

The Impact of Recent Policy Revisions Addressing Doping and Gender Rules on Women

Track and Field Student-Athletes in China

By

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A Thesis submitted to the Faculty of Graduate Studies of

The University of Manitoba

in partial fulfillment of the requirements of the degree of

MASTER OF ARTS

Faculty of Kinesiology and Recreation Management

University of Manitoba

Winnipeg

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Abstract

Women's involvement in sport has remained a critical issue in society for several decades. Sex verification and drug testing are two methods that have been used to regulate women's eligibility to compete in international sports competitions based on their testosterone levels. Organizations such as the International Olympic Committee (IOC) and World Anti-Doping Agency (WADA) have published and updated policies and rules that set eligibility criteria for who can compete in women's sport and under what conditions. Since the 1980s, the performance of Chinese women athletes on the world stage has improved significantly. However, the academic literature addressing Chinese women's perspectives on international sex verification and drug testing policies available in English is extremely limited. This study investigates how recent policy revisions regarding doping and sex eligibility rules impact women student-athletes competing in track and field at the university level in China. Using qualitative research methods, this thesis analyzes the impact of recent doping and gender policies on a sample of Chinese female student-athletes.

Keywords: women and sport, sport policy, sex verification, hyperandrogenism, transgender, doping, China, qualitative research methods

Acknowledgement

I would like to thank the people who supported me and gave me valuable suggestions to help complete this thesis. First of all, my thesis supervisor, Dr. Sarah Teetzel, has guided me during my master's study and provided me with essential information about living and studying in Winnipeg. As I am an international student and English is my second language, Dr. Teetzel always answered my questions with patience, and introduced me to local cultures which enriched my experiences in my master's program. Next, I would like to thank Dr. Jay Johnson, Dr. Russell Field, and Dr. Liz Millward for being on my thesis committee and providing feedback on this study. I also want to acknowledge the University of Manitoba's Faculty of Graduate Studies for offering me a University of Manitoba Graduate Fellowship as this funding allowed me to study and live in Canada. Finally, many thanks to my parents and husband who always stand by my side and love me.

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List of Abbreviations

Abbreviation	Full name
BSU	Beijing Sports University
CAA	China Athletics Association
CADA	China Anti-Doping Agency
CAS	Court of Arbitration for Sport
CIS	Canadian Intercollegiate Sport
CNKI	China National Knowledge Infrastructure
COC	Chinese Olympic Committee
GANEFO	Games of the New Emerging Forces
IAAF	International Association of Athletics Federations
IFPC	International Fair Play Committee
IFs	International Federations
IOC	International Olympic Committee
NCAA	National Collegiate Athletic Association
NOC	National Olympic Committee
TUE	Therapeutic Use Exemption
WADA	World Anti-Doping Agency
WADC	World Anti-Doping Code

Chapter I: Introduction

Recently, two sets of rules, involving sex verification and doping restrictions, have been discussed widely in the philosophy and sociology of sport literature (e.g. Henne, 2009; Sullivan, 2011). These rules pertain to three policies in force in international sport: 1) the World Anti-Doping Agency (WADA)'s list of substances and methods banned under the *World Anti-Doping Code* (WADC) (WADA, 2009; WADA, 2014), 2) the International Olympic Committee (IOC)'s *Statement of the Stockholm Consensus on Sex Reassignment in Sports* (IOC, 2003), and 3) the IOC's *Regulations on Female Hyperandrogenism* (IOC, 2012b). One common link between these three policies is that each functions to place restrictions on a female athlete's eligibility to compete in sport based on her testosterone level. This thesis examines the impact of these policies on the lives of a sample of Chinese women student-athletes who participate in track and field at the university level.

Both sex verification and drug testing protocols have been applied in sport for many years. The IOC established a Doping Committee in 1967, which expanded and changed its name to the IOC Medical Commission in 1968 (Hunt, 2011). From its inception, the IOC Medical Commission dealt with developing policies regarding two main issues: 1) the use of performance-enhancing drugs, and 2) the awarding of "femininity certificates" to women athletes (Henne, 2009). The IOC Medical Commission's *Olympic Movement Anti-Doping Code* served as a building block for the *World Anti-Doping Code* (WADA, 2003), which came into effect after WADA was created in 1999. The IOC Medical Commission was also instrumental in creating the *Statement of the Stockholm Consensus on Sex Reassignment in Sport* (IOC, 2003) and the *IOC Regulations on Female Hyperandrogenism* (IOC, 2012b). In

addition, the IOC created a Women and Sport Commission in 2004 to help its Executive Board develop fair policies (IOC, 2014b).

The IOC's stated aim of these policies is to promote equality and fair play in sport (IOC, 2014c). According to the International Fair Play Committee (IFPC), the essence of fair play involves:

Respect, friendship, team spirit, fair competition, sport without doping, respect for written and unwritten rules such as equality, integrity, solidarity, tolerance, care, excellence and joy, are the building blocks of fair play that can be experienced and learnt both on and off the field. (IFPC, 2014, para. 2)

Many sports organizations in different regions of the world have goals of promoting the participation of women, specifically, in competitive sport. For example, in Canada, the Canadian Association for the Advancement of Women and Sport and Physical Activity (CAAWS)'s purpose is "creating opportunities for girls and women to participate and lead" (CAAWS, 2014, para. 1). Although excellent efforts have been put toward advancing women's sport, women as a whole, and specific groups of women, still face inequities in sports. For example, women athletes who have chromosomal patterns that are not XX (such as XY, X, XXY and other combinations) can be considered intersex because they have chromosomes that differ from the norm (Sullivan, 2011).

The term 'hyperandrogenism' is used in sport to refer to conditions where women produce more testosterone than the IOC's accepted range of testosterone for women (IOC, 2012b). Women whose testosterone levels exceed the upper limit set by the IOC are ineligible to compete in women's events. These ineligible women may not know they have different

chromosomes or higher testosterone levels than the majority of other female athletes. Some people and groups, including the International Association of Athletics Federations (IAAF), have raised concerns about fairness and whether an athlete with a hyperandrogenism condition gains a competitive advantage similar to one gained through doping (Sailors, Teetzel & Weaving, 2012).

Gender issues in sport received a lot of attention after Caster Semenya from South Africa won the 800 meters at the 2009 IAAF World Championships in Berlin. After her win, she faced a long saga of discussion about her eligibility to compete in the women's races, as well as speculation in the press that she was a man or had an intersex or hyperandrogenism condition (Camporesi & Maugeri, 2010). After requiring Semenya to participate in many medical tests and interviews to determine if she was eligible to compete in women's events, and then deliberating for over a year, the IAAF cleared Semenya to run and published a policy addressing testosterone levels in sport shortly thereafter. Entitled *Regulations Governing Eligibility of Females with Hyperandrogenism to Compete in Women's Competitions* (IAAF, 2011), the policy sets limits for how much functional testosterone a woman can have in her body and still compete in sport. Prior to the London 2012 Olympics, the IOC implemented the IAAF's policy under the title *IOC Regulations on Female Hyperandrogenism* (IOC, 2012b). According to both policies, "intersex female athletes with elevated androgen production give rise to a particular concern in the context of competitive sports, which is referred to as female hyperandrogenism" (IOC, 2012b, p. 1). Female hyperandrogenism policies have been critiqued heavily by feminist scholars; for example Teetzel (2014) notes the compulsory policies apply only to women, and Marchant (2011) argues the sex-testing rules punish women for reasons

beyond their control. But few athletes have expressed their views publically. An exception is Maria Martínez-Patiño, a Spanish hurdler who was banned from competing in women's support because of her chromosomes, and later reinstated, who argues that gender verification of women athletes amounts to discrimination (Martínez-Patiño et al., 2010).

A second gender policy applied in sport pertains to the inclusion of transsexual (trans) athletes in sport. In 2003, the IOC Medical Commission created the *Statement of the Stockholm Consensus on Sex Reassignment in Sports* policy (IOC, 2003), known as the Stockholm Consensus, which stipulates the conditions under which athletes who have transitioned from male-to-female or from female-to-male can compete in female and male sports competitions. These athletes must wait at least 2 years after “surgical anatomical changes have been completed, including external genitalia changes and gonadectomy” (IOC, 2003, p. 1), consume hormones for at least two years, and possess government identification that states they are a member of the sex category in which they seek to compete. This policy went into effect prior to the 2004 Athens Olympic Games (Ballantyne, Kayser & Grootegoed, 2012). Trans athletes can compete in Olympic events if they qualify to represent their countries and can satisfy the IOC Medical Commission that they have met the three criteria of the Stockholm Consensus.

In addition to sex policies, athletes must also follow the rules outlined in WADA's *World Anti-Doping Code*, which bans drugs and methods that enhance performance, are detrimental to health, or violate the spirit of sport (WADA, 2009). The third version of the *Code* was released to the public in February 2014 and came into force on January 1, 2015 (WADA, 2014). Among the prohibited substances included on the list are testosterone, anabolic steroids, and synthetic derivatives of testosterone. These substances have been known to enhance athletic

performance for many years:

Exercise physiologists say one reason men have huge advantages in nearly every sport is their testosterone levels, which not only affect muscle and skeletal development but also are thought to affect things like the size of the heart and the amount of oxygen-carrying red blood cells in the body. (Kolata, 2010, p. 3)

Thus, testosterone and its derivatives are banned in sport (unless an athlete requires it as a medical treatment, in which case the athlete must apply for a therapeutic use exemption (TUE)) (WADA, 2009). The rationale is that if a woman athlete has a testosterone level higher than the specified normal range for women, she may gain advantages in sport competitions (Kolata, 2010).

Athletes are required to follow sport policies in order to participate in sport, even if they do not believe the policies are correct or morally justifiable. They may find the doping rules too strict, they might think the Stockholm Consensus discriminates against their trans competitors, or they might not want to compete against trans athletes, but they must respect the rules if they wish to participate. Athletes might be afraid to challenge the rules contained in the doping and gender policies if they are afraid of negative repercussions, feel powerless and voiceless, or think people will consider them guilty of violating the policies for raising objections to the current rules.

The IOC, WADA, and IAAF, are all publically committed to fairness in sport. For example, the IAAF declares: “In order to be able to guarantee the fairness of such competitions for all female competitors, the new Regulations stipulate that no female with HA [hyperandrogenism] shall be eligible to compete in a women’s competition if she has

functional androgen levels (testosterone) that are in the male range” (IAAF, 2011a, p. 1).

Although the IAAF considers the number of female athletes who have androgen levels in the ‘male range’ not a large group of people, the IAAF prohibits female athletes with levels above the norm from competing in women’s track and field competitions (IAAF, 2011a). Similarly, due to fears that male-to-female trans athletes might have advantages competing in women’s competition, the IOC (2003) enforces the *Statement of the Stockholm Consensus on Sex Reassignment in Sports*. In addition, the rationale for banning doping in sport, including testosterone and steroids, is to protect fair play and integrity in sports (WADA, 2009).

Some groups of athletes might feel more pressure to conform to the rules than others. In China, women athletes are still a vulnerable group. Except for a minority of famous women athletes, most women athletes in China have low incomes and few opportunities after their sports careers end, which leads to some athletes moving to other countries to pursue a promising future (Bao, 2013). Chinese women athletes have produced outstanding international performances in the last 30 years since China re-entered the Olympic movement. For example, in 2014 at the Sochi Olympic Winter Games, all 3 gold medalists from China were women. The performance of women athletes often surpasses the performance of the male athletes in China, and many records and honours have been achieved by female athletes (Wang & Liang, 2006). However, long-standing excellent performance does not mean the women athletes do not have problems, including: management of training and daily life from an early age; long-term closed training with the national level team; and a lack of education and difficulties after retiring from sport (Chen, 2012). These issues continue to impact women athletes in China.

As the sex verification and doping policies enforced by the IOC and WADA apply globally, it is important that athletes receive education about these policies and understand the consequences. In May 2015 the China Anti-Doping Agency (CADA) uploaded the complete version of the 2015 version of the *WADC* to its website in English translated into Chinese (CADA, 2015). However, by May 2015, the policy had been available in English and French for 15 months and had already been in effect for five months. The China Olympic Committee (COC)'s website includes the *China Anti-Doping Code*, which was established according to the *Sports Law of People's Republic of China* and relevant regulations (COC, 2004). However, this policy focuses on regulating the medical industry and stakeholders in managing anabolic agents and peptide hormones, and does not include the most recent updates from WADA. Policies referring to hyperandrogenism or trans athlete inclusion are not available on the COC's official website. Moreover, the research literature, in Chinese and English, does not address how well athletes in China understand the IOC and WADA's policies or the implications of these policies.

In past decades, Chinese women athletes have faced many controversies related to gender and doping. For example, women swimmers were suspected of using drugs in the 1990s because their bodies were strong and muscular (Riordan & Dong, 1996). More recently, when swimmer Ye Shiwen broke the world record and won two gold medals in the 2012 Olympic Games as a 16-year-old girl, media sources asked many questions and made allegations that her stunning performances came from doping (Callaway, 2012). Many other women athletes in China with strong, muscular physiques have faced allegations of doping as well. How these past allegations and current policies impact women athletes today in China is

unknown.

Objectives

The objective of this study is to investigate how the latest international doping and sex verification policies from international sports organizations impact women students-athletes in China. Specifically, the purpose of my study is to gain knowledge of the perspectives of Chinese women student-athletes competing at the university level in track and field about the doping and gender policies with which they must conform.

Rationale

There are four rationales for this study. Initially, my personal concerned engagement contributed to my interests in conducting this study. My major at the undergraduate level was sports management, which focused on policy and administration in sport. I used to be an athlete in track and field for five years when I was younger. Therefore, as a woman student-athlete I also faced barriers and problems. I can understand women student-athletes' attitudes and perspectives to some extent as I had sports experience before. In addition, I have had volunteer experience helping the local doctors fill in the information forms for athletes selected for drug testing, which made me see that drug testing is very important, but not without controversy.

Second, English and French are the official languages of almost all international sports organizations (IOC, 2014c), which can result in difficulties accessing the latest policy and literature for athletes in China who do not speak either language. For instance, the policies from the IOC, WADA, and IAAF described above were all published first in English and French.

Although some people in China can read these new policies online, not every athlete can understand the meaning of each term or idea contained within the policies because of language barriers. The IOC and WADA advocate for every National Olympic Committee (NOC) to translate rules and policies into their own language(s), but it takes time for them to complete this work. The majority of the academic literature addressing doping and gender issues in sports is published in English. The largest Chinese online publishing database, China National Knowledge Infrastructure (CNKI), includes very little literature about gender and doping issues that relate to women athletes. Thus, this study can help fill this gap.

Additionally, cultural differences can create different perspectives on the same issue. This study can help determine if the implications of new and revised sex verification and doping policies are the same for Chinese women athletes or different compared to critiques of these policies published in English. As an international student from China, through this study I can help bring Eastern perspectives or Chinese perspectives toward doping and gender issues in sports to English speaking audiences. Chinese literature focusing on Chinese women athletes' perspectives on international sport policies is very sparse. Thus, this study can function as a bridge between China and English-speaking countries to learn information from each other about athletes' perspectives in sports.

Finally, in English-speaking countries, people seldom hear the voices of Chinese athletes, such as their opinions regarding the policies from the IOC, WADA and the International Federation (IFs). Although female athletes in China produce excellent performances, women athletes have not received much attention in society in China either. This thesis will produce more information about their experiences with gender and doping policies in sport.

In conclusion, this study seeks to gain more information about and insight into how recent international sport policies regarding doping and sex categories impact women student-athletes in China. After a review of the research literature pertaining to gender, doping, sport policy, and women's sport in China (Chapter II), the methods and methodologies used to examine Chinese women athletes' perspectives will be outlined (Chapter III), following which the results of the study (Chapter IV) will be discussed. The final chapter addresses the conclusions drawn and recommendations for future research (Chapter V).

Chapter II: Literature Review

As described in Chapter I, athletes competing in high-performance sport are subject to the drug testing and sex verification processes endorsed by the International Olympic Committee (IOC) and World Anti-Doping Agency (WADA). For several decades, critics of sex verification and drug testing have questioned the moral acceptability of these tests, with, for example, sex verification being described as an “abusive, unethical and discriminative practice” (Martínez-Patiño et al., 2010, p. 314) for athletes in elite sports. As a result of sex verification tests, several women athletes have been erased from the record books and banned from competition in high-performance sport (Ballantyne et al., 2012). Similarly, critics of drug testing in sport have challenged the privacy and autonomy violations that doping tests create (Simon, 1984; Savulescu, Foddy, & Clayton, 2004). Thus, the verification procedures used to check if athletes are eligible to compete in the women’s division and to ensure they are not using drugs raise ethical issues in women’s sports.

To provide the context needed to analyze Chinese women athletes’ perspectives on sex verification and doping policies, this chapter reviews: 1) the history of sex verification in sport, 2) the history of trans athlete inclusion in sport, 3) the history of doping in sport, 4) the history of women’s participation in sport in People’s Republic of China, 5) fair play in sport, 6) Western media coverage of Chinese women athletes, 7) student-athletes’ perceptions of gender and doping, 8) gender, power, and sport, and 9) gender, culture, and sport in China.

A brief history of sex verification in sport

Dora Ratjen, a German athlete, competed in the women’s high jump at the 1936 Berlin

Summer Olympic Games, and later admitted that he was a man who had been forced by the Nazi youth party to enter the women's high jump event (Dickinson, Genel, Robinowitz, Turne, & Woods, 2002). While Ratjen is the only known man to compete in an international women's competition, the fear of men competing in women's sports has resulted in many attempts, policies, and rules to ensure men cannot enter women's events. The history of verifying women's sex in sport dates back to "1948 when the British Women's Amateur Athletic Association required a doctor's letter certifying the sex of women competitors" (Martínez-Patiño et al., 2010, p. 311). Later in the 1950s and early 1960s, based on fears men would enter women's events to win medals, the IOC made gender verification compulsory for women athletes (Ritchie, 2003).

