RELATIONSHIP BETWEEN SPORT CONFIDENCE AND ANXIETY AMONG SECONDARY FEMALE VOLLEYBALL PLAYERS

BY

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We hereby recommend that the Honours Project by Miss Au Yeung Wai Yan entitled "Relationship Between Sport-confidence and Anxiety among Secondary Female Volleyball Players" be accepted in partial fulfillment of the requirements for the Bachelor of Arts Honours Degree in Physical Education and Recreation Management.

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DECLARATION

I hereby declare that this honours project “Relationship Between Sport-confidence and Anxiety among Secondary Female Volleyball Players” represents my own work and had not been previously submitted to this or other institution for a degree, diploma or other qualification. Citations from the other authors were listed in the references.

________________________
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29th April, 2010
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Abstract

This study examined the relationship between Sport-Confidence and anxiety of secondary female volleyball players. The sample consisted of 50 female players (age between 11 and 16) from four schools who had competed in the volleyball competition organized by the Hong Kong Schools Sports Federation in 2010-2011. The Revised Competitive State Anxiety Inventory-2 (CSAI-2R) (Cox, Martens & Russell, 2003), State / Trait Sport Confidence Inventory (S/TSCI) (Vealey, 1986), Trait Anxiety Inventory (Spielberger et al.1970) were used to examine their State/Trait anxiety and sport confidence. Relationship among anxiety and sport-confidence and hours of training were measured by Pearson Product Moment Correlation Coefficient.

Result indicated that there were significant negative relationship between anxiety in both State and Trait aspect, anxiety and sport-confidence, and significant positive relationship between sport-confidence and hours of training among female volleyball players ($p < .05$).
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Chapter 1

Introduction

An individual’s anxiety and self-confidence have long been agreed to play a crucial role in his or her ability to perform sport specific tasks. These abilities then further enlarge or abate from his or her overall success or failure as an athlete. Players who have similar skill level often rely upon their psychological ability to gain an advantage over their opponents. More specifically, many psychologists have proved that self-confidence, mood disturbances, cognitive and somatic anxiety have all been counted as contributing factors to athletic performance. (Hassmen & Blomstrand, 1995; Morgan, O’Connor, Ellickson, & Bradley, 1988; Ussher & Hary, 1986).

Self-confidence is one of the most frequently psychological factors considered as a key factor to successful performance (Feltz, 1988). According to Bandura, repeated failures will lower self-confidence while successful performances help to enhances perceived self-efficacy (Bandra, 1982; 1997).

Besides, what’s the most attractive in competitive sport is the
need for athletes to meet the skill demands in competition, at
the same time, perform it under pressure. “The perception of a
substantial imbalance between environmental demand and response
capabilities under conditions which a failure to meet demands is
perceived as having important consequences will respond to
increase levels of cognitive and somatic state anxiety” (Martens
et al., 1990, p.10).

Thus, proper mindset of athletes is the key aspect to
discriminate successful from unsuccessful performance. Therefore,
the purpose of this study was to examine the relationship among
hours of training and self-confidence and anxiety for the
secondary female volleyball players.

Statement of Problem

The problem of the study was to determine the hours of training
that influence anxiety and sport-confidence in secondary female
volleyball.
Purpose of study

The purpose of the study was to examine the relationship among hours of training and self-confidence and anxiety for the secondary female volleyball players.

Delimitations

The study was delimited by the following factors:

1. 50 secondary school female volleyball players participated in this study.

2. The subjects were delimited to players attended in the volleyball competition which was organized by Hong Kong Schools Sports Federation in 2010-2011.

3. Participants who study in Kowloon district.

Limitations

The following limitations should be considered when interpreting the results of this research:

1. It was assumed that the reading ability of the subjects was adequate for comprehending and responding to the instrument.
2. It was assumed that all subjects would express true feelings of their attitudes towards the questionnaire.

3. It was assumed that the reliability and validity of the Trait Sport Confidence Inventory (Vealey, 1986) and Sport Anxiety Scale (Smith, Smoll, & Schutz, 1990) were good enough in the investigation.

4. It was assumed that the situational items of the questionnaire are good enough to measure situational factors.

5. The study was limited by small sample size.

Hypotheses

The following hypotheses were tested in this study.

There would be no significant relationship between trait self-confidence and hours of training among secondary female volleyball players.

There would be no significant relationship between state self-confidence and hours of training among secondary female volleyball players.

There would be no significant relationship between trait somatic
anxiety and hours of training among secondary female volleyball players.

There would be no significant relationship between trait cognitive anxiety and hours of training among secondary female volleyball players.

There would be no significant relationship between state somatic anxiety and hours of training among secondary female volleyball players.

There would be no significant relationship between state cognitive anxiety and hours of training among secondary female volleyball players.

Definition of Terms

In this research the following definitions were used:

Trait anxiety

Martens defined trait anxiety as a “predisposition to perceive certain environment stimuli as threatening or non threatening ad to respond to these stimuli with varying levels of state anxiety”.

(Martens 1990, p.9)
Multidimensional State Anxiety

Martens et al. (1990) claimed that multidimensional state anxiety comprised cognitive and somatic components.

And state anxiety was defined as “characterized by subjective, consciously perceived feelings of apprehension and tension, accompanied by or associated with activation or arousal of the autonomic nervous system” (Spielberger 1966, p.17)

Cognitive Anxiety

According to Morris, Davis, and Hutchings (1981), cognitive anxiety is characterized by “conscious awareness of unpleasant feelings about oneself or external stimuli, worry, disturbing visual images” (p.547).

Somatic Anxiety

Somatic anxiety is defined as “the physiological and affective elements of the anxiety experience that develop directly from automatic arousal such as rapid heart rate, clammy hands and butterflies in the stomach” (Marten et al., 1990, p.6).

Self confidence

Self-confidence in sports relies primarily on the athlete's
ability to believe he can win and that he can be successful in his efforts.

Secondary female volleyball players

Secondary female volleyball players were operationally defined as those female volleyball players who had competed in the volleyball competition organized by the Hong Kong Schools Sports Federation in 2010-2011.

Hours of training

It is defined as an average numbers of hours that player train per week.

Significance of Study

Much of the researches have proved that the abilities of self-confidence and trait anxiety affect the performance of athletes respectively (Hassmen & Blomstrand, 1995; Morgan, O’Connor, Ellickson, & Bradley, 1988). However, the relationship between these factors to youth female volleyball player did not receive adequate attention. Therefore, in order to ensure
successful athletic performance, the identification of the relationship between them is very important. This information may not only aid in conceptual clarity but also help coaches and athletes in designing a better both physical and mental training program.
Chapter 2

Review of Literature

The review of literature pertaining to the study of the influence of hours of training to self-confidence and anxiety of secondary volleyball players were divided into the following sections: 1) Types of Self-Confidence Theory; 2) Types of Anxiety theory; 3) psychological constructs of female sport; 4) summary.

**Self-confidence theory**

Operational Definitions of Self-Confidence

Researchers have different conceptual definition toward the concept of self-confidence in their investigation. For example, Bandura (1977) has asked subjects to express ability judgments in specific situations while Harter (1982) viewed confidence as multidimensional. A brief overview of some of the ways that confidence has been operationally defined in sport and physical activity would be shown as follow.

