

PSYCHOLOGICAL PROFILE ASSESSMENT OF MENTAL TOUGHNESS AMONG SENIOR HIGH SCHOOL FOOTBALL PLAYERS IN GHANA

Prof. Martin Gyambrah
University of Applied Management,
Ghana campus
kojogyambrah@yahoo.com

Dr. Mark Owusu Amponsah
Department of Educational
Foundations
University of Cape Coast
Cape Coast
mokamponsah@yahoo.com

Ms Nicola Afua Sackey
University of Applied
Management,
Ghana campus
ma.sackey@live.co.uk

CITATION: Gyambrah, M., Amponash, M. O., & Sackey, N. A. (2013). Psychological profile assessment of mental toughness among senior high school football players in Ghana *European Journal of Educational Sciences*, 1 (3), 136-151.

ABSTRACT

The purpose of this study was to assess the mental toughness of senior high school football players in the Greater Accra Region of Ghana. Descriptive survey design was employed and 30 male student football players sampled from a twelve week football training programme were studied using convenience and purposive sampling techniques. Their psychological factors of mental toughness were tested by Loehr's (1986) mental toughness test. The factors recorded for mental toughness indicated controlled attitude, self-confidence, positive energy, motivational level, attentional control, visualisation and imagery. Players tested average in all the factors with controlled attitude being the highest and control of attention their lowest. From the findings it is recommended that, high school football players should be trained to enhance all the seven factors for mental toughness. Again an examination of differences between players at all levels in a variety of sporting and physical activities and noting changes across different situations will promote understanding of mental toughness, quality of psychomotor intelligence and cognitive processes in schools.

Keywords: mental toughness, psychological factors, senior high school, football players, Ghana

INTRODUCTION

In general, the goal of participating in sports is to improve in areas of cognitive development starting with motor skills which involve functions of the brain that coordinate movements of the muscles to perform actions in a smooth and efficient manner. Students' cognitive development increases their psychological skills including enhancement of their self-esteem. With high self-esteem, students will have the confidence for their own worth. Furthermore, social skills are behaviours that give them the ability to interact and communicate with others. In particular, group sports require plenty of communication by incorporating teamwork and accepting responsibilities. Teamwork is very significant because it requires a group to collaborate together in order to reach a common goal. Without teamwork, a group has a slim chance of winning a game no matter how talented the individuals are. According to Piaget's cognitive developmental theory, the child's mind forms and modifies psychological structures so they can achieve a better fit with external reality. As a child grows older, they are capable of adjusting to life by using schemes, which are psychological structures that will allow her to understand personal experiences. Intervention programs usually target middle childhood, ages 6-11 years; due to the fact that, it is the period that they begin to develop athletic skills and self-morality.

Football is one of the most significant current discussions in sports today and is one of the most successful sports in the world. A quality game needs quality players, and mental toughness plays a key role in achieving success in every game played (Bull & Shambrook, 2004).

ATTRIBUTES OF MENTAL TOUGHNESS

The concept of mental toughness has recently attracted significant attention from school and sport psychology researchers attempting to understand how psychological factors can underpin success in sport (Bull, Shambrook, James, & Brooks, 2005; Gucciardi, Gordon, & Dimmock, 2007; Jones, Hanton, & Connaughton, 2007). It's widely accepted by coaches and athletes that mental toughness is the most important psychological characteristic that determines athletic success. Loehr (1986) reported both athletes and coaches admitted that at least fifty percent of success is due to psychological factors that reflect mental toughness. Acknowledging the essential need of mental toughness, coaches have come to agree that mental toughness is a factor that could determine the success of an athlete (Gould, Hodge, Peterson & Petlichkoff, 1987) and it is also seen as an important element that could shape a successful athlete to be a champion (Norris, 1999). A factor often associated with successful performance in competition is mental toughness. Mental toughness can be considered as a mental skill factor. Some research findings have identified mental skills as a psychological construct that distinguishes between more and less successful performance across a number of sports. Athletes who demonstrate peak performance in sports follow a set of mental processes that allow them to produce excellent results consistently (Dalloway, 2008). To perform at a level that matches their potential, athletes need to understand their mental strengths and weaknesses. Consistency in performance, rate of athletic development, the joy and sense of achievement from athletic performance and competition are enhanced by awareness of one's mental strengths and weaknesses. Therefore, the use of mental training serves as a powerful technique in reaching a high level of mental toughness (Lefkowitz & McDuff, 2002).

Despite widespread agreement on the importance and benefits of mental toughness and calls to identify psychological attributes that create champions, high quality research into mental toughness is limited (Middleton, Marsh, Martin, Richards & Perry, 2005). A clear definition for mental toughness is still being researched. Most recently, Jones, Hanton and Connaughton (2002) conducted a qualitative study of elite athletes, aiming to define mental toughness and to determine the essential attributes required to be a mentally tough performer. The definition that emerged from their analysis concluded that:

Mental toughness is having the natural or developed psychological edge that enables you to:

1. generally cope better than your opponents with the many demands (competition, training, lifestyle) that sport places on a performer; and,
2. specifically, be more consistent and better than your opponents in remaining determined, focused, confident, and in control under pressure (p.209)

The definition is important for a number of reasons. It suggests that mental toughness is something that can be developed. It also suggests that mental toughness has a competitive aspect. For instance, players who are mentally tough will be able to cope better than opponents, or be more consistent than opponents. Finally, mentally tough players need to be able to cope with a variety of demands that are placed on them and not just those that are performance-related (Middleton et al., 2005). Their definition of mental toughness has

subsequently received support from research involving Olympic champions (Jones, Hanton & Connaughton 2007), as well as sport-specific samples that is, football players (Thelwell, Weston, & Greenless, 2005). According to the latter study, Thelwell et al (2005) defined mental toughness as having the natural or developed psychological edge that enables athletes to cope better than their opponents with the many demands that sport places on the performer whether in competition, training or lifestyle. Particularly be more consistent and better than your opponents in remaining determined, focus, confident, and in control under pressure. It was also argued that mental toughness includes some form of outcome measure (e.g., psychological edge, coping better than opponents) where comparisons are made with opponents (Jones et al., 2002). Furthermore, the definition identifies that mentally tough athletes are not only able to cope and perform well under excessive pressure, but ability to have control over the varying demands placed on them in training and their personal life.