The methods used to verify women's sex changed several times throughout the second half of the twentieth century. By the mid-1960s, some high-performance international sports competitions, such as the 1966 Commonwealth Games and the 1967 Pan-American Games, included visual inspections to confirm the eligibility of women athletes in addition to the traditional doctor's certificate (Caudwell, 2012; Martínez-Patiño et al., 2010). In order to eliminate the prospect of 'female imposters' (men who sought to participate in women's sports competitions), but not subject the athletes to invasive violations of their privacy that the visual inspections required, in 1968 the IOC began requiring that all female competitors undergo a laboratory-based saliva test (Heggie, 2000). Women whose test results revealed XX chromosome patterns were awarded a 'femininity certificate' and permitted to compete at the Olympic Games (Dickinson et al., 2002). Several athletes with muscular physiques who were labeled 'masculine' stopped competing when the tests became mandatory (Skirstad, 2000). A

frequently cited example involves Tamara and Irina Press of the Soviet Union, who won Olympic medals in track and field but never competed again after the introduction of the chromosomal test in 1968 (Dickinson et al., 2002; IOC, 2012a). Women athletes who ‘passed’ the test as a result of having XX chromosomal patterns received a certificate that they had to show at subsequent international sports events to continue to be eligible to participate.

All women athletes competing in the Olympic Games were required to undergo chromosomal sex verification from 1968 until 1999 (Dickinson et al., 2002). The IAAF, which sets the rules for track and field, stopped conducting mandatory sex verification tests in 1991; however, the IOC did not abandon obligatory sex verification tests for all women in all Olympic sports until 1999 (Behrensen, 2013). The reason for abandoning the chromosomal tests conducted until 1999 was the number of scientific studies calling into question the accuracy of the polymerase chain reaction test used to recognize chromosomal patterns beyond XX and XY (Behrensen, 2013). In addition, the IOC considered the financial costs of administering the tests too high to maintain (Genel & Ljungqvist, 2005).

The last organization to suspend mandatory sex verification for all women athletes was the Fédération Internationale de Volleyball (FIVB) in 2004 (Martínez-Patiño et al., 2010; Genel & Ljungqvist, 2005). However, despite abandoning mandatory sex testing of all female athletes, many IFs, including the IAAF, continued to conduct sex tests on individual athletes who raised suspicions of not being women (Karkazis, Jordan-Young, Davis, & Camporesi, 2012). Sex testing of women athletes, on a case-by-case basis, is still conducted in sport, and it is governed by policy guidelines outlined in the *IOC Regulations on Female Hyperandrogenism* (IOC, 2012b), which was developed by the IAAF from 2009-2011 and

endorsed by the IOC in 2012. The IOC justifies this policy with the rationale that fertility disruption, cardiovascular disease, and some cancers are linked to hormone imbalances in female athletes (IOC, 2012a); thus, as IOC member Dr Rania Elwani argues, “testing these athletes and getting them treatment might be helpful in early detection” (IOC, 2012a, p. 32).

It is essential for sports organizations to protect athletes’ privacy in the investigation of hyperandrogenism (Bermon, Ritzén, Hirschberg, & Murray, 2013). The investigative process has raised concerns because, as the IAAF policy explains, “the IAAF Medical Manager may also initiate a confidential investigation into an athlete’s case if he has reasonable grounds for believing that a case of hyperandrogenism may exist” (IAAF, 2011, p. 2).¹ In order to protect the privacy of athletes, the investigations should be kept confidential and should not be reported to the public, to prevent what happened to Semenya from being repeated (Sailors, Teetzel, & Weaving, 2012). Policies that prevent women from competing in sport have been described as discriminatory and unacceptable (Malloy, Ross & Zakus, 2000). For example, in 2006 after the Doha Asian Games, Indian runner Santhi Soundarajan, who won the silver medal in the women’s 800 meters, was disqualified and banned from competing in women’s events after the IAAF discovered she has a disorder of sex development deemed to provide a performance advantage (Sullivan, 2011). Soundarajan had lived her entire life as a woman, but was banned from competing in women’s sports. The literature demonstrates that sex verification policies have been controversial since they were implemented and continue to be controversial today. Athletes’ perspectives on the current case-by-case policy applied to verify the sex of targeted athletes are largely unknown.

¹ The gender-exclusive language used by the IAAF remains common in several IFs’ publications and in the IOC’s *Olympic Charter*.

A brief history of trans athlete inclusion in sport

The labels ‘trans’ and ‘transgender’ “refers to people who move away from the gender they were assigned at birth, people who cross over (trans-) the boundaries constructed by their culture to define and contain that gender” (Stryker, 2008, p. 1). In 1976, tennis player Renee Richards fought to compete in the US Open women’s division in tennis. After a lengthy legal challenge, Richards, who had played varsity men’s tennis prior to having sex-reassignment surgery, was permitted to play in the women’s division, but faced criticism for doing so (Sykes, 2006). In 2003, the IOC Medical Commission met in Stockholm to develop a policy for including trans athletes in sport. Prior to this time, trans athletes were prohibited from competing at the Olympics.

As noted in chapter I, the IOC’s Stockholm Consensus policy requires athletes to demonstrate to the IOC Medical Commission that they have: 1) undergone sex-reassignment surgery, 2) taken hormones for a minimum of two years, and 3) had their legal documents changed to their self-identified gender by their government (IOC, 2003). While the IOC’s policy states that it applies to transgender athletes, because of these three criteria it only applies to transsexual athletes who have undergone sex-reassignment surgery, taken hormones for two years, and changed their legal documents (Teetzal, 2006). The policy has been critiqued as being too restrictive because it excludes all trans athletes who have not opted to undergo, or cannot afford, sex-reassignment surgery, as well as athletes from countries that will not recognize a change in sex (Cunningham, 2012). In addition, Sykes (2006) argues that local, economic, cultural and racial differences were not considered in crafting the Stockholm Consensus. Today the Stockholm Consensus still does not include rules for transgender

athletes who have not undergone reassignment surgery. These trans athletes must still compete in their sex category assigned at birth. Due to not every trans athlete being able to afford the hormone treatment, individuals may remain ineligible even after having sex-reassignment surgery (Sykes, 2006).

After a thorough review of the scientific literature, Devries (2008) concluded that “there is not enough evidence to support or refute a claim that transitioned athletes compete at an unfair advantage or disadvantage as compared with physically born men and women” (p. 14). The regulations for trans athletes competing in the National Collegiate Athletic Association (NCAA) differ from the IOC’s criteria for eligibility. Female trans student-athletes can compete in women’s sports competitions after providing “written documentation of testosterone suppression for the year of treatment and documentation of ongoing monitoring” (Moltz, 2010, para. 3). A trans male athlete is eligible to compete in NCAA men’s sports immediately if no hormones are taken, or after obtaining a TUE if testosterone supplements are used (Moltz, 2010). Thus, the literature demonstrates that the IOC’s Stockholm Consensus is not universally accepted as the gold standard for the inclusion of trans athletes in sport, and that trans sport policy is still developing.

A brief history of doping bans in sport

Doping has been considered one of the most severe problems in sports for a long time. In the ancient Olympic Games, athletes consumed special diets to promote their performance in competition (WADA, 2010). Serious efforts to eliminate doping in the modern Olympic Games date back to the 1960s when doping rules were harmonized by the IOC’s Doping Committee;

however, performance-enhancing drugs, such as stimulants, were used for many decades before they were officially banned (Hunt, 2011). Drug testing at the Olympic Games first took place in Mexico City in 1968 (Todd & Todd, 2001). Beyond the IOC's drug testing at the Olympics, most IFs began to conduct drug testing in the 1970s as athletes from many countries were suspected of using drugs, particularly anabolic steroids (WADA, 2010). The IOC established an official, comprehensive Olympic anti-doping policy in 1974 applicable to all athletes competing in all Olympic sports, but this policy only applied at the Olympics (Todd & Todd, 2001).

In order to address the doping problems in elite sports more efficiently and effectively, particularly outside of the Olympics, WADA was set up in 1999 (Bloodworth, Petróczi, Bailey, Pearce, & McNamee, 2012). The motivation for creating an independent drug-testing agency came from public distrust that the Olympic anti-doping tests were being conducted accurately, frequently enough, and fairly (Henne, 2009). WADA's position is that "Doping is fundamentally contrary to the spirit of sport" (WADA, 2014, p. 14), thus WADA enforces rules against doping using doping-detection tests to prevent athletes for using banned performance-enhancing drugs in sport. The first version of the *World Anti-Doping Code* (WADC) came into effect in 2003. WADA published the full third version of the WADC online in February 2014, which on January 1, 2015 replaced the second edition of the WADC. The revised *Code* includes more specific regulations, which address new and emerging issues, such as indirect evidence, the length of time samples can be stored for retesting, and the conditions under which lifetime bans can be applied (WADA, 2014).

In the 1960s and 1970s, many athletes from East Germany, the Soviet Union, and other

Eastern European countries were suspected of using steroids. In addition, Chinese athletes had a number of positive tests in various sports, especially in swimming, during the late 1980s and the 1990s (Todd & Todd, 2001). Due to their excellent performances in swimming and track and field in the 1990s, which surpassed the world's expectations, Chinese women swimmers and track and field athletes were accused frequently of doping by reporters and other athletes (Curry & Salerno, 1999). For example, after Chinese track and field star Wang Junxia broke three world records in six days, negative press coverage speculated her unbelievable performance was a result of doping (Todd & Todd, 2001). At the 1994 Asian Games, seven of the total 11 athletes testing positive for doping were Chinese swimmers (Riordan & Dong, 1996). From 1991 to 1998, 23 Chinese athletes tested positive for banned drugs; many were women competing at the 1998 World Swimming Championship in Australia. More recently, as noted in Chapter I, at the 2012 London Olympic Games, 16-year-old Chinese swimmer Ye Shiwen broke the world record and Olympic record in the women's 400 and 200 metre individual medley events. Her performances resulted in a huge amount of media coverage in Western countries, with many articles speculating she used banned drugs to achieve her success at the Olympic Games (e.g. Longman, 2012; Parry, 2012; Stephenson, 2012). As these examples demonstrate, an association between Chinese women athletes and doping persists in Western media coverage.

According to the IOC (2012b), androgenic hormones enhance athletic performance, and that is the main reason why male athletes and women athletes have different performance in sports competition. Anabolic steroids, testosterone, and other hormones are prohibited by WADA (without a therapeutic use exemption) because advantages are thought to occur in

sports from using androgenic drugs (IOC, 2012b). Caster Semenya's case created a heated public discussion where gender and doping issues collided. Although Semenya was not strongly suspected of taking banned drugs, her strong muscular appearance and amazing performance raised suspicions that her testosterone level was too high for a woman and was giving her an unfair advantage over other women runners (Behrens, 2013). A key similarity in the hyperandrogenism, transgender inclusion, and doping prohibition policies is the focus on regulating testosterone levels under the guise of promoting fair play (Sailors, Teetzel, & Weaving, 2012). More analysis is needed in this area as the research literature does not include Chinese women athletes' views on this association.

A brief history of women's participation in sport in People's Republic of China

From 1958 to 1984, China did not participate in most international sports events. China withdrew from the IOC and 8 IFs in August 1958 in protest of the IOC's acknowledgment of Chinese Taipei and "two Chinas" in 1956 (COC, 2014b; Dong & Mangan, 2008; Pei, 2006). China experienced an agricultural crisis between 1959 and 1961 because of a collectivization movement and political factors (Lin, 1990). Stemming from political considerations, China re-entered international sport and attended some international competitions selectively between 1958 and 1984. China sent its most competitive delegation to the 1963 Games of the New Emerging Forces (GANEFO) and provided financial support to support the event. The 1963 GANEFO was attended by many Third World countries, and one of the purposes of the event was to challenge the authority of the IOC. These games were also part of a movement against colonialism and imperialism (Shuman, 2013). China sought to utilize these games to

improve its status and image in the world (Connolly, 2012).

During this time, the 10 years “cultural revolution” in the 1960s resulted in a severe obstacle for social development in China. Sport development was also restricted and influenced by political factors and social development (Wu, 2009). After the 10 year “cultural revolution” between 1966 and 1976, China implemented a profound policy in 1978 for “economic reform and opening up to the outside” (Reformdata, 2015, para. 6). This policy resulted in enormous development of the economy, culture, and elite sport in China (Dong, 2003). China re-joined the Olympic movement in November 1979 after the IOC voted to accept China as a member (Xu, 2004).

China returned to international sport in the 1980s. The “reform and opening” policy implemented in 1979 not only had significant positive effects on Chinese economic development, but also influenced the growth of competitive sport in China. Drug use in sport by Chinese athletes increased after China re-entered the Olympic movement. Dong (2003) indicates that, “Aided by modern telecommunications technology, the Chinese gained access to the latest information on advanced training methods, including drug technology” (p. 128). Hence, doping by athletes in China likely began in the 1980s.

Political reasons motivated China to seek the right to host the Olympic Games (Grant, Hwang, & Brennan, 2008; Xu, 2008). Jiang Zemin, the People’s Republic of China chairman from 1989 to 2003, stated: “The success of the bid will advance China’s domestic stability and economic prosperity. The Olympics in China has the objective of raising national moral and strengthening the unity of Chinese people both in the mainland and overseas” (as cited in Fan, 2006, p. 321). This comment demonstrates China wanted to show its power and ability to the

world through the platform of competitive sport. Some scholars argue that coaches and athletes turned to banned performance-enhancing drugs to help achieve success in sport (Fan & Lu, 2012). Moreover, awards and money also motivated coaches and athletes. From the 1984 Los Angeles Olympic Games to the 2004 Athens Olympic Games, the prize money offered by the Chinese government to gold medalists rose from RMB 8000 to RMB 150,000, in addition to compensation provided by sponsors (Fan, 2006). These factors contributed to the emergence and increased use of banned drugs in high-level sport in China after China re-entered the international sport community in the early 1980s.

In terms of women's participation in elite sport, women first represented China at the Olympic Games in 1936 in Berlin. At these Olympics, two women and 67 men comprised the Chinese delegation (COC, 2014a). China did not attend the Olympic Games for more than two decades after 1958. However, during this period, women's sports in China underwent much development and a solid foundation for the future developed as the number of women athletes increased (Dong & Mangan, 2008). When China returned to Olympic competition in 1984 at the Los Angeles Summer Games, an athlete from China won a gold medal for the first time, and 87 women athletes represented China, representing 39% of the Chinese delegation (Dong & Mangan, 2008).

In the past 30 years, Chinese female athletes have achieved more success than the male athletes at the Olympic level. In 2014 at the Sochi Winter Olympic Games, China won three gold medals and all of them came from women. Wang and Liang (2006) attribute Chinese women's success to their high levels of flexibility and many athletes' quick movements and low body weights. However, compared with their stunning achievement in sports, women in

China are still not usually appointed to sports administration positions (Xu, 2004).

Although gender-based discrimination for women is better than in the old days, discrimination has not been eliminated in modern society in China (Li, 2013). For example, only a few women hold administration positions in sport. In traditional Chinese culture, many people still believe women should focus on their families and have gentle characters, rather than have successful careers (Zhang, Yang & Chen, 2012). Thus, the unequal perspectives in society result in men getting promoted more easily in China, especially in administration positions and leadership positions (Cui & Chang, 2011). One exception is Yang Yang who is now an IOC member representing China. In 2002 at the Salt Lake Winter Olympic Games, she won the first winter Olympic gold medal for China in the 500m short-track speed skating, breaking the World Record in the process. However, like all IOC members, she was invited to join the IOC by the IOC, and was not appointed by China's National Olympic Committee.

Elite female athletes train separately from elite male athletes in China with separate coaches and managers (Chen, 2012). This nationwide system helps athletes focus on training, and has resulted in great success for Chinese sports (Xu & Chen, 2013). Although it is essential for athletes to concentrate on training and prepare for competition to win, there are few opportunities to communicate and have interactions with others athletes and in society.

Athletes in China are registered in special sports school when they are young children. In this situation, most girls do not know much about other things except their specific sports, which leads to barriers once they retire from sport and enter the labour market. Lu Ying, a silver medalist in the women's 100 butterfly at the 2012 London Olympic Games, explained: "In China, we are always used to just train, train, train, study, study, study and get some rest"

(Longman, 2012, para. 27). Wang and Liang (2006) suggest this results from managers who emphasize sports performance and rankings, rather than helping athletes learn more skills and knowledge. This neglect of the long-term development of women athletes has the potential to cause negative consequences after their sports careers end. In recent years, many female world champions in China received support from the government and relevant organizations to study in famous universities or learn practical skills, but the majority of female professional athletes in China do not benefit from these initiatives (Chen, 2012). Training separately for decades is a disadvantage for athletes to build their own social networks and many cannot easily adjust to the complicated society after they retire from international competitions (Dong & Mangan, 2008).

Societal expectations of women athletes' characters can be another problem in China. For instance, the traditional merit of women, such as tolerance, makes them more conservative (Wang & Liang, 2006). When women athletes are interviewed by journalists, they tend not to speak a lot in front of the camera, and most of them are shy to discuss their feelings and opinions after a match. China typically does not produce top women's singles figure skaters, rhythmic gymnasts, or athletes in sports that require personal creativity. Due to women athletes complying with their coaches' expectations and regulations most of the time, they are often not eager to express themselves, not only in sports but also in life (Wang & Liang, 2006). However, in the 21st century, a few women athletes are emerging who "have become more independent, more individualistic and more self-assertive" (Dong & Mangan, 2008, p. 19), which means they are aware that as a woman and an athlete they have rights to pursue their sports careers as they want.

The lack of professional opportunities in sports remains a problem for female athletes in China (Xu & Chen, 2013). The nationwide system in China has been applied for decades, which means government and relevant organizations provide everything for their selected athletes (Chen, 2012). From the basic-level special sports schools to the national team, athletes live together and train together. Obviously, it is difficult to develop professional skills under this system. However, China has reformed its sports governing bodies to serve the national team more efficiently and allowed financial support not only from national and provincial budgets but also sponsors and lottery income (Fan & Lu, 2012). The result has been less control over athletes' lives by the government.