It is believed that Bandura's (1977) theory of self-efficacy is the most frequently used theory for studying self-confidence
in the sport domain. According to Lirgg (1992), self-efficacy is defined as a judgment about the abilities of people to organize as well as execute courses of action so as to achieve a specific outcome. This domain is measured by the confidence that related to specific tasks but not a global self-confidence (Bandura, 1986). It requests participants to state their level of confidence to complete a series of increasingly difficult or stressful task.

Apart from Bandura theory of self efficacy, there is a conceptual model of confidence developed by Vealey (1986). According to Lirgg (1992), this theory is based on the unique context of sport. She conceptualized the construct of sport confidence as being sport-specific self-confidence instead of general self-confidence. However, the measurement separated self-confidence to trait sport confidence (one's perceived confidence in sport in general) and state sport confidence (perceived confidence specific to a particular sport situation). Unlike Bandura's (1977) conceptualization of self-efficacy, Vealey's scale asked subjects to judge their sport confidence in comparison to the most confident athlete they know. However,
According to Lirgg (1992), she claimed that this sport confidence theory limits its predictive power as it does not micro-analytic enough when doing assessment.

Another confidence theory was developed by Fox and Corbin (1989). According to Lirgg (1992), perceived sport competence in this theory was one of the four assesses in their multidimensional scale. Other three of them were perceived bodily attractiveness, physical strength, and physical conditioning. They constructed along with a general physical self-worth subscale as the basis of the Physical Self-Perception.

Last but not least, Ryckman, Robbins, Thornton and Cantrell (1982) developed the Physical Self-Efficacy Scale. According to Lirgg (1992), this scale contains two component of self-efficacy which is perceived physical ability and physical self-presentation confidence. For the Perceived Physical Ability subscale, subject will provide their own judgment on their capabilities on such dimensions as strength, agility, and endurance.

According to Lirgg (1992), the difference between Self-efficacy
in this scale and Bandrua's (1977) conception in that it measures the personal judgment on their ability in general but not specific to a certain task. One concept that has gained substantial attention in the motor domain is Harter's (1978, 1982) construct of perceived competence. Harter believed that perceived competence is multidimensional, thus her measurement contain three domains which are cognitive, social, and physical domains. Questions in her scale are tailored to each of the specific domains. Although she developed the multidimensional scale, most of the sport researchers focus only her results of the physical domain. This measured the competence of subject relevant to motivation regarding physical activity. However, because scale of Harter's scale was a developmental point of view, this scale is commonly used by researchers to study children's perceptions of ability.

A scale that similarly measures one's ability perceptions is Sonstroem's (1978) Physical Estimation and Attraction to Physical Activity Scale. The Physical Estimation subscale, like the Perceived Physical Ability subscale (Ryckman et al., 1982), measures perceptions of physical components such as fitness and
strength but also includes perceptions of sport leadership qualities as well as evaluative comparisons with peers. Sonstroem, however, believed that the estimation of one's physical ability directly influenced one's self-esteem.

Therefore, self-confidence is a wide concept that containing several operational definitions. While Self-efficacy, sport confidence, and performance expectations are situation-specific measures of how confident one feels in performing, perceived competence, physical estimation, and perceived ability are more general and are multidimensional in nature. Although the concepts and each measurement technique may be difference, a perception of physical ability is their main concerned. Therefore, in this reviews, the terms self-confidence, self-efficacy, perceived ability, and perceived competence will be synonymous.

Theoretical Bases of Self-Confidence

Self-confidence is important on mediating performance in cognitive aspect. According to Lirgg (1992), there three models commonly used to explain the theory of self-confidence, they are
Bandura's (1977) theory of self-efficacy, Harter’s (1978) Competence motivation theory, and Eccles (Parsons) et al.'s (1983) expectancy value model. Before discussing the similarities and differences between the models, a brief introduction to each model will be go through.

Self-Efficacy Theory

Perhaps the most widely used theory for studying self-confidence in the sport domain has been Bandura's (1977) theory of self-efficacy, which derived from social cognitive theory. According to Lirgg (1992), in social cognitive theory, people are assumed that they are shaped by the interaction of three models: behavior, cognitive factors, and the environment interact instead of controlled by inner forces or external stimuli (Bandura, 1986). Self-efficacy, then, is influenced by a combination of these three forces. Self-efficacy means a judgment about one's capability to organize and execute courses of action in order to achieve a specific outcome (Bandura, 1986). In other words, self-efficacy is focused on one’s believe of what one can do with his or her
ability, but not simply one's level of ability. Four sources of efficacy information are designed by Bandura (1977): (a) performance accomplishments, (b) vicarious experience, (c) verbal persuasion, and (d) physiological states. Bandura believed that one’s efficacy expectations obtained by these four sources influence one's emotional reactions, behavior, and thought patterns. Therefore, a girl's or woman's belief in her own abilities strongly influences her choice of activities, how much effort she chooses to put into them, and how long she will persist when failure. Clearly, self-efficacy theory has an idea on achievement strivings.

Perceived Competence

According to Lirgg (1992), competence motivation theory by Harter's (1978) was a theory that was very specific about the paths of developing competence. According to Harter, mastery attempts will result in either positive or negative outcomes in the form of reinforcement or non reinforcement and the modeling of approval or disapproval. Children rely on these external outcomes to help
shape their perceived competence and control. If outcomes are positive, an internal self-reward system of children should develop and the need for external approval decrease. However, if mastery attempts result continually in negative outcomes, the child continues to be relying upon external approval, which persists as the child grows.

Internalization of a self-reward system could help in risen the feelings of perceived competence and control, which in turn lead to feelings of intrinsic pleasure. On the other hand, dependence on external approval results in an external perception of control and decreased perceived competence could lead to feelings of anxiety in mastery situations. Consistent perceived or actual failure also leads to decreased competence and greater anxiety, even in the absence of negative evaluations by others. Likewise, consistent success on tasks that are optimally challenging leads to increased competence, pleasure, and more mastery attempts.

Expectancy-Value Model

Eccles (Parsons) et al.'s (1983) expectancy-value model is the third confidence model which tried to explain motivational factors
underlying decisions about achievement-related choices. In this model, performance expectation links to activity choice and the available options attached by the value. What Eccles (Parsons) et al. believed was that activity choice is directly influenced by one's interpretation of reality, but not reality itself. This interpretation of reality includes not only one's own perceived ability, attributions, locus of control, and gender roles/stereotypes but also perceptions of a belief and the cultural.

**Model Similarities and Differences**

It is believed that the relationship between self-confidence and performance in the motor domain has been well established (e.g., Feltz, 1982; Feltz, Landers, & Raeder, 1979; McAuley, 1985). What’s more theoretically important issue is the mechanism through which self-confidence operates in order to influence performance.

Figure 1 shows the simplification of the three models, depicting self-confidence as the main focus. It compares the pathways of similar variables, for examples past performance experience, social influences, and attributions, in the models to influence,
or be influenced by self-confidence.

According to Lirgg (1992), all three models view the role of confidence or perceived ability in achievement strivings, although each has different names and outcomes for self-confidence. Harter (1978) stated that high perceived competence is a motivational factor that leads to intrinsic pleasure and increased competence motivation. Thus, she suggested that more mastery attempts should follow in order to increased motivation. Bandura (1977) hypothesized that strong perceived self-efficacy will lead to increased effort and persistence and will influence task choice. Eccles (Parsons) et al. (1983) also linked perceived ability to subsequent achievement related choices.

