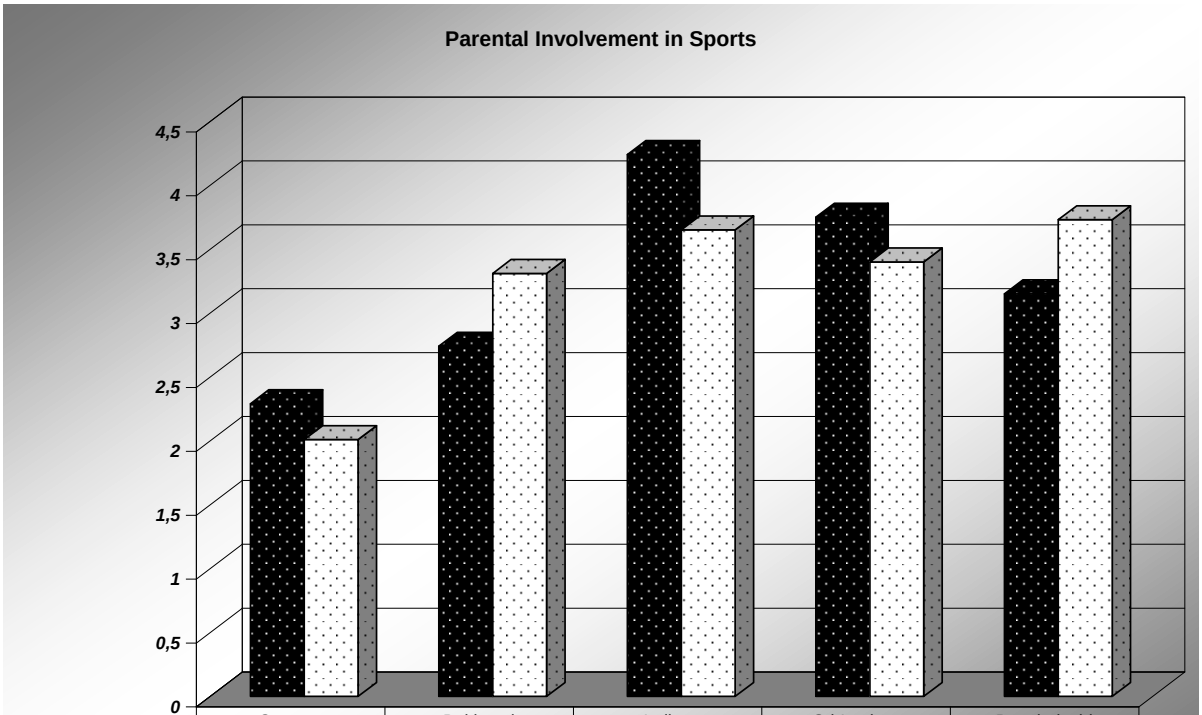
Parental Involvement in Sports (South Asian & German)



	German	Pakistani	Indian	Sri-Lankan	Bangladeshi
■ Directive Behaviour	2,14	3,21	3,3	3,7	3,48
□ Praise & Understanding	3,33	3,26	3,66	4,24	4,25

Figure 51

Parental Involvement in Sports (South Asian & German)



	German	Pakistani	Indian	Sri-Lankan	Bangladeshi
■ Active Involvement	2,29	2,74	4,24	3,75	3,15
□ Pressure	2,01	3,31	3,65	3,4	3,73

10.4.7 Leadership in Sports

Hypotheses:

- German coaches might be good at communication skills and instructing their athletes.
- South Asian athletes maybe get less positive feedback from their coaches
- German coaches might have democratic style than South Asian coaches.
- South Asian athletes might get less support from coaches

To find out possible differences in coaches behaviour and support to the athletes multivariate analyses for four subscales, training instructions, democratic style, positive feedback and social support of leadership was made. Analyses shows nation effect that MF (16,669) = 12.44, $p < .001$, Es = .18 and main effect in subscales shows that, in training instructions F (4,222) = 35.56, $p < .001$, Es = .39, democratic style F (4,222) = 24.96, $P < .001$, Es = .31, positive feedback F (4,222) = 14.72, $p < .001$, Es = .21 and social support F (4,222) = 15.97, $p < .001$, Es = .22.

Analyses show large scale differences in leadership style of the coaches of South Asian and German players. Bengali coaches scored higher in training

instructions, democratic style, positive feedback and social support. As well as German coaches were at the bottom line in leadership style.

The study did not confirm the hypotheses related to leadership style of coaches.

Table 38

Descriptive Statistics and Analyses of Variance for "Leadership" in sports (South Asia & Germany)

Variable	GER (M)	S.D	PAK (M)	S.D	IND (M)	S.D	SRL (M)	S.D	BAN (M)	S.D	F	df	df (e)	P	Es
Training Instructions	3.76	.67	3.79	.71	3.47	.29	4.42	.60	4.75	.39	35.56	4	222	.000	.39
Democratic Style	3.47	.61	3.59	.79	3.60	.69	4.23	.74	4.66	.49	24.96	4	222	.000	.31
Positive Feedback	3.76	.73	3.66	.66	4.01	.41	4.35	.64	4.46	.56	14.72	4	222	.000	.21
Social Support	3.54	.81	3.57	.56	3.91	.49	3.96	.74	4.50	.52	15.97	4	222	.000	.22

Figure 52

Leadership in Sports (South Asian & German)

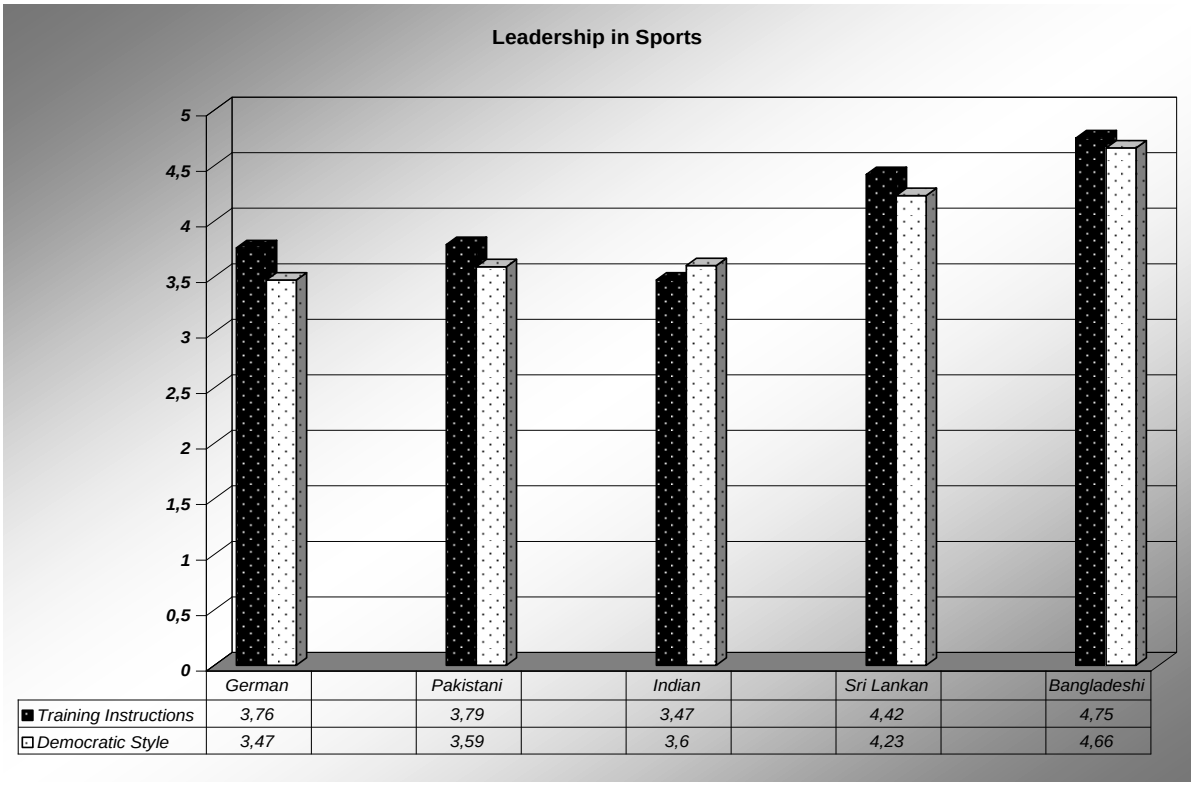
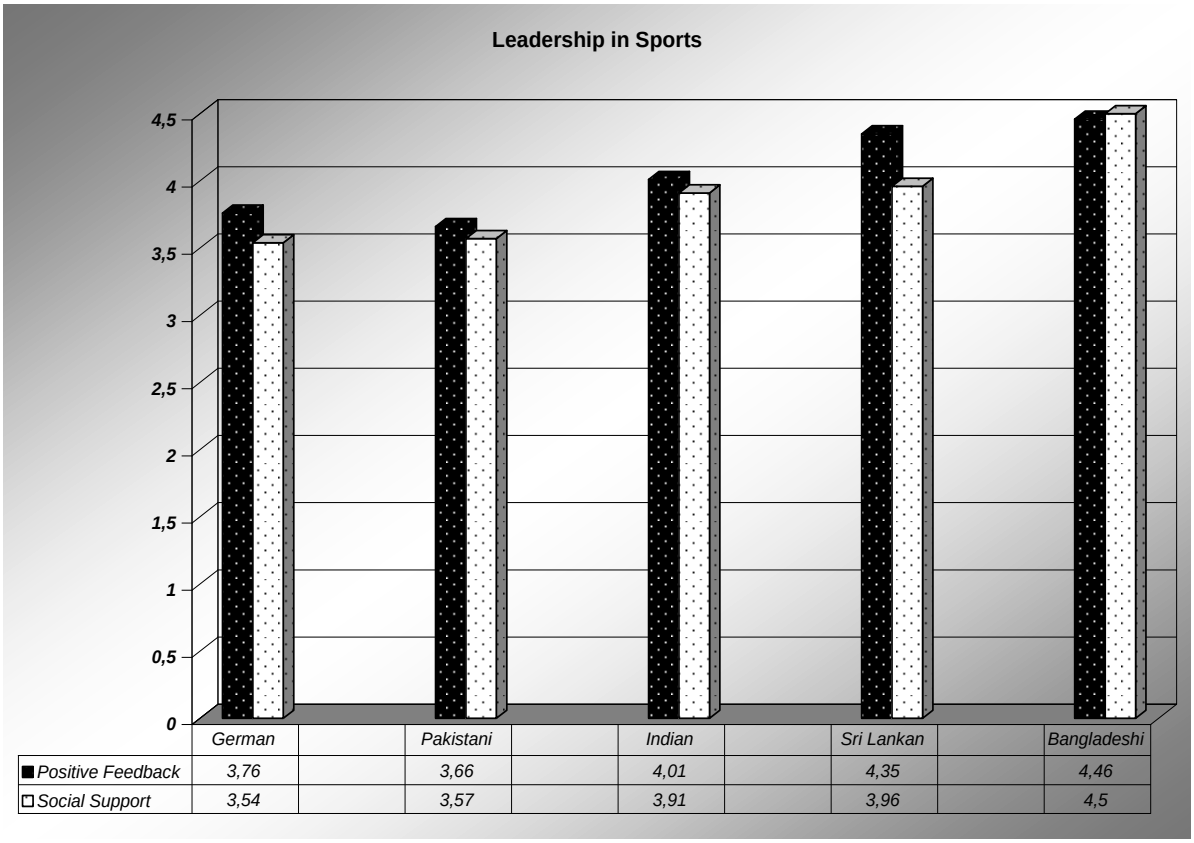