Influenced by the professional operation of sports in other countries and the excellent performances of Chinese women tennis players in Grand Slam and other major tennis tournaments, China's national tennis management centre attempted new methods to manage women athletes. It allowed women tennis players to attend tennis tournaments by themselves, which meant athletes could manage their training, hire coaches, and draw up their own schedules, as professional women tennis athletes from other countries do (Xu & Chen, 2013). Top Chinese women tennis players benefit from this "solo" model, such as Li Na who has two grand slam titles in women's singles and has earned wealth and a positive social reputation. The literature demonstrates that China is changing its sport system and management of elite athletes.

Fair play in sport

The hyperandrogenism policy, Stockholm Consensus policy, and drug-testing rules in

sports all stem, at least in part, from the IOC's motivation to promote fair play and negate unfair advantages among competitors. However, there are some practical, ethical problems with each policy. One of the IOC's responsibilities, according to the recommendations from the 5th World Conference on Women and Sport, includes "Promoting gender equality in sport and using sport as a tool to improve the lives of women around the world" (IOC, 2012a, p. 3). The mission and the role of the IOC are "to encourage and support the promotion of women in sport at all levels and in all structures with a view to implementing the principle of equality of men and women" (IOC, 2014c, p. 16). In order to spread Olympism throughout the world, the participation of women in sport is an important goal for the IOC. Moreover, the principles of Olympism in the *Olympic Charter* illustrate that discrimination is not compatible with the spirit of the Olympic Games (IOC, 2014c).

The report from the 5th IOC World Conference on Women and Sport notes that "males are stronger than females due to the androgens, including testosterone, which are 10 to 20 times higher in males" and "there are more female athletes at the Olympics who carry a Y chromosome, about one in every 421, than in the general population, about 1 in 20,000" (IOC, 2012c, p. 31). Athletes with Y chromosomes or high testosterone levels are thought by the IOC to possess an advantage when they compete with other women athletes because their androgens levels are higher than other women athletes' levels.

New regulations from the IAAF, WADA, and IOC, described above, all indicate that implementation will make women's competition fairer. The hyperandrogenism regulations created by the IAAF in 2011, specifically, make it clear that women are unwelcome in elite sport if their functional androgen levels exceed the amount determined by the scientists

consulted by the IAAF. The athlete has to demonstrate she does not possess an advantage when she competes in women's competitions if her androgen level exceeds the established women's range (IAAF, 2011). While androgens are regarded as male sex hormones by the IOC and IAAF, all women also produce androgens (Sullivan, 2011). Drawing on the scientific literature, Sullivan (2011) explains that testosterone is naturally produced by and secreted by men and women. The assumption that testosterone is a male hormone is incorrect, even though men's bodies typically produce higher quantities of testosterone than women's bodies (Karkazis, Jordan-Young, Davis, & Camporesi, 2012).

Vangrunderbeek and Tolleneer (2011) note that "fairness should be at the centre of sports" (p. 352). Fair play is the goal of most athletes, who consider the relevant regulations and rules will ensure their sports are kept fair. Fairness is also what most athletes care about and value, not only because it is an ethical issue, but because it ensures their efforts will be rewarded equitably (Loland, 2002). Yet it is unclear in the research literature what fairness with respect to the implementation of the IOC, IAAF, and WADA's policies entails. This thesis will investigate Chinese women student-athletes' understanding of fairness as it pertains to eligibility rules of this nature in sport.

Western media coverage of Chinese women athletes

Since the 1990s, muscular Chinese women athletes have encountered a great deal of suspicion regarding their bodies. Stemming partly from xenophobia, western media sources frequently accuse Chinese athletes of doping or looking manly. Chinese women athletes have been described as masculine, and correspondingly receiving unfair advantages in sports

competition as a result of their muscular physiques (Todd & Todd, 2001). For example racist assumptions were prevalent in western media coverage in 1993 of athletes competing on Ma Junren's team that won six gold medals in long distance running at the World Athletics Championship. Many sources attributed the team's stunning performances to performance-enhancing drug use, either directly or indirectly (e.g. Beresini, 2011; Longman 2000). Similarly, an article in *The Chicago Tribune* stated Chinese women swimmers had excellent performances at the World Championship because they are "thick muscled" (Teel, 1996).

The latest accusations of this nature are leveled at Chinese swimmer Ye Shiwen, who won the 200 and 400 individual medley races at the London Olympic Games and broke a world record at the age of 16. She raised suspicion in western media outlets because her final 50 metres was faster than American male swimmer Ryan Lochte's time, and reporters could not believe a Chinese female swimmer could finish her race faster than one of the top male American athletes (Longman, 2012). Niiler (2012) reported that many people, including some swimming experts, thought that Ye's negative test for banned drugs did not mean she was innocent of doping. Unlike other athletes who are considered 'clean' if they pass their doping tests, Ye was accused in the media of managing to avoid testing positive despite using banned drugs. *The Daily Mail* covered her race noting: "Ye Shiwen possesses that same masculine, almost wall-like figure; the same impossibly wide shoulders and huge, rounded thighs; the same armchair-leg calves..... Ye, though barely out of adolescence, appears androgynous" (Jones, 2012, para. 12). Coverage in *The Daily Mail* accused Ye Shiwen of not being a real woman and claimed her overly muscular body resulted in her outstanding performance.

Assumptions of this nature are racist as they claim Chinese swimmers' success is due to their 'unfair' muscular bodies, while at the same time indicating western athletes' success is due to their hard work and training. Keenan (2012) noted that Ye Shiwen's breakthrough in a white-dominated sport fueled the racist and sexist media coverage. The impact of media coverage of this nature on Chinese women athletes is unclear. The literature does not include if or how western perceptions of Chinese women athletes' bodies impact the athletes.

Student-athletes' attitudes toward gender and doping policies

While it is unknown how Chinese women student-athletes' perceive gender and doping issues in sport, a small number of studies have examined university student-athletes' perspectives on gender and doping policies in sport in western countries. According to Issari and Coombs (1988), American "intercollegiate women athletes seem to have positive attitudes regarding drug testing, although variations of opinion and conflicting feelings exist" (p. 158). In this vein, they noted that, "Female athletes expressed support for drug testing but often with some hesitation" (p. 161). Their research shows that most college athletes in the United States thought it was essential for athletes to participate in drug tests, but that non-athletes at the university should not have to because of the invasion of privacy. Bloodworth, Petróczi, Bailey, Pearce, and McNamee (2012) add that elite student-athletes attending universities in the UK presented strong eagerness to support bans on performance-enhancing drugs as well. According to Bloodworth et al. (2012), female athletes are more likely than male athletes to reject doping because they fear doping will cause negative health consequences. Issari and Coombs (1998) also found that women athletes are less likely than men to view compulsory

testing as unethical or a violation of privacy. The research literature indicates that women athletes in the US and UK are more likely to support and cooperate with doping policy and rules.

According to Teetzel and Weaving (2014), student-athletes from the Canadian Interuniversity Sport (CIS) system are generally satisfied with the current rules. A CIS female basketball player expressed her attitude and perspective on doping, noting:

I've never really had any problems with anti-doping rules, and I've never really heard of any athlete having problems with them just because they are there for our safety, and to really make the sport that we all love fair so it can stay the way we love it. (Weaving & Teetzel, 2012, p. 54)

However, the literature addressing Canadian student-athletes' perspectives on doping is very sparse.

Xu and Sun (2012) noted that college athletes in China are tolerant of doping behaviours, but they would not allow their relatives to engage in doping. Moreover, the researchers found that they often do not care about whether other people use drugs or not. Shi, Ling and Pan (2011) add that in some provinces in China, only half of the student-athletes who attended the sport testing held as part of the China College Entrance Examination were aware of the harmfulness of doping. From the small number of studies available that address student-athletes' perspectives specifically, doping detection testing for student-athletes seems to be implemented with little opposition and with cooperation from the student-athletes.

Mass media have a significant influence on sport and other people's attitudes toward sport. Both overexposure of doping news in mass media sources and less media coverage of

doping can lead to university students being less interested in doping issues in sports (Vangrunderbeek & Tolleneer, 2011). Paccagnella and Grove (1997) also found that “mass media is the single most dominant influence on the way in which sport is experienced” (p. 179). Uvacsek et al. (2011) argued that athletes who were doping believe other people are doing the same thing. In addition, athletes who admitted that they used performance-enhancing drugs dramatically overestimated the prevalence of doping in their specific sport (Uvacsek et al., 2011). Thus, the literature highlights the complexity of understanding student-athletes’ perspectives on doping and the role of the media in shaping athletes’ beliefs.

Gender, power, and sport

In the late 1990s, the IOC urged the NOCs and other organizations which belong to the Olympic movement to ensure 20% of administration positions were held by women by 2005. This goal was not met as, “although the IOC Recognised Federations are leading the way, with around 26 per cent of their executive boards made up of women, Winter and Summer International Sport Federations’ (IFs) governing bodies are made up of around 17 per cent women” (IOC, 2013, p. 2). Similarly, women’s participation in sports competitions also remains lower than men’s participation despite efforts to provide more opportunities for women (Johnstone & Millar, 2012).

The second Olympiad in 1900 was the first time women participated in modern Olympic Games, but it only included 22 women athletes competing in two events - golf and tennis - out of a total 997 participants (IOC, 2013). At the first Winter Olympic Games, in 1924 in Chamonix, 11 women athletes (four percent of the total competitors) participated (IOC,

2012c). Women took part in all sports included on the Olympic programme for the first time in 2012 at the London Summer Olympic Games, while ski jumping opened the door for women in 2014 at the Sochi Winter Olympic Games (IOC, 2013). By the 2014 Sochi Winter Olympic Games, more than 40 percent of the competing athletes were women (IOC, 2014a). However, compared with the participation rates for competition, the percentage of women in the governing bodies and administration departments in the Olympic movement still remains low.

In 1981, two women, Venezuelan Flor Isava-Fonseca and Norwegian Pirjo Haeggman, were selected to be the first female members of the IOC (IOC, 2013). Flor Isava-Fonseca became the first woman on the IOC Executive Board in 1990 (IOC, 2013). In 1997, Anita DeFrantz was selected to be an IOC vice president. This was the first time a woman was an IOC vice president (IOC, 2013). In the governance of interscholastic athletics in the United States, 85 percent of leadership positions are filled by men, while women only make up 15 percent (Massengale & Lough, 2010). There is no doubt that men collectively hold more power in all aspects of sport.

Women have many barriers to participating in both sport competitions and administration. Discrimination can be a phenomenon in the hiring or appointing processes. Wilkerson (1996) argues that administrators may use more subjective values than objective values when hiring. For example, they can judge the ability of the candidates based on past successes rather than emphasizing professional certifications, advanced degrees and experiences in choosing who to hire (Massengale & Lough, 2010). The under-representation is caused by several barriers and difficulties women face. Research shows that “Persons are more likely to hire someone racially similar than someone racially dissimilar” (Borland & Bruening,

2010, p. 408). Whisenant, Miller and Peterson (2005) report that if the administrators of an organization are men, they tend to choose candidates who have similar experiences and backgrounds, which mean women do not have as many opportunities to enter some male-dominated organizations. These two factors can constrain women from advancing in the hiring process.

In sport, women face “low pay, little job security, [and] few opportunities for promotion” (Pfister & Radtke, 2009, p. 231). Often men receive a higher salary and more chances to get a promotion. From the NCAA’s (1989) survey, almost half of the women respondents (48.3%) sought a job with a higher salary, noting they were unsatisfied with their current salaries. The reasons why most intercollegiate female athletes do not continue their career or become a coach after they graduate is that the salary is relatively low and they cannot receive many benefits from being a coach as a woman. With the uncompetitive salary and discrimination in the hiring process, many women prefer finding a steady 9-5 job that allows more spare time on weekends rather than an irregular job (Song & Zhu, 2008). Moreover, Whisenant, Miller and Pedersen (2005) observe that “when women are restricted when pursuing leadership positions in sport, the result is the promotion of power differentials in favour of men” (p. 912). Reinforcing these observations, Borland and Bruening (2010) also suggest that employers like to hire people with the same gender as them in collegiate sport. Thus, the majority of administrative positions in sports continue to be held by men.

Gender and culture in People’s Republic of China

The status of women in China witnessed a significant change from ancient time to

modern society. The traditional gender concept was that men play the key role and women should only be in charge of home chores such as cooking, cleaning, and taking care of children (Zhang, Yang & Chen, 2012). The standard for woman was “Three obedience and four virtues” (Meng & Zhang, 2013, p. 96). The meaning of this standard was that man was superior to woman, that man had the absolute right, and that women were attachments with no rights or status in both family and society (Meng & Zhang, 2013). China's May Fourth Movement in 1919 had historical significance, and marks the time when women gained their rights to be considered as equal with men, which resulted in female liberation and women's right to education (Guo, 2013).

After the foundation of New China in 1949, relevant laws and regulations were set to protect the rights and interests of women in society. *Marriage Law* and *the Law on the Protection of Women's Rights and Interests* were introduced as a way for women to assert gender equality in society (Ling & Li, 2010). By the 21st century, women were emerging in every field and industry in China. In terms of leadership positions, “women leaders were increased from 36.6 thousand to nearly 14.9 million people between the establishments of New China in 1949 to the end of year 2000, which took up 40 percent of the total leaders in China” (Li, 2013, p. 104). Thus, nowadays, women perform an increasingly important role in society. The popular saying in China, “Women hold up half of the sky,” means that women have changed their roles in society (Rai, 1992), including in “social status and economic position” (Riordan & Dong, 1996, p. 146). However, despite official policies, laws, and regulations promoting women's rights, women in China are still influenced by traditional patriarchal perceptions that man is dominant, and true equality for woman and man has not

been reached (Hao, 2011).

In the early period of the New China (from 1949), a qualified wife from the perspectives of husbands and the general public was a “virtuous wife and good mother” (Brownell & Wasserstrom, 2002, p. 337). The term *xianqiliangmu* means a woman, as a wife in her family, should take care everything for her husband and child as well as possess a thoughtful and mild character. According to the Marriage Law, “the wife as the equal partner of her husband, enjoy equal status in the home and with the same freedom to engage in production, to work, to study and to participate in social activities” (Evans, 2002, p. 347). Yet there were difficulties in making the law a reality in protecting equality in marriage as attitudes supporting *xianqiliangmu* continue (Chen, 2004). Chen (2004) comments that in China if a man is successful in his career but does not look after his family, or even disregards family, he could still be considered to be a successful man. However, for women, a good wife image should include taking responsibility for the children’s education and household duties. If a married woman only focuses on her career, according to public perception, she is not a good wife (Chen, 2004). Li (2003) also comments that, influenced by traditional thoughts, many women still feel they should take responsibility for the household duties.

Opportunities for women and men in the labour market in China are different (Zhang, Yang & Chen, 2012). The open-up and reform policy impacted women’s careers, but as Hershatter (2007) indicates, the 1978 open-up and reform policy in China enabled and supported unequal development of the economy, which created gender imbalance in the work market. Jiang (2004) mentions that income inequality between men and women exists in China’s labour market. Zhang, Yang and Chen (2012) reveal that, in 2010, the income of

women aged 18-64 amounted to 67.3% of men's wages (p. 38). For people with the same educational background, women earn less income than men in the same position (Jiang, 2004). According to the literature, women face discrimination in the work place because many employers believe women are less productive and need to pay more attention to their families rather than to their work (Hershatter, 2007). While the participation of women in politics rose significantly in past decades, not every working place has women in important positions, and there are not enough women in politics in China (Guo, 2013). Thus, women's underrepresentation in leadership positions remains a contested issue.

China issued and implemented a one-child policy in order to manipulate the population in the 1980s and prevent overpopulation. Even before the policy came into effect, the preference for giving birth to boys in China had a long history, especially in rural areas, where parents wanted to have a boy rather than a girl (Zhang, Yang & Chen, 2012). Because of this policy and traditional considerations favouring giving birth to boys, the sex ratio at birth in China increased to 120 boys per 100 girls in 2008 compared to the normal sex ratio of 104 to 107 at birth (Murphy, 2014, p. 782). The reason why many families preferred having boys is that boys are thought to be more valuable and can be depended on when parents become elderly in traditional Chinese perspectives, especially in rural areas (Bailey, 2012). In contrast, although these views are changing and most parents do not mind if they have a girl or a boy, traditional ideology contributes to the idea that a woman will join the husband's family and no longer provide strong support to her parents as they age (Bailey, 2012). These elements lead to a high rate of abortion, typically in rural areas, even though the prenatal determination of fetus sex is illegal in China (Chu, 2001). When examining female athletes' perspectives on sport

policies, it is important to recognize not only the role of women in sport in China, but also the historical and current roles of women in society in order to properly contextualize the women athletes' views.

Summary

This review of literature summarizes what is known about some current policies and regulations from the IOC, WADA, and other sports organization about doping and gender, which included the policies addressing hyperandrogenism, transgender athlete inclusion, doping bans, drug-testing and gender verification tests. Attitudes of athletes toward doping and gender issues in sports have been included to gain insight into what is known about student-athletes' perspectives. This review of literature also provides the historical and current context of the status, performance, and barriers faced by women athletes in China.

Much remains unknown about the attitudes of women student-athletes towards doping and sex verification policies in China. Because most international sports organizations' official languages are only English and French, Chinese athletes might not be able to access the latest revision of these rules and regulations. The 2009 version of the WADC is available on the website of CADA. Although the third version of the WADC (2015) was published by WADA in February 2014, it takes time for CADA to translate the new version and post it on its website. In the subsequent chapters of this thesis, the perspectives and opinions women student-athletes hold toward the new and revised doping and sex verification policies will be discussed and analyzed in order to fill this identified gap in the literature.

Chapter III: Methods and Methodology

This section discusses the methodology and methods used in this study in order to acquire insight into how new and revised sport policies impact a sample of women athletes competing at the university level in China. Participant recruiting strategies and participants' details are described. Next, the data collection process and data analysis I conducted as part of this study are described. A qualitative study, involving interviews with women athletes who compete at the university level in China, was conducted between June 2014 and July 2015. This study included in-depth, semi-structured interviews with a sample of five participants. These interviews are supplemented with a consultation with one coach, and reflections from a research journal used to record observations and provide context for the interviews. As Olsen (2004) explains, "In social science triangulation is defined as the mixing of data or methods so that diverse viewpoints or standpoints cast light upon a topic" (p. 3). Together, the selected methods, which are described in more detail below, were triangulated to gain insight and understanding into gender and doping issues that impact women student-athletes in China.