Gucciardi, Gordon, and Dimmock (2008) proposed a different definition and framework of mental toughness, based primarily on their work with Australian Footballers. Using Personal Construct Psychology, they proposed that:

‘Mental toughness in Australian Football is a collection of values, attitudes, behaviours, and emotions that enable you to persevere and overcome any obstacle, adversity, or pressure experienced, but also to maintain concentration and motivation when things are going well to consistently achieve your goals’ (p.278).

It suggests that mentally tough players can use mental toughness attributes to help endure and perform well during adverse situations, but they can also employ other attributes of mental toughness when the game is going well to keep them playing at their best. Although this definition was produced through work with Australian Footballers, it has been generalized to other sports including cricket (Gucciardi & Gordon, 2009) and soccer (Coulter, Mallett & Gucciardi, 2010). According to Middleton, Marsh, Martin, Richards, and Perry (2005) a dominant finding that emerged when interviewing participants, and also later when reviewing and analysing the interview statements, is that mental toughness seems to exist in the presence of or response to adversity. The types of adversity reported ranged greatly and includes things such as: something going wrong in a competition, high levels of performance pressure, physical pain associated with high level physical effort, competing through an injury, falling behind in a competition, and performing in bad conditions. Whilst the type of adversity can be quite different, the common trend in relation to mental toughness is the notion of overcoming the adversity. They concluded that mental toughness exists in relation to overcoming adversity. Based on these findings, Middleton et al (2005) defined Mental Toughness as, ‘An unshakeable perseverance and conviction towards some goal despite pressure or adversity’.

They indicated moreover that, attaining mental toughness as so defined requires the presence of some or all of the twelve mental toughness components. They believed the strength of this definition is that it does not limit itself to what may be seen as the outcomes of mental toughness. One drawback that has been levelled at other researchers who have attempted to define mental toughness, is the tendency to confuse what mental toughness allows one to do, with what it actually is (Jones et al., 2002). The definition presented here, however, looks not only at what mental toughness is but also includes the actions of mental toughness (regarding, emotion management, perseverance, and task focus), and also the role of some of the factors that orient an individual to be mentally tough (such as self-belief, determination, commitment, attitude, and task familiarity).

Loehr (1995), who has worked with many top athletes over the last twenty years, suggests the following definition for toughness: ‘Toughness is the ability to consistently perform toward the upper range of your talent and skill regardless of competitive circumstances’. Loehr goes on to describe four emotional indications of mental toughness; (a) emotional flexibility (the ability to handle different situations in a balanced or non-defensive manner), (b) emotional responsiveness (when one is emotionally engaged in the competitive situation, not withdrawn), (c) emotional strength (the ability to handle great emotional force and sustain fighting spirit no matter what the circumstances), and (d) emotional resiliency (being able to handle setbacks and recovering quickly from them). Like other aspects of mental toughness, he suggests that these skills can be learned. For some of the football players it may come more easily than for others. However, for many players, there is often room for improvement. In the early stages, Loehr (1982) suggested that mental toughness was the reaction from the athlete’s ability to use their energy positively when facing a crisis and a positive behaviour when facing challenges. In 1986, Loehr’s research gave a detailed explanation on mental toughness. This particular theory emphasized on the importance of emotional control and stability to achieve an ideal state or what is known as ‘Ideal Performance State’. Specifically, the mental toughness attributes include;

1. self-confidence (i.e. belief that one can perform well and be successful)
2. negative energy control (i.e. to cope with negative emotions such as fear, anger, frustration and temper for achieving success)
3. attention control (i.e. stay focused and to perform well)
4. visualization and imagery control (i.e. creating positive mental images)
5. motivation level (i.e. the energy and willingness to persevere),
6. positive energy control (i.e. energized with fun, joy, and satisfaction)
7. attitude control (i.e. habits of thought and unyielding).

According to Loehr (1986), the psychological factors in his theory are related to each other and influence the athletes’ level of mental toughness. Before coaches can observe mentally tough attributes in their players, they must establish a definition of the attributes that make up the term. Only then will the coach be able to produce an instrument that will help him (or her) recognize the mental strengths and weaknesses of their athletes and to design their training programs to fit the needs of their individual athletes and teams.

Coulter, Mallet, and Gucciardi (2010), more recently defined Mental Toughness as: ‘the presence of some or the entire collection of experientially developed and inherent values, attitudes, emotions, cognitions, and behaviours that influence the way in which an individual approaches, responds to, and appraises both negatively and positively construed pressures, challenges, and adversities to consistently achieve his or her goals.’

Three common components can be seen across the definitions of mental toughness. Firstly, mental toughness is important both in the athletes’ sporting and non-sporting lives. Secondly, critical aspect of mental toughness includes consistently being better than your opponents, as well as repeatable and consistent high performance; and lastly, mental toughness appears to be a concept that is a combination of natural or inherent values, as well as developed or trainable abilities.