Figure 53

Leadership in Sports (South Asian & German)



	German		Pakistani		Indian		Sri Lankan		Bangladeshi
■ Positive Feedback	3,76		3,66		4,01		4,35		4,46
□ Social Support	3,54		3,57		3,91		3,96		4,5

10.4.8 Perceived Motivational Climate

Hypotheses:

- German coaches might create motivational climate in their athletes
- South Asian coaches maybe stress more on technical skills
- German Coaches maybe provide equal opportunities to all the participants

To find out the possible differences in perceived motivational climate multivariate analyses was made for two subscales, mastery climate and competitive climate. The significant differences were observed in the players of both the nations. As MF (8,442) = 20.57, p < .001, Es .27.

Main effect for individual variables, mastery climate F (4,222) = 14.20, P<. 001, Es = .20 and competitive climate F (4,222) = 27.66, P < .001, Es = .33. Result shows large scale differences in motivational climate in sports between South Asian and German coaches. According to the perception of players Bengali coaches showed higher incidence of perceived motivational climate as they were good at creating both type of mastery and competitive climates according to the need of Field Hockey. German coaches scored less in competitive climate among players which shows that they believe in mastery climate to improve the performance.

The study did not confirm the researcher's hypotheses related to motivational climate.

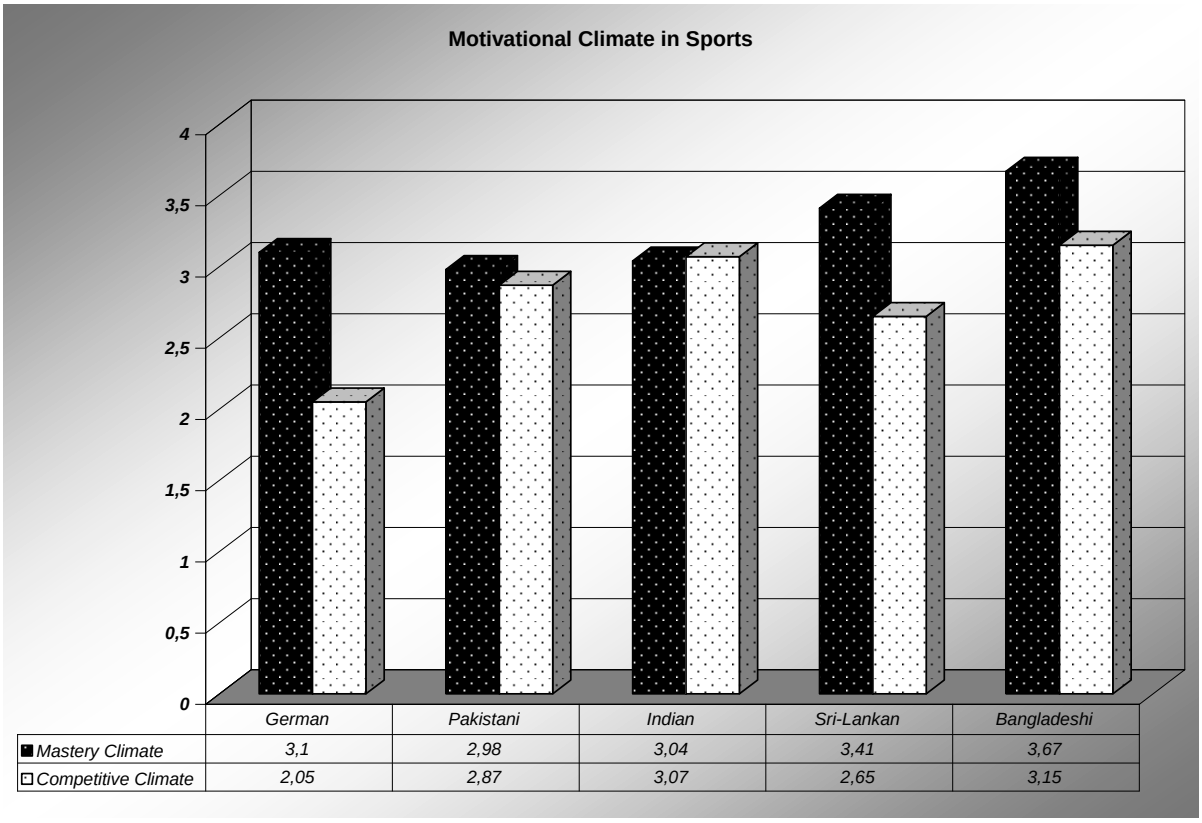
Table 39

Descriptive Statistics and Analyses of Variance for "Perceived Motivational Climate" in sports (South Asia & Germany)

Variable	GER (M)	S.D	PAK (M)	S.D	IND (M)	S.D	SRL (M)	S.D	BAN (M)	S.D	F	df	df (e)	P	Es
Mastery Climate	3.10	.52	2.98	.49	3.04	.72	3.41	.43	3.67	.27	14.20	4	222	.000	.20
Competitive Climate	2.05	.63	2.87	.40	3.07	.52	2.65	.75	3.15	.50	27.66	4	222	.000	.33

Figure 54

Motivational Climate in Sports (South Asian & German)



10.4.9 Self - efficacy in Sports

Hypotheses: German athletes might be higher in self-efficacy than South Asian players

To find out the possible differences between the South Asian and German player's self-efficacy multivariate analyses was made. Self-efficacy F (4,222) = 11.00, P < .001, Es = .17.

Analyses show that South Asian players have strong believe on their abilities especially Bengali players showed higher incidence of self-efficacy and German and Pakistani players respectively were at the bottom line. The study did not validate the hypotheses on self-efficacy.

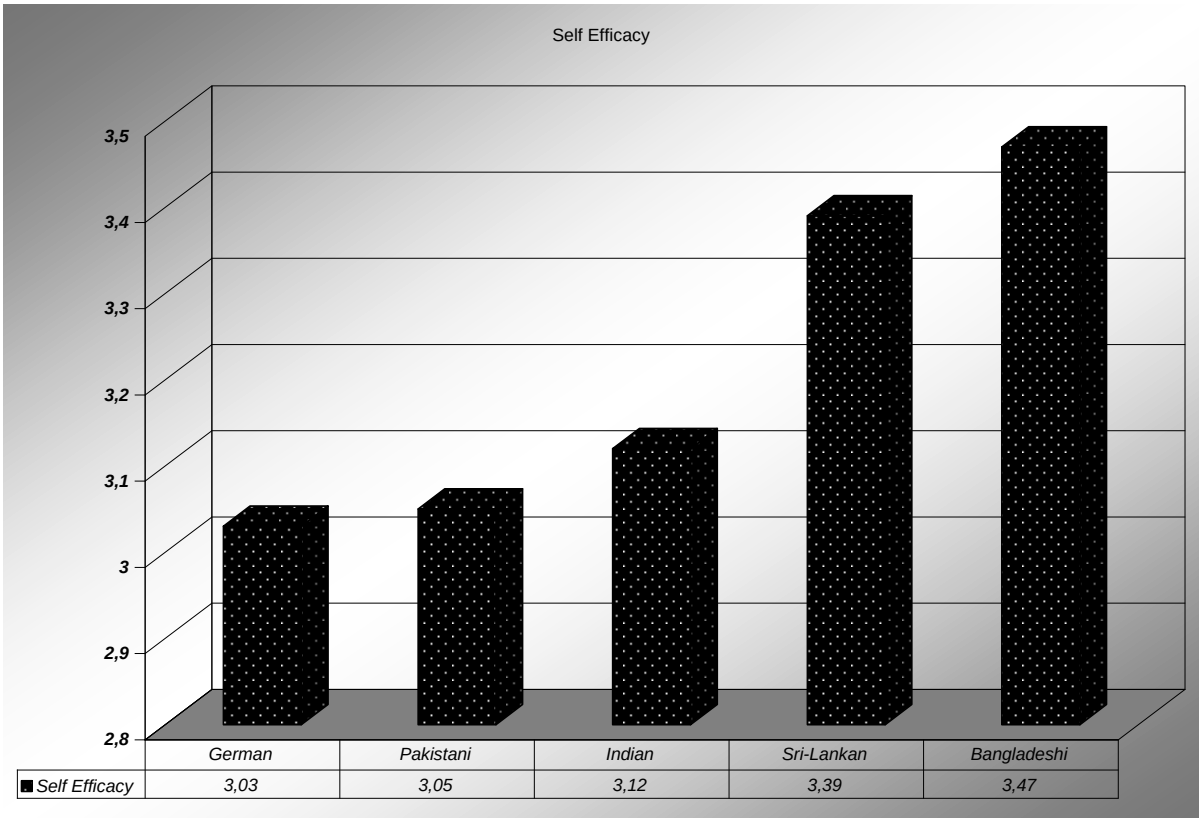
Table 40

Descriptive Statistics and Analyses of Variance for "Self efficacy" in sports (South Asia & Germany)