Participant details and recruiting strategy

Patton (2002) argues, "There are no rules for sample size in qualitative inquiry. It depends on what you want to know, the purpose of the inquiry, what's at stake, what will be useful, what will have credibility, and what can be done with available time and resources" (p. 244). To gain insight into how the hyperandrogenism, transgender, and doping policy revisions impact Chinese women student-athletes, I interviewed five women who compete in track and field and are students at Beijing Sport University (BSU) in Beijing, China. Thus participants in

my study were required to be women student-athletes studying at BSU who are over 18 years old and have competed in national-level intercollegiate sports events. In addition to these five participants, I consulted one track and field coach at BSU to learn about what sources of information are provided to the athletes and how athletes can access the International Olympic Committee (IOC) and World Anti-Doping Agency (WADA)'s doping and gender policies as well as what forms of education the athletes receive.

BSU students-athletes compete at a level where the IOC's hyperandrogenism and Stockholm Consensus policies and WADA's *World Anti-Doping Code* (WADC) apply, and thus can be required to participate in sex testing and/or drug testing if selected. Their experiences contributed to my study about how women student-athletes at one university in China understand issues regarding gender and doping in sports. As many scandals and cases about doping and gender in sports from the modern Olympic Games involve athletes competing in track and field, I interviewed athletes who participate in the sport of track and field, due to its history of failed doping and sex verification cases (Beamish & Ritchie, 2006).

As mentioned, participants took part in in-depth, semi-structured interviews with me, and one coach from BSU provided additional information related to my research interests. All five participants were enrolled as students at the BSU. Two of them were first year students in university, and two others were registered in second and third year in university, respectively. There was also a participant who was in a graduate program at BSU. According to their responses to the background questions discussed at the beginning of each interview, all participants in this study started training intensively in track and field during middle school when coaches from BSU went to their schools and invited them to begin training and

completing their middle and high school education at BSU.

All of the participants are current competitors who represent BSU in women's track and field events in China. Each chose a pseudonym to be referred to in this research: Ma, Wang, Wu, Yora, and Zhang. Ma reported that she specializes in hammer-throwing and had competed in the National Youth Athletic Championship. Wang competes in high jump and had placed in the top three at the National Athletic Championship in the women's high jump event. Zhang is a sprinter who competes in the 200-metres and has won titles in national and international athletic competitions. Yora and Wu reported that they both compete in the 100-metres hurdles; Wu has competed in the National Indoor Athletic Championship and Yora has competed in the National Athletic Championship and won a bronze medal at the Asian Athletics Championship. Therefore, all of my participants were very high-level women athletes who competed in national and/or international level competitions and are students at BSU as well. Except occasionally for fun and recreation, none of the participants played sports other than track and field.

After receiving approval from the University of Manitoba's Education and Nursing Research Ethics Board (ENREB), I contacted the administrator of the BSU to request permission to conduct this study with track and field athletes. She agreed and provided me with the contact details of the track and field program coordinator to help facilitate the sending of invitation letters to women student-athletes by email [see Appendix A and Appendix B]. The coordinator suggested I go to the training field directly and explain my study to the athletes to see if they were interested in participating. I brought physical copies of the letter of invitation to distribute to the athletes when I met them at their training field.

As the recruitment process unfolded very slowly, and interest in participating was not high, I utilized snowball sampling to recruit additional participants. Braun and Clarke (2013) explain that “snowballing involves the sample being built up through the networks of the researcher and other participants” (p. 57). I already had connections with two women student-athletes in the BSU, so I requested that both participants share the details of my study, via the letter of invitation, with additional potential participants in their networks. Both agreed to do so. In early November, one original participant contacted me and informed me that a woman student-athlete on her track and field team was interested in my study, so I arranged to interview this athlete on November 4th in the library at BSU.

Rubin and Babbie (2007) claim that snowball sampling is usually applied when researchers have difficulty to recruit potential participants, which in this case was helpful. Through the first three participants’ introductions, I recruited two more participants in the middle of November 2014 bringing the total number of interviews conducted to five. Some of my participants mentioned to me that there are only a limited number of women student-athletes on their track and field team at the BSU, and not everyone on the team was currently training and living near the university. Due to the 2015 World Athletics Championship being held in Beijing, many high-level athletes from all around China, including some women student-athletes from BSU, were training in the State Sports General Administration Training Council and preparing for this major competition. Thus I felt that my recruitment efforts were exhausted and I would not be able to recruit any additional participants who fit the study parameters. Moreover, after the fifth interview, I felt that data saturation had been reached as no additional new information was shared. In discussion with my thesis

supervisor and committee members by email, we agreed that I would cease my recruitment efforts and begin analyzing the data.

Data collection process

Braun and Clarke (2013) state that “interviews are perhaps the most familiar data collection tool both for new qualitative researchers and for participants” (p. 77). In order to obtain insight into women student-athletes’ experiences and perceptions of drug testing and sex verification policies, this study utilized an interview framework. The purpose of each interview was “to describe the full structure of an experience lived, or what experience meant to those who lived it” (Sadala & Adorno, 2002, p. 289). Consequently, the interview questions were designed to help gain insight into the participants’ experiences being women student-athletes in China who are eligible for drug testing and sex verification.

In this study, interviews were conducted to help understand how my participants experience doping and gender policies. As semi-structured interviews are applied in this study, I started each interview with the same questions but allowed additional topics to emerge through follow-up questions, and I encouraged participants to raise additional topics that I did not anticipate (Braun & Clarke, 2013). This semi-structured format “gives greater control to the participants than the structured interview” (Sparkes & Smith, 2014, p. 84). For instance, if a participant only answers in one or two words for an open-ended question, the content of the answer is very limited. Asking targeted follow-up questions can help to draw out more of their experiences.

I arranged to meet student-athletes who expressed interest in participating in this study at

a mutually-agreeable time and place at BSU that provides privacy to conduct an interview. Before the semi-structured interview began, each participant was required to read and sign an informed consent form [Appendix C]. I went through the informed consent form with each participant and asked if she had questions about her participation in this study. I had previously translated the informed consent form the participants signed into Chinese Mandarin to ensure they understood it fully. I talked with each participant for few minutes before I started recording the conversation because I thought it was essential to make them feel relaxed and comfortable by learning a bit more information about each other. I also explained that participating would not interrupt their regular life, and assured them that their personal experiences would be held in confidence and protected through the use of pseudonyms. The letter of invitation and informed consent form both emphasize that participants can withdraw from this study at any time if they do not feel comfortable continuing to participate. I translated both documents into Chinese Mandarin to ensure that participants could read and understand the content fully.

All of the interviews took place face-to-face between October 16 and November 18, 2014 in Beijing, China, to help ensure the participants were comfortable and to establish a rapport with each individual. I sought to conduct enough interviews to elicit “Rich and detailed data about individual experiences and perspectives” (Braun & Clarke, 2013, p. 80). The length of the recorded interviews ranged from 17 minutes to 33 minutes. In order to establish trust and rapport in the interview with each participant, I engaged in interactions with the participant such as opening and closing questions to get to know the participants and ensure they were comfortable talking with me (Reinharz, 1993). I requested that the participants discuss their

experiences and lives, but I also included a clear end question (Braun & Clarke, 2013).

Background questions and open-ended questions were asked to acquire general information about participants, and open-ended questions were targeted toward gaining insights into the experiences of track and field women student-athletes at BSU. As I was not familiar with my participants before I met them, I introduced myself and spoke briefly about my background and research interests prior to the face to face interviews in order to develop a rapport with them, which research demonstrates enhances participants' comfort in talking about their experiences (Braun & Clarke, 2013). Next I asked specific questions about doping and gender policies, respectively, to learn about their perspectives towards the current rules. Finally, I asked open-ended questions to explore the athletes' experiences of doping and gender issues before concluding the interview.

In total, I discussed this study with 7 BSU women athletes of which five agreed to participate. This number of participants did not reach my original plan from my thesis proposal. However, I believe the information provided in these five interviews is sufficient to meet the needs of this qualitative research because I found no new interview information after the fourth and fifth interviews and the five participants' responses to many questions were very similar. After the fifth interview I felt confident I had reached a point of data saturation, which "refers to the point when additional data fails to generate new information" (Braun & Clarke, 2013, p. 55). For example, when asked to discuss the doping test protocols applied at BSU track and field meets, participants explained:

There was a woman who stands beside you watching the whole process of sample collection. I think this can keep fair and the organizer can regulate the whole process.

Video taking is impossible because it relates to privacy. (Zhang)

Every time in urine testing, a female staff member would accompany with me in the whole process, I think this is very regular. (Wang)

These participants expressed very similar and positive views about fairness with respect to doping control procedures, with each one considering the process to be normal and not discriminatory. When I realized that their responses were not generating new information, coupled with the difficulties described above with respect to accessing additional potential participants, I stopped my efforts to recruit further participants and began the transcribing and translating processes.

Each interview was recorded using two digital audio recorders (in case one malfunctioned), and I transcribed the recording verbatim after the interview. All of the interviews were conducted in Chinese Mandarin. To protect the participants' privacy, the digital audio recorders and signed informed consent forms were locked in a drawer at my home in China before I returned to Canada to analyze the data. In Canada, the digital recorders, transcripts, and signed informed consent forms were stored in a locked filing cabinet at my home in Winnipeg. Instead of participants' real names, pseudonyms are used in this research in order to protect the participants' privacy and mask their identities (Polit & Beck, 2006).

Anonymity has to be protected and treated appropriately in any study because participants can experience embarrassment if too many personal details are exposed (Stake, 2000). In this study, to protect the privacy of participants and make them comfortable, I chose a quiet place to conduct each interview, which did not have people walking past to interrupt or overhear. See

Appendix D for the list of questions that guided the interviews with the athletes and Appendix E for the questions posed to their coach.

The recruitment process was difficult and forced me to reflect on the sensitivity of the topics I wished to discuss with the student-athletes. Several potential participants were not interested in sharing their perspectives on gender and doping issues impacting women athletes, and one coach was adamant that listening to Chinese women's perspectives on international sport policies was not "important" research (discussed in Chapter V). However, of the five participants who agreed to take part in an interview, all five were cooperative in answering my questions. Difficulties were not encountered in transcribing or translating the recorded interviews.

Data analysis

Initially, I uploaded the audio files to my computer and renamed the files with the date and participants' pseudonyms. In order to produce high quality transcripts, I transcribed the audio recordings verbatim from the audio recorder into text in the language spoken (i.e. Chinese), which included actual words and non-semantic sounds from the interviews. English is my second language and I was very careful in translating because I did not want to lose any meanings within the original Chinese texts. I also was mindful of "English language thinking" when I conducted the interviews. When I realized some responses from interviewees were difficult to translate or would be vague if translated into English, I asked follow up questions during the face-to-face interview to ensure I understood their answers correctly. These methods and attention in the interviews made the resulting translations into English more accurate.

In this study, analysis began with translating the interview transcripts into English. All of the participants were Chinese women student-athletes who did not speak English fluently. All participants were offered the option to conduct the interview in English or Chinese Mandarin, and all selected Mandarin. Thus, all of my interview transcripts were in Chinese Mandarin and I needed to translate them into English because English is the language of instruction in my master's program at University of Manitoba.

If qualitative data is being collected in one language and will be translated to another language, trustworthiness of the research will be influenced by decisions made by the translator (Birbili, 2001). I attempted to avoid bias in translating as English and Chinese Mandarin are from two different language systems, and some special idioms and words need to be translated carefully based on different cultures and social differences between China and western countries. To help minimize translation inaccuracies, I invited a Chinese graduate student who is also studying in my graduate program at University of Manitoba in the Faculty of Kinesiology and Recreation Management to read and check my translated interview transcripts because he can also speak both Chinese and English. His background in soccer and coaching meant he was comfortable with the vocabulary used in sport. This step contributed to the trustworthiness of my translations of the interview transcripts and helped ensure I was capturing the intent of the participants in order to “convey meaning using words other than the literally translated equivalents” (Chen & Boore, 2010, p. 236). We discussed a few sentence structures and what type of word is appropriate to describe the same thing. Pallet and Liu (2010) conclude that researchers' translations can be impacted by the researchers' own experiences. Due to some participants including some Chinese idioms and expressions during their

interviews, the assistance of a second Chinese-English bilingual graduate student in reviewing my translations helped ensure I was remaining faithful to each participant's responses.

Moreover, doping and gender issues have been discussed around the world in recent years, which means specialized vocabulary is known by athletes in China, and words to describe doping, drug testing, and sex verification are common in Chinese. Thus it is not difficult to figure out a matching word or meaning in translating from Chinese to English.

“Reflecting on the process of one's research and trying to understand how one's own values and views may influence findings adds credibility to the research and should be part of any method of qualitative enquiry” (Jootun, Marland & McGhee, 2009, p. 42). Before I began analyzing the translated and member-checked transcripts, I made notes about the translation process in a thesis journal. Because “reflexivity is an essential requirement for good qualitative research” (Braun & Clarke, 2013, p. 37), I kept a research journal to reflect on my own feelings, observations, and thoughts about the interviews and my translations as they unfolded. In terms of the translating process, “the transcript is the product of an interaction between the recording and the transcriber, who listens to the recording, and makes choices about what to preserve, and how to represent what they hear” (Braun & Clarke, 2013, p. 162).

Next, emergent coding was used to establish themes, patterns, and categories in the transcripts (Stemler, 2001). Another aspect of this qualitative study involved conducting a review of online media sources in China. Local media coverage can provide information about the context of doping and gender issues, and can provide additional context to inform my analysis. To add additional context to this study, I reviewed the following sources for coverage of drug testing and sex verification policies: *ChinaDaily*, *China Olympic Committee*

News, Sina News, Tengxun News, People.cn and Xinhuanet. Media coverage in these sources complements the information from the interview transcripts to gain knowledge of how recent revisions to policies impacting doping and gender eligibility rules are received and implemented in China, especially in track and field.

In addition to the media coverage in newspapers and sports magazines, the actual policies are directly relevant to this study as well. As noted in Chapter I, the IAAF released a document about hyperandrogenism (2011) when it introduced its revised position on regulating women athletes' testosterone levels. The IOC released the *IOC Regulations on Female Hyperandrogenism* in 2012 before the opening of London Olympic Games. WADA released the 3rd (2015) edition of the WADC on its website in February 2014, which came into effect on January 1, 2015. Some significant changes in the IAAF and IOC's eligibility rules pertaining to women's testosterone levels, as set out in the hyperandrogenism, transgender, and anti-doping policies, require analysis and scrutiny. Moreover, educational materials on doping or sex verification provided by the BSU track and field coach consulted in this study provide additional information and context to supplement the participants' responses. Together, the media coverage, official international policies from the IOC, IAAF, and WADA, and information or policies provided by the BSU coaches provide additional context for the information shared in the semi-structured interviews.

Member checking

Member checking is essential in the analysis stage of qualitative research because “it can be an important way of establishing the credibility and quality of the analysis” (Braun &

Clarke, 2013, p. 283). After I completed transcribing the audio recordings, translating the transcripts from English to Chinese, and seeking input on the accuracy of my translations, I sent each participant her transcript both in Chinese Mandarin and English, with a request to add, expand, delete, or change any remarks they felt could serve to identify them for member checking via my University of Manitoba email. This process is important when using interviews as part of a qualitative study, because it includes the participants in the analysis (Braun, & Clarke, 2013). The first email was sent on January 29, 2015 and I received the last response on February 14, 2015. All participants responded during this period and none of my participants wanted to change or delete the content of their interview transcripts. All participants agreed that I could use their responses in the transcripts for further analysis in this study.

In order to respect the participants' experiences, member checking continued during the data analysis. After compiling an initial list of themes, I sent the transcript and initial coding themes and patterns by email to the participants and asked for their feedback and thoughts. Although member checking can help the participants to review details about what has been disclosed in their interviews, it may trigger concerns about the content or context of their responses (Forbat & Henderson, 2005). Participants may think about ownership and empowerment or feel surprised about what they were talking about when they read the transcript. In this case, sharing the transcript and themes with participants helped make them aware that their experiences are invaluable to the research project and demonstrated how their data contributes to the study. It also helped ensure I represented their statements accurately.

Limitations

There are some limitations that impact this study. First of all, participants are women student-athletes in China, which means they speak in Chinese, specifically in Mandarin. The original data is in Chinese Mandarin, which requires translation into English. This step may lead to bias based on cultural differences, such as differences in how English and Mandarin are spoken (Pellatt & Liu, 2010).

The second potential limitation of this study regards the methodology selected and applied. In this study, I assume that participants are aware of their own life and experiences and that they are willing to discuss them with me (Creswell, 2013). This study assumes that women student-athletes competing in track and field at BSU are willing to share their experiences in gender verification, drug-testing and other situations when they have been subjected to the gender and doping policies. Chinese women in this study were asked to trust me, a researcher from the west. Although I am a citizen of China, I am currently studying at University of Manitoba in Canada. This study is limited by the participants' willingness and comfort in speaking openly to me about their experiences and perceptions.

Delimitations

Delimitations involve limitations applied intentionally by the researcher to narrow the scope of the study. This study limits participants to female student-athletes at BSU who compete in track and field and are eligible for drug testing or sex verification. Male athletes are excluded from this study because the IOC's hyperandrogenism policy applies to women athletes exclusively, and men do not need to verify their sex to compete in men's events

(Karkazis, Jordan-Young, Davis, & Camporesi, 2012). Participation was limited to student-athletes competing at the university level. The reason for this delimitation is that in China it is extremely difficult to gain access to the national team athletes, but I can contact these student-athletes at their university with the university officials' approval. High-level athletes competing for BSU are eligible to be required to participate in gender verification and drug-testing, if selected by WADA, the IOC, the IAAF, or the Chinese Athletics Association. Participants also had to be 18 years of age or older, so that parental/guardian permission was not needed.