According to Lirgg (1992), both Bandura's (1977) model of self-efficacy and Eccles (Parsons) et al.'s (1983) expectancy-value model clearly link confidence with activity choice. Both models also imply that one's choice of activities will influence achievement because one will toward mastery in that area if one pursuing the activity. The importance of self-confidence for both males and females is obvious. What may
be less obvious, however, is that in sport, self-confidence may be more important for females in leading to achievement than it is for males. In today's society, boys are virtually expected to be involved in sport (Eccles & Harold, 1991). Girls, however, need to rely on other sources to encourage them to choose sport as an activity. One source could be their own self-confidence in their abilities. Although it is true that confidence is influenced by socialization factors, once confidence has been installed, that confidence can carry through into times and places with her. That's the reason girls would be focus in this research.

**Bandura's self efficacy theory (1977)**

![Bandura's self efficacy theory diagram]
Harter's Competence motivation theory (1978)

Eccles (Parsons) et al.'s (1983) expectancy-value model

Figure 1 - Simplified flow charts of Bandura's (1977) Harter's (1978)' and Eccles (Parsons) et al.'s (1983) models comparing similar hypothesized variables.

All three models indicated the influence of socializing factors and past experiences on self-confidence. However, Bandura (1977) and Harter (1978) both assumed that confidence influenced by socializing factors directly whereas Eccles (Parsons) et al. (1983) believed that person's past experiences is first influenced by
social factor. Harter hypothesized that past experiences in the form of mastery attempts first influence the reinforcement given by socializers. There is difference definition in social influence according to those three models (see Figure 1 for these differences). Bandura (1977), Harter (1978), and Eccles (Parsons) et al. (1983) also included perceptions of control, or attributions, in their models. Bandura predicted that self-efficacy influenced thought patterns (i.e., attributions). Harter, however, viewed perceptions of competence and perceptions of control as being simultaneously influenced, not necessarily as influencing each other. Eccles (Parsons) et al. hypothesizing that locus of control and attributions directly influences perceptions of ability which is opposite view with Bandura.

To conclude, the word self-confidence is defined as several concepts according to different psychologist. Some of them developed confidence theories as a specific task and some viewed self-confidence should be in multidimensional measure. And the theoretical pathways of three self-confidence theories are showed and they both have their similarities and differences in the basic
concepts and their variables inside the theories. There is no absolutely right or wrong in each theory yet what we tend to believe in is somewhat in value of what it seems to be true.

**Anxiety theory**

Many researcher of sport psychologist had put much effort to understanding the relationship between anxiety and athlete’s performance. In the past several decades, the Inverted-U Theory has drawn the attention on those anxiety researches, although there are some criticisms of this hypothesis (Weinberg, 1990). According to Krane (1992), however, several new theories have emerged in the sport anxiety literature currently; they are the multidimensional theory of anxiety (Martens, Burton, Vealey, Bump, & Smith, 1990) and catastrophe theory (Hardy, 1990). In this review, the conceptual and methodological issues of these theories will be examined.

**The Inverted-U Hypothesis**

This hypothesis agrees that the higher arousal level leads to a better performance to a certain point, after this point, continued increase in arousal level will cause a drop in the
performance. The curvilinear relationship is then formed between arousal level and athlete’s performance. According to Krane (1992), although there is laboratory studies supported the inverted-U hypothesis (Weinberg & Ragan, 1978) as well as field studies (Sonstroem & Bernardo, 1982), much criticism regarding the validity of past studies are appeared recently (Kerr, 1985).

Criticisms and Problems

Some psychologists pointed out that the inverted-U hypothesis cannot fully explain the complicated relationship between performance and anxiety (Jones & Hardy, 1989; Weinberg, 1990). According to Krane (1992), this hypothesis suffers from different types of conceptual, practical, and methodological problems.

Conceptual Problem

According to Krane (1992), there are four conceptual problems in studying the inverted-U hypothesis. First of all, it was a question whether there is proposes a correlation between arousal and performance or whether it is a causal hypothesis. According
to Krane (1992), Landers (1980) contend that this hypothesis only show the curvilinear relationship between arousal level and athlete’s performance instead of explain the relationship between them. Thus, the explanation of how and why the arousal level affects performance is needed.

The second problem is the confusion of using different anxiety-related construct. For example, terms like arousal, anxiety and stress have been used interchangeably in that sport anxiety literature although they are not the same. Additionally, the inverted-U hypothesis is emphasized on the relationship between physiological arousal and performance; however, it has always been applied when examining self-report and competitive anxiety.

According to Krane (1992), Arousal is considered to be "general physiological and psychological activation of the organism which varies on a continuum from deep sleep to intense excitement." which means we could measured it through heart rate, muscle activity, or galvanic skin response. Anxiety is defined as "feelings of nervousness and tension associated with activation or arousal of
an organism.” Anxiety could also be differentiated into trait anxiety and state anxiety (Spielberger, 1966). No matter using these specific definition or not, it showed that sport anxiety researchers provide specific operational definition of terms. Thus, it should be absolutely clear on different variables when they are being examined.

According to Krane (1992), the third conceptual issue is the failure to reflect the multidimensional nature of anxiety (Landers, 1980). Apart from trait and state anxiety, anxiety could also be divided into cognitive and somatic components. Although the exact nature of relationship between terms like cognitive anxiety, somatic anxiety, physiological arousal, and athletic performance has not yet been clarified, it is known that the hypothesis cannot be described by simplistic curvilinear.

Finally, it is difficult to identity whether anxiety leads to poor performance or past experience of poor performance increased anxiety. According to Cook et al.’s (1983) study on amateur male golfers, low handicap’s golfers had low state anxiety than golfers with middle and high handicap. It is because the handicap of one
golfer is a good indicant of skill level; he concluded that low
level of anxiety improved performance seemed premature. There
would be a chance that ability of athlete influences the anxiety
level (Heyman, 1982, 1984). Krane (1992) also suggested that
psychologists should include past performance as an antecedent
of anxiety but not only assumed that anxiety would influence
performance.

Methodological Problem

According to Krane (1992), the first methodological problem was
the assessment of non-monotonic anxiety-performance relationship.
In order to test this curvilinear relationship, the condition of
low, moderate and high anxiety level is needed to measure the
relationship of anxiety and performance (Landers, 1980). This will
allow for any nonlinear trends in the data to be validated.

Another methodological problem was the operational definition
of performance. According to Krane (1992), performance has been
often assessed by measuring the comparison performance among a
group of athletes in a single outcome. This type of comparison
may not be accurately indicated now well the athletes performed. For instant, it could be counted as successful performance if an athlete ranks third. However, the athlete may have expected to win the event. Thus, he was not successful based on past performance, ability or expectations. Furthermore, there were some un-controllable factors affect the performance such as skill level of opponent or difficulty of a golf course (Gould, Petlichkoff, & Weinberg, 1984).

Practical Problems

According to Hardy and Fazey (1987, p.4), the inverted-U has “an apparent lack of predictive validity in practical situations”. This hypothesis suggested that there would be a drop in performance when the increase in anxiety beyond it’s optimal level. However, it has been argued that even if slight decrease in anxiety after anxiety increased beyond the optimal level, it would not help to improve the performance (Hardy & Fazey, 1987).