Variable	GER (M)	S.D	PAK (M)	S.D	IND (M)	S.D	SRL (M)	S.D	BAN (M)	S.D	F	df	df (e)	P	Es
Self-Efficacy	3.03	.46	3.05	.38	3.12	.39	3.39	.42	3.47	.37	11.00	4	222	.000	.17

Figure 55

Self-Efficacy in Sports (South Asian & German)


Self Efficacy
3,5
3,4
3,3
3,2
3,1
3
2,9
2,8
German
Pakistani
Indian
Sri-Lankan
Bangladeshi
Self Efficacy
3,03
3,05
3,12
3,39
3,47

11. Summary (South Asian & German Players)

The aim of this 2nd study was to reveal the differences between multidimensional characteristics with regards to psychological profiles and performance level with possible effects on Field Hockey in talented young players of Germany and South Asia at development stage (12 to 18 years).The next reason to include the other South Asian countries like India, Bangladesh and Sri Lanka was the same culture prevailing in the region. The South Asian countries have separate sports set up because of their cultural differences between other continents. The major sporting event of the region is South Asian Federation Games (SAF) to be held every two years apart. Eight countries Pakistan, India, Sri Lanka, Bangladesh, Nepal, Bhutan, Maldives and Afghanistan are regularly taking part in these games. Field Hockey is very much popular in the south Asia and especially Pakistan, India, Sri Lanka and Bangladesh has very good infrastructure of this competitive sport. Many questions were raised in the mind that why there are big differences in the performance of German and Pakistani Field Hockey players? Whether it is because of the culture or differences in the psychological profiles of the players? Researcher added South Asian countries to give strength to the study to find out the real differences between the both groups. A multivariate analysis shows significant differences between the German and South Asian countries and overall South Asian players were better in personal assessment than German athletes.

11.1 Individual Influential Factors

11.1.1 Hypothesis Part 1 (Psychological Profiles)

- In terms of goal orientation in sport the South Asian players were more task-oriented, competition orientated and social recognized oriented than German players. The main nation effect for goal orientation is confirmed.

- In regard to competition related anxiety South Asian players have higher incidence of competition related anxiety which is a negative factor and reduce the performance of the athletes and main nation effect shows significant differences in competition related anxiety but South Asian players were better

in self-confidence than German athletes. The main nation effect for competition related anxiety is confirmed.

- In coping skills South Asian athletes were better than German players as they can cope with any situation related adversities thus the main nation effect for coping strategies is confirmed.

- The main nation effect is also confirmed with regards to sport commitment as South Asian players were more committed than German players to their sport.

- Large scale differences were observed in self-efficacy between South Asian and German players. South Asian athletes scored higher than German players and believe in their abilities thus the main nation effect for self-efficacy is confirmed.

11.1.2 Hypotheses Part 2 (Physical Profiles)

- German athletes were better than South Asian players in physical attractiveness and significant differences were observed between them. The main nation effect for physical attractiveness is confirmed.

- South Asian players were better in conditional qualities than German players as significant difference were seen in physical self-concept of the players of South Asia and Germany. The main nation effect for physical self-concept is confirmed.

11.1.3 Hypotheses Part 3 (Social Profiles)

- In concerned with parental support significant differences were observed among South Asian and German parents. South Asian parents showed higher incidence of parental support. Large scale differences were found between the South Asian and German parents. Thus the main nation effect is confirmed.

- As far as leadership in sports is concerned South Asian coaches were better in training instructions, democratic style, positive feedback and social support

than German coaches and large scale differences were observed between them. The main nation effect for leadership behaviour is confirmed.

- To create motivational climate among the players South Asian coaches were better in creating both type of motivational climate among the players. Significant differences were found between the South Asian and German coaches. The main nation effect is confirmed.

11.2 Discussion

To reveal the differences in the multidimensional characteristics of future elite players a comparative study was made to explore the relationship and differences in the performance level of the young Field Hockey players of Germany and South Asia. In general view of the subject 32 % German and 71.1 % Pakistani, 95.1% Indian, 52.3 % Sri Lankan and 92.5% athletes considered Field Hockey as high performance sport and regularly practising the game.

As well as training hours in a week are concerned 100 % Bengali players were training more than 22 hours per week. The 53.7 % Indian's were training 30 hours and 39% players more than 11 hours and 7.3% less than 5 hours per week. Around 65 % Pakistani players were training more than 16 hours, 7.7% more than 20 hours, 25% 15 hours and 1.9% 10 hours per week. The 28 % German players were training more than 6 hours and 72% athletes were training less than 5 hours per week. As far as Sri Lankan players are concerned 38.8% were training less than 5 hours per week and 27.3 % athletes more than 6 hours , 27.3% athletes 10 hour and only 13.6% athletes were training more than 16 hours per week.

About 65.4 % Pakistani and 40 % German, 40.9 % Sri Lankan, 80.5 % Indian and 75 % Bengali athletes were regularly taking part in competitions. Overall 82.7 % Pakistani, 24 % German, 95.1 % Indian, 97.7 % Sri Lankan and 62.5 % Bengali players considered themselves as talent.

Approximately 82.7% Pakistani and 6 % German, 86.4 % Sri Lankan, 100 % Indian and 95 % Bengali players were looking forward to carry on professional career in this game. South Asian athletes were over all better in general subject information than German players maybe due to the game structure and environment of the game. Maybe Pakistani and Indian players had very close association with Field Hockey because it is the national sport of these countries as well as it is opposite in Germany and regarded as royal sport.

Researcher have compared four South Asian and a German group at the stage of development (12 to 18 years) with regard to psychological profiles (goal orientation, competition related anxiety, coping strategies in sports, sport commitment and self-efficacy), physical profiles (personal appearance, perceived physical self-concept (speed, strength, endurance, flexibility, coordination and sport competence) and social profiles (parental support, coaches behaviour in sport and motivational climate).

The multivariate analyses of variance show significant differences between the anthropometric characteristics of German and South Asian players. German players were better in height as well younger than Pakistani and Bangladeshi players. Pakistani players were older than all groups with the mean age of 16.9 years. Bangladeshi players were good at weight but older than German athletes. Indian players were younger and have less weight and height among all groups maybe because of the age differences.

German players were better than South Asian athletes in physical attractiveness. In perceived physical self-concept South Asian players were better than German players. Indian players were much faster among all nations. Bengali players were good at endurance and flexible among all groups. Sri Lankan athletes were stronger and better in coordination and sport competency. Pakistani athletes were at the bottom line in conditional qualities. It is fact that if talented players have these conditional qualities they can be very successful in competitive sport like Field Hockey.

South Asian players were over all better than German Field Hockey players in goal orientations. Individually Sri Lankan players were better in task orientation and social recognition among all nations and it leads to a strong work ethic, persistence in the face failure, and optimal performance. As far as Pakistani players shows higher incidence of ego orientation and always focused on the outcome of the performance and compared themselves with others. German players were in the middle of scores in goal orientation as compare to Pakistan and Indian players they were more task oriented and have less ego. They were more social oriented and it is also an important factor in increasing the performance of the players when they are in team

and have strong cohesiveness. Athletes measure personal abilities and standard of performance relative to their own and other team members. There is a strong relationship between motivation and performance.

In coping strategies / skills contrary to expectation south Asian players' reported higher incidence of scores than German players. In competitive sport like Field Hockey players have to perform under difficult conditions and these required rigorous physical demands, psychological and mental preparation for the sport. South Asian players were using these skills often maybe because of age differences or regularly participation at competitions. They were training more hours than German athletes and due to these reasons their confidence level was high to cope with situation related problems.

In sport commitment South Asian players were high in average scores on scale than German players and to reach at top level one has to spend many years in training. Especially Bangladeshi and Sri Lankan players were higher in sport commitment than Indian, Pakistani and German athletes. Pakistani players were at the bottom line in sport commitment.

As compare to Individual sport team game like Field Hockey spectators and sounds during the practice and competition can distract athlete's concentration and lead towards stress and anxiety. South Asian players were not prepared for situation related things and facing more competition related anxiety than German players. They were not practicing psychologically for the situation related problems and were high in cognitive and somatic type anxieties but better in self-confidence maybe due to the age differences and experience.

Parents play vital role in the development of their children in sports and its fact without the parental support development of players is difficult. Analyses show that parents of South Asian players have directive behaviour toward them and actively involved in their sport activities but because of these reasons players have too much pressure from them although they were getting appreciation and understanding from them. As far as German parents are concerned they were more democratic in style and never put pressure on children and encouraged them to participate in physical activities.

The South Asian coaches especially Bangladeshi scored higher than German's in leadership style according to the perception of their athletes. They were good at training instructions and democratic in style. They permitted their players to decide their group goals, game plans and strategies for competitions. Coaches were concerned about the welfare of the athletes and trying to build strong relationships between team members. They provided positive feedback and appreciated players to increase the performance.