Summary

In conclusion, a variety of methods and methodologies are applied in this study. Using qualitative research methods, including semi-structured interviews, analysis of policies, analysis of Chinese media coverage, and a thesis journal, this thesis seeks to gain insight into the experiences of women student-athletes in track and field at BSU dealing with doping and sex verification policies. Together these methods will contribute to providing a nuanced understanding of gender and doping issues in women's track and field in China. This chapter also includes my reflections on the participant recruitment process, interview process and steps before analyzing the collected data. In doing, so non-identifying characteristic of the BSU female track and field student-athletes who elected to participate are also discussed. Finally, this chapter reflects on the process of translating the interview transcripts from Mandarin Chinese into English as well as the challenges and common problems of interview transcript translation. The next chapter summarizes and analyzes the information shared by

the participants in their interviews and the themes that emerged.

Chapter IV: Analysis of Athletes' Perspectives on Gender and Doping Policies

This chapter involves analyzing the perspectives of a sample of five Chinese women student-athletes in track and field toward current sex verification and doping policies that impact women's eligibility to compete in sport. From face-to-face, one-to-one interviews with five participants, their perspectives and experiences related to gender verification and drug-testing emerged, and their perceptions of current policies impacting gender and doping in sports could be discerned. I applied emergent coding methods in this thesis to uncover key themes from the interview transcripts. In the analysis that follows, direct quotes from the interview transcripts are used to highlight the participants' voices and experiences participating in high-level track and field in China.

After reading the transcripts several times from start to end, ten themes emerged. I started coding by writing down potential themes in the margins of the transcripts, and then categorized similar, specific themes into broader themes. The following themes were identified:

1. Perceived gender differences in sport in China
2. Doping tests are acceptable
3. Disapproval of sex verification
4. Knowledge of doping rules
5. Belief athletes are not targeted for doping tests but are selected based on ranking or randomly
6. The unlikelihood of being selected for sex verification
7. Lack of doping and sex verification tests in university sport
8. Participants' knowledge of international sport policies

9. Suspicion and accusations

10. Qualities of good athletes

Each theme will be discussed in turn.

1. Perceived gender differences in sport in China

Participants in BSU spoke about how they react to difficulties in training and in life. The research literature discussed in Chapter II summarizes some of the stereotypes Chinese athletes face. With respect to differences in how female and male athletes are treated in sport, participants reflected:

I have been thinking why the performances of male athletes are better than female athletes. Is that because there is a break for women in menses period? If a female athlete reaches the period of fatigue or she is in menses period, maybe she would have a break time. However, for male athletes, they would be still training when they are in fatigue period, which could help them to conquer fatigue. (Yora)

I think when women athletes have menses, which will affect their performance or something. Some girls are vulnerable and they are not as strong as boys. (Wu)

Participants explained their beliefs that female athletes face barriers, both physical and psychological, that male athletes do not experience. Yora's quote above indicates her belief that because women menstruate, many female athletes choose to take a short rest and not train. Compared to male athletes, this is a disadvantage because it prevents women from engaging in the consistent training that male athletes undertake, which contributes to their performance

breakthroughs. The BSU coach expressed similar idea with respect to women athletes, stating menstruation is a problem for women athletes.

Wu and Wang's quotes indicated that they think women are also more vulnerable psychologically than male athletes. Wu gave an example of her sport -- the 100 metre hurdles -- noting she considered knocking down hurdles during training to impact negatively women athletes more than men. Wang noted the same thing, explaining:

I think the mentality of female athletes is not strong enough, and female athletes tend to be more psychologically vulnerable. (Wang)

In the same vein, Wu explained:

For example, my sport is hurdling, if women athletes knock down or touch hurdles when we are training, we will have psychological...psychological barriers if we don't have balanced mentality. (Wu)

Wu and Wang's observations align with the physiological differences pointed out by the coach.

However, the coach also explained:

We do all the things for athletes, but difficulty exists in everyday because mind is always being changed. (Coach)

With this observation, the coach indicated that BSU provides everything for athletes training and studying at BSU in order to minimize the difficulties women athletes face. However, the coach believed external effects would have influence on women athletes' thoughts because athletes meet challenges every day both in their lives and training. Comments from this coach confirmed BSU is a part of the current system of Chinese sports, referred to as *Ju Guo Ti Zhi*, which involves the school, organization etc. that an athlete registers at, which provides full

support to athletes in training, life, and competition in elite sports (Fan, Wu, & Huan, 2005).

Possibly as a result of this support, some participants felt female athletes in China receive many advantages in sports:

Barriers? On the contrary, I think the performance of women athletes is better than male athletes. Woman athlete can have great performance in competition after two or three years professional training, but male athlete will take a long time rather than female athlete. ... Yes, the muscle tone and flexibility of female are better than male. The physical development of woman is earlier than man. But in the later period, the performance of male athletes is faster than female once they have the trend to enhance their performance. This is a point. (Zhang)

I think women athletes in China have greater performance than men athletes in competitions...I think the performance of female is...is much steadier. At least girls play pivotal role rather than boys in our team. (Ma)

These quotes from two participants describe their opinions that women athletes have some advantages in sports. Specifically, Zhang and Ma noted female athletes in China excel to the high-performance level faster than male athletes, and women are more flexible than men.

Although Zhang agreed male athletes would have better performance in competition after a couple of years of intensive training, she noted it takes men a longer time than female athletes to reach their peaks because women's bodies develop earlier. Moreover, Ma believed women athletes have steadier performances than men, especially on their track and field team.

Participants commented that in China, similar to in other countries, men's sports attract

greater viewership and are considered more exciting for fans. As a result, women athletes receive less attention compared with male athletes. For example, according to one participant:

When male and female athletes have same performance in sport competitions, male athletes will attract more public attention. I also pay more attention to male athlete (laugh). I don't intend to do that, but I prefer to watch men's competitions. (Yora)

This inequity identified by Yora suggests that despite BSU's efforts to provide male and female track and field athletes with similar resources, experiences, and supports, the public is still more invested in male athletes' performances.

2. Doping tests are acceptable

None of the five participants interviewed expressed negative sentiments toward drug testing in sport. Both the participants and the coach confirmed that athletes at BSU are eligible to be selected for doping control, and that drug testing takes place at BSU. All participants indicated that being required to participate in a doping test is normal in sports and it can help to promote fair play in competitions:

I think women athletes who are selected for drug testing is not discrimination. When athletes have great performance, not only for women athletes but also men athletes need to do drug testing. That is what competition needs for fair play. (Ma)

I don't think doping test is a discriminated behaviour. I don't think doping test has discrimination because doping test is also applied for male athletes. And I think tests are randomly for everyone. (Wu)

Doping test is quite normal because if you are athletes, you will have possibility to be selected for drug testing. (Yora)

No participants interviewed presented doping tests in a negative way or suggested that Chinese athletes face discrimination with respect to being selected for doping control. Participants commented that female and male athletes alike face the possibilities of being selected for doping tests because they are top-level athletes. Participants accepted doping tests and considered it acceptable and normal for athletes with excellent performances to be asked to provide a urine or blood sample for drug testing. Participants in this study did not have any concerns about the doping tests or protocols, even for the urine collection process, which they had experienced. For example, two participants described:

There was a woman who stands beside you and watching the whole process of sample collection. I think this can keep fair and the organizer can regulate the whole process.

Video taking is impossible because it relates to privacy. (Zhang)

What I have experienced was very normal. They usually give you a bottle and a female official follows me in the whole process and sometimes she helps me to finish it. There is no discrimination in the process of doping test. (Ma)

Quotes from participants indicate that urine collection for doping tests, which are always collected under the observation of a doping control officer, are accepted. This is different with female athletes who competed in Canadian Intercollegiate Sport (CIS) who expressed discomfort during the process of producing a urine sample with somebody watching (Weaving & Teetzel, 2012). Participants at BSU expressed no concerns about the doping test methods used by WADA and in force at competitions in which BSU athletes compete.

3. Disapproval of sex verification

While athletes in this study felt doping detection tests were acceptable and useful in promoting fair play, most participants voiced opposition to sex verification on the grounds that it is discriminatory. Disapproval of sex verification was noted by four of the five participants. For example, they noted:

Taking gender verification must be the discrimination for athletes. At least athletes will not overcome it psychologically. (Yora)

If women athletes are selected for gender verification, I think it is discrimination from athletes' aspect. But sports competition needs fairness, so examiners should have excellent communication with athletes. From ethical judgement, communication during gender verification is the basic respects for women athletes. (Ma)

I think it is discrimination. A woman athlete may look like a boy from behaviours, but she has girls' features after all. If this kind of athletes is suffered from gender verification, it will result in a psychological shadow. (Wu)

These participants agreed that sex verification protocols amounted to discrimination.

Participants' responses noted that they felt having to undergo sex verification will result in psychological problems for the women athletes required to participate. Ma observed that although verifying a woman's sex can help keep sports competition fair, the process of sex verification must be done in an ethical and respectful way. Specifically, it is important that there is open communication between the athlete and the examiners in order to maintain the athlete's dignity and respect her as a person.

When asked to explain why they felt sex verification was discriminatory, several reasons were provided:

I think gender verification doesn't respect athletes' human rights. (Ma)

It should be the invasion of privacy for women athletes. It is also disrespected. It is hard to decide what kind of discrimination. (Yora)

I think discrimination is judging others with unfair perspectives. It is not disrespect for women athletes' rights. If athletes agree, they can do the gender verification but this woman athlete may face discussion and comments from others. (Wu)

Consequently, these participants considered sex verification protocols applied by the IAAF and IOC to be disrespectful to women athletes. Yora explained sex verification violates athletes' rights to privacy. Wu worried about athletes who have been forced to undergo sex verification will suffer from other athletes making assumptions about them or gossiping.

One athlete, however, explained that she believed sex verification is not a form of discrimination. Her rationale is that it helps ensure competitions are fair, and she noted that people selected to participate are top athletes:

I don't believe gender verification is a kind of discrimination. Those who have been selected for sex verification should have great performance. It is a chance to verify her and set up fair competition in sports. (Wang)

Wang suggests that a woman selected for sex verification should understand that the reason for selecting her is that she is a very successful athlete, and that efforts must be made to ensure the

playing field is fair.

Thus, while four of the five participants in this study explained they believe requiring an athlete to undergo sex verification can impact the athlete psychologically or is discriminatory, one participant rationalized that women are unlikely to be asked to participate in sex verification unless they are very successful athletes. Hence, to this student-athlete, sex verification is not discriminatory, as all top women athletes should be willing to prove they are women for the sake of fairness, and one could even consider it confirmation of one's talents to be required to undergo sex verification.

4. Knowledge of doping rules

The fourth theme emerging from the interviews is the participants' perception that rules and policies should be respected. As noted in the literature review in Chapter II, doping and gender policies in sports were created and revised by international sports organizations, such as the IOC, WADA and IAAF. In their interviews, the participants commented on the changes in these rules that they have noticed. Comments from all of the participants showed that they believe the current rules for doping are usually easy for athletes to follow:

So far, I think people follow doping rules much better than few years ago, but there are some loopholes in doping rules. (Yora)

I think it is easy to follow. (Zhang)

For me, I think it is very easy to follow, because I don't take any drugs or something similar. The most important part is to pay attention to your daily diet. (Wang)

I think the current rules are the standard for all athletes. That is...we cannot break the border of the rules and even to touch it. I think it is easy to follow because performance doesn't need any external effects. (Ma)

Yes, I think it is easy to follow. We should pay attention by ourselves, such as we can't eat and drink anything out of my sight, I think it really depends on ourselves. (Wu)

These quotes illustrate the participants felt the current doping policy is easy to follow for women athletes at BSU. Ma explained the current doping policy is the standard for all athletes and it is easy to follow for athletes who reject doping and do not use supplements and banned drugs. Three athletes mentioned that if they avoid eating out and are careful about what they consume, then doping rules are simple to follow and they are unlikely to accidentally test positive for banned substances. Their concerns stemmed from some Chinese athletes who were accused of doping and suspended in recent years after having eaten meat containing prohibited substance.

Overall, most interviewed athletes commented that they are satisfied with the current doping regulations, policies, and rules:

I think rules in doping are perfect now. (Yora)

I think the current rules and policy are perfect. (Ma)

I don't know much about these regulations, but I can accept all the rules. (Wang)

I think the current regulation and policy are great (laugh). (Zhang)

Three participants felt the current doping rules are perfect and one woman athlete commented she can accept the rules. Quotes from these four participants indicate they are satisfied with the current doping rules. However, other views were shared by the fifth participant as well. Wu expressed a more critical position on doping and thought there should be more emphasis on distinguishing intentional and unintentional doping violations:

There should be a mild punishment for athletes who taken drug by carelessness. Some athletes take banned drugs by carelessness and compete in sport event, or are framed by others. Then, these athletes have been suspended for life-long time or many years without a clear investigation. (Wu)

Upon further reflection, Yora expressed a more critical perspective on the implementation of doping rules in China as well. Specifically, critical views were expressed toward the transparency of the anti-doping system in China:

There are some doping cases which have been dealt by their provincial government. This kind of things won't be reported to the public and the athlete who has taken drugs will attend competition again two years later. And China has the policy that this kind of athletes couldn't compete in international competition but they can participate in national sports competition. I think it is unfair. We can't get good ranking when we compete with them. (Yora)

These two observations demonstrate that despite some athletes' perception that the doping rules are effective, other athletes have noticed that the rules can cause unfair outcomes, particularly if doping violations are not enforced.

From the participants' quotes, it appears that women athletes receive education about

current doping policies at their university in different ways:

We can learn these rules from competition and documents. (Zhang)

We've learned it by our senior schoolmates and coaches (Pause). We also have doping rules class and brochures. Also we have some quizzes of doping rules before every competition. (Wu)

As for us, we learn rules from coaches. If we want to know more details about current rules, we can go to the internet and search by ourselves. (Ma)

We usually get information from our university. Before each national and important competition, we usually have a meeting...a meeting to announce the anti-doping policy and some important regulation. (Wang)

Sometimes, we talk to each other (laugh) and we have seminars about the general information of these rules... from our provincial team, before every important competition, we have a basic training of doping rules. We also have a quiz from mega sport event. (Yora)

These quotes represent the many ways in which BSU students can access information about doping. BSU provides several ways for women athletes to learn about current doping rules. Generally, they learned these rules mainly from seminars and documents from the university. Participants indicated that women student-athletes at BSU get information on doping from

coaches and their senior schoolmates who are also training for track and field at BSU.

Moreover, participants' quotes also demonstrate that seminars and meetings before important competitions provide education about the current rules. Two women athletes reported receiving brochures about the current rules and doping restrictions and sometimes taking quizzes about what they have learned about the current rules. There were also experiences shared by women athletes that athletes discussed with each other about doping rules, and one participant commented athletes seek information on the Internet as well.

The coach who was consulted echoed the interviewed women athletes' responses:

For instance, we have exams about doping issues before competition to see if athletes acquired and mastered of rules. Due to doping can be gained from daily life sometimes and athletes can access to clenbuterol without consciousness. So athletes should protect themselves and be aware of this all the time. They are well known of rules and can protect by themselves. (Coach)

This coach was also an athlete at BSU before and commented there are exams for athletes before they begin competing for their university. He stated that the women athletes he coached had good knowledge of current policy because they had to prevent themselves from unintentionally taking banned substances in daily life as it is possible to ingest restricted ingredients carelessly.

However, despite the many ways in which athletes learned about doping rules, none had taken the time to read the World Anti-Doping Code. During the interviews, the athletes answered "No" or "I have never read" directly when asked if they had ever read the Code

themselves. As one participant explained:

No, I have learned something that I need to pay attention such as we cannot access to colds medicine during competition and eating out is not allowed. Then, if competition is around the corner, we can only have meal in our canteen. (Ma)

I'm not very clear of it. (Wu)

I don't know too much (laugh) but some general knowledge. (Yora)

Ma's quote in particular illustrates that women student-athletes at BSU have not read the details contained within the WADA Code. However, despite not reading the Code themselves, they had some knowledge about the doping rules, and they understood the necessity of avoiding accidental positive tests from cold medications or from eating tainted food.

Zhang reported women athletes at BSU have received documents related to WADA's policy and rules, and that she has signed a pledge stipulating she would not engage in doping or break the anti-doping rules while she competed as an athlete at BSU. Regarding the anti-doping education she had received at BSU, Zhang explained:

We got brochures about it before and we have signed an anti-doping agreement. (Zhang)

It is interesting that the other four athletes did not mention receiving brochures or signing an agreement to compete clean. However, Zhang clarified that despite receiving the brochures, she did not invest much time reading the material:

I just scanned the brochure and I don't know more about other policy. (Zhang)

Overall, the participants noted they did not know much about current doping rules and the

drug-testing policy applied by WADA and in China.

Yet two women explained that they believed the revised 2015 Code is much stricter than the previous Code:

It was a 2-year suspension before, but now it is four years. More harshly, some cases were suspended for life-long time. I think this kind of rule is fair for us. They have to regulate doping issues compulsorily, because some athletes still consider they have chances to use unlawfully drugs. (Yora)

I think the rules are much more strict. The penalty of suspension was not strict before, but if one has been founded of using drugs in competition now, the whole delegated team will be warned and even punished. (Wu)

Comments from Yora and Wu indicate they were aware that the doping rules have changed and are now stricter in China. Yora emphasized that suspensions for drug users have been increased and athletes can now face life bans for severe or multiple violations. Wu explained another recent change, which involves the possibility of punishing the whole team when one or more athletes commits an anti-doping violation. These remarks demonstrate a familiarity with the recent policy revisions by these two student-athletes.

Not all athletes were aware of the changes that were released in 2014 and came into effect on January 1, 2015. For example, one athlete stated:

I think there is nothing different, but everybody will not cross the bottom line (not dope) in general. (Zhang)

This demonstrates that Zhang was not aware of the changes or familiar with the rules contained

in the World Anti-Doping Code. Moreover, two other participants explained that because they are now athletes in university, they do not have to pay attention to the changes in doping policy. As student-athletes at BSU, they believed information would be given to them by the coaches and administrators when changes occur.