This study aims to assess mental toughness and its effects on performance and provide the platform needed to educate young football players and athletes in senior high schools and coaches in Ghana

STATEMENT OF THE PROBLEM

Mental toughness is an important skill to every athlete as this could help to prepare them when they are facing different situations in a tournament, and it is also directly related to the athletes' performance and achievement (Anderson, 1995; Eric, 2006). Connaughton, Wadey, Hanton and Jones (2008) argue that through increasing performer awareness and utilising psychological skills, performers could subsequently develop mental toughness. Further, Lane, Thelwell, Lowther and Devonport (2009) highlight that performers who are likely to utilise psychological skills, could also raise their emotional intelligence because they recognise the value of such practice.

Mental training is being increasingly recognized as an integral component of athletes' training. Relying solely on skills and craftsmanship has become inadequate in football, as players are continually exposed to external pressures and anxiety. Less-proficient athletes may be helped to learn, refine, and practice mental skills and strategies aimed at gaining personal control of weak states and improving psychophysical conditions that make performance easy (Sadeghi, Omar-Fauzee, Jamalis, As-Latif & Cheric, 2010). Therefore, whilst it has been suggested that mental toughness has a genetic component (Horsburgh, Schermer, Veselka, & Vernon, 2009), it is well accepted that athletes can acquire, and effectively learn to develop, and maintain mental toughness crucial for success (Bull, Shambrook, James, & Brooks, 2005; Jones, Hanton, & Connaughton, 2007; Thelwell, Weston, & Greenlees, 2005).

Football, like other sports requires not only a high level of physical performance but also mental training and mental skills (Junge, Dvorak, Rosch, Graf-Baumann, Chomiak & Peterson, 2000). In the early stages of the development of the studies on mental toughness in sport, many studies were conducted to seek the importance and the need of mental toughness (Goldberg, 1998; Hodge, 1994; Jones, et al., 2002; Loehr, 1982; 1986) to produce a champion. Unfortunately, there are little or no studies on mental toughness done in Ghana sports, and its effect on the performance of athletes. This term is not a familiar term used in TV discussions, newspaper statements or even debates when the performance of players in competition is discussed. Footballers and athletes in Ghana sports have had very little opportunity to go through any form of mental skills training because of lack of qualified personnel. Athletes are therefore likely to lack mental toughness, which in turn affects tactical discipline, attitude, attention control, and other mental toughness attributes. The study of mental toughness suggests that the athletes need to equip themselves with a package of a combined psychological skills starting in the early stage of involvement, training session, during and after a match (Jones et al., 2007). This could be a factor that could determine both their success and failure. Researchers and coaches do not know what kind of mental training can help football players more to increase the performance during competition and training (Barth & Zampel, 2004; Junge, et al., 2000). Football is the most followed and loved sport in Ghana. It is envisaged that very few football clubs or none, and academies in Ghana have engaged the services of trained personnel to assess psychological profile of their players. Therefore, in order to bridge this knowledge gap, the purpose of this study is to assess the psychological profile on mental toughness of selected high school football players enrolled in a twelve week football training programme.

PURPOSE OF THE STUDY

Although researchers have found that mental toughness have a better impact on athletes' performance, not many studies in Ghana focus in this area of research. Therefore, in order to explore the mental toughness among football players in high school specifically, the study sought to :

1. Assess psychological attributes among selected Senior High School football players
2. Identify which psychological attributes among Senior High School football players need further improvement; and
3. Suggest psychological interventions that could enhance players' performance

RESEARCH QUESTIONS

In order to further assess mental toughness among selected senior high school football players, the following questions were developed to guide this research:

1. What mental toughness attributes are practiced by Senior High School football players?
2. What mental toughness attributes need further improvement among Senior High School football players?
3. What psychological interventions can help Senior High School football players improve performance?

METHODOLOGY

The research design used was a descriptive survey. This is a scientific method which seeks to ascertain respondents' perspectives or experiences on a specified subject in a predetermined structured manner. It attempts to document the current conditions and attitudes, that is, to describe what exists at that moment (Zikmund, 2003).

POPULATION, SAMPLE AND SAMPLING PROCEDURE

Participants selected from a population of 225 football players from different senior high schools from around the Greater Accra Region of Ghana. It was therefore convenient to sample 30 student-players who were enrolled in a 12 week football training programme which took place at a local sports complex. Convenience and purposive sampling techniques were used for the sample obtained in the study. Convenience sampling was used because there was little time available to go from school to school to collect data of football players from different senior high schools. Purposive sampling was used because the main goal was to focus on particular characteristics of the high school population, which will best enable answer, the research questions. The sample consisted of males who ranged from 15 to 16 years of age.

INSTRUMENT

The Psychological Performance Inventory (PPI) questionnaire developed by Loehr (1986) was used in this study to measure mental toughness. This 42 items self-report inventory yields an overall mental toughness score, as well as seven 6-item subscale scores measuring the seven fundamental areas of mental toughness: self-confidence, negative energy control,

attention control, visualization and imagery control level, motivation, positive energy control, and attitude control. Subscale scores range from a low of 6 to a desirable high of 30 and total scores from 42 to 210. Scores were recorded on a five-point Likert scale where 1=Almost always, and 5=Almost never. Previous studies had reported the reliability of the PPI Questionnaire is 0.92 (Loehr, Retert, Brown & Woods, 1992). The PPI was found to be consistent with Cronbach alphas for the seven subscales indicating high reliability (self-confidence 0.69; negative energy control 0.42; attention control 0.75; visualisation and imagery control 0.82; motivation 0.70; positive energy 0.71; attitude control 0.71). This questionnaire was chosen because PPI is one of the frequently used instruments by researchers (Nicholls, Polman, Levy & Backhouse, 2008). Therefore, this study maintained using the seven factors that was first introduced by Loehr (1986) to measure the measure toughness of the high school football players. The demographic information of the PPI was modified with the inclusions of age, years of the player's football experience, and educational level.