South Asian coaches scored higher than German Coaches. It means they were capable of creating motivational climate among teams. They provided positive feedback, training instructions and always enforced mastery goals, which focus on the improvement of the competence and task mastery. South Asian players scored high in competitive climate also. In particular, ego-involving motivational climate coaches provided less positive feedback and social support to the players which causes stress and performance related worries. German coaches according to the perception of players were task oriented and created mastery climate instead of competitive climate to increase the performance of the players and scored less at competitive climate among all nations.

In team sports like Field Hockey self-efficacy plays vital role in the development of athletes. It relates to the team members, perceptions about the team's collective abilities. South Asian especially Bengali players scored higher on self-efficacy.

11.3 Theoretical Considerations

The present thesis provides the understanding of the relationship between the improvements of multidimensional characteristics of talented Field Hockey players at the stage of development (12-18 Years).It is an attempt to explore the mechanisms of how one can gain the excellence in sports. The definition of multidimensional talent, used by researcher in the present study clearly tells that a player needs to master all domains of performance characteristics to reach at the top level. In the present study researcher took the help of Field Hockey experts of South Asia and Germany to select the participants for this study and they were already part of development programs of Field Hockey clubs of national prestige, and taking part at top level according to their age categories. It gives insight into the process of Field Hockey talent development programs in South Asia and Germany. The German and

Pakistani participants were from different parts of the country while Indian, Bangladeshi & Sri Lankan players belong to their national institution programs. Due to the different cultural background of the participants it is difficult to compare the performance characteristics of the players. In the present study young German players were compared to South Asian athletes to reveal the differences in culture and performance characteristics that are needed for the development of current and future success in the competitive game. In addition the current topic is highly recommended for future research.

11.4 Environmental Impact on Performance

The environment of the players plays an important role in the development of young athletes and it should not be underestimated. When a young player made efforts to develop the talent to reach at peak performance, it has major consequences of lifestyle. No doubt it is a long process and need at least 10 years to flourish. During this stage parents, peers, friends and coaches play an important role (Cote, 1999; Visscher et al., 2004). Bloom (1985) also enforced the role of the environment by mentioning that the development of exceptional talent requires family support, excellent teaching, and pertinent motivational reinforcement at any stage of their development. The current study both focuses on performance characteristics and environment of the talent performers. It is fact that without an enormous investment in training no one can become expert in the field. The talented players have to go long way to reach at the peak level.

Howe et al. (1998) suggest that differences in early experiences, preferences, opportunities, habits, training, and practice are the real determinants of excellence. The deliberate practice theory of expert performance also takes the perspective that it is training and experience rather than innate talent that is the real determinant of expert performance (Ericsson, 1998; 2003a; 2003b).

11.5 Recommendations for Future Research

The present dissertation revealed the differences in the psychological, physical and social profiles of the talented South Asian and German Field Hockey players at the stage of development. All groups belong to different cultural backgrounds. Especially due to the geographical conditions they are totally different from each other. Indian and Pakistani players have same infrastructure and back ground as well as Bengali and Sri Lankan players have common characteristics

because Sri Lanka is a small Island with less population as well large part of Bangladesh is also surrounded by Arabian Sea and living style is almost same. Both have different sports set ups than other South Asian countries. If more insight can be given to the current study by following its results it can increase in high value when the talented participants of the study are followed until the mastery stage. It is also recommended to study India, Pakistan and Sri Lanka, Bangladesh separately to know the exact differences of performance level due to their different cultures. The present study is a first step in the area of sport psychology for Pakistani future researchers and next step is the implementation of the study to increase the psychological skills of the talented Field Hockey players to meet the rigorous demands of the game. Furthermore it is very important to develop proper programs to evaluate the multidimensional performances characteristics of the talented players regularly to know the level of their abilities those are necessary to reach at the expertise level.

11.6 Conclusion and Implications for Field Hockey

The main aim of this study was to find out the real differences of performance within the young Field Hockey players of South Asia and Germany at the stage of development by measuring the multidimensional characteristics of performance in a sports-specific way. All nation groups were not at expertise level and acknowledging the limitations of the current research, it is concluded that a talented Field Hockey players of South Asia and Germany with the greatest opportunity to reach at peak level performance are players with a relatively high level of performance in Field Hockey related psychological, physiological and social profiles, excellent technical and tactical skills, along with mental preparations ,rehearsals, coping strategies to overcome competition related anxieties, high goal orientation, sport commitment , and strong belief's in oneself at the stage of development. Athletes at the mastery stage need less time to develop these characteristics than players at the stage of development. Field Hockey players have to improve their performance characteristics gradually by persisting in a deliberate practice for many training years. In nut shall a talented youth player distinguish him/herself from other players not because of physiological characteristics but by excellent, technical, tactical and psychological skills? In the guidance of players at the stage of development more attention has to be given to these skills/strategies to improve the performance. No doubt the current

study will provide the guide lines and related information to the coaches, managers, parents and Field Hockey experts. The following suggestions can be given:

- Acknowledgement of multidimensional nature of a Field Hockey performance and its demands.
- Physical self-concept is very important and should be maintained to development the self confidence level of the Field Hockey players.
- Goal orientation is necessary in the improvement of Field Hockey players.
- Mental preparation to overcome competition related anxieties.
- Coping strategies should be practice to learn the techniques to overcome adversities.
- Sport commitment is needed to persist in a deliberate practice for long span.
- Parental support is very important in the development of Field Hockey players at the stage of development.
- Coaches behaviour play vital role in the development of Field hockey players.
- Coaches have to create motivational climate to increase the performance characteristics of the players.
- Field Hockey is a high intensity non continuous game, it need to increase the coordinative abilities of the players
- Improvement in self-efficacy belief can increase the performance of the players.

In addition, it is also suggested to the talented Field Hockey players and their coaches, trainers and managers to prepare the performance characteristics profile on regular basis throughout the development stage. In this way the abilities of young players can be compared to other players. Due to the maintained record of the player's profiles it will be easy to solve situation related adversities before time and in the considerations for the national teams.

References

Alfermann, D. & Stambulova, N. (2007). Career transitions and career termination. In G Tenenbaum and R. C. Eklund (Eds.), *Handbook of sport psychology* (3rd Ed.), (712-736). New York: Wiley.

Anastasi, A. (1964). Culture-fair testing. *Educational Horizons, 43*, 26-30.

Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological Review, 84*, 191-215.

Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist, 37*, 122-147.

Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. *Journal of Social and Clinical Psychology, 4*, 359-373.

Barrow, J. C. (1977). The variables of leadership: A review and conceptual framework. *The Academy of Management Review, 2*, 231-251.

Beauchamp, M. R., Bray, S. R., & Albinson, J. G. (2001). Pre-competition imagery, self-efficacy and performance in collegiate golfers. *Journal of Sports Sciences, 20*, 697-705.

Bloom, B. S. (1976). *Human characteristics and school learning*.New York: McGraw-Hill.

Bloom, B. S., & Sosniak, L. A. (1985). *Developing talent in young people*.New York: Ballantine Books.

Bracken, B. A., & Lamprecht, M. S. (2003). Positive self-concept: An equal opportunity construct. *School Psychology Quarterly, 18*, 103-121

Bussmann, G., & Alfermann, D. (1994). Drop-out and the female athlete: A study with track-and-field athletes, (pp. 89-128). In D. Hackfort (Ed.), *Psycho-social issues and interventions in elite sport*. Frankfurt, Germany: Lang.

Carlson, R. (1993). The path to the national level in sports in Sweden. *Scandinavian Journal of Medicine & Science in Sports, 3*, 170-177.

Chelladurai, P., & Saleh, S. (1978). Preferred leadership in sports. *Canadian Journal of Applied Sport Sciences, 3*, 85-92.

Côté, J. (1999). The influence of the family in the development of talent in sport. *The Sport Psychologist, 13*, 395-417.

Crocker, P. R., Alderman, R. B., & Smith, F. M. (1988). Cognitive-affective stress management training with high performance youth volleyball players: Effects on affect, cognition, and performance. *Journal of Sport & Exercise Psychology*, 10, 448-460

Crocker, P. R. E., Kowalski, K. C., & Graham, T. R. (1998). Measurement of coping strategies in sport. In J. L. Duda.(Ed), *Advances in sport and exercise psychology measurement* (pp. 149-161). Morgantown, WV: Fitness Information Technology.

Dale, G. A. (2000). Distractions and coping strategies of elite decathletes during their most memorable performances. *Sport Psychologist, 14*, 17-41.

Darlington, R. B. (1971). Another look at "Cultural Fairness". *Journal of Educational Measurement, 8*, 71-82.

Duda, J. L. (1986). A cross-cultural analysis of achievement motivation in sport and the classroom. In L. Vander Velden & J. H. Humphrey (Eds.), *Psychology and sociology in sport: Current selected research* (pp. 115-134). New York: AMS Press.

Durand-Bush, N., & Salmela, J. H. (2002). The development and maintenance of expert athletic performance: Perceptions of World and Olympic champions. *Journal of Applied Sport Psychology, 14*, 154-171.

Durand-Bush, N., & Salmela, J. H. (2002). The development of talent in sport. In R. N. Singer, H. A. Hausenblas, & C. M. Janelle (Eds.), *Handbook of sport psychology* (2nd Ed.), (pp. 269-289). New York: John Wiley & Sons.

Earley, P. C., Gibson, C. B., & Chen, C. C. (1999). How Did I Do?" versus "How Did We Do? *Journal of Cross-Cultural Psychology, 30*, 594-619.

Eaton, M. J., & Dembo, M. H. (1997). Differences in the motivational beliefs of Asian American and non-Asian students. *Journal of Educational Psychology, 89*, 433-440.

Eckensberger, L. H. (1973). Methodological issues of cross-cultural research in developmental psychology. In J. R. Nesselroade & H. W. Reese (Eds.), *Life-span developmental psychology*. New York: Academic Press.

Elferink-Gemser, M., Visscher, C., Lemmink, K., & Mulder, T. (2001). Relation between multidimensional performance characteristics and level of performance in talented youth field hockey players. *Journal of Sports Sciences, 22*, 1053-1063.