Participants also noted that they were concerned about eating tainted meat and wondered if investigations for how and why athletes have tested positive for the drug clenbuterol were sufficient. A large percentage of all positive doping cases among Chinese athletes were for clenbuterol, which can be contained in meat, especially pork in recent years (People.cn, 2014). Some farmers put clenbuterol in the animals' food to make them grow faster. In media coverage, some athletes who had tested positive stated that they unintentionally consumed clenbuterol when they were eating out and had meat in a meal. Wu discussed that she thought the punishment for unintended intake of clenbuterol should be more lenient. She felt it was conceivable that athletes could test positive for clenbuterol through carelessness or by being trapped by others. In these cases, a lifetime ban seems very harsh. Other participants shared her view that clenbuterol has become a problem in China:

Food and drinks in China are not very safe.....the most important part is to pay attention to your daily diet. (Wang)

.....you mustn't eat out too much (laugh). Some of Chinese food has clenbuterol. This happened before. It is also contained in instant noodles or something. ... Um.....for doping, we cannot eat out. Vegetable is fine but less of meat. (Zhang)

Due to food safety issues, athletes should take seriously their daily diet, and they are required to

have their meals in their own canteen before significant competition, according to participants. The recent famous doping case for Chinese sports involved hammer-thrower Zhang Wenxiu, who had a positive test result in the 2014 Incheon Asian Games for clenbuterol. She explained the clenbuterol must have entered her system in beef noodles she ate at Beijing International Airport (Sina, 2014). Although she has been cleared by the Olympic Council of Asia and the stripped gold medal from the Incheon Asian Games was returned to her, this case received a lot of media attention (COC, 2015).

Yora stated there are some loopholes in doping regulations that can result in light punishments for athletes who have taken clenbuterol. She believed that some athletes complained they were not taking the drug on purpose, but it seemed like an excuse for them to avoid punishment. Moreover, a comment from Yora illustrates her belief that sports bodies and the government are not always transparent in how they implement doping control policies. Specifically, she mentioned it is not fair to have to compete with drug users who attend national competitions after their two years suspension. These comments demonstrate that the athletes are quite knowledgeable about most of the doping rules and accept that they help protect clean sport. However, some of the participants also noted mild critiques of doping rules, generally, and how doping rules are managed in China, specifically.

5. Belief athletes are not targeted for doping tests but are selected based on ranking or randomly

As discussed in the literature review (Chapter II) with the increasing excellent performance of women athletes in China since the 1980s, Chinese women athletes have faced

many accusations from western media since the 1990s (Todd & Todd, 2001; Dong, 2003). Of the five track and field athletes interviewed, four noted that if they continue to compete in high level competition next year, they expect to be selected for doping testing. The fifth participant considered herself too young to be selected for drug testing, and noted she is not as competitive as many of her teammates at BSU. In their own words, the participants explained:

According to national rules, if you get the top eight places in competition, you will have more possibility to be selected for doping test. If you registered in the CAA,² you will be randomly selected by computer software for doping test and the selection is not done by officials. (Yora)

They will select people for drug testing. Sometimes, one of the winner and the first three places will be selected for spot check. (Zhang)

I did doping test when I won the title of National Junior Championship. There is another competition which I have been selected for doping test is the National Youth Championship. They randomly selected top eight athletes for testing. ... There are two methods to test doping in competition. For instance, if you win the first place, you will be asked to do the doping test. The second one is that if you enter top eight places, you may be selected to do doping test. (Ma)

We don't have drug test in normal training days. It only happens before the match or

² CAA: abbreviation of China Athletic Association

only when you get a place in the competition. Specifically, athletes who get the top ranks in the match will be asked to do the drug test after the match. (Wang)

According to these student-athletes, doping tests are conducted at national athletic competitions in China. However, only the top placing athletes are expected to be selected for drug testing. Yora's quote indicates athletes placing in the top eight in competition are likely to be selected for drug testing, and athletes who registered with the China Athletic Association (CAA) have the possibility of being selected randomly for testing. Different competitions have different methods of selecting athletes for drug testing. Zhang's quote indicates that the winner or top three athletes in an event usually are required to participate in drug testing. Similar information was shared by Ma, where she explained she was selected for drug testing when she won a national competition. She was also selected for drug testing at a national level competition, which selected athletes placing in the top eight rankings. Moreover, Wang's quote suggests that although athletes at BSU are not being selected for drug testing in daily training, they will be asked to participate in drug tests before they go abroad for important international events.

From the coach's perspective it is clear that women athletes at BSU participated in routine drug test during 2014, which included many spot checks in and out of competition because many members of the track and field team compete at a very high level in their sport. I learned from this coach that because most women student-athletes are at the peak of their sports careers, it is common for them to be selected for drug testing inside and outside competition during their years training with and competing for BSU. An article in *China Daily* (2013) confirmed the coach's remarks.

The views expressed by the participants indicate that they believe athletes are selected for drug testing based on their performances or by luck of the draw with random testing. None believed that athletes are targeted based on their appearance. In addition, none of the participants expressed a negative view of the testing at BSU or considered it excessive or abnormal.

6. The unlikelihood of being selected for sex verification

According to the interview transcripts, women athletes in China are not required to verify their sex unless someone has been accused or suspected of not being a woman. None of the participants had any experience with sex verification protocols or had ever had their sex questioned. The participants were aware that sex verification takes place in track and field, but were unanimous in their remarks that sex verification was not conducted on BSU athletes:

No, gender verification is usually used for athletes who have been particularly suspected in domestic competition. (Yora)

[No.] But I have heard of those athletes who have high level of male hormone will be asked to do this test. If the results of urine test and blood test are beyond the certain range, they will be asked to do the sex verification. (Wang)

No, we don't have widespread sex verification. (Zhang)

I don't believe (laugh). I believe I have obvious woman features. I know an athlete who is a 400-metre runner and she looks like a man. (Wu)

I don't think so (laugh), because I am look like a real woman and have woman features.

(Ma)

These quotes from women athletes at BSU demonstrate that sex verification is not conducted at BSU or widely within the sport of track and field in China. None of the athletes believe they will be selected for sex verification or have to prove that they are women. Two of them stated because of their physical appearance they will not be suspected of not being women. Two additional women explained that sex verification tests are reserved for athletes who are strongly suspected to produce excess testosterone or who exceed the limits in a doping test. One also clarified that sex verification is not applied to every athlete. In general, the participants did not find it plausible that they would have to participate in sex verification with several finding the whole idea quite funny.

Despite not expecting to ever be asked to verify her sex, Yora discussed her belief that additional medical tests could help athletes maintain or improve their health. She expressed that she would like to see changes of the following nature occur in China:

I believe that relevant provincial sports general administration should have a complete body examination for registered athletes. And it should be like a professional body examination for athletes and have many detailed items rather than an ordinary body examination. It can't only be an examination for eye and oral. I would like they have some items such as drawing blood for liver function, which could analyze the index in their body, especially for new registered athletes. It would be much fair for everyone.

(Yora)

As a woman athlete who has trained in track and field for 11 years since high school to graduate school, Yora has her own particular understanding. She recommended that a compulsory comprehensive body and medical examination should be conducted to new registered students in their affiliated province.³ However, her motivation seemed to be to protect athletes' health, not to ensure that athletes competing in the women's events are women.

7. Lack of doping and sex verification tests in university sport

Quotes from participants demonstrate that although they have experienced doping tests in their careers, drug testing is not conducted frequently or extensively at competitions in which BSU competes. Participants also shared their opinions that athletes who achieve high rankings in university sport competitions will have limited opportunities to be selected for drug testing:

We don't have doping test in small-scale events. For the National Championship and the National Tournament, doping test will be conducted but not in every station. This year's Beijing Intercollegiate Athletics Competition was held in BSU, but we don't have the test. If we have competitions overseas, we will have the doping test in University for everyone before we go aboard. (Zhang)

Collegiate? We don't have the drug testing in collegiate competition. We also don't have it when we get a place in collegiate competition. In domestic, the drug testing is applied

³ In China, athletes who compete in the national-wide comprehensive games and national single games (which are organized by the General Administration of Sports of China) register with and represent a provincial team.

in the National Athletics Competition, the National Athletics Championship and the National Great Prix Competition. (Wang)

It only happens in one of important matches in collegiate competition, such as the qualification competition for the World University Games. We have doping test in qualification match but not for regular collegiate competition. (Yora)

I know if one gets the first place in competition, she will be asked to do doping test.

(Ma)

Ma's quote illustrates that only the winner will usually be asked to participate in a drug test in collegiate competitions. Drug testing is minimal in intercollegiate sports competitions according to the participants. While participants explained that doping tests for athletes in domestic intercollegiate competitions are not implemented very frequently in China, they mentioned university athletes will be asked to do drug testing before competing in international competitions. This is to ensure that they are not violating doping rules and will not cause embarrassment for China.

Participants felt less knowledgeable about the extent of sex verification tests being conducted at the university level in China. In terms of sex verification, athletes' perceived that it was possible other athletes were being required to verify their sex, but they were not certain that sex verification tests were being conducted at all.

A few, there were many suspicions in past several years but none of it has been examined. (Yora)

I don't know if there has gender test in collegiate sport competition. What I known is all women athletes in university and college are feminine. (Ma)

Comments from women athletes note that sex verification is not needed in university sports in China. For example, Ma believed student-athletes are all feminine looking and no one would think sex verification was needed.

Based on the participants' experiences, it is unlikely that sex verification protocols are applied at the university level in China. None of the participants reported having any knowledge of female athletes being required to prove that they were women.

8. Participants' knowledge of international sport policies

World Anti-Doping Code:

From their responses, women student-athletes' understanding of current doping policy is inadequate. According to the participants and the coach, women student-athletes at BSU have received various forms of information to help them learn about and understand the doping policies in effect [as discussed in theme 4]. However, this education does not seem to have been very effective for the women student-athletes at BSU who participated in this study. For example, two athletes described what they know about the current doping policy:

Suspension, I just know the suspension regulation for doping. All brochures are handed out by the General Administration of Sport of China. (Wang)

I have learned some cases which violated current national anti-doping policy and rules.

Um...such as if athlete violates the rules, he or she will be suspended, fined, even the coach of this athlete will be suspended and this coach cannot attend any competition with athlete for a period of time. However, I don't know too much about international policy. (Ma)

Wang and Ma explained that most of what they know about doping and drug-testing rules relates to basic information about suspensions and bans that result from breaking the rules. From Wang's quote, brochures outlining the rules were issued by the government organization in China (the General Administration of Sport of China). Ma stated that she is aware of cases of violating anti-doping policy and some consequences, like suspensions, fines, penalties, and punishments for athletes and coaches, but she also noted she did not know much about international doping policies. Therefore, my assessment is that the participants' general knowledge of the WADA Code was not extensive.

The Stockholm Consensus

Recall that the Stockholm Consensus sets the conditions that transgender athletes must meet to compete in high-performance sports competitions. Responses from the five participants illustrate that female athletes in China are unaware of the specific title of the policy, the Stockholm Consensus, but they were aware that a transgender inclusion policy exists. For example, after I explained the IOC's (2003) policy, Zhang explained:

I have heard some of this and learned a little bit, but I don't know this consensus. I just know some cases relate to the content of this consensus. (Zhang)

Zhang's quote represents the opinion of the participants regarding this policy; in general, the participants seemed confused and uncertain about what the policy required but could recall

hearing that trans athletes could sometimes compete in sport.

Yora, who has trained in track and field for 11 years, expressed her perception that transgender athletes in China could compete at the national level, but could not compete at the international level:

It probably happened in other country before. We maybe also have this case in China and some athletes have been suspected, but no one has been tested. I don't think we have strict rules about it in China now...there are strict rules in other countries that if you are not eligible to compete. I think if we discover someone who is this kind of person, she only can compete in domestic competition and she must be banned for international competition. (Yora)

Yora's quote suggests that the content of the Stockholm Consensus is not widely understood by athletes in China.

After I explained what the policy involved and the three conditions imposed by the IOC for trans athletes to compete at the Olympics, the participants shared a few of their initial thoughts about the policy:

I think it applies to some women athletes...because what if the level of testosterone doesn't reach the requirement of competing in women sports competition two years later after the surgery? (Wu)

I guess it should apply to some athletes because this policy may happen when they are over the limits of their testosterone level. (Zhang)

I think it only applies to some female athletes. It can't be all women athletes because every athlete has different physical condition with others. (Wang)

These three athletes stated that the Stockholm Consensus is suitable for some athletes rather than all women athletes because the content in this policy is applicable only for people who have transitioned from man to woman. Wu questioned what happens if a trans athletes' level of hormones is not be under the required level after finishing the surgery and taking hormones for two years. Zhang stated that an athlete's testosterone level is a key point in the transgender policy. Wang noted athletes have various conditions and perhaps the policy could be applied to any athlete who has a condition that differs from the norm.

Ma was the only participant who stated a policy that separates competitors into men's and women's categories is necessary. According to Ma:

Real woman should be in normal hormone level of female. We can feel that women athletes are easier to be tired but man athletes are sturdy in training. (Ma)

Ma's response indicates that in her opinion men experience great advantages in sports compared to women, and that women competing in the women's division in sport must have regular hormone levels.

Not all participants agreed with Ma's assessment. Yora demonstrated an opposite opinion, noting:

It can increase fairness in competition. We always have the cases of transgender from woman to man and man to woman, so it applies to everyone..... (Yora)

According to Yora's comment, the Stockholm Consensus should be implemented for all athletes, which means it is fair for everyone who competes in sports competition. Yora is the

only one woman student-athlete who suggested this policy could apply to every athlete and fairness is very significant.

Overall, the participants had limited knowledge of the Stockholm Consensus, the conditions trans athletes must meet to compete in the Olympics, or the assessment criteria applied by the IOC Medical Commission. Their views were not well developed as they had not spent much time thinking about the fairness or impact of the Stockholm Consensus prior to their interviews. It is possible that given more time to reflect and understand the policy, their views might be different.

Hyperandrogenism policy

Four of the five women athletes explained they did not have much awareness of the hyperandrogenism policy. However, one woman athlete commented, “I know this kind of things.” Although this specific policy has not been discussed extensively by women athletes at BSU, the participants recalled hearing suspicions in China about whether some track and field athletes competing in the women’s events were really women. For example, one participant explained:

For sure, we talked a few of it before but many athletes have been suspected. I have trained in track and field for more than a decade and I know there were many athletes have been doubted about gender. There are also some of girls who are very masculine and they are in the top level of the National Champions (pause). These kinds of people should be suspected but we don't have test for it mostly. (Yora)

Based on this quote, some women athletes in China have been suspected of hyperandrogenism, but Yora did not believe that there are effective tests to confirm or deny the rumours and

doubts.

Other participants express various opinions and suggestions about whether women with high testosterone levels should be allowed to compete with other women:

To be honest, it is unfair for them to either attend it or not. It is a complicated question.

(Zhang)

Zhang considered the fairness of competing with an elevated testosterone level to be a sophisticated question to answer because it is both not fair for women athletes who have high testosterone levels to be banned from competing, but it is also not fair for them to compete with other women athletes in sports competitions. Zhang expressed similar views on the complexity of the issue:

It depends on different perspectives. They usually can compete with other athletes because all of us are athletes. For personal benefits, they can't (pause). Because the first place and second place are totally different, such as prize money. (Zhang)

While Zhang's quote indicates the answer will not always be the same, she stated that she believes a woman with a high testosterone level should be able to compete against other women sometimes. Her concerns are about whether women with higher testosterone levels should be eligible to win prizes, money, and gold medals.

Of note, Wang and Wu both explained that they believe that women with high testosterone levels should be able to compete in women's events in China:

I think they can. We also have this case in China. Although the testosterone level is higher than others, they can still compete with others if the level is in a controllable range. (Wang)

I think she can. What about if somebody doesn't know about she has high level male hormone in her body? Why don't we let them compete? ...Other athletes could improve their performance through efforts, such as improving technical movements etc. to offset the drawbacks. (Wu)

Wang mentioned if the level of testosterone is higher than the norm for women, under certain circumstances it is reasonable to let them compete. Wu raised the point that some women athletes do not know they have higher testosterone levels than other women athletes, which means it is not reasonable to exclude them from sports competitions. Instead of banning women with high testosterone levels from competing, other women athletes, according to Wu, should improve their own performance to overcome this problem.

In contrast, one athlete reported that she does not believe the hyperandrogenism policy applied by the IAAF and IOC is fair:

I think it is extremely unfair because she has same performance as male athlete to some extent. (Yora)

According to Yora, women athletes with high testosterone level have greater performances than other women athletes, which makes it unfair for the other women athletes who compete against them. The hammer-throw athlete, Ma, expressed similar views:

I do think if these women athletes have higher male hormone level than other women athletes, and if over the limits too much, organizer could split them into another group, another gender group... if some women athletes have absolute advantages, it is not fair for other women athletes to compete with them. (Ma)

Ma's quote illustrates her belief that women athletes with high male hormone levels compete at an advantage and should be divided into a separate third sex category in sports competitions.

This idea demonstrates her belief that women athletes with hyperandrogenism conditions should not be allowed to compete in the female events.

Overall, the participants expressed well reasoned reactions to the hyperandrogenism policy. While there was considerable discrepancy among their views expressed, all of them noted the complexity of the issue.

This theme discussed perceptions of participants toward three international policies: the World Anti-Doping Code, the hyperandrogenism policy, and the Stockholm Consensus. Women athletes shared their views about these policies and provided their reasons for holding the views they do. In terms of the WADA Code, athletes explained they know general information about the anti-doping rules, but not specific details; however, some of them mentioned they signed an anti-doping agreement for competition. For the hyperandrogenism policy, some participants believe women athletes with high testosterone levels can compete with other women, while some others expressed it is unfair to let them compete. When interviewed about the Stockholm Consensus, all participants were unfamiliar with this policy, but described their feelings and thoughts after learning some details about it. Generally, participants did not know too much about these three policies beyond general knowledge.