DATA COLLECTION PROCEDURE

The necessary approvals from the organisers of the 12 weeks football training programme were sought. Consent from the coaches and players were also obtained prior to the administration of the instrument, as well as an introduction letter from the University of Applied Management given to the coaches and players. The voluntary participation of the players to complete the instrument was taken as an indication of consent. Before completing the questionnaire, the participants were briefed on the study's aims and methods. An information sheet describing the study and its methods was provided to each of the participants. Participants understood that they could withdraw from the study anytime. Participants were then asked to complete the research questionnaires. There was no time limitation, but the maximum time did not exceed 30 minutes. The aim was that athletes would complete the questionnaires relaxed and precise without the pressure of time limitation in order to increase accuracy and reliability of the answers. The questionnaires were distributed, completed and gathered after their training session.

DATA ANALYSIS

All questionnaires were collected from participants once completed. Scores were recorded on a five-point Likert scale where 1=Almost always, and 5=Almost never. Score on the item of each variable was summed up to determine the level of mental toughness of the football players. An individual that shows a high score reflects that they have a high level of psychological skills and thus having a high level of mental toughness. A high score on the component would also show the important component as a factor of the players' mental toughness. The statistical product and service solution (SPSS) version 16.0 package was used to analyse the data collected. Descriptive statistics of mean, of means standard deviation and profile plot were used for variable description. A profile plot was also used to show the marginal mean of means of the mental toughness factors exhibited by the players.

RESULTS AND DISCUSSION

The data for answering the research questions are presented as results and each of them is discussed in this section. There were 30 respondents with average age of 16 from a mix of high schools in the Greater Accra Region of Ghana. Table 1 shows mean of means and

standard deviations for each of the mental toughness factors of players while figure1 shows the corresponding profile plot.

TABLE 1: Mean of means and Standard Deviation of PPI subscales (Profile of Psychological Requirements on Mental Toughness)

Psychological Requirement	Mean	Std. Deviation	N
Self Confidence	24.72	4.510	32
Negative Energy	22.22	3.319	32
Control of Attention	22.03	3.780	32
Visualization	22.94	3.868	32
Degree of Motivation	24.28	4.552	32
Positive Energy	24.28	4.401	32
Control of Attitude	24.88	4.976	32
Total	23.62	4.322	224

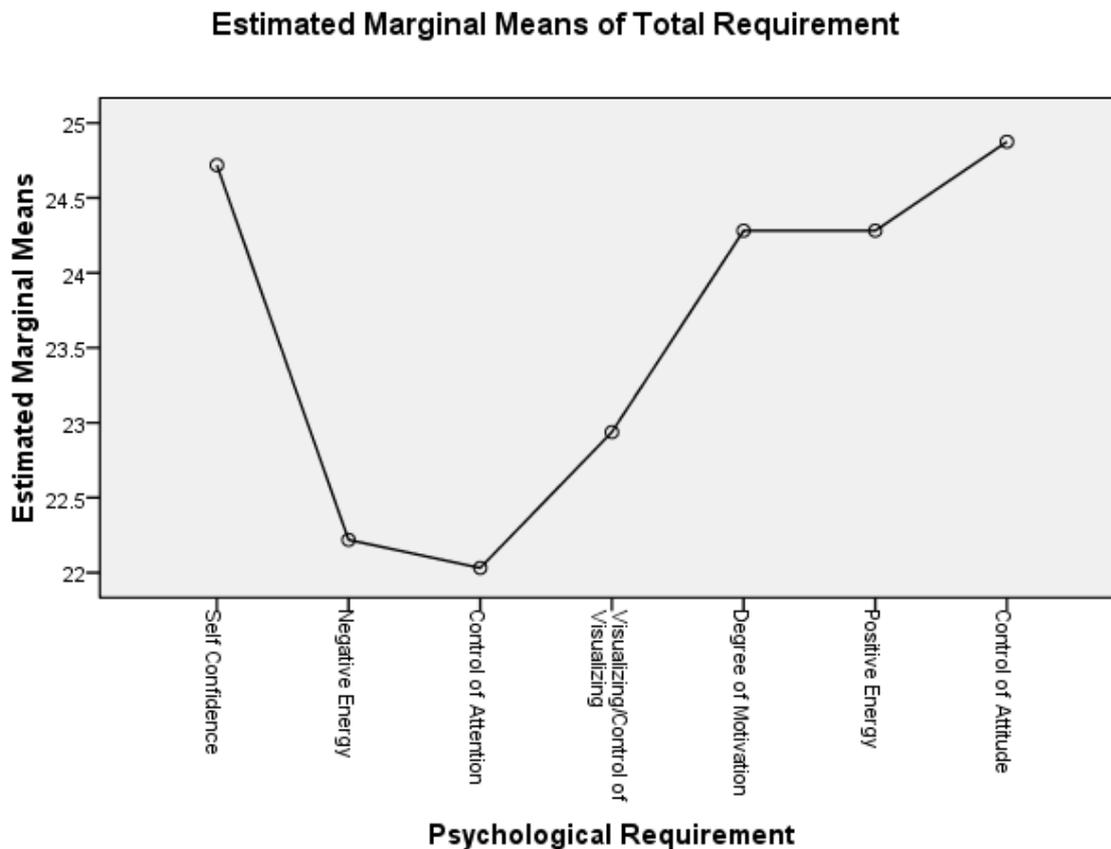
The result for each factor is shown in Table 1. The score of self-confidence as indicated showed that the self confidence level of the football players was the second highest factor out of the seven factors. A mean score of 24.72 was generated. This means that players feel more strongly about the possibility of win and lose, but need more improvement in this area. Negative energy control recorded the second lowest among the mental toughness factors with a mean of 22.22. This indicates that players are not able to control the flow and impact of negative energy in difficult situations. Attentional control was the lowest mental factor shown by the players. The players scored a mean of 22.03. This indicated that players are not able to select the most important information and maintain effective focusing continually.