Ericsson, K. A., & Charness, N. (1994). Expert performance: Its structure and acquisition. *American Psychologist, 49*, 725-747.

Helsen, W. F., Hodges, N. J., Winckel, J., & Starkes, J. L. (2001). The roles of talent, physical precocity and practice in the development of soccer expertise. *Journal of Sports Sciences, 18*, 727-736.

Fredricks, J. A., & Eccles, J. S. (2004). Parental influences on youth involvement in sports. In M. R. Weiss (Ed.), *Developmental sport and exercise psychology* (pp. 145-164). Morgantown, WV: Fitness Information Technology.

Gill, D. L., & Williams, L. (2008). *Psychological dynamics of sport and exercise*. Champaign, IL: Human Kinetics.

Gould, D., Dieffenbach, K., & Moffett, A. (2002). Psychological characteristics and their development in Olympic champions. *Journal of Applied Sport Psychology, 14*, 172-204.

Gould, D., Finch, L. M., & Jackson, S. A. (1993). Coping strategies used by national champion figure skaters. *Research Quarterly for Exercise and Sport, 64*, 453-468.

Greenleaf, C., Gould, D., & Dieffenbach, K. (2001). Factors Influencing Olympic Performance: Interviews with Atlanta and Negano US Olympians. *Journal of Applied Sport Psychology, 13*, 154-184.

Hardy, L., Jones, J. G., & Gould, D. (1996). *Understanding psychological preparation for sport: Theory and practice of elite performers*. Chichester: John Wiley & Sons Inc.

Hellstedt, J. C. (1990). Early adolescent perceptions of parental pressure in the sport environment. *Journal of Sport Behavior, 13*, 135-144.

Hofstede, G., & Bond, M. H. (1984). Hofstede's culture dimensions: An independent validation using Rokeach's Value Survey. *Journal of Cross-Cultural Psychology, 15*, 417-433.

Hofstede, G. H. (1998). *Masculinity and femininity: The taboo dimension of national cultures*.Thousand Oaks, CA: Sage.

Hofstede, G. H., Hofstede, G. J., & Minkov, M. (2010). *Cultures and organizations: Software for the mind*: McGraw-Hill Professional.

Hohmann, A., & Seidel, I. (2003). Scientific aspects of talent development. *International Journal of Physical Education, 40*, 9-20.

Howe, M. J. A., Davidson, J. W., & Sloboda, J. A. (1998). Innate talents: Reality or myth? *Behavioral and Brain Sciences, 21*, 399-407.

Kane, T. D., Marks, M. A., Zaccaro, S. J., & Blair, V. (1996). Self-efficacy, personal goals, and wrestlers' self-regulation. *Journal of Sport & Exercise Psychology, 18*, 36-48.

Kannekens, R., Elferink-Gemser, M. T., & Visscher, C. (2009). Tactical skills of world-class youth soccer teams. *Journal of Sports Sciences, 27*, 807-812.

Kurman, J. (2001). Self regulation strategies in achievement setting: Culture and gender differences. *Journal of Cross-Culture Psychology, 32*, 491-503.

Lavallee, D., Kremer, J., Moran, A. P., & Williams, M. (2004). *Sport psychology: Contemporary themes*. New York: Palgrave Macmillan.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.

Madden, C. C., Summers, J. J., & Brown, D. F. (1990). The influence of perceived stress on coping with competitive basketball. *International Journal of Sport Psychology, 21*, 21–35.

Mahoney, M. J., Gabriel, T. J., & Perkins, T. S. (1987). Psychological skills and exceptional athletic performance. *The Sport Psychologist, 1*, 181-199.

Martens, R., Vealey, R. S., & Burton, D. (1990). *Competitive anxiety in sport*. Champaign, IL: Human Kinetics.

Martin, S. B., Jackson, A. W., Richardson, P. A., & Weiller, K. H. (1999). Coaching preferences of adolescent youths and their parents. *Journal of Applied Sport Psychology, 11*, 247-262.

Morris, T. (2001). Psychological characteristics and talent identification in soccer. *Journal of Sports Sciences, 18*, 715-726.

Nicholls, J. G., Cheung, P. C., Lauer, J., & Patashnick, M. (1989). Individual differences in academic motivation: Perceived ability, goals, beliefs, and values. *Learning and Individual differences, 1*, 63-84.

Cantwell, R.H., Archer, J., & Wongsri, N. (2002, Dec). *The validation of measures of self-efficacy,motivation and self-regulated learning among Thai tertiary students*. Paper presented at the Annual Conference of the Australian Association for Research in Education, Brisbane.

Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin, 128*, 3-92.

Oyserman, D., & Markus, H. R. (1993). The sociocultural self. The self in social perspective. In D. Oyserman, H. R. Markus & J. M. Suls (Eds.), *The self in social perspective*. P*sychological perspectives on the self* (vol. 4, pp. 187-220). Hillsdale, NJ: Lawrence Erlbaum.

Pajares, F. (1996). Self-efficacy beliefs in academic settings. *Review of Educational Research, 66*, 543-578.

Papaioannou, A. (1995). Motivation and goal perspectives in children's physical education.In S. J. H. Biddle (Ed.), *European perspectives on exercise and sport psychology*, (pp. 245-269). Champaign, IL: Human Kinetics.

Plomin, R., Owen, M. J., & McGuffin, P. (1994). The genetic basis of complex human behaviors. *Science, 264* (issue 5166), 1733-1739.

Power, T., & Woolger, C. (1994). Parenting practices and age-group swimming: a correlational study. *Research Quarterly for Exercise and Sport, 65*, 59-66.

Régnier, G., Salmela, J., & Russell, S. (1993). Talent detection and development in sport. In R. Singer, M. Murphy & L. K. Tennant (Eds.), *Handbook of research in sport psychology* (pp. 290-313). New York: MacMillan.

Reilly, T., & Borrie, A. (1992). Physiology applied to field hockey. *Sports Medicine, 14*, 10-26.

Reilly, T., Williams, A. M., Nevill, A., & Franks, A. (2001). A multidisciplinary approach to talent identification in soccer. *Journal of Sports Sciences, 18*, 695-702.

Roberts, G. C., Treasure, D. C., & Balague, G. (1998). Achievement goals in sport: The development and validation of the Perception of Success Questionnaire. *Journal of Sports Sciences, 16*, 337-347.

Stiller, J. & Alfermann, D. (2007). Promotion of a Healthy Self-Concept. In J. Liukkonen, Y. Vanden Auweele, B. Vereijken, D. Alfermann & Y. Theodorakis (Eds.), *Psychology for physical educators. Student in focus* (pp.123-140). Champaign, IL: Human Kinetics.

Sasaki, M. S., & Suzuki, T. (2002). *Social attitudes in Japan: Trends and cross-national perspectives.* Leiden, Boston, Köln: Brill Academic Publishers.

Saudino, K. J. (1997). Moving beyond the heritability question: New directions in behavioral genetic studies of personality. *Current Directions in Psychological Science, 6,* 86-90.

Scanlan, T., & Lewthwaite, R. (1988). From stress to enjoyment: Parental and coach influences on young participants. In E.W. Brown & C. F. Branta (Eds.), *Competitive sports for children and youth* (pp.41-48). Champaign, IL: Human Kinetics.

Schlossberg, N. K. (1981). A model for analyzing human adaptation to transition. *The Counseling Psychologist, 9,* 2-18.

Schlossberg, N. K. (1984). *Counseling adults in transition: Linking practice with theory (2nd ed)*. New York: Springer.

Schwartz, S. (1997). Values and Culture. In D. Munro, J. F. Schumaker & S. Carr (Eds.), *Motivation and culture* (pp. 69-84). New York: Routledge.

Simonton, D. K. (1999). Talent and its development: An emergenic and epigenetic model. *Psychological Review, 106*, 435-457.

Singer, R. N., & Janelle, C. M. (1999). Determining sport expertise: from genes to supremes. *International Journal of Sport Psychology, 30,* 117-150.

Spielberger, C. D., Gonzalez, H. P., Taylor, C. J., Algaze, B., & Anton, W. D. (1978). Examination stress and test anxiety. *Stress and Anxiety, 5*, 167-191.

Stambulova, N. (2003). Symptoms of a crisis-transition: A grounded theory study. In Hassmeu , N. (Ed.), *SIPF yearbook* (97-109). Orebro: Orebro University Press.

Stambulova, N. B., & Alfermann, D. (2009). Putting culture into text: Cultural and cross-cultural perspectives in career development and transition research and practice. *International Journal of Sport and Exercise Psychology, 7*, 292-308.

Starkes, J. L., & Allard, F. (1993). *Cognitive issues in motor expertise*. North Holland: Elsevier Science & Technology.

Tallman, I., Marotz-Baden, R., & Pindas, P. (1983). *Adolescent socialization in cross-cultural perspective: Planning for social change*. New York: Academic Press.

Taylor, J., & Ogilvie, B. C. (1994). A conceptual model of adaptation to retirement among athletes. *Journal of Applied Sport Psychology, 6*, 1-20.

Torregrosa, M., Boixados, M., Valiente, L., & Cruz, J. (2004). Elite athletes' image of retirement: the way to relocation in sport. *Psychology of Sport and Exercise, 5*, 35-43.

Tranckle, P., & Cushion, C. J. (2006). Rethinking giftedness and talent in sport. *Quest, 58*, 265-282.

Trickett, E. J., & Buchanan, R. M. (1997). The role of personal relationships in transitions: Contributions of an ecological perspective. In S. Duck (Ed.), *Handbook of personal relationships* (pp. 575-593). Oxford-London: John Wiley & Sons.

Tschannen-Moran, M., & Woolfolk, H. A.(2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education, 17*, 783-805.

Weinberg, R. S., & Gould, D.(2007). *Foundations of Sport and Exercise Psychology*, (*4th Ed*). Champaign, IL: Human Kinetics.