To conclude, after the study of previous researches, several conditions must be met for an adequate test of the inverted-U
hypothesis. First of all, anxiety subcomponent should be assessed in three distinct levels (Gould et al., 1987; Lander, 1980). Besides, the operational definitions of anxiety-related construct should be well defined. Second, intra-individual anxiety measurement techniques should be used. Third, those anxiety and performance measures should be obtained from athletes competing in real game situation.

Yet the inverted-U hypothesis left researches many unanswered questions, much evidences are need to support this theory. However, it is important to realize that the hypothesis should not be completely disregarded no matter the wealth of criticism had. Without the base of inverted-U hypothesis, researchers would not been able to find out those problems and move into more well-developed methodologies and theories.

Multidimensional Theory of Anxiety

According to Krane (1992), Martens and his colleagues (1990) developed sport anxiety research into multidimensional anxiety theory which used Competitive State Anxiety Inventory-2 (CSAI-2)
as a measurement tool. This theory consists of two components; they are somatic anxiety and cognitive anxiety. Many studies supported that CSAI-2 could differentiate cognitive and somatic anxiety (e.g. Caruso, Dzewaltoski, Gill, & McElroy, 1990; Gould et al., 1984; Martens et al., 1990).

According to Krane (1992), Martens et al. (1990) predicted that cognitive anxiety would be negatively related to performance and curvilinear relationship is created between somatic anxiety and performance. However, in the opposite, there is no identifiable relationship between cognitive anxiety and performance according to Gould et al. (1987). Beside, negative relationship between somatic anxiety and performance is found by Krane (1990).

It seems that cognitive and somatic anxieties were measured independently in the multidimensional anxiety theory. However, they could not be separated from each other. In fact, many researches have showed that they are much more than mildly correlated (e.g., Caruso, et al., 1990; Krane, 1990). Martens et al. (1990) believed that somatic and cognitive anxiety would not be separated from each other because it is impossibly for athletes...
to have high cognitive anxiety but no somatic anxiety, or vice versa. Thus, the relationship between anxiety and performance should be measured together.

To conclude, multidimensional theory did a great job on helping people understand how anxiety affect athlete’s performance. However, it would have its limitation if it conjoined with the inverted-U hypothesis, as the somatic and cognitive anxieties have been treated as two independent components without noticing and possible interaction. More study in examining the combined effect of those two anxieties in performance is needed.

Catastrophe Theory

Catastrophe theory (Hardy & Fazey, 1987) is another approach to the study of anxiety-performance relationship. According to Krane (1992), it is a three dimensional model to explain the interaction between cognitive and somatic anxiety and their combined relationship to athletic performance. It mediates the effects of somatic anxiety at the same time predicts that cognitive anxiety affect the performance directly. Similar with multidimensional anxiety theory, it believes that there is a
negative relationship between cognitive anxiety and performance. Moreover, it further predicts the extent of somatic anxiety affect performance depends on the level of cognitive anxiety. Somatic anxiety is not an important factor to the performance but will be linked with extremely poor performance only when there is high cognitive anxiety (Hardy & Fazey, 1987). According to Krane (1992), somatic anxiety will be relatively small, or may be positive, effects on performance when there is low cognitive anxiety. It is different from the multidimensional theory as the theory would not expect a continuous relationship between somatic anxiety and performance.
Based on the inverted-U hypothesis, many studies on relationship between athlete’s performance and anxiety examines in a deeper way. New theories just like multidimensional and catastrophe theories should be regarded as an outgrowth of the previous literature. For example, Inverted-U hypothesis believed that the relationship between anxiety and performance should be curvilinear. However, multidimensional anxiety theory developed that only somatic, but not cognitive anxiety is curvilinear related to performance. And catastrophe theory, which further
elaborated the theory of multidimensional anxiety, suggests that there are at least two anxiety components affect the performance differentially. It seems that those theories have been progressed in time, criticism of previous study and suggestion for improvement will lead to continued progress in sport anxiety aspects.

*Psychological constructs of female sport*

Traditionally, sport participation has been a symbol of male. The behavioral and psychological needs of sport, for example aggressive, competitiveness, drive, determination and tough-mindedness, are the trait of male instead of female. Consequently, female athletes would even be labeled as masculine if she participated in sport. In this review of literature, three psychological constructs would be discussed; they are role conflict, sex-role identification, and multidimensional self-concepts.
Role conflict

According to Lirgg (1992), the perception of male participation on sport may lead to dissonance between femininity and sport involvement. In some degree, female athletic always perceive their competitive role to be separate from their social role. The researches on examining role conflict in female athletes are few, which all showed a lower level of conflict than expected (Snyder & Kivlin, 1975). Besides, types of sport were found to be a critical factor in affecting social acceptability of female athletes (Lirgg, 1992). Some studies reviewed that sports which emphasize on grace, skill, and beauty have had more social approval than those emphasize on strength, bodily contact and endurance (Snyder & Kivlin, 1975).

Sex-Role Models and the Androgyny Construct

According to Lirgg (1992), the identity of sex-role means the identification of social who labeled that behavior as Masculine or Feminine, which means social culture has labeled certain behaviors and traits as masculine and certain other as feminine. And for sport, not surprisingly, has been viewed as an appropriate
sex-role behavior for males instead of females, especially when strength is critically required.

While traditional sex-role models place masculine and feminine as a single, bipolar continuum, researcher (Constantinople, 1973) placed them to be two separate dimensions. It pointed out that it is logical for a person to be either masculine or feminine and the existence of both in the same person is defined as androgyny. Person with androgynous are showed to have greater flexibility in sex-role behavior. According to Lrigg (1992), they would be mentally healthier and socially more effective.

The traditional model believed that if a female athlete is more masculine, they would have less feminine than non-athlete automatically. However, androgyny theory argued that their feminine might not differ even they are more masculine. According to Lrigg (1992), Female with more masculine or a more androgynous identification are more likely to participated in sport than female with more feminine. Nonetheless, many researches proved that female athletes have been found more masculine, more androgynous than female non-athletes (Edwards, Gordin, & Henschen,
1984). Although the level of masculine on female athletes vary from difference studies, there are no study found that female athletes to be more feminine than, or even feminine as female non-athletes.

Self-concept and its Relation to Sex Roles

It is known that self-concept is an important factor to influence behavior as it represents what an individual thinks of himself or herself. In the past, self-concept is viewed as a general, overall self-concept, however, multidimensional theory of self-concept is emphasized nowadays.

Although several studies proved that self-concept is positively related to sport performance, a clear relationship has not yet been demonstrated (Lrigg, 1992). This may due to the measure instruments used failure to consider the multidimensionality of self-concept. For instant, physical self-concept was found strongly related to sporting ability as well as sporting involvement. However, in the multidimensionality of self-concept, sport involvement is more correlated with self-concept of physical
ability than aspect of self-concept.

There is gender difference in self-concept. Marsh, Parker, and Barnes (1985) found that girls tend to have lower self-concept in physical area but higher self-concepts in reading. According to Taylor and Hall (1982), they showed that no matter males or females, masculine is positively correlated with self-concept while the single contribution of feminine is lack.