The results of visualisation and imagery as shown in Table 1 indicate it as the third lowest score by the players. They scored a mean of 22.94. This shows that players are not accurate in imagining competition situations clearly and realistically. The result of motivation shows a mean of 24.28 among players. The same score (24.28) is also shown for positive energy control. These are the third highest scores indicated amongst the players out of the seven factors. This shows that players have a higher desire to succeed, a strong will to follow training schedules, have more patience for pain, and a strong will to satisfy when it comes to their degree of motivation.

In regards to positive energy, their score shows that players are able to transform feelings such as pleasure, joy, and team morale into energy for performance. Attitude control was the highest score achieved by the players. The score was a mean of 24.88. This means that players show good thinking styles and attitude for training, and can transform this positive attitude into positive energy for performance. As indicated in Figure 1, the analysis of the subscales used to assess the mental toughness of the players showed high scores in self-confidence and control of attitude. Players showed average scores in degree of motivation

and positive energy. However, very low figures were scored for negative energy control, control of attention, and visualisation and imagery. Although these scores varied from high to low, they all fell into the average category of Loehr’s (1986) PPI scores of mental strength and weaknesses.

FIGURE 1: Profile Plot



According to Loehr’s (1986) PPI scale (Appendix B), out of a total of 30 points, scores between 6 to 19 points are seen as below average, which indicates that special attention is needed. Scores between 20 to 25 points are stated as average, and players are advised to improve, as there is much room for improvement. The highest scores are between 26 to 30 points. This shows that players have an excellent mental strength.

RQ1. What mental toughness attributes are practiced by Senior High School football players?

This study assessed the mental toughness of high school football players and its possible effect on their performance. It was purported to measure the seven factors that were first introduced by Loehr’s (1986). The findings show that the level of mental toughness among the football players is average (23.62). Therefore, understanding the relevance of mental toughness in competitive sport in Ghana must be a research focus today. The results are also in tandem with other psychological factors of mental toughness thought to be directly related to athletes in competition (Anderson, 1995; Eric, 2006). Thus, strategies and/or mental training for enhancing all seven factors are needed. The objective of mental training is to

assist athletes in the development of mental skills to achieve performance success and personal well-being (Tenenbaum & Eklund, 2007).

RQ2. What mental toughness attributes need further improvement among Senior High School football players?

It was found that control of attitude and self-confidence were the two factors that players scored their highest points. However, results indicate there's room for improvement. Self-confidence is a critical element during competitions especially when players meet up with strong opponents. The loss of self-confidence can therefore cause low performance by making players perform negatively (Eklund, 1994; Gould, Eklund & Jackson, 1992). In addition, discipline and knowledge is part of self-confident component and it is important to the player. Therefore, with self-confidence a player will be able to maintain his performance and always be ready to upgrade himself. However, knowledge is also an important element in self-confidence because with knowledge, players can utilize their efforts at its optimum. Therefore, in order to enhance their self-confidence, strategies such as enforcement of fitness training, adjustment of goals, positive ways of thinking, implementation of self-assurance and increase of the frequency of training are needed (Robazza & Bortoli, 2007). Also training programs for improving self-confidence need to be developed by coaches. Self-confidence as one of the most important variables related to sport performance (Robazza & Bortoli, 2007) increases perceived ability to emotion management and provides possibility for athlete to control negative emotions more effectively (Besharat & Pourbohloul, 2011).

DeVenzio (1997) also believes that "confidence level mirrors skill level" (p. 91). This view points to the link between skill or previous success, and confidence level. Perhaps, one of the best therapies for low confidence is success. In addition to this technique, O'Connor (1970) suggests that an athlete can also build confidence just by acting confident. He suggests that an athlete should always act as if they are confident even if they are not. In doing so, the athlete does not let on any weaknesses to opponents and can even build up their own confidence (O'Connor, 1970).

As the mean results indicated, players still have room to improve their control of attitude although it was their strongest mental skill amongst the group. Shin and Lee (1994) agreed that attitude control can be affected by coaches' ability or environments, and in order to improve these factors, coaches have to be very careful of their behaviours so that athletes can transform such resources as lifestyle, creative thinking, attitude for training, and team morale into energy for better performance. This is in agreement with the definition of attitude by Allport (1937) which states that attitude is a 'mental state of readiness organised through experience that influences the response of an individual towards any object or situation to which it is related.' Thus attitudes are directed towards attitude objects, which can be places, situations and the behaviour of other people. Coaches must then be able to give positive reinforcement and reward successful performance as one of the means of enhancing positive attitude.

RQ3. What psychological interventions can help Senior High School football players improve performance?

In general, weaknesses in the psychological factors are identified through this study. More specifically, players showed a lower control of attention, negative energy control and visualisation and imagery ability. In order to exhibit expertise in sport, athletes must learn to

search the visual display and pick out relevant task-specific information, whilst ignoring other irrelevant environmental stimuli that could interfere with task execution (Williams, Davids & Williams, 1999). Mentally tough athletes are able to focus on the execution of the task whilst blocking out or not being adversely affected by distractions. To improve attentional control ability, both behavioural and cognitive strategies can be used. Behavioural techniques include game simulation activities and practising under unfavourable conditions. Cognitive methods which can be used are remaining focused in the present, and shifting attention appropriately (Weinberg & Gould, 1999). Morris and Summers (1995) presume that in using a game simulation strategy, when athletes have been practising in an environment close to their race settings, they will have enhanced coping strategies for the real race. The closer the practice sessions resemble that actual race, the better the effect. Secondly, the more an athlete practices under unfavourable condition and with distractions present, the better prepared he is to deal with them during an actual race (Weinberg & Gould, 1999). The cognitive method of remaining focused in the present helps with concentration, and forces a focused concentration throughout a race (Weinberg & Gould, 1999). Learning to also shift attention helps an athlete to shift focus across internal-external and broad-narrow dimension (Weinberg & Gould, 1999). When an athlete makes an error, he should use it as an opportunity to learn. Quickly analyse why the mistake was made and mentally rehearse the way it should be done correctly (Morris & Summers, 1995).