Williams, A., & Franks, A. (1998). Talent identification in soccer. *Sports Exercise and Injury, 4*, 159-165.

Williams, A., & Reilly, T. (2001). Talent identification and development in soccer. *Journal of Sports Sciences, 18*, 657-667.

Wylleman, P., & Lavallee, D. (2004). A developmental perspective on transtions faced by athletes. In M. Weiss (Ed.), *Developmental sport and exercise psychology: A lifespan perspective* (pp. 507-527). Morgantown, WV: Fitness Information Technology.

Wylleman, P. & Reints, A. (2010). A lifespan perspective on the career of talented and elite athletes. Perspectives on high intensity sports. *Scandinavian Journal of Medicine & Science in Sports*, *20*, 88-94.

Wylleman, P., Alfermann, D., & Lavallee, D. (2004). Career transitions in sport: European perspectives. *Psychology of Sport and Exercise, 5*, 7-20.

Descriptive Statistics and Analyses of Variance for all Variables (German & Pakistani Players)

Variables	GER Mean	GER SD	PAK Mean	PAK SD	F	df	df (Error)	P	Eta Square
Task	3.27	0.46	3.03	0.81	8.95	1	269	.003	.032
Ego	2.29	0.74	2.56	0.52	12.02	1	269	.001	.043
Social Approval	3.00	0.56	2.83	0.56	6.33	1	269	.012	.023
Self Attractiveness	3.04	0.59	2.83	0.39	11.65	1	269	.001	.042
Speed	3.06	0.65	2.91	0.46	4.3	1	269	.039	.016
Endurance	3.06	0.63	3.04	0.54	0.09	1	269	.758	.000
Strength	2.88	0.58	2.77	0.54	2.50	1	269	.115	.009
Flexibility	3.03	0.59	2.83	0.53	9.29	1	269	.003	.033
Coordination	3.00	0.57	2.95	0.47	0.53	1	269	.467	.002
Sport Competence	3.21	0.54	2.88	0.46	30.75	1	269	.000	.103
Cognitive Anxiety	2.13	.59	2.61	.48	54.34	1	269	.000	.168
Somatic Anxiety	2.12	.49	2.50	.49	30.80	1	269	.000	.103
Self Confidence	2.78	.51	2.88	.43	3.23	1	269	.073	.012
Coping Adversity	2.53	0.60	2.85	0.59	19.89	1	269	.000	.069
Peaking under Pressure	2.53	0.77	2.80	0.53	11.24	1	269	.001	.040
Goal Setting & Mental Preparation	2.27	0.63	2.85	0.55	65.54	1	269	.000	.196
Concentration	2.93	0.53	2.83	0.51	2.28	1	269	.132	.008
Freedom from worry	2.55	0.73	2.34	0.61	6.18	1	269	.014	.022
Confidence & Achievement Motivation	2.87	0.53	2.90	0.54	.192	1	269	.662	.001
Coach ability	3.18	0.57	2.81	0.72	21.81	1	269	.000	.075
Sport Commitment	4,36	,67	3,68	,86	50.24	1	269	.000	.157
Enjoyment	4,59	,60	2,93	,96	279.87	1	269	.000	.510

Personal Investment	**4,05**	**,87**	**3,79**	**,93**	**5.77**	**1**	**269**	**.017**	**.021**
Social Constraints	**2,06**	**1,08**	**2,64**	**1,10**	**18.95**	**1**	**269**	**.000**	**.066**
Perceived Possitiveness	**4,25**	**,81**	**3,53**	**,81**	**60.82**	**1**	**269**	**.000**	**.184**
Directive Behaviour	**2,03**	**,98**	**3,08**	**,63**	**114.00**	**1**	**269**	**.000**	**.298**
Praise & Under standing	**3,31**	**,74**	**3,16**	**,60**	**3.60**	**1**	**269**	**.059**	**.013**
Active Involvement	**2,41**	**1,23**	**2,69**	**1,18**	**3.57**	**1**	**269**	**.060**	**.013**
Pressure	**1,93**	**,94**	**3,10**	**,70**	**136.22**	**1**	**269**	**.000**	**.336**
Training Instructions	**3,86**	**,58**	**3,72**	**,69**	**3.27**	**1**	**269**	**.072**	**.012**
Democratic style	**3,58**	**,67**	**3,57**	**,74**	**.008**	**1**	**269**	**.931**	**.000**
Positive Feedback	**3,85**	**,71**	**3,65**	**,82**	**4.67**	**1**	**269**	**.032**	**.017**
Social support	**3,63**	**,79**	**3,38**	**,57**	**8.28**	**1**	**269**	**.004**	**.030**
Mastery Climate	**3,20**	**,48**	**2,94**	**,54**	**17.60**	**1**	**269**	**.000**	**.061**
Competitive Climate	**2,04**	**,64**	**2,77**	**,46**	**114.65**	**1**	**269**	**.000**	**.299**
Self-Efficacy	**2.94**	**.44**	**2.97**	**.35**	**.59**	**1**	**269**	**.44**	**.002**

Descriptive Statistics and Analyses of Variance for "All Variables"

(South Asian & German Players)

Variable Goal Orientation	PAK (M)	S. D	GER (M)	S. D	IND (M)	S. D	SRL (M)	S.D	BAN (M)	S. D	F	df	df (e)	P	Es
Task	3.04	.49	3.14	.44	2.85	.28	3.67	.31	3.65	.39	36.7	4	222	.000	.40
Ego	2.70	.45	2.24	.70	2.39	.37	2.17	.60	2.27	.91	5.46	4	222	.000	.09
Social Approval	2.87	.40	2.95	.58	2.54	.37	3.55	.42	3.26	.47	30.2	4	222	.000	.35
Variable Conditional Qualities	PAK (M)	S. D	GER (M)	S. D	IND (M)	S. D	SRL (M)	S.D	BAN (M)	S. D	F	df	df (e)	P	Es
Physical Attractiveness	2.83	.40	3.08	.44	2.76	.17	2.99	.39	2.82	.36	6.07	4	222	.000	.10
Speed	2.80	.40	3.12	.53	3.26	.60	3.17	.54	3.23	.60	5.87	4	222	.000	.10
Endurance	3.05	.43	3.10	.60	3.22	.50	3.17	.66	3.30	.58	1.40	4	222	.238	.02
Strength	2.78	.37	3.00	.60	3.00	.53	3.22	.57	3.13	.68	4.18	4	222	.003	.07
Flexibility	2.72	.42	3.08	.52	3.07	.36	3.31	.48	3.33	.46	14.41	4	222	.000	.20
Coordination	3.03	.48	3.12	.49	3.14	.41	3.43	.50	3.40	.51	6.20	4	222	.000	.10
Sport Competence	3.00	.45	3.21	.48	3.12	.65	3.41	.45	3.20	.55	3.56	4	222	.008	.06
Variable Competition related anxiety	PAK (M)	S. D	GER (M)	S. D	IND (M)	S. D	SRL (M)	S.D	BAN (M)	S. D	F	df	df (e)	P	Es
Cognitive Anxiety	2.71	.33	1.95	.56	2.87	.32	2.49	.50	2.60	.38	31.05	4	222	.000	.40
Somatic Anxiety	2.70	.40	2.04	.59	2.68	.32	2.24	.61	1.88	.53	24.19	4	222	.000	.30
Self Confidence	2.98	.42	2.76	.42	2.92	.30	3.17	.44	3.42	.53	16.19	4	222	.000	.23
Variable Coping Skills	PAK (M)	S. D	GER (M)	S. D	IND (M)	S. D	SRL (M)	S.D	BAN (M)	S. D	F	df	df (e)	P	Es
Coping Adversity	2.89	.56	2.68	.46	2.50	.23	3.20	.52	3.07	.67	13.20	4	222	.000	.19
Peaking Pressure	2.96	.49	2.62	.71	2.54	.40	3.14	.60	3.32	.66	14.17	4	222	.000	.20
Goal setting and MP	2.87	.52	2.23	.65	2.89	.50	3.01	.58	3.34	.56	23.39	4	222	.000	.30
Concentration	2.92	.49	3.04	.55	2.76	.43	2.96	.57	3.22	.64	4.02	4	222	.004	.06
Free from Worry	2.10	.62	2.81	.70	2.18	.32	2.28	.53	1.95	.59	15.37	4	222	.000	.21
Confidence & Ach Motivation	2.97	.41	2.87	.53	2.81	.28	3.31	.55	3.54	.44	19.74	4	222	.000	.26
Coach ability	2.60	.36	3.20	.57	2.68	.41	3.14	.60	3.14	.49	16.49	4	222	.000	.23