Despite there is a perceived negative attitude on female sports participation, according to Lrigg (1992), female athlete scores higher on body image and psychological well being than nonathletic (Snyder & Spreitzer, 1976). Some suggest that it may due to more Masculine or androgynous identification are found in woman athletes (Del Rey & Sheppard, 1981). Some suggest that due to the widen definitions of sex-role behaviours, the social costs of a female athlete declined (Basow & Spinner, 1984).

**Summary**

In the literature review, types of self-confidence theories were introduced. There are several conceptual definitions toward
self-confidence. Terms like self-efficacy, sport confidence, and performance expectations are similar which situation-specific measures of how confident one feels in performing, perceived competence, physical estimation, and perceived ability are more general and are multidimensional in nature. Three self-confidence theories were well demonstrated above; they are Self Efficacy Theory, Perceived Competence and Expectancy-Value Model. Those theories were compared and similarities as well as differences were shown. Furthermore, Inverted-U hypothesis is the fundamental hypothesis on anxiety theory. Multidimensional theory of anxiety and Catastrophe theory was developed base on this concept. As Inverted-U hypothesis was the earliest anxiety theory, many problems were discovered by sport psychologists, which including conceptual problems, methodological problems and practical problems. Last but not least, there are always psychological constructs of female sport involvement, which including role conflict, sex-role models and the androgyny construct, and the relation of self-concept on sex roles.
Chapter 3

Method

The purpose of this study was to investigate the relationship between hours of training and self-confidence and anxiety of secondary female volleyball players. This chapter was presented in the following sections: 1) Subjects, 2) Instruments, 3) Procedures, 4) Data Collection and 5) Method of Analysis.

Subjects

Samples were female volleyball team players are Grade B and Grade C from 4 secondary schools in Kowloon District who had competed in the volleyball competition organized by the Hong Kong Schools Sports Federation in 2010-2011. The total number of subjects was 50 and they were between 11-16 years old (M=12.5, SD=1.43).

Instruments

State / Trait Sport Confidence Inventory (S/TSCI) (Vealey, 1986) was used to measure the persistently level of certainty athletes hold regarding their sport ability. This Inventory contained of
13 items that reflect several aspects of sport performance. Participants were asked to compare their level of confidence in each performance area to that of the most confident athlete they know, utilizing a 9-point Likert scale anchored 1 (low) to 9 (high). Item samples include, “Compare your confidence in YOUR ABILITY TO EXECUTE THE SKILLS NECESSARY TO BE A SUCCESSFUL to the most confident athlete you knows.” and “Compare your confidence in YOUR ABILITY TO EXECUTE SUCCESSFUL STRATEGY to the most confident athlete you know.” All items were added up to create a multidimensional scale of trait sport confidence. The difference between TSCI and SSCI is the phrase “when you compete in sport” would be substituted by the phrase “right now”. Both SSCI and TSCI had demonstrated adequate internal consistency and construct validity across a variety of sport samples (Vealey, 1986,1988). The reliability estimate of the TSCI reached an acceptable level at.89.

The Revised Competitive State Anxiety Inventory-2 (CSAI-2R) (Cox, Martens & Russell, 2003) was used to examine the multidimensional pre-competitive state anxiety of secondary
female volleyball players. Three subscales are included in the questionnaire, which are Somatic Anxiety, Cognitive Anxiety and Self-confidence. There are 17 items contained CSAI-2R comprises 17 items, with 7 items in somatic anxiety subscale and 5 items in each of the subscales of cognitive anxiety and self-confidence. Examples of somatic anxiety items include “I feel jittery” and “My heart is racing”; Cognitive items include “I am concerned about losing” and “I am concerned about performing poorly”; Self-confidence items include “I feel self-confident” and “I am confident I can meet the challenge”. Subjects responded on a 4-point Likert scale where categories vary from not at all (1), somewhat (2), moderately so (3) to very much so (4). The 17-item revised CSAI-2 was subjected to a confirmatory factor analysis (CFA) using the validation data sample, resulting a good fit of the data to the model which comparative fit index was .95, non-normed fit index was .94 and the root mean squared error of approximation was .054 (Cox, Martens & Russell, 2003).

Trait Anxiety Inventory was designed by Spielberger and his colleagues (1970). It is a psychology inventory based on a 4-point
Likert scale which categories including 1= Almost Never, 2=Sometimes, 3=Often, 4=Almost. The STAI measures two types of anxiety—state anxiety, or anxiety about an event, and trait anxiety. For most of the items, higher scores are positively correlated with higher levels of anxiety. However, few items in this questionnaire are reversely scored, for example, “I feel pleasant” or “I feel rested”. In this study, Trait anxiety part would be used. According to the author, trait anxiety denotes “relatively stable individual differences in anxiety proneness . . .” and refers to a general tendency to respond with anxiety to perceived threats in the environment. 20 items are contained in this inventory. Items sample include, “I am losing out on things because I can’t make up my mind soon enough” and “I feel that difficulties are piling up so that I cannot overcome them”. For the Trait-anxiety scale the reliability coefficients ranged from .65 to .86. All the questionnaires are presented in Appendix A.
Procedures

In order to assess the suitability of the questionnaire before actual adoption for the main study, a pilot test was conducted with 14 members of the Hong Kong Baptist University female volleyball team. The purposes of this pilot study were two-fold: (1) to see whether the Chinese translation was matched to the English items accurately, and (2) to test whether the format was understandable and acceptable. In the study, team players were asked to complete the questionnaires and state out the problem in understanding the questions after completing the questionnaires.

Questionnaires were administered to subjects within 60 minutes prior to the start of the volleyball competition and the nature of study was described at the top of the questionnaire to the subjects.

Each questionnaire took approximately 5 minutes to complete. Subjects who had completed the personal information section represented that they had given their consent to provide the data under the condition of anonymity. The administering of the
questionnaires was carried out on.

Data Collection

Investigator collected the questionnaires from each team coach before the beginning of the competition. A total of questionnaires were collected. After the completion of the project, all questionnaires would be destroyed after this study to ensure confidentiality.

Method of Analysis

All the responses of the questionnaires were coded for further data analysis and were inputted into the Statistical Package for the Social Sciences (SPSS program). Pearson Product Moment Correlation Coefficient was used to analyze the relationship between self-confidence and trait anxiety. All statistical procedures were tested at the 0.05 level of significance.
Chapter 4

Analysis of Data

In correlating trait self-confidence, state self-confidence, trait somatic anxiety, trait cognitive anxiety, state somatic anxiety, trait cognitive anxiety and hours of training, the Pearson product-moment correlation was used. The level of significant was set at .05 level. The above analyses were computed with the aid of the Statistical Package for the Social Science (SPSS). The analyses of the data were presented in the following results:

1. Description of means and standard deviations in state and trait anxiety, confidence and hours of training.

2. A result from Pearson’s correlation test between hours of training and state somatic and cognitive anxiety.

3. A result from Pearson’s correlation test between hours of training and trait somatic and cognitive anxiety.

4. A result from Pearson’s correlation test between hours of training and trait somatic and cognitive anxiety.
training and state and trait sport-confidence.

5. A result from Pearson’s correlation test between anxiety and sport-confidence.

Table 1.