According to Nideffer (1979) we as humans, can have different attentional styles: depicted as internal, external, broad, or narrow. Nideffer's theory suggests that each person possesses a unique style of attending to environmental stimuli, and that task performance is a function of the compatibility between the person's attentional style and the attentional demands of the task. The important issue in identifying mentally tough athletes is their level of attentional control at the height of adversity. That is, how well they can shift and/or maintain attention as the situation demands (Jones et al, 2002). The ability to direct and sustain a non-distractible focus of attention is widely observed in and cited by athletes as a mental skill critical to performance (De Francesco & Burke, 1997; Greenleaf et al., 2001). Athletes' attention focusing skills have been identified by coaches as the most important mental skill needed in sport (Gould, Medbery, Damarijan, & Lauer, 1999).

A low control of negative energy means that the possibility of getting anxious very easily is big. It also means that the ability to handle crisis rationally and wisely is low. So, negative feelings, such as anger, fear and anxiety will contribute to stress and increase pressure among players. And if players cannot control this situation and if the situation is being exploited, it becomes a problem which affects a player's performance (Bull et al, 2005). Thus, strategies such as muscle relaxation training, meditation, thinking control training need to be employed in order to enhance negative energy control ability (Meyers, Scheleser, & Okwumabua, 1982; Holm, Beckwith, Ehole & Tinius, 1996). Research findings have also revealed that athlete's self-confidence moderates negative experienced emotions in sport competition and helps continuity of managing and controlling situation during the match (Hanton & Connaughton, 2002; Robazza & Bortoli, 2007). The ability to moderate negative emotions and control situations during a match helps athletes to rule over the game, and allows them to put into action their skills, and gain more desirable consequences. Identifying with previous research, elite coaches also identified emotional control and management of nervousness and tension as the biggest mental training need for athletes (Grove & Hanrahan, 1988).

Visualisation and Imagery control allows a player imagine competition situations clearly and realistically. It is related to the high performance level of athletes (White & Hardy, 1998).

According to Weinberg and Gould (1999), imagery can be used before and after practice and competitions. Before practice, an athlete must visualize the skills and routines they will be executing. After practice, the athlete must review the strategies they worked on. They suggested that as the sensations of the movements will still be fresh in their minds, it can improve imagery. Weinberg and Gould (1999), also stated imagery before a competition helps refine actions and reactions, and when used after a competition, the athlete gets a good image of the things that were done well. To use imagery effectively, most athletes need training that is based on information about how imagery works, under which conditions it works best, and how personal factors may affect the process. However, despite continued increases in imagery use by athletes, much of its potential for application in sport remains to be discovered, for several reasons (Morris, Spittle & Watt, 2005). One explanation is that research on imagery in sport, particularly on how it works, has been limited. Such research is not attractive because imagery is an internal thought process that cannot be measured directly (Morris, Spittle & Watt, 2005).

Motivation and positive energy recorded the same level amongst the football players. Athletes must have something that motivates them to continually push their bodies, and come back from whatever struggles or setbacks they may experience along the way. This motivation may come intrinsically or extrinsically. Research has shown the link between extremely high levels of motivation and the achievement of elite status (Hardy & Parfit, 1994; Mahoney, Gabriel & Perkins, 1987; Orlick & Partington, 1988). There are a number of athletes who have the skills to succeed, but very few who have the motivational drive to do what it takes to succeed. In light of this, it appears that intrinsic motivation may be the greater determinant of achieving success in sports. This view is supported by several research studies (Hardy & Parfit, 1994; Mahoney et al., 1987; Orlick & Partington, 1988). To achieve an elite level in sport, an athlete must have the motivation to train hard on a daily basis and to overcome any obstacles or setbacks that they might face in reaching or maintaining that level of performance.

Positive energy is very critical before any game to which help boost athletes' confident level and performance as it creates an enjoyable and team cohesiveness. With positive condition, naturally the negative feelings such as anxiety and arousal will not be felt (Omar-Fauzee et al, 2012). Emotions influence subcomponents of sport performance including perception, attention, memory, decision-making and judgement (Forgas, 1995; Isen, 1993). When people experience positive energy, they broaden their attention, which fosters openness, flexibility and an efficient integration of information (Carver, 2003; Derryberry & Tucker, 1994; Fredrickson, 2001). Positive emotions are associated with many attributes, characteristics, and behaviours such as optimism, resilience, self-belief, self-esteem, commitment, control, challenge, concentration, attentional control, overcoming adversity, intrinsic motivation, internal locus of control and decision making (Jones, Meijen, McCarthy and Sheffield, 2009; Tugade, Fredrickson, & Feldman-Barrett, 2004; Vast, Young, & Thomas 2010).

In conclusion, because PST programmes involve assisting athletes in the improvement of multiple psychological skills, these programs have a distinct advantage over programmes designed only to improve an athlete's ability in one area. In general, it is essential to first educate players on the idea of PST. Next, the programme should be grounded in a sound PST model that will help direct and focus the methods and strategies to be employed. Subsequently, the needs of the players and the demands of the sport should be assessed and considered when deciding on the mental training elements to focus on. Finally, the practice and competition environments should engage the players in active learning of mental skills

by allowing them to direct and reflect upon their own learning through meaningful exercises and examples that accommodate their individual learning styles and engage them in opportunities to share their experiences. A greater understanding of the psychological needs and demands of players would therefore offer coaches the opportunity to provide better support and advice to individual players. This ought to enhance the players' overall development.