Variable Sport Commitment	GER (M)	S. D	PAK (M)	S. D	IND (M)	S. D	SRL (M)	S.D	BAN (M)	S. D	F	df	df (e)	P	Es
Sport Commitment	4.16	.72	3.62	.71	4.15	.98	4.31	.71	4.82	.82	15.97	4	222	.000	.22
Enjoyment	4.47	.60	3.01	1.0	3.94	1.3	4.80	.43	4.71	.51	36.25	4	222	.000	.39
Personal Investment	3.43	.71	3.83	.97	3.67	.86	4.10	.72	4.72	.51	17.14	4	222	.000	.24
Social Constraints	2.22	1.2	2.86	1.0	3.65	.90	2.93	1.36	4.18	1.3	18.76	4	222	.000	.25
Perceived Positive ness	4.04	.91	3.60	.61	3.82	.62	3.64	1.2	4.96	.17	21.09	4	222	.000	.27
Variable Parental Support	GER (M)	S. D	PAK (M)	S. D	IND (M)	S. D	SRL (M)	S.D	BAN (M)	S. D	F	df	df (e)	P	Es
Directive Behaviour	2.14	.92	3.21	.61	3.30	.40	3.70	.86	3.48	.93	29.21	4	222	.000	.34
Praise and Understanding	3.33	.78	3.26	.63	3.66	.46	4.24	.75	4.25	.79	21.68	4	222	.000	.28
Active Involvement	2,29	1.2	2.74	1.1	4.24	.50	3.75	.92	3.15	1.1	27.64	4	222	.000	.33
Pressure	2.01	.86	3.31	.74	3.65	.66	3.40	.89	3.73	.94	34.43	4	222	.000	.38
Variable Leadership Behaviour	GER (M)	S. D	PAK (M)	S. D	IND (M)	S. D	SRL (M)	S.D	BAN (M)	S. D	F	df	df (e)	P	Es
Training Instructions	3.76	.67	3.79	.71	3.47	.29	4.42	.60	4.75	.39	35.56	4	222	.000	.39
Democratic Style	3.47	.61	3.59	.79	3.60	.69	4.23	.74	4.66	.49	24.96	4	222	.000	.31
Positive Feedback	3.76	.73	3.66	.66	4.01	.41	4.35	.64	4.46	.56	14.72	4	222	.000	.21
Social Support	3.54	.81	3.57	.56	3.91	.49	3.96	.74	4.50	.52	15.97	4	222	.000	.22
Variable Motivational Climate	GER (M)	S. D	PAK (M)	S. D	IND (M)	S. D	SRL (M)	S.D	BAN (M)	S. D	F	df	df (e)	P	Es
Mastery Climate	3.10	.52	2.98	.49	3.04	.72	3.41	.43	3.67	.27	14.20	4	222	.000	.20
Competitive Climate	2.05	.63	2.87	.40	3.07	.52	2.65	.75	3.15	.50	27.66	4	222	.000	.33
Variable Self-Efficacy	GER (M)	S. D	PAK (M)	S. D	IND (M)	S. D	SRL (M)	S.D	BAN (M)	S. D	F	df	df (e)	P	Es
Self-Efficacy	3.03	.46	3.05	.38	3.12	.39	3.39	.42	3.47	.37	11.00	4	222	.000	.17

Questionnaire

Part one:

Consider the statement "I feel most successful in sport when…" and read each of the following statements listed below and indicate how much you personally agree with each statement by entering an appropriate score:

I feel most successful in sport when….	disagree	rather disagree	rather agree	agree
1. Something I learn makes me want to go practice more.	1	2	3	4
2. My parents are proud of me.	1	2	3	4
3. The others cannot do as well as me.	1	2	3	4
4. I am the only one who can do the play or skill.	1	2	3	4
5. I score the most points/goals/hits, etc.	1	2	3	4
6. I work really hard.	1	2	3	4
7. The coaches and/or teachers are pleased about me.	1	2	3	4
8. Others mess up "and" I do not.	1	2	3	4
9. I make other people happy.	1	2	3	4
10. I learn a new skill and it makes me want to practice more.	1	2	3	4
11. I learn something that is fun to do.	1	2	3	4
12. I can do better than my friends.	1	2	3	4
13. A skill I learn feels really right.	1	2	3	4
14. I am the best.	1	2	3	4
15. I learn a new skill by trying hard.	1	2	3	4
16. The people praise me.	1	2	3	4
17. My friends think I am great.	1	2	3	4
18. I do my very best.	1	2	3	4
19. I please people who are important to me.	1	2	3	4

Part Two:

Please don't consider for a long time with the individual sentences, but answer them as spontaneous as possible. Cross only one answer for each statement and make sure that you do not omit any sentence.

Statements	Strongly disagree	disagree	agree	Strongly agree
1. My face is expressive and interesting.	1	2	3	4
2. I feel at home in my body.	1	2	3	4
3. I tend to conceal my body.	1	2	3	4
4. I am satisfied with my body.	1	2	3	4
5. Sometimes I don't like my own body.	1	2	3	4
6. I am proud of my body.	1	2	3	4
7. I can hardly imagine that other people think I am attractive because of my body appearance.	1	2	3	4
8. Compared to others, my own appearance seems to be ok.	1	2	3	4
9. I seem attractive to others.	1	2	3	4
10. I am content with my body appearance.	1	2	3	4

Now you will find several statements below, which describe the physical abilities of humans. Please read each of the following statement exactly and then decide yourself an answer, which applies closest to you according to your own opinion.

Statements	disagree	rather disagree	rather agree	agree
1. I think that I am flexible enough for most sports.	1	2	3	4
2. I can perform movements smoothly in most physical activities.	1	2	3	4
3. I would do well in a test of strength.	1	2	3	4
4. I am good at lifting heavy objects.	1	2	3	4
5. I would do well in a test of quickness.	1	2	3	4
6. I am quite good at bending, twisting and turning my body.	1	2	3	4
7. I am stronger than most people of my age.	1	2	3	4
8. I am good at most sports.	1	2	3	4
9. Over a very short distance I am faster than the most of my ages.	1	2	3	4

10. I find my body handles coordinated movements with ease.	**1**	**2**	**3**	**4**
11. I can repeat fast movements very well.	**1**	**2**	**3**	**4**
12. For sports which need fast reactions. I am in good shape.	**1**	**2**	**3**	**4**
13. I think that I would perform well on a test measuring flexibility.	**1**	**2**	**3**	**4**
14. Most sports are easy for me.	**1**	**2**	**3**	**4**
15. My body is flexible.	**1**	**2**	**3**	**4**
16. I have a lot of power in my body.	**1**	**2**	**3**	**4**
17. I am weak and have no muscles.	**1**	**2**	**3**	**4**
18. I am better at sport than most of my friends.	**1**	**2**	**3**	**4**
19. Other people think that I am good at sports.	**1**	**2**	**3**	**4**
20. Controlling movements of my body comes easily to me.	**1**	**2**	**3**	**4**
21. I am a physically strong person.	**1**	**2**	**3**	**4**
22. I would do well in a test of physical endurance and stamina.	**1**	**2**	**3**	**4**
23. My body parts bend and move in most directions well.	**1**	**2**	**3**	**4**
24. I think I could run a long way without getting tired.	**1**	**2**	**3**	**4**
25. I am graceful and coordinated when I do sport and activities.	**1**	**2**	**3**	**4**
26. I am good at endurance activities like distance running, aerobics, bicycling, swimming, or cross-country skiing.	**1**	**2**	**3**	**4**
27. I can run a long distance without stopping.	**1**	**2**	**3**	**4**
28. My body is stiff and inflexible.	**1**	**2**	**3**	**4**
29. I have difficulties in performing movements very fast.	**1**	**2**	**3**	**4**
30. I have good sports skills.	**1**	**2**	**3**	**4**
31. I can run short distance very fast.	**1**	**2**	**3**	**4**
32. I play sports well.	**1**	**2**	**3**	**4**
33. I could jog 5 kilometres without stopping.	**1**	**2**	**3**	**4**
34. I am good at coordinated movements	**1**	**2**	**3**	**4**
35. I can be physically active for a long period of time without getting tired.	**1**	**2**	**3**	**4**
36. I feel confident when doing coordinated movements.	**1**	**2**	**3**	**4**

So easy and funny

Part Three:

You will find some statements about sportsmen below, in which they describe their feelings before a competition. Please read each sentence well! Then tick one of the numbers, which best describe yourself, just like how you are feeling now! Please don't think about it too much for a long time to make your answer.

Statements	not at all	somewhat	moderately so	very much so
1. I am concerned about this competition.	1	2	3	4
2. I feel nervous.	1	2	3	4
3. I feel at ease.	1	2	3	4
4. I have self-doubt.	1	2	3	4
5. I feel jittery.	1	2	3	4
6. I feel comfortable.	1	2	3	4
7. I am concerned that I may not do as well in this competition as I could.	1	2	3	4
8. My body feels tense.	1	2	3	4
9. I feel self-confident.	1	2	3	4
10. I am concerned about losing.	1	2	3	4
11. I feel tense in my stomach.	1	2	3	4
12. I feel secure.	1	2	3	4
13. I am concerned about choking under pressure.	1	2	3	4
14. My body feels relaxed.	1	2	3	4
15. I'm confident I can meet the challenge.	1	2	3	4
16. I'm concerned about performing poorly.	1	2	3	4
17. My heart is racing.	1	2	3	4
18. I'm confident about performing well.	1	2	3	4
19. I'm concerned about reaching my goal.	1	2	3	4
20. I feel my stomach sinking.	1	2	3	4
21. I feel mentally relaxed.	1	2	3	4
22. I'm concerned that others will be disappointed with my performance.	1	2	3	4
23. My hands are clammy.	1	2	3	4
24. I'm confident because I mentally picture myself reaching my goal.	1	2	3	4
25. I am concerned I won't be able to concentrate.	1	2	3	4
26. My body feels tight	1	2	3	4
27. I am confident of coming through under pressure	1	2	3	4

Part Four:

Below are a number of statements that are used to describe their experiences in Sport. Please read each statement carefully and then recall as accurately as possible how often you experience the same things.

statements	Almost never	sometimes	often	Almost always
1. On a daily or weekly basis, I set very specific goals for myself that guide what I do.	1	2	3	4
2. I get the most out of my talent and skills	1	2	3	4
3. When a director or manager tells me how to correct a mistake I've made, I tend to take it personally and feel upset.	1	2	3	4
4. When I am practicing dance, I can focus my attention and block out distractions.	1	2	3	4
5. I remain positive and enthusiastic during performance, no matter how badly things are going.	1	2	3	4
6. I tend to perform better under pressure because I think more clearly.	1	2	3	4
7. I worry quite a bit about what others think about my performance.	1	2	3	4
8. I tend to do lots of planning about how to reach my goals.	1	2	3	4
9. I feel confident that I will perform well.	1	2	3	4
10. When a director or manager criticizes me, I become upset rather than helped.	1	2	3	4
11. It is easy for me to keep distracting thoughts from interfering with something I am watching or listening to.	1	2	3	4
12. I put a lot of pressure on myself by worrying how I will perform.	1	2	3	4
13. I set my own performance goals for each practice.	1	2	3	4
14. I don't have to be pushed to practice or perform hard; I give 100%.	1	2	3	4
15. If a director criticizes or yells at me, I correct the mistake without getting upset about it.	1	2	3	4
16. I handle unexpected situations in my performance very well.	1	2	3	4
17. When things are going badly, I tell myself to keep calm, and this works for me.	1	2	3	4
18. The more pressure there is during a performance, the more I enjoy it.	1	2	3	4
19. While performing, I worry about making mistakes or failing to come through.	1	2	3	4