9. Suspicion and accusations

Western media sources have made many accusations and insinuations that Chinese athletes engage in doping since 1990 (Hersh, 1993). For track and field athletes particularly,

there were some scandals and cases in China, which resulted in athletes and coaches being suspended (Chinadaily, 2013). Participants in this study shared their opinions about how athletes from other countries view Chinese athletes. Wang explained that she does not believe that athletes from other countries think Chinese athletes use drugs in sports:

I don't think so because Chinese sport is outstanding. (Wang)

Wu's assessment matches Wang's as she also believes that athletes from other countries do not consider Chinese athletes to be more likely to engage in doping than athletes from other countries. However, she offered different reasons why:

Not always, it is varying with individuals.....I don't think they would doubt us, because the final grade from the competition, which we competed together, we see the process of match by ourselves.....I believe they would more or less see us with "tinted spectacles". (Wu)

Similar ideas were also suggested by Ma:

I think it should be fifty-fifty. Because we all in this kind of sports and we know each other very well, which means we know each other about what efforts we have done to our sport. So..... (Ma)

Wu and Ma reasoned that athletes compete together and all athletes witness the whole competition. Thus, they believe that athletes training and competing in the same sport know each other very well. Nonetheless, Ma considered half of the athletes from other countries might suspect Chinese athletes of doping.

Wu noted that stereotypes might lead athletes from other countries to be suspicious of Chinese athletes. In a similar vein, Yora and Zhang both noted that foreign athletes might think

Chinese athletes take drugs:

Not only will foreign athletes think so, but also I think we have athletes who are taking drugs (laugh). But they have some tricks to avoid being tested. (Yora)

Actually, this question.....as a Chinese, I think foreign athletes use drugs, vice versa, they will think about it like us (laugh). (Zhang)

Yora stated she think foreign athletes have suspicious that Chinese athletes are using drugs, but she also believes this herself. Zhang's quote demonstrates that the suspicions are mutual, and athletes from China and other countries suspect each other. Although Wang did not think that other people doubt Chinese athletes, the other participants believe athletes from other countries have suspected them of using banned drugs in sports.

The participants were aware of doping scandals in the news, and provided details on doping cases with ease:

We have some cases in China few years ago.....but these have been dealt by provincial team. The athletes won't get permanent suspension. And I also know Zhang Wenxiu, and Ye Jiabei who has been suspended for one year and half. (Zhang)

I know a case of doping. There was a girl from Henan province and has been known of using drugs, but she didn't know she has taken drugs, so the penalty was not very strict..... Zhang Wenxiu, she has been investigated of taking doping in the Asian Games few days ago. (Wu)

I remember there was a swimming athlete who was suspended for four years. I don't know other cases at the international level. (Wang)

I know an American sprinter who has been tested of using drugs and she has been banned. I can't remember her name..... Yes, Jones. (Ma)

In China, one publicized doping scandal involved Chinese hammer-throw athlete Zhang Wenxiu, who was accused of doping at the 2014 Asian Games (People.cn, 2014). From the participants' responses, it is clear that they are well aware of many cases of doping in both China and from international competitions, but are less aware of cases of athletes' required to participate in sex verification protocols .

Participants also had heard rumours and suspicions about athletes competing with high testosterone levels. One athlete commented that it is not fair for Caster Semenya to be doubted, and others shared the same idea that the suspension Semenya faced was not fair:

There was an 800-metre runner who has been suspected of her gender few years ago in international competition. (Yora)

It is not fair. (Zhang)

I think it is not fair for Semenya. If they get the final result, then they can analyze and comment on her. If they don't know too much about the whole thing and doubt about Semenya, it will hurt her in physical and psychological. If Semenya was wronged, it is not fair because she has put all her efforts in training. But if all the suspicion is true, it will be another matter. (Ma)

If people doubted her just by appearance or news, I think it is not fair. (Wu)

From Ma and Wu's quotes, it is not fair to ban Semenya from competing in women's events because of reasons such as her appearance and accusations from mass media without any official consequence. Speculation like this will have negative effects on Semenya's mental and physical health, they believe, and it disrupted her hard training over the last few years. Ma's response also indicates that announcing an athlete must take a sex test means that people can comment on her, which can be very damaging to the athlete.

Two women student-athletes reported different perspectives on the accusations Caster Semenya faced throughout 2010:

I think the official has evidence if they announce to cancel her qualification in competition and doubt her..... (Yora)

The level of testosterone in every individual's body is different. But if the level of a required male hormone and testosterone is higher than usual range, it would be not fair for other female athletes. So it is worth doubting this athlete. (Wang)

According to Yora, there must be some good reasons for officials to suspend an athlete from competing in women's events, which means the IAAF perhaps had evidence to doubt Semenya. Wang also mentioned Semenya should be suspected if her testosterone level exceeds the limit for woman because her competing with a higher testosterone level is not equitable for athletes who compete with Semenya.

Zhang, Wang, and Yora also indicated that it is not fair for other women athletes who

compete with Semenya in the 800 metres:

I don't think it is fair, because their male hormone level has advantages in competition.

We are in the same level in performance but their male hormone is higher than me. We usually call them superhuman. (Zhang)

.....if the level of testosterone in her body is as much as other female athletes, it will be fine. If not, I don't think she can compete again with other female athletes. (Wang)

I personally consider it is unfair. You cannot break rules. If you touch the rules, you will have to take responsibility for it. (Yora)

Wang stated she thinks it is fair for Semenya to compete again with other women athletes only if her testosterone level is the same as other women athletes' levels; if it is not, then Semenya should not compete again in 800 metres. Yora's opinion aligns with the hyperandrogenism policy, which requires women athletes who have high testosterone levels to lower their levels or be barred from competing due to advantages associated with high testosterone (IOC, 2012b). However, two women athletes noted they think that possessing a high level of testosterone is a natural advantage that should not cause concern:

If the male hormone in her body is higher than other women athletes, (pause) and she doesn't have any other problems, I would think that is inborn. That is her talent. You are just much talent than others and I think that is your advantage. For instance, for hammer-throw, if a woman athlete has 2 metres arm span, but I just have 1.7 metres, what should I do (laugh)? You suspend them from competing? So it is hard to discuss

about the talent which is inborn. (Ma)

If the higher level testosterone is inborn, I think it is the problem of her corporeity.

Some women have high male hormone in their body and some body don't. (Wu)

Both Wu and Ma expressed that if Semenya has a high testosterone level, which is a natural advantage, she should not be penalized for having been born with that advantage. Ma perceived that this advantage is Semenya's talent in sports competition and other athletes may have other advantages, so Semenya should not be suspended from competition. Wu shared the same idea that testosterone level is different in individual women athletes and high testosterone levels occur naturally in some women's bodies. Thus, these two women athletes believe Semenya should be allowed to compete again in the 800 metres. After a long investigation, the IAAF cleared Semenya and she returned to competition in July 2010 but did not release its reasons why (ESPN, 2010).

10. Qualities of good athletes

The final theme that emerged from analyzing the interview transcripts relates to the qualities that constitute a top athlete. Women athletes expressed their perspectives about what contributes to them becoming excellent athletes. Some athletes consider themselves not to be good enough, but most participants shared what they think are the key elements of becoming high level athletes:

I believe it depends on insistence and attitude. (Wu)

I don't think I am a great athlete so far, but I consider that persistence is so significant. My senior schoolmate has said a sentence that a strong person may not reach the goal but a person who is insistent will last to the final. (Ma)

I love what I am engaging now. I love hurdles very much, really really love it. I had a goal of being a student in BSU when I was a little girl. I was a sprinter at the beginning and I switched to hurdles later. I didn't like hurdles at the very beginning but I found hurdles is not only running but technical skills. So I gradually love hurdling. (Yora)

I consider the coach is one of the factors because my coach knows me better than myself. (Wang)

Confidence.....when your performance is getting better, you will have more confidence on your training. Then, you will have further goal. So, confidence is very significant. (Zhang)

Responses from athletes reflect their opinions about why they became top level athletes. It is very impressive that the interviewed athletes found reasons from themselves, rather than external reasons, because due to the national sports system in Chinese elite sports, Chinese athletes are humble and tend to thanks coaches and leaders in sports for their good care and concern. Two women athletes noted the right attitude is essential for an athlete to become elite. One view which participants also shared is the importance of persistence. According to them, athletes who dedicate themselves to their sports can achieve their goals in the end. Confidence

and passion for their sports were also mentioned by athletes during the interviews, both of which were deemed to be important elements of great athletes.

Additional beliefs that the participants held about the qualities an elite athlete should possess included:

An elite athlete...I think you should have clear mind in training and strong mentality in competition. Moreover, the talent for sports is also important. (Wu)

First of all, she should have goals in her mind. If we are training not rely on our mental and only by our physical, we won't have great performance. An intelligent athlete will go far and reach her goals. (Ma)

The elite athletes can conquer failure and loneliness when they have bad performance.

The elite athletes have the ability to insist on training and.....dare to face all the difficulties and sufferings. (Wang)

She should be easy to access with. I don't think they should be arrogant and selfish.

(Zhang)

Participants commented that athletes should depend on both their intelligence and physical conditioning. In addition, they believed that athletes who have strong mental focus can overcome problems in training. A final view that was shared by women student-athletes is that setting goals and developing the capability to deal with difficulties are essential for athletes to become elite.

Summary

In conclusion, this chapter identified and discussed ten themes that emerged from reviewing and coding the translated interview transcripts. All participants were aware of gender difference between males and females in sports. Participants expressed that female athletes have some advantages in sports, although male competition is considered more attractive to fans and sponsors than female sports. A common theme that was shared by the women student-athletes in this study was that doping tests are acceptable. According to their views, they are eligible to be selected for doping tests because they compete at a high level of track and field, and they believe doping tests are an excellent way to keep sports competition fair. Moreover, most participants considered sex verification less acceptable and more complex than doping tests due to their beliefs that it is discriminatory for women athletes and it is not respectful of their privacy.

Participants and the coach reported that athletes at BSU have been educated about anti-doping rules and tests in different ways. All participants considered doping rules to be easy to follow, and thought it would be normal to be selected for a drug test after a competition. Most women athletes also commented that they were satisfied with the current doping rules and they felt the current, revised rules are stricter than ever before.

Participants discussed in their interviews that they can be randomly selected for a doping test, and that athletes who place highly in the rankings at national competitions will have far greater chances of being selected for doping tests. Sex verification was not widely applied in track and field in China based on the women student-athletes' responses.

Participants noted that women athletes who are strongly suspected of having too much

testosterone would be asked to participate in sex verification, but none believed they would ever be selected to undergo sex verification as they considered themselves to look very feminine.

When asked about doping and sex verification tests in university sports, participants explained there are very limited chances of being asked to participate in a doping test, and they were even unsure whether the sex verification tests implemented by the IOC and IAAF are used in university level sport in China. Although athletes have received education about the current rules and policies that measure testosterone levels as a condition of eligibility in women's events, it seems that they only know the most basic general information about these policies and do not have great understanding of the World Anti-Doping Code, the IOC and IAAF's hyperandrogenism policy, or the IOC's Stockholm Consensus.

The next chapter analyzes the main findings from the interviews, and discusses the findings in the context of research previously discussed in the literature review. Conclusions are drawn and potential contributions to future research are included to illustrate the findings of this thesis and demonstrate how research of this nature could be expanded in the future.

Chapter V: Conclusions and Recommendations

Recall that the IAAF released a policy about hyperandrogenism in 2011 and soon after the IOC released the *IOC Regulations on Female Hyperandrogenism* in 2012 before the opening of London Olympic Games, which is very similar to the IAAF's policy. The IOC had previously implemented a policy regulating transgender athletes' participation in sport after sex reassignment surgery in 2003. WADA implemented the 2015 version of the World Anti-Doping Code on in January 2015 after circulating the policy one year earlier. Some significant changes in policy regarding athlete eligibility in the context of hyperandrogenism, sex reassignment, and drug-testing were discussed with the interview participants.

Several media sources from western countries have accused Chinese female athletes for many years of doping and/or not looking feminine. Local media coverage in China can provide many examples about doping and gender issues, and these contexts help frame the participants' responses in order to gain insight into how current revisions to policies from relevant sports organizations are implemented in China, especially in track and field.

Main findings

The first finding from this qualitative study is that women student-athletes in track and field at BSU consider themselves to have advantages compared with men to some extent. Although participants noted that women can experience physiological issues that might impact their athletic performance, such as their menstrual cycles and the potential for mental vulnerability or exploitation, the advantages that women in sports in China can receive cannot be overlooked and were recognized by the participants. Views expressed by participants noted

that steadier, more consistent performances and body flexibility are advantages that women athletes experience, and participants perceived that women athletes have greater success at the university level and representing China internationally. Participants believed women's performance is steadier than men's, especially in their team at BSU. "Women hold up half the sky" summarizes women's performance in elite sports in China, and describes how women in China participate in the Olympic Games and win more medals than male Chinese athletes (Dong, 2003, p. 1). Chinese female athletes produced a dramatic improvement since the 1980s, and from the Seoul Olympic Games in 1988 to the London Olympic Games in 2012, Chinese women athletes have won more medals and more gold medals than men athletes (Lu, 2014). Participants spoke about remaining forms of gender inequity in sport in China, including the public's lack of interest in women athletes' achievements, but they noted that overall women and men track and field athletes receive equal resources and opportunities to succeed.

The second result from the analyzed themes is that most of participants interviewed believe that drug testing is acceptable and much less serious than sex verification tests. According to WADA, one of the rationales for conducting doping tests in and out of competition is to ensure only eligible clean athletes compete (WADA, 2015). Doping tests are viewed by the participants as a way to keep competitions fair. According to the women athletes from BSU participating in the study, urine and blood collection is acceptable and normal to enable doping test to occur.

Compared with doping tests, most participants regarded sex verification as more discriminatory for women athletes because of the potential for the process to violate privacy and because of past examples, such as Caster Semenya's case, where the process failed to

respect the athletes as women and human beings. This is despite the IOC's recognition that the collection of information and the results after the investigation should not be disclosed to the public (IOC, 2012b). It is in this area where the participants expressed the most opposition to the international policies applied in sport that regulate women's testosterone levels.

The third key finding is that participants in this study consider the rules regarding doping and sex categories to be easy to follow. None of the participants challenged or critiqued the current rules for doping, and the critiques of the gender policies can be considered mild at best. The 2015 *World Anti-Doping Code* issued by WADA explains that the rules are the standard for all athletes, noting: "All provisions of the *Code* are mandatory in substance and must be followed as applicable by each *Anti-Doping Organization* and *Athlete* or other *Person*" (WADA, 2015, p. 16). Participants also shared this opinion, and expressed their views that sports rules must be accepted and are necessary to regulate athletes' eligibility to participate. The coach from BSU stated he believes that because under the national sports system the university supports the athletes (from daily life to training to their specific goals as members of the track and field team) most participants are motivated to respect the rules in place. Below are the views from the consulted coach:

The BSU has provided all-around service in their (athletes') training and life. (Coach)

As a Coach, we have strict rules for selecting athletes at BSU. I know there are some lawsuits in sports. We have learned from news that someone walk on the edge of rules in gender categories. We don't have this problem at BSU. In doping aspect, we train athletes via scientific methods. We obey the national law and implement the rules of the

IAAF and the China Athletics Association. We won't cross the line and certainly abide by law and rules. (Coach)

The coach was adamant that anti-doping rules are respected at BSU. He believed that although some athletes and coaches find loopholes in the rules but do not violate rules, their behaviours in doing so are close to being rule violations and are intolerable.

The next important finding from this study is participants believe that drug testing is more likely to be conducted at national and international level sports competitions rather than at intercollegiate competitions, especially for athletes who place at the top of the field.

According to my participants, national competitions select the top eight athletes for doping testing randomly. Athletes who are registered with the China Athletic Association (CAA) have the possibility of being selected for random unannounced testing.

Compared with doping tests, which are implemented widely at the national level of competition, from the participants' perceptions, sex verification is rarely used in national level competitions in China or at the university level. Neither sex verification nor doping tests are conducted frequently within intercollegiate sports according to participants, with gender tests possibly not being conducted at all.

Regarding access to up-to-date policies and changes, athletes in China have fewer opportunities to access the latest revisions of current gender and doping rules due to delays in translation. However, women athletes at BSU had received a variety of forms of education on sport policies, such as quizzes, handouts, and documents from university coaches, and BSU requires that athletes sign a form that acknowledges they have learned about doping violations and have agreed to refrain from violating the anti-doping rules. Moreover, the China Olympic

Committee has its own anti-doping code which is published on its website in Chinese Mandarin, and this code is based on the Sports Laws of PRC (COC, 2004). CADA also has the 2009 version of WADC (discussed in Chapter II) published online in Chinese Mandarin, which is accessible to anyone with an internet connection. However, CADA only recently made available on its website a translated version of the 2015 WADC, nearly a year and half after it was published in English and French. As English and French are the official languages for most international sports organizations, it takes time for Chinese officials to update the new revisions to rules in Chinese immediately after the original version has been issued. Despite the many forms of education available to the participants, they had little knowledge of specific items and details of the current doping and sex verification rules. None of the participants in the study could name a specific policy in the interviews without prompting or provide specific details about the policies in effect. This finding is similar to results reported by researchers regarding North American triathlon athletes' knowledge of current doping policies in Canada and the USA (Johnson, Butryn, and Masucci, 2013). It also aligns with Nieper's (2005) findings that junior track and field athletes in the UK lack of knowledge of doping, but 75% of them were aware they needed to acquire more knowledge of doping in sports. When I explained the policies, the participants in my study indicated what I said sounded familiar. Specifically for the hyperandrogenism policy and the Stockholm Consensus, participants were largely unaware of the sex verification policies applied in sport. All of the participants had a limited level of knowledge of the anti-doping rules, but knew far less about the gender rules.