Mean and Standard Deviations in State and Trait anxiety, confidence and hours of training (N=50)

<table>
<thead>
<tr>
<th>Subscale</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>State somatic anxiety</td>
<td>11.96</td>
<td>3.828</td>
</tr>
<tr>
<td>State cognitive anxiety</td>
<td>13.78</td>
<td>3.228</td>
</tr>
<tr>
<td>Trait somatic anxiety</td>
<td>17.72</td>
<td>4.267</td>
</tr>
<tr>
<td>Trait cognitive anxiety</td>
<td>18.5</td>
<td>3.621</td>
</tr>
<tr>
<td>State sport-confidence</td>
<td>65.28</td>
<td>22.039</td>
</tr>
<tr>
<td>Trait sport-confidence</td>
<td>66.56</td>
<td>24.119</td>
</tr>
<tr>
<td>Hours of training</td>
<td>4.68</td>
<td>1.921</td>
</tr>
<tr>
<td>(per week)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The mean scores of State anxiety between somatic and cognitive subscale were 11.96 and 13.78 respectively. The mean scores of Trait anxiety between somatic and cognitive subscale were 17.72 and 18.5 respectively. The means score of sport-confidence between State and Trait were 65.28 and 66.56 respectively. The means and standard deviations of secondary female players in State and Trait somatic and cognitive anxiety and State and Trait sport-confidence and were presented in Table 1.
Table 2.

Pearson’s correlation test between hours of training and state somatic and cognitive anxiety (N=50)

<table>
<thead>
<tr>
<th>Subscale</th>
<th>r</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>State somatic</td>
<td>-0.543</td>
<td>0.000</td>
</tr>
<tr>
<td>State cognitive</td>
<td>-0.545</td>
<td>0.000</td>
</tr>
</tbody>
</table>

r: correlation coefficients between hours of training and state anxiety

**. Correlation is significant at the 0.05 level
Figure 1. Correlation between hours of training and State Somatic Anxiety
Figure 2 Correlation between hours of training and State Cognitive Anxiety

Using the Pearson product-moment correlation coefficient, the finding showed that there were significant negative relationships between hours of training and somatic state anxiety \( r = -0.543, p < .05 \) and cognitive state anxiety \( r = -0.545, p < .05 \), hence the null hypothesis were rejected.
Table 3

Pearson’s correlation test between hours of training and trait somatic and cognitive anxiety (N=50)

<table>
<thead>
<tr>
<th>Subscale</th>
<th>R</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trait somatic</td>
<td>-.591**</td>
<td>.000</td>
</tr>
<tr>
<td>Trait cognitive</td>
<td>-.707**</td>
<td>.000</td>
</tr>
</tbody>
</table>

**r**: correlation coefficients between hours of training and Trait anxiety

**. Correlation is significant at the 0.05 level
Figure 3. Correlation between hours of training and somatic trait anxiety
Using the Pearson product-moment correlation coefficient, the finding showed that there were significant negative relationships between hours of training and somatic trait anxiety ($r=-0.591$, $p<.05$) and cognitive trait anxiety ($r=-.707$, $p<.05$), hence the null hypothesis were rejected.
Table 4. Pearson’s correlation test between hours of training and trait and state sport-confidence (N=50)

<table>
<thead>
<tr>
<th>Subscale</th>
<th>R</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>.694**</td>
<td>.000</td>
</tr>
<tr>
<td>Trait</td>
<td>.714**</td>
<td>.000</td>
</tr>
</tbody>
</table>

**r**: correlation coefficients between hours of training and Sport confidence

**. Correlation is significant at the 0.05 level
Figure 5. Correlation between hours of training and state confidence
Figure 6 Correlation between hours of training and trait confidence

Using the Pearson product-moment correlation coefficient, the finding showed that there were significant positive relationships between hours of training and trait sport-confidence ($r=0.694$, $p<.05$) and trait sport-confidence ($r=0.714$, $p<.05$), hence the null hypothesis were rejected.
Table 5 Pearson’s correlation test between anxiety and sport-confidence (N=50)

<table>
<thead>
<tr>
<th></th>
<th>R</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td>-.672**</td>
<td>.000</td>
</tr>
<tr>
<td>Sport confidence</td>
<td>-.672**</td>
<td>.000</td>
</tr>
</tbody>
</table>

r: correlation coefficients between sport-confidence and anxiety

**. Correlation is significant at the 0.05 level
Figure 7. Correlation between Anxiety and Sport Confidence

Using the Pearson product-moment correlation coefficient, the finding showed that there were significant negative relationships between anxiety and sport-confidence ($r=-0.672$, $p<.05$), hence the null hypothesis were rejected.
Discussion

From the recent research, result shown that cognitive anxiety of secondary female volleyball players was higher than somatic anxiety in both Trait and State aspect. It was inconsistent with the finding of Liebert and Morris (1967), which hypothesized that somatic anxiety increases prior to evaluation or competition, while cognitive anxiety does not change unless the individual's performance changes during this time. According to their finding, cognitive anxiety consistently and strongly negative related to performance (Liebert & Morris, 1967), while somatic anxiety related to performance only when cognitive anxiety was low. Furthermore, the hypotheses that somatic anxiety increase prior to competition or evaluation and that cognitive anxiety is related to performance were confirmed. Martens et al. (1983) confirmed.

Besides, by using CSAI-2 as a measuring instrument, the state anxiety of secondary athletes was lower than collage athletes according to the finding (Zeng, 2003). It may due to the level of enjoyment and the skill mastery. The participants of this study mainly come from Grade C students which most of them playing
volleyball only for 1-2 years. They are trying to develop their interest in this field; therefore, playing volleyball is not an important issue to them compared with college athletes. They don’t feel anxiety or worry in it if they don’t really enjoy the sport. They may be less aware of precompetitive states and, therefore, less accurately recall anxiety symptoms. For most of the college athletes, they participated in their field when they were adolescent. They will drop out if they don’t think that sport is important to them. Therefore, worry or anxiety will occur when they want to perform better. More research with beginner level athletes and advanced level athletes will further clarify these findings.

Furthermore, although no evidence were proved that female have lower confidence than male (Corbin et al, 1983), they suggested that the lower confidence beliefs of females might be due to realistic beliefs that they would not be able to perform the task as well as males.

In addition, the negative correlations between self-confidence and somatic and cognitive anxiety were found in the study, which
consistent with previous research conducted by Jones and associates (1993). However, in contrast to my finding, Martin and Gill (1991) found that there was no relationship between sport-confidence and cognitive state anxiety. Hardy (1990) suggested that self-confidence can help athlete to buffer potentially harmful anxiety effects. Besides, Jones et al. (1993) examined that self-confidence intensity correlated with both cognitive and somatic anxiety direction more than their intensities. As a result, having higher self-confidence levels might mediate anxiety symptoms. According to their finding, they suggested that sport psychology researchers should examine whether the increase in self-confidence would also result in decreased anxiety symptoms or related interpretations of anxiety symptoms which is more favorable in athlete’s performance.
Chapter 5

Summary and Conclusion

This chapter was divided into 2 main parts. The (1) conclusion and (2) recommendation of future study.

Conclusion

The aim of this study was to investigate the relationship on hours of training and different psychological situation, including State somatic anxiety, State cognitive anxiety, Trait somatic anxiety, Trait somatic anxiety, State sport-confidence and Trait sport-confidence among secondary female volleyball players. Besides, it aimed to examine whether there was correlation between anxiety and sport-confidence among secondary female volleyball player. The questionnaires were disturbed to the athletes by their coach in different secondary school in Kowloon District. State questionnaire was done 60 minutes before the volleyball competition organized by the Hong Kong Schools Sports Federation in 2010-2011 and Trait questionnaire was done at weekly training. The results were concluded as follow.
1. Secondary female volleyball players have higher State cognitive anxiety than State somatic anxiety.