RECOMMENDATIONS

On the basis of the findings the following recommendations are made to improve and strengthen senior high school football players' psychological mental toughness. There is the need for attention, most notably relating to mental skills training and intervention. Also, examining differences between players performing at a range of levels, and in a wide variety of sports and physical activities, as well as noting changes in participants' responses across different situations, will help to promote understanding of both mental toughness and quality of athletic performance. Further research should concentrate on using applied settings and actual competition to assess these mental skills. In relation to the development of mental toughness, much more work is needed to determine the effects of environmental manipulations and skills training approaches to developing this important construct.

REFERENCES

- Anderson, D. (1995). *Mental strategies of football quarterbacks for training and competition*. M.Sc. dissertation, University of Ottawa, Canada. Retrieved October 28, 2011, from Dissertations & Theses: Full Text database.
- Barth, K. & Zempel, U. (2004). *Training soccer*. Oxford: Meyer and Meyer Sport.
- Besharat, M.A. & Pourbohloul, S. (2011). Moderating Effects of Self-Confidence and Sport Self-Efficacy on the Relationship between Competitive Anxiety and Sport Performance. *Scientific Research, Psychology 2011. Vol.2, No.7*, 760-765.
- Bull, S., & Shambrook, C. (2004). *Soccer, the mind game. Seven steps to achieving mental toughness*. Reedsward publishing, USA.
- Bull, S., Shambrook, C., James, W., & Brooks, J. (2005). Towards an understanding of mental toughness in elite English cricketers. *Journal of Applied Sport Psychology, 17*, 209-227.
- Carver, C.S. (2003). Pleasure as a sign you can attend to something else: Placing positive feelings within a general model of affect. *Cognition and Emotion, 17*, 241- 261.
- Connaughton, D., Wadey, R., Hanton, S., & Jones, G. (2008). The development and maintenance of mental toughness: Perceptions of elite performers. *Journal of Sport Sciences, 26*(1), 83-95.
- Coulter, T. J., Mallett, C. J., & Gucciardi, D. F. (2010). Understanding mental toughness in Australian soccer: perceptions of players, parents, and coaches. *Journal of sports sciences, 28*(7), 699-716.
- Dalloway, M. (2008). *Peak performance information*. Retrieved February 20, 2012, from <http://www.performance-media.com/peakqualities.php>.
- DeFrancesco, C., & Burke, K. L. (1997). Performance enhancement strategies used in a professional tennis tournament. *International Journal of Sport Psychology, 28*, 185-195.
- Derryberry, D., & Tucker, D.M. (1994). Motivating the focus of attention. In P.M.Niedenthal & S. Kitayama (Eds.), *The heart's eye: Emotional influences in perception and attention*, (pp. 167-196). San Diego, CA: Academic Press

- DeVenzio, D. (1997). *Think like a Champion*. Charlotte, North Carolina: The Fool Court Press.
- Eklund, R.C. (1994). A season-long investigation of competitive cognition in collegiate wrestlers. *Research Quarterly for Exercise and Sport*, 65, 165-183.
- Eric, A. (2006). *Mental skills use in junior golfers*. M. S. Dissertation, California States University, Fullerton, United States – California. Retrieved March 13, 2008, from ProQuest Digital Dissertations database.
- Forgas, J.P. (1995). Mood and judgment: The affect infusion model (AIM). *Psychological Review*, 17, 39- 66.
- Fredrickson, B.L. (2001). The role of positive emotions in positive psychology. The broaden-and-build theory of positive emotions. *The American Psychologist*, 56, 218–226.
- Gould, D., Hodge, K., Peterson, K. & Petlichkoff, L. (1987) Psychological foundations of coaching: Similarities and differences among intercollegiate wrestling coaches. *Sport Psychologist* 1, 293-308.
- Gould, D., Eklund, R. C., & Jackson, S.A (1992a). 1988 U.S. Olympic wrestling excellence: Pt. I. Mental preparation, precompetitive cognition, and affect. *Sport Psychologist*, 6, 383-402.
- Gould, D., Medbery, R., Damarjian, N., & Lauer, L. (1999). A survey of mental skills training knowledge, opinions, and practices of junior tennis coaches. *Journal of Applied Sport Psychology*, 11, 28-50.
- Greenleaf, C., Gould, D., & Dieffenbach, K. (2001). Factors influencing Olympic performance: Interviews with Atlanta and Nagano U.S Olympians. *Journal of Applied Sport Psychology*, 13, 154-184.
- Goldberg, A.S. (1998). *Sport slump busting: 10 steps to mental toughness and peak performance*. Champaign, IL: Human Kinetics.
- Grove, J. R., & Hanrahan, S. J. (1988). *Perceptions of mental training needs by elite field hockey players and their coaches*. *Sport Psychologist*, 2, 222-230.
- Gucciardi, D., Gordon, S., & Dimmock, J. (2007). *Multisource ratings of mental 24 toughness among youth-aged Australian footballers: A preliminary examination*. Poster session presentation at the 12th European Congress of Sport Psychology, Sport and Exercise Psychology: Bridges between disciplines and cultures, Halkidiki, Greece.
- Gucciardi, D. F., & Gordon, S. (2009). Development and preliminary validation of the Cricket Mental Toughness Inventory (CMTI). *Journal of Sports Sciences*, 27(12).
- Hanton, S., & Connaughton, D. (2002). Perceived control of anxiety and its relationship with self-confidence performance: A qualitative explanation. *Research Quarterly for Exercise and Sport*, 73, 87-97.
- Hardy, L., & Parfitt, C.G. (1994). The development of a model for the provision of psychological support to a national squad. *The Sport Psychologist*. 8, 126-142.
- Hodge, K. (1994). Mental toughness in sport: Lessons for life: The pursuit of personal excellence. *Journal of Physical Education New Zealand* 27, 12-16.
- Holm, J. E., Beckwith, B.E., Ehde, D. M., & Tinius, T. P. (1996). Cognitive behavioural interventions for improving performance in competitive athletes: A controlled treatment outcome study. *International Journal of Sport Psychology*, 27, 463-475.
- Horsburgh, V. A., Schermer, J. A., Veselka, L., & Vernon, P. A. (2009). A behavioural genetic study of mental toughness and personality. *Personality and Individual Differences*, 46, 100–105.
- Isen, A.M. (1993). Positive affect and decision making. In M. Lewis & J. Haviland (Eds.), *Handbook of emotions* (pp. 261-278). New York: Guilford Press.