Another important finding from the interviews is that participants connect the sex verification and doping policies to fair play. One of the IOC's responsibilities, according to the

recommendations from the 5th World Conference on Women and Sport, includes “Promoting gender equality in sport and using sport as a tool to improve the lives of women around the world” (IOC, 2012a, p. 3). During the interviews, when discussing questions related to the Stockholm Consensus, hyperandrogenism policy, and Caster Semenya’s case, participants focused on eligibility issues and reasons why they think a woman suspected of having too much testosterone can compete or not. A key similarity in the hyperandrogenism, transgender inclusion, and doping prohibition policies is the focus on regulating testosterone levels (Sailors, Teetzel, & Weaving, 2012). However, four of the five participants in this study agreed it is unfair for other women athletes to compete with women athlete with higher testosterone. However, one participant indicated a different opinion, explaining that if women athletes are unaware of the high testosterone level in their bodies, it is not fair to suspend those female athletes from competing. Cooky and Dworkin (2013) also argue that it is not fair to restrict women athletes from participating in sports competition only because of their hormones. Participants also noted concern for women athletes who have hyperandrogenism conditions because sometimes women do not recognize they have high testosterone in their bodies, so banning them from sport is not fair. Similar to the media discussion of whether or not Caster Semenya should be suspended or allowed to compete in women’s track events after she won the world title in the 800-metres in 2009, participants noted the complexity of the issue and the difficulty in determining what is fair for all competitors. Recently, this complexity was highlighted by the Court of Arbitration for Sport’s (CAS) decision on July 27, 2015 to suspend the IAAF’s hyperandrogenism policy for two years, and require the IAAF to provide evidence in support of its policy. Consequently, women athletes who have been accused of

having high testosterone levels can participate in international sports competition (CAS, 2015).

Participants shared a perspective that eating safety is a problem in China for athletes in recent years, especially eating meat that could be contaminated with banned substances, such as clenbuterol, as this has occurred several times and led to many doping cases in China (Tengxun news, 2014). To avoid accidentally ingesting a banned substance and committing a doping violation, athletes are required to have meals in their own canteen before significant competitions because of concerns over the safety of food. This demonstrates that participants pay great attention to what they should eat and make effort to avoid eating anything that will result in taking prohibited substances into their body, such as clenbuterol.

Another finding is that the participants' perceptions of what qualifications an elite athlete should have are associated with the difficulties that women athletes encounter in China. They believed the difficulties women athletes still face, are what makes them stronger and more successful athletes. First of all, a clear mind is what an elite athlete needed to be mentally strong both in training and competition. Participants thought elite athletes should have strong mental focus and confidence to overcome difficulties such as failure and loneliness. They also believe that elite athletes should be insisting on training and having confidence to overcome difficulties. These are very similar to the responses the participants provided when I asked them about the difficulties women athletes face in China that they explain women athletes are more mentally vulnerable than male athletes. This connection between the qualification of elite athletes and the difficulties women athletes face indicates that participants are aware that if women athletes conquer their mentioned problems, women

athletes will become stronger and successful in sports.

An important finding I drew from the interviews is that not every participant in this study was aware of the racist assumptions and stereotypes described in the literature review, particularly from western media sources. There are many examples of western media accusing Chinese women athletes of looking masculine and therefore doping. Many of these accusations began in the 1990s after Chinese female swimmers started winning medals in swimming and track and field (McDonnell, 2008). Two women athletes in this study revealed they thought that foreign athletes held suspicions that Chinese athletes engage in doping, and one commented that athletes from different countries have xenophobic attitudes toward each other. Specifically, she considered foreign athletes to hold inaccurate stereotypes about Chinese athletes using drugs. However, other student-athletes at BSU noted that they did not think foreign athletes believed women in China used doping to enhance their performance illegally. These student-athletes were not aware of any media coverage questioning Chinese women athletes because of their outstanding performances in sports or their muscular bodies.

All of the participants in the study were able to describe cases involving positive doping tests, which demonstrate that doping is not a forbidden or not talked about topic among Chinese athletes. It did not seem like the participants considered doping a particularly sensitive issue, unlike the coach who requested I study another topic. Chinese media have been broadcasting reports of corruption by Chinese sport leaders, and solutions are being proposed to clean up sport in China (Xinhua news, 2015). Thus, it does not seem reasonable to suggest that women athletes in China are shielded from discussions of sex verification or doping scandals in sport.

The participants' approval of WADA and CADA's drug testing policies in sport, and their general indifference to or mild support of the sex verification protocols applied by the IOC and IAAF, indicate that track and field student-athletes in China are willing to fall in line with the changes in eligibility requirements contained in international sport policies without much opposition. However, the participants' lack of concern about western perceptions regarding Chinese female athletes' bodies suggests that the confidence and mental toughness they learn in their career development as athletes might enable them to dismiss or ignore allegations that they receive unfair performance advantages as a result of their bodies.

One challenge that I encountered in this study was managing the power dynamics I encountered from the BSU coordinator. When I finished an interview with the second participant in this study, the coordinator asked me to have a talk with him. He said, "Don't come here again, alright?" (He, 2015, p. 1). Although he had invited me to meet him and the potential participants at the training field, he thought that my appearance at the training field could have a negative effect on the athletes' training. I explained that I had asked the interested participants if they wanted to make an appointment for another day or location, yet two participants, who were not training, wanted to participate in an interview then and there. During our discussion, the coach repeated several times that regardless of other coaches' decisions, he had never made his athletes use performance enhancing drugs. It should be noted that I did not ask him anything about doping at BSU or in China. I felt that he was very sensitive about the topic of my study. He mentioned that not everything can be explained clearly under the state system in sports. He even suggested that I compile and edit what he has told me as the only source, without interviewing further women student-athletes in the BSU.

Moreover, he stated that what I am investigating will not have any contribution to any field of sports, and instead I should research why coaches' salaries are so low.

I left the conversation feeling very disappointed and tried to understand why the coach said what he said. It may be because I was not familiar with him before or he did not want to communicate with me about his opinions about doping and gender issues under certain circumstance in China. However, while I understand his concerns, I told him I will continue to interview student-athletes in the BSU unless approval to do so was withdrawn, but agreed not to be present during practices to recruit, and I believe he tacitly agreed.

Despite his criticism of the project, he asked another woman student-athlete on the track and field team if she wanted to participate in this study. This woman expressed interest and read the letter of invitation to participate, but elected not to participate when she realized my study is about gender and doping issues in sports. I understood that as a current athlete she did not want to talk about sensitive issues. She looked nervous and hurried to leave the training field. She turned around and came back to me suddenly when she was on her way to leave the training field and said, "Let me introduce you some athletes" (He, 2015, p. 2).

The woman then pointed to two younger women who were sitting in the stands. I recognized them because both my second participant and the male coordinator had told me that these younger women were not BSU student-athletes, but in fact were high school students who were training with the BSU coaches. "Is she afraid that I will contact her later?" I asked myself while this woman was introducing me to the two girls. It is difficult to describe my feelings at that moment. I did not debunk her statement, but asked instead, "Are they collegiate athletes?" The woman athlete replied, "Yes," without any hesitation. One of the two girls

nodded at me and touched the other girl's leg gently with hers, which made that girl, who had looked about to answer, instead just nod at me as well. I interpreted their nodding to indicate, "if senior sister apprentice told us we are collegiate athletes, then we are" (He, 2015, p. 2).

Obviously, I could not recruit these two girls to participate in my study even if they expressed interest in participating because they are not BSU student-athletes. Additionally, they were more than likely under 18 years of age. The woman who introduced me to the two younger athletes asked me to scan my interview questions and let her advise these two girls how to answer questions one by one in case that they did not know how to answer tough questions about gender and doping issues. I was shocked. I wrote down the phone numbers and emails of these two girls politely, but I did not contact them after that.

I was frustrated after I experienced these above two incidents, which I considered roadblocks on my way to recruit enough BSU track and field women student-athletes to achieve a point of data saturation. As a woman, a previous amateur track and field athlete in China, and a former university student in China, reflecting on the reasons why some potential participants were uninterested in participating in this study, I did not imagine that any of these self-identities would make me ashamed or disappointed in my sport experiences. However, I realized that it was not the fault of that coordinator or the woman athlete who introduced me to the younger athletes. If I were a coach or athlete, I might do the same thing. They possibly felt that they needed to protect themselves under the sports environment in China because to them doping (referred to as *Xing Fen Ji* in Chinese Mandarin) is extremely sensitive within high level and competitive sports in China.

Doping as an unfair method to gain advantages in sports negatively impacts the image

of sport in China. The Director of State General Administration of Sport of China made this claim clearly before the 2008 Beijing Olympic Games (COC, 2005). In addition, Li and Luan (2012) also comment that drug use in sports not only goes against the spirit of sport, but also negatively impacts national glory and state image. Therefore, potential participants' desire not to participate in an interview about doping was understandable; after all, they tried to help me to complete the interviews I sought, even though their recommended participants did not meet the inclusion parameters of my study. Majumdar and Fan (2007) noted that China treat sports as a way of promoting "national pride and identity" (p. 33). The coordinator at BSU, as an official of the main sport university in China, has the responsibility of promoting Chinese sports positively.

Contributions to research

This study contributes to research about Chinese women athletes' perspectives toward doping and gender issues in sports. Previously, literature about women athletes' attitudes toward doping tests and gender verification protocols in China, specifically, was extremely limited. Many studies have investigated athletes' understanding of doping in sport (e.g. Backhouse, McKenna, Robinson & Andrew, 2006; Kirby, Moran, & Guerin, 2011; Lentillon-Kaestner & Carstairs, 2010; Mazanov, Huybers, & Connor, 2011; Sas-Nowosielski & Swiatkowska, 2007); however, none of these studies included interviews with Chinese female athletes, and researchers should use caution in attempting to apply the results of these studies to the Chinese sport context. Past literature focusing on Chinese athletes, specifically, highlighted the suspension of Chinese athletes or focused on accusations against Chinese

athletes (Kidd, Edelman & Brown, 2001). When researchers study doping and gender issues in sports, this thesis can provide them with the information about a sample of Chinese women student-athletes' perspectives to avoid lumping all athletes' perspectives together as one unanimous global voice. Thus, this study helps to fill a gap in this research area.

Second, people in English-speaking countries seldom hear the voices of Chinese women athletes, such as their opinions regarding the policies from the IOC, WADA and the IFs. The perceptions of women athletes discussed in this research can help researchers and sports organizations understand how international sport rules regarding doping and maintaining two binary sex categories impact women athletes in China. As a Chinese citizen and a woman who used to compete in track and field, I believe this study can help share Chinese women's perspectives on international sport policies with researchers who do not speak Chinese.

In addition, the results of this study could be useful for BSU coaches and sports administrators. Recognizing that athletes have limited knowledge of sex verification protocols in sport and have serious concerns about clenbuterol contamination could help the coaches develop information sessions and supports for their athletes. Athletes would benefit from better understanding of recent policy changes in order to manage their training and lives.

Finally, this study takes a step toward striking back at some racist assumptions directed at Chinese women athletes, particularly from western media sources, which insinuate that women athletes in China take banned substances and acquire unfair advantages in sports competition due to their 'masculine' bodies. In contrast to the accusations from some western media, which portray Chinese women athletes as lacking in critical thinking skills about sensitive issues, my participants shared a variety of opinions regarding sex verification tests

and doping policies. Although they are not very knowledgeable about gender policies, they have some ideas about the current rules and expressed critical positions toward the invasion of privacy associated with the sex verification process.

Future directions

This study investigated the views of a sample of five Chinese women athletes competing in track and field at one university, supported by one coach's contributions and my reflections. Future research could expand this study to add the voices of women competing in other sports in China, or in other countries. It would also be interesting to investigate if Chinese immigrants competing in other countries maintain the same degree of mental toughness and confidence expressed by the participants in this study, and if they exhibit the same indifference to what their international competitors or media sources think about their bodies.

The small participant pool included in this study is a result of delimiting the study to the sport of track and field, women athletes, and student-athletes at BSU. International-level athletes could be a target participant group for further research in this area if researchers can find ways to access this population of athletes. In addition to athletes, the participants in future studies could also include administrators of the Chinese National Olympic Committee or officials from the China Anti-Doping Agency. Their experiences in translating and applying the current rules and policies from international sports organizations would add another interesting dimension to the study.

In conclusion, the literature review, reflections, and analysis of themes discussed by the interview participants that constitute this thesis are helpful in connecting the historical,

social, and cultural background of Chinese sports and women athletes in China to the implementation of international sport policies today.

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Appendix A: Invitation to Participate to Potential Participants (Athletes)

_____(D)_____(M), 2014

Dear BSU athlete,

This letter is being sent by the track and field coordinator on behalf of Dongwan He. If you decide to participate, your participation is confidential and the track and field coordinator will not know whether or not you decided to participate.

My name is Dongwan He and I'm a master's student at the University of Manitoba in the Faculty of Kinesiology and Recreation Management. I'm conducting research for my master's thesis.

I'm requesting your voluntary participation in this study to better understand attitudes and perspectives of women student-athletes in track and field toward gender and doping rules and policies in China.

In this study, I want to gain knowledge about the experience of women students-athletes, whether they have learned the policies from sports organizations and women athletes' perceptions and opinions to the policies from the IOC, WADA and IFs. During the interview, women student-athletes will be asked several questions about their background and basic questions about gender and doping issues in sport as well as their perspectives on gender and doping issues, such as gender verification tests and drug-testing.

You will not be asked what you have been taken before or anyone you know who has taken and is taking now. Your decision on participate or not participate will not inform to coaches and directors at BSU. The interview will only be used to learn participants' perspectives to gender and doping issues.

The length of interview will be conducted in approximately **30** minutes and it will be in one-on-one and face-to-face in a quiet place at BSU. Interview time will depend on your schedule, which is convenient for you. I will let you read and agree to participate in this study by signing on an informed consent form. In order to protect your privacy and confidentiality, you can choose a pseudonym and use it during the interview. I will use two digital voice recorders to record the interview. An electronic transcript will send to you once I transcribe it from audio records and you can change delete and correct your responses.

You must be over 18 years old. If you feel uncomfortable and want to withdraw at any time during the interview or after the interview, please inform me or contact me. All the information and data will be eliminated completely if participants no longer participate in this study anymore.

If you choose to participate, please bring your informed consent form to the interview. I

would like to answer you with any question you will ask by email or at the interview.

This research has been approved by the University of Manitoba Education/Nursing Research Ethics Board. If you have any concerns or complaints about this project, you may contact me or my thesis advisor (Dr. Sarah Teetzel at 204-474-8762 or email: sarah.teetzel@umanitoba.ca) or the Human Ethics Coordinator (HEC) at 204-474-7122 or email: margaret.bowman@umanitoba.ca.

Thank you for your attention.

Sincerely,

Dongwan He
MA student
Faculty of Kinesiology and Recreation Management
University of Manitoba
hed34567@myumanitoba.ca

Appendix B: Invitation to Participate to Potential Participants (Coaches)

_____(D)_____(M), 2014

Dear BSU Coach,

This letter is being sent by the track and field coordinator on behalf of Dongwan He. If you decide to participate, your participation is confidential and the track and field coordinator will not know whether or not you decided to participate.

My name is Dongwan He and I'm a master's student at the University of Manitoba in the Faculty of Kinesiology and Recreation Management. I'm conducting a research for my master's thesis.

I'm requesting for your voluntary participation in this study to better understand attitudes and perspectives of women student-athletes in track and field toward gender and doping rules and policies in China.

In this study, I want to gain knowledge about the experience of women students-athletes, whether they have learned the policies from sports organizations and women athletes' perceptions and opinions to the policies from the IOC, WADA and IFs. Coaches will be asked several questions about gender and doping issues in sport to gain the information about how women student-athletes in China acquire knowledge and education in gender and doping policies.

You will not be asked what you may know whether students athletes have been taken drugs before or anyone you know who has taken and is taking now. Your decision on participate or not participate will not inform to coaches and directors at BSU. The interview will only be used to learn participants' perspectives to gender and doping issues.

The length of interview will be conducted in approximately **30** minutes and it will be in one-on-one and face-to-face in a quiet place at BSU. Interview time will depend on your schedule, which is convenient for you. I will let you read and agree to participate in this study by signing on an informed consent form. In order to protect your privacy and confidentiality, you can choose a pseudonym and use it during the interview. I will use two digital voice recorders to record the interview. An electronic transcript will send to you once I transcribe it from audio records and you can change delete and correct your responses.

If you feel uncomfortable and want to withdraw at any time during the interview or after the interview, please inform me or contact me. All the information and data will be eliminated completely if participants no longer participate in this study anymore.

If you choose to participate, please bring your informed consent form to the interview. I would like to answer you with any question you will ask by email or at the interview.

This research has been approved by the University of Manitoba Education/Nursing Research Ethics Board. If you have any concerns or complaints about this project, you may contact me or my thesis advisor (Dr. Sarah Teetzel at 204-474-8762 or email: sarah.teetzel@umanitoba.ca) or the Human Ethics Coordinator (HEC) at 204-474-7122 or email: margaret.bowman@umanitoba.ca.

Thank you for your attention.

Sincerely,

Dongwan He
MA student
Faculty of Kinesiology and Recreation Management
University of Manitoba
hed34567@myumanitoba.ca

Appendix C: Informed Consent Form

Research Project Title: The Impact of Recent Policy Revisions Addressing Doping and Gender Rules in Sport on Women Student-Athletes in China

Principal Investigator and contact information:

Principal Investigator: Dongwan He

Email address: hed34567@myumanitoba.ca

Phone number: [REDACTED]

Research Supervisor and contact information:

Research Supervisor: Dr. Sarah Teetzel

Email address: Sarah.Teetzel@umanitoba.ca

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

I found that there is a gap in gender and doping issues in sport that there is a lack of research on how the current policies in gender and doping issues impact women student-athletes in China and what is their perspective to the policies and rules in doping and gender from international sports organizations such as the International Olympic Committee (IOC), World Anti-Doping Agency (WADA) and International Federations (IFs). In English-speaking countries, people seldom hear the voices of Chinese athletes, such as their opinions of the policies. Moreover, although female athletes in China produce excellent performances, women athletes have barriers in sports careers and in society in China. **Thus, this study seeks to gain more information about how recent policy revisions impact women student-athletes in China. Coaches working at the university level will also be interviewed to hear their experiences as well.**

Every participant will be interviewed once and the duration of each interview will last around 30 minutes, and if the participant has lot of experience to share