2. Secondary female volleyball players have higher Trait cognitive anxiety than Trait somatic anxiety.

3. Secondary female volleyball players have similar level on State and Trait sport confidence.

4. Secondary female volleyball players who have longer training hours will have lower State cognitive and somatic anxiety, and vice versa.

5. Secondary female volleyball players who have longer training hours will have lower Trait cognitive and somatic anxiety, and vice versa.

6. Secondary female volleyball players who have longer training hours will have higher sport-confidence, and vice versa.

7. Secondary female volleyball players who have higher anxiety level will have lower sport-confidence, and vice versa.
Recommendation for Further Studies

The following recommendations for further studies were made:

1. More investigation should be done in the field of volleyball.

2. Other populations such as university volleyball players or elite volleyball players can be investigated using the same research method.

3. Secondary male volleyball player can be investigated to test for the difference.

4. Other types of secondary players such as tennis, table tennis, badminton, basketball, soccer, swimmer and squash can be investigated using the same method.

5. Similar research should be conducted base on the nature of sports to test for the difference such as individual versus team, objective versus subjective, and contact versus non-contact.

6. More variables, such as coach’s influence or different situational factors, should be added to examine their effect on anxiety and sport confidence of players.

7. The small sample size cannot reflect the psychological situation of Female volleyball players. This may affect the generation of the result. Therefore, a larger sample size can
generate a clearer picture in further study.

8. Due to the time limitation, this study only focus on the Grade B and C volleyball players who participated in the Hong Kong Schools Sports Federation in 2010-2011 and thus further study can be done on the whole school team of the schools.

In conclusion, understanding the psychological situation among secondary female volleyball players will help the coaches set a better training program in order to get the expected result. It is known that the quality of training programs and exercises are more important than duration of training in enhancing athlete’s performance and skill mastery. However, the frequency and duration of training will also affect the athlete psychologically, which, in return, affect the performance indirectly.

Coaches can increase the training frequency or duration with same intensity in order to let the players feel better. Most importantly, more verbal reward is needed for the coaches to enhance the sport confidence of players as their anxiety will decrease if confidence increase especially for female.
has shown that as females get older, feedback from peers and coaches becomes more important in enhancing their sport confidence (Horn & Hasbrook, 1986). Although there are a number of weaknesses in this study, it is hoped that this study can act as a indicator for coaches to develop a better training program for the players in order to achieve a better result. Also, it is hoped that it will stimulate the development of a comprehensive conceptual framework in future research.
References


Appendix A

A Study on hours of training, Anxiety and confidence

I am an undergraduate student of the Department of Physical Education, Hong Kong Baptist University. As part of my study requirements, I have to complete an independent project. The topic I have selected is as captioned in the title. The purpose of this study is to examine the relationship between hours of training, anxiety and self-confidence among secondary school female volleyball player. Your participation in this study is voluntary. All the data is for reference only and it will be kept confidential.
本人為香港浸會大學體育系學生，現正進行上述研究報告以達至本人部份課程的要求。這研究旨在調查練習時數，與中學排球女運動員之焦慮狀況及自信心的關係。你在此研究之參與為自願性質，所有參與者的資料只作研究分析之用，絕不公開。

The questionnaire divided into two parts with two to three sections each. It will take you about 5 minutes to complete each of them.
問卷分為以下兩部份，每部份有兩至三個項目，大概需要五分鐘時間完成一個部份。

Part A:
1) Revised Competitive State Anxiety Inventory–2
2) State Sport-Confidence Inventory
甲部份:
1) 賽前焦慮狀況-2 (修改版)
2) 賽前信心狀況

Part B:
1) Trait Anxiety Inventory
2) Trait Sport-Confidence inventory
3) Personal Data
乙部份:
1) 性格焦慮狀況
2) 性格信心狀況
3) 個人資料

Part A: Revised Competitive State Anxiety Inventory – 2

賽前焦慮狀況-2 (修改版)

姓名:___________________

閱讀下列句子，按照你的感受，圈出適當的數字。

不是 些少 一般 十分

例如：我很開心能夠參與這場比賽

1 2 3 4

請用你即時的感覺作選擇，不要過於詳細考慮。
1) I feel jittery.
我感到心神不定。
1            2            3               4

2) I am concerned that I may not do as well in this competition as I could.
我关心自己能否在这场比赛中表现得好。
1            2            3               4

3) I feel self-confident.
我充满信心。
1            2            3               4

4) My body feels tense.
我感到紧张不安。
1            2            3               4

5) I am concerned about losing.
我看重失败。
1            2            3               4

6) I feel tense in my stomach.
我感到胃部抽搐。
1            2            3               4

7) I am confident I can meet the challenge.
我有信心接受挑战。
1            2            3               4

8) I am concerned about choking under pressure.
我在压力下有窒息的感觉。
1            2            3               4

9) My heart is racing.
我心跳急促。
1            2            3               4

10) I am confident about
performing well.
我有信心會有好的表現。  1  2  3  4

11) I am concerned about performing poorly.
我留意自己有不佳的表現。  1  2  3  4

12) I feel my stomach sinking.
我感到胃部不適。  1  2  3  4

13) I am confident because I mentally picture myself reaching my goal.
因為我想像到自己能夠達到目標，所以我充滿信心。  1  2  3  4

14) I am concerned that other will be disappointed with my performance.
我關心別人會對我的表現感到失望。  1  2  3  4

15) My hands are clammy.
我雙手冒汗。  1  2  3  4

16) I am confident of coming through under pressure.
我有信心應付壓力。  1  2  3  4

17) My body feels tight.
我的身體繃緊。  1  2  3  4
State Sport-Confidence inventory

Think about how confident you feel right now about performing successfully in the upcoming competition.

Please answer as you really feel, not how you would like to feel. Your answers will be kept completely confidential.

請思考你此刻在即將進行的比賽能有成功的表現的自信心。

請以此刻的感受，而非你想要的感受，去回答問題。你的回答會保密。
1. Compare the confidence you feel right now in your ability to execute the skills necessary to be successful to the most confident athlete you know.

對比一個很有自信心的運動員，在此刻你對自己能夠成功使用出適當的技巧有多大信心。 1 2 3 4 5 6 7 8 9

2. Compare the confidence you feel right now in your ability to make critical decisions during competition to the most confident athlete you know.

對比一個很有自信心的運動員，在此刻你對自己能夠作出關鍵的決定有多大信心。 1 2 3 4 5 6 7 8 9

3. Compare the confidence you feel right now in your ability to perform under pressure to the most confident athlete you know.

對比一個很有自信心的運動員，在此刻你對自己能夠在壓力下表現自己的能力有多大信心。 1 2 3 4 5 6 7 8 9

4. Compare the confidence you feel right now in your ability to execute successful strategy to the most confident athlete you know.

對比一個很有自信心的運動員，在此刻你對自己能夠成功地使用出戰略的能力有多大信心。 1 2 3 4 5 6 7 8 9

5. Compare the confidence you feel right now in your ability to concentrate well enough to be successful to the most confident athlete you know.