20. I have my own performance plan worked out in my head long before the performance begins	**1**	**2**	**3**	**4**
21. When I feel myself getting too tense, I can quickly relax my body and calm myself.	**1**	**2**	**3**	**4**
22. To me, pressure situations are challenges that I welcome.	**1**	**2**	**3**	**4**
23. I think about and imagine what will happen if I fail or screw up.	**1**	**2**	**3**	**4**
24. I maintain emotional control no matter how things are going for me	**1**	**2**	**3**	**4**
25. It is easy for me to direct my attention and focus on a single object or person.	**1**	**2**	**3**	**4**
26. When I fail to reach my goals, it makes me try even harder.	**1**	**2**	**3**	**4**
27. I improve my skills by listening carefully to advice and instruction form directors and managers.	**1**	**2**	**3**	**4**
28. I make fewer mistakes when the pressure's on because I concentrate better.	**1**	**2**	**3**	**4**

Part Five:

Please read each of the sentences below, and then tick just one of the 4 options, which best describe your feeling.There is no right or wrong answer at all. So please feel free to make your answer.

statements	**Not at all**				**very much**
1. How dedicated are you to playing in (program)?	**1**	**2**	**3**	**4**	**5**
	not difficult				**very difficult**
2. How hard would it be for you to quit (program)?	**1**	**2**	**3**	**4**	**5**
	undetermined				**very determined**
3. How determined are you to keep playing in (program)?	**1**	**2**	**3**	**4**	**5**
	nothing				**almost everything**
4. What would you be willing to do to keep playing in (program)?	**1**	**2**	**3**	**4**	**5**
	not at all				**very much so**
5. Are you happy playing in (program) this season?	**1**	**2**	**3**	**4**	**5**
6. Do you like playing in (program) this season?	**1**	**2**	**3**	**4**	**5**
7. Do you enjoy playing in (program) this season?	**1**	**2**	**3**	**4**	**5**

8. Do you have fun playing in (program) this season?	**1**	**2**	**3**	**4**	**5**
	nothing				**(very)much**
9. How much effort have you put into playing (program) this season?	**1**	**2**	**3**	**4**	**5**
	nothing				**(very)much**
10. How much of your time have you put into playing in (program) this season?	**1**	**2**	**3**	**4**	**5**
11. How much of your own money have you put into playing in (program) this season for things like entrance fees or equipment?	**1**	**2**	**3**	**4**	**5**
	disagree				**agree**
12. I feel I have to play in (program) to please my dad.	**1**	**2**	**3**	**4**	**5**
13. I feel I have to play in (program) to please my mom	**1**	**2**	**3**	**4**	**5**
14. I feel I have to play in (program) so that I can be with my friends.	**1**	**2**	**3**	**4**	**5**
15. I feel I have to play in (program) so that people won't think I'm a quitter.	**1**	**2**	**3**	**4**	**5**
	not at all				**very much so**
16. Would you miss your friends in (program) if you left the program?	**1**	**2**	**3**	**4**	**5**
17. Would you miss being a (sport) player if you left (program)?	**1**	**2**	**3**	**4**	**5**
18. Would you miss your head coach if you're left (program)?	**1**	**2**	**3**	**4**	**5**
19. Would you miss the good times you have had playing (sport) this season if you left (program)?	**1**	**2**	**3**	**4**	**5**

Part Six:

In the following part of questionnaire you will find a set of questions, which refers to the attitude of your parents toward your sport drive. Please read them carefully and indicate for each individual question, as frequently your parents show this behavior.

Statements	never	seldom	sometimes	often	always
1. After a poor competition do your parents point out what they think you did badly?	1	2	3	4	5
2. Do your parents volunteer to help at galas as officials, whips etc.?	1	2	3	4	5
3. Do your parents encourage you to talk to them about any problems or worries you may have in your sport?	1	2	3	4	5
4. Do your parents discuss your progress with your coach?	1	2	3	4	5
5. After a contest do your parents praise you for trying hard?	1	2	3	4	5
6. During training do your parents tell or signal what you should do?	1	2	3	4	5
7. Do your parents show they understand how you are feeling about your sport?	1	2	3	4	5
8. Do your parents get upset with you if they think your performance is not going as it should be?	1	2	3	4	5
9. Even after you have done a poor competition do your parents praise you for the good things you did?	1	2	3	4	5
10. Do your parents yell and cheer before a competition?	1	2	3	4	5
11. Do your parents push you to train harder?	1	2	3	4	5
12. Before a competition do your parents tell you what particular things you need to work on to do well?	1	2	3	4	5
13. Before a contest do your parents tell you how to do your competition?	1	2	3	4	5
14. Do your parents tell you how they think you can improve your technique?	1	2	3	4	5
15. After a gala do your parents tell you what they think you need to work on?	1	2	3	4	5
16. After a competition do your parents tell you that you didn’t try hard enough?	1	2	3	4	5
17. After a competition do your parents praise you for trying hard?	1	2	3	4	5
18. Do your parents take an active role in running your club?	1	2	3	4	5
19. Do your parents put pressure on you concerning your sport?	1	2	3	4	5

Part Seven:

Please read each statement carefully and then recall as accurately as possible how often you experience the same things in the team.

In my team……	disagree	rather disagree	rather agree	agree
1... we work hard because we want to learn new things.	1	2	3	4
2...playing better than team-mates is important.	1	2	3	4
3...everyone feels like he has an important role in the team	1	2	3	4
4... the coach makes sure that we improve on skills we are not good at.	1	2	3	4
5… we are encouraged to work on our weaknesses.	1	2	3	4
6...the focus is to improve individuals skills.	1	2	3	4
7…the coach wants us to try new skills	1	2	3	4
8...only the top players "get noticed" by the coach.	1	2	3	4
9...the coach favours some players over others.	1	2	3	4
10..doing better than others is important	1	2	3	4
11...we are encouraged to outplay our own team mates.	1	2	3	4
12... athletes feel good when they are better than their team mates.	1	2	3	4
13...athletes are punished when they make a mistake.	1	2	3	4
14… only a few athletes can be the "stars"	1	2	3	4
15… the coach gives most of his attention to the "stars"	1	2	3	4

Part eight:
Please indicate to the following statements, to what extent do they personally apply to you.

My coach……..	never	seldom	sometimes	often	always
1...explains how each person's contribution fits into the total picture.	1	2	3	4	5
2...points out the best and the worst parts of someone's performance.	1	2	3	4	5
3...show she/he is pleased when someone performs well.	1	2	3	4	5
4... see to it that everybody's effort is coordinated.	1	2	3	4	5
5..takes an interest in the personal welfare of the athletes	1	2	3	4	5
6...make sure that everyone understands his part in the team.	1	2	3	4	5

7...compliment individuals, in front of other, for their performance.	**1**	**2**	**3**	**4**	**5**
8...ask the group about important matters before going ahead.	**1**	**2**	**3**	**4**	**5**
9... help people to settle their arguments.	**1**	**2**	**3**	**4**	**5**
10... tell someone when he has done really well.	**1**	**2**	**3**	**4**	**5**
11... encourage the team members to make suggestions for ways of doing practice.	**1**	**2**	**3**	**4**	**5**
12... let the players share in making important decisions.	**1**	**2**	**3**	**4**	**5**
13... plan ahead for what should be done.	**1**	**2**	**3**	**4**	**5**
14... give credit where credit is due.	**1**	**2**	**3**	**4**	**5**
15... ask for the opinion of the team on important coaching matters.	**1**	**2**	**3**	**4**	**5**
16...explain to everyone the techniques and tactics of the sport.	**1**	**2**	**3**	**4**	**5**
17..sees to it that everyone is Working as hard as possible.	**1**	**2**	**3**	**4**	**5**
18..helps team members with Personal problems.	**1**	**2**	**3**	**4**	**5**
19...encourage people to confide in her or him.	**1**	**2**	**3**	**4**	**5**
20...do personal favours for the athlete.	**1**	**2**	**3**	**4**	**5**
21...ask for the opinion of the individuals on plan for specific competitions.	**1**	**2**	**3**	**4**	**5**

Part Nine:

Please read the following sentences carefully and indicate for each individual statement, to what extent do they personally apply to you!

Statements	Not at all	Hardly true	Moderately true	Exactly true
1. I can always manage to solve difficult problems if I try hard enough.	1	2	3	4
2. If someone opposes me, I can find the means and ways to get what I want.	1	2	3	4
3. It is easy for me to stick to my aims and accomplish my goals.	1	2	3	4
4. I am confident that I could deal efficiently with unexpected events.	1	2	3	4
5. Thanks to my resourcefulness, I know how to handle unforeseen situations.	1	2	3	4
6. I can solve most problems if I invest the necessary effort.	1	2	3	4
7. I can remain calm when facing difficulties because I can rely on my coping abilities.	1	2	3	4
8. When I am confronted with a problem, I can usually find several solutions.	1	2	3	4
9. If I am in trouble, I can usually think of a solution.	1	2	3	4
10. I can usually handle whatever comes in my way.	1	2	3	4

LIST OF TABLES

LIST OF FIGURES

Declaration

I hereby declare that this thesis have been written independently without undue help from others. All ideas were taken from literature and contents are Field marked as such in the text, and the sources are provided in the bibliography.

Dated: 02-04-2011, Leipzig

Ejaz Asghar