- Isen, A.M. (1993). Positive affect and decision making. In M. Lewis & J. Haviland (Eds.), *Handbook of emotions* (pp. 261-278). New York: Guilford Press.
- Jones, G., Hanton, S., & Connaughton, D. (2007). A framework of mental toughness in 10 the world's best performers. *The Sport Psychologist, 21*, 243-264.
- Jones, G., Hanton, S., & Connaughton, D. (2002). What is this thing called mental toughness? An investigation of 10 elite performers. *Journal of Applied Sport Psychology, 14*(3), 205-218.
- Jones, M., Meijen, C., McCarthy, P.J., & Sheffield, D. (2009). A theory of challenge and threat states in athletes. *International Review of Sport and Exercise Psychology, 2*, 161-180.
- Junge, A., Dvorak, J., Rosch, D., Graf-Baumann, T., Chomiak, J. & Peterson, L. (2000). Psychological and sport-specific characteristics of football players. *The American Journal of Sports Medicine, 28*.
- Lane, A.M., Thelwell, R., Lowther, J., & Devonport, T. (2009). Relationships between emotional intelligence and psychological skills among athletes. *Social Behaviour and Personality: An International Journal, 37*, 195-202.
- Lefkowitz, J., & McDuff, D. R. (2002). *Mental toughness training manual fobaseball/softball players*. Retrieved June 18, 2008, from <http://www.mdsports.net/docs/mentalskillsbaseball.pdf>
- Loehr, J. E. (1982). *Athletic excellence: Mental toughness training for sports*. New York: Forum.
- Loehr, J.E. (1986) *Mental toughness training for sports: Achieving athletic excellence*. Lexington, MA: Stephen Greene Press.
- Loehr, J.E., Retert, E.P., Brown, S.W. & Woods, R.B. (1992). *The development of two instruments to assess mental toughness in tennis*. Paper presented at the American College of Sports Medicine Conference, Dallas, Texas.
- Loehr, J. E. (1995). *The new toughness training for sports*. New York: Penguin.
- Mahoney, M., Gabriel, T., & Perkins, S. (1987). Psychological skills and exceptional athletic performance. *The Sport Psychologist, 1*, 181-199.
- Meyers, A. W., Scheleser, R., & Okwumabua, T. M. (1982). A cognitive behavioural intervention for improving basketball performance. *Research Quarterly for Exercise and Sport, 53*, 344-347.
- Morris, T. & Summers, J. (1995). *Sport Psychology: Theory, applications and issues*. New York: Wiley & Sons.
- Middleton, S.C., Marsh, H.M., Martin, A.J., Richards, G.E. & Perry, C. (2005) Discovering mental toughness: A qualitative study of mental toughness in elite athletes. *Psychology Today 22*, 60-72.
- Morris, T., Spittle, M., & Watt, A. (2005). *Imagery in Sport*. Champaign, IL: Human Kinetics.
- Nicholls, A. R., Polman, R. C., Levy, A. R., & Backhouse, S. H. (2008). Mental toughness, optimism, and coping among athletes. *Personality & Individual Differences, 44*, 1182-1192.
- Nideffer, R.M. (1979). The role of attention in optimal athletic performance. In P. Klavara & J.V. Daniel (Eds.), *Coach, athlete, and the sport psychologist*. Champaign, IL: Human Kinetics.
- Norris, E.K. (1999). *Epistemologies of champions: A discursive analysis of champions' retrospective attributes; Looking back and looking within*. Michigan: Michigan University Microfilms International.

- O'Connor, H. (1970). *Motivation and Racing Tactics in Track and Field*. West Nyack, New York: Parker Publishing Company, Inc.
- Orlick, T.; Partington, J. (1988). Mental links to excellence. *The Sport Psychologist*, 2, 105-130.
- Robazza, C., & Bortoli, L. (2007). Perceived impact of anger and anxiety on performance in rugby players. *Psychology of Sport and Exercise*, 8, 875-890.
- Tugade, M., Fredrickson, B., & Feldman-Barrett, L. (2004). Psychological resilience and positive emotional granularity: Examining the benefits of positive emotions on coping and health. *Journal of Personality*, 72, 1161-1190.
- Thelwell, R., Weston, N., & Greenlees, I. (2005). Defining and understanding mental toughness within soccer. *Journal of Applied Sport Psychology*, 17, 326-332.
- Vast, R.L., Young, R.L., & Thomas, P.R. (2010). Emotions in sport: Perceived effects on attention, concentration, and performance. *Australian Psychologist*, 45, 132-140.
- Weinberg, R.S. & Gould, D. (1999). *Foundations of sport and exercise psychology* (2nd ed.). United States of America: Human Kinetics.
- White, A., & L. Hardy. (1998). An in-depth analysis of the uses of imagery by high level slalom canoeists and high level artistic gymnasts. *The Sport Psychologist*, 12, 287-403.
- Williams, A. M., Davids, K., & Williams, J. G. (1999). *Visual perception and action in sport*. London: Routledge.
- Zikmund, G.W. (2003). *Business research methods*. South-Western Edition 7