對比一個很有自信心的運動員，在此刻你對自己能夠用良好的專注力直至成功有多大信心。 1 2 3 4 5 6 7 8 9

6. Compare the confidence you feel right now in your ability to adapt to different competitive situations and still be successful

對比一個很有自信心的運動員，在此刻你對自己能夠適應各種不同的競技狀況並仍然成功有多大信心。 1 2 3 4 5 6 7 8 9
to the most confident athlete you know.

7. Compare the confidence you feel right now in your ability to achieve your competitive goals to the most confident athlete you know.

8. Compare the confidence you feel right now in your ability to be successful to the most confident athlete you know.

9. Compare the confidence you feel right now in your ability to think and respond successfully during competition to the most confident athlete you know.

10. Compare the confidence you feel right now in your ability to meet the challenge of competition to the most confident athlete you know.

11. Compare the confidence you feel right now in your ability to be successful based on your preparation for this event.
12. Compare the confidence you feel right now in your ability to perform consistently enough to be successful to the most confident athlete you know.

對比一個很有自信心的運動員，在此刻你對自己能夠持續地成功有多大信心。

1 2 3 4 5 6 7 8 9

13. Compare the confidence you feel right now in your ability to bounce back from performing poorly and be successful to the most confident athlete you know.

對比一個很有自信心的運動員，在此刻你對自己能夠從失敗的表現中反彈過來並取得成功的信心有多大。

1 2 3 4 5 6 7 8 9

Part B: Trait Anxiety Inventory

姓名: _______________________________

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you generally feel. There is no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel.

人們用以下的句子，形容自己的感受，先看句子，在適合的圓圈中填上黑色來顯示你平時的感覺。這些問題並沒有對或錯的答案，不要花太多時間在任何一句中，只要給一個最能形容你平時的感覺的答案。

1 = Almost Never  2 = Sometimes  3 = Often  4 = Almost
21. I feel pleasant 我感到愉快
    1 2 3 4
22. I tire quickly 我很容易疲倦
    1 2 3 4
23. I feel like crying 我想哭
    1 2 3 4
24. I wish I could be as happy as others seem to be
    我希望我能像其他人一樣快樂
    1 2 3 4
25. I am losing out on things because I can't make up my mind soon enough
    因為我未能及早作決定故此我損失了機會
    1 2 3 4
26. I feel rested 我覺得安靜
    1 2 3 4
27. I am "calm, cool, and collected" 我平靜,冷靜和鎮靜
    1 2 3 4
28. I feel that difficulties are piling up so that I cannot overcome them
    我覺得困難正在堆積著,而我並不能克服它們
    1 2 3 4
29. I worry too much over something that really doesn't matter
    我太過憂慮一些並不重要的事情
    1 2 3 4
30. I am happy 我快樂
    1 2 3 4
31. I am inclined to take things hard 我會將一些細微的事看得重要
    1 2 3 4
32. I lack self-confidence 我缺乏自信心
    1 2 3 4
33. I feel secure 我覺得安全
    1 2 3 4
34. I try to avoid facing a crisis or difficulty
    我嘗試避免去面對危機或困難
    1 2 3 4
35. I feel blue 我覺得憂鬱
    1 2 3 4
36. I am content 我滿足
    1 2 3 4
37. Some unimportant thought runs through my mind and bothers me
    我想起一些並不重要的事而令我困擾
    1 2 3 4
38. I take disappointments so keenly that I can't put them out of my mind 我很看重失望的事以至我不能忘記它
    1 2 3 4
39. I am a steady person 我是個穩重的人
    1 2 3 4
40. I get in a state of tension or turmoil as I think over my recent concerns and interests 當我想到一些最近憂慮和感興趣的事我便緊張或騷擾
    1 2 3 4
Trait Sport-Confidence Inventory
性格信心狀況

Think about how self-confident you are when you compete in sport.
試想像當你進行該運動時的自信心。
Please answer as you really feel, not how you would like to feel. Your answers will be kept completely confidential.
請以真誠的感受，而非你想要的感受，去回答問題。你的回答會保密。

1. Compare your confidence in your ability to
   execute the skills necessary to be successful
   to the most confident athlete you know.
2．Compare your confidence in your ability to make critical decisions during competition to the most confident athlete you know.

對比一個很有自信心的運動員，你對自己能夠作出關鍵的決定有多大信心。

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3．Compare your confidence in your ability to perform under pressure to the most confident athlete you know.

對比一個很有自信心的運動員，你對自己能夠在壓力下表現自己的能力有多大信心。

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4．Compare your confidence in your ability to execute successful strategy to the most confident athlete you know.

對比一個很有自信心的運動員，你對自己能夠成功地使用出戰略的能力有多大信心。

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5．Compare your confidence in your ability to concentrate well enough to be successful to the most confident athlete you know.

對比一個很有自信心的運動員，你對自己能夠用良好的專注力直至成功有多大信心。

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6．Compare your confidence in your ability to adapt to different game situations and still be successful to the most confident athlete you know.

對比一個很有自信心的運動員，你對自己能夠適應不同比賽情況仍然成功的能力有多大信心。

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7. Compare your confidence in your ability to achieve your competitive goals to the most confident athlete you know.

對比一個很有自信心的運動員，你對自己能夠達到自己比賽目標的能力有多大信心。

Low Medium High

1 2 3 4 5 6 7 8 9

8. Compare your confidence in your ability to be successful to the most confident athlete you know.

對比一個很有自信心的運動員，你對自己能夠成功有多大信心。

Low Medium High

1 2 3 4 5 6 7 8 9

9. Compare your confidence in your ability to consistently be successful to the most confident athlete you know.

對比一個很有自信心的運動員，你對自己能夠持續地成功有多大信心。

Low Medium High

1 2 3 4 5 6 7 8 9

10. Compare your confidence in your ability to think and respond successfully during competition to the most confident athlete you know.

對比一個很有自信心的運動員，在比賽過程中正確地思考和回應有多大信心。

Low Medium High

1 2 3 4 5 6 7 8 9

11. Compare your confidence in your ability to meet the challenge of competition to the most confident athlete you know.

對比一個很有自信心的運動員，有效地面對比賽的挑戰有多大信心。

Low Medium High

1 2 3 4 5 6 7 8 9

12. Compare your confidence in your ability to be successful even when the odds are against you to the most confident athlete you know.

對比一個很有自信心的運動員，在不利於你的場合下，你對自己能夠成功的信心有多大。

Low Medium High

1 2 3 4 5 6 7 8 9
13. Compare your confidence in your ability to bounce back from performing poorly and be successful to the most confident athlete you know.

對比一個很有自信心的運動員，你對自己能夠從失敗的表現中反彈過來並取得成功的信心有大。 1 2 3 4 5 6 7 8 9

*Provided that you had completed the personal information section, it represents you had gave your consent to us to use the data you had provided under the condition of anonymity.

*倘若你完成了個人資料，那部份即代表你同意在匿名的條件下將以上之資料供本人作調查之用。

Personal Information

個人資料

年齡: ______
代表學校: ________________
對賽學校: ________________
排球年資: ________
練習時數(每星期)
a) 校隊練習 ____小時
b) 球會練習 ____小時

參賽年資: (請填上年數)
   a) 中學學界賽 ________年
   b) 球會賽 ________年
   c) 區賽 ________年
   d) 香港青年軍________年
   e) 其他________年

The End - Thank You !!
完 - 多謝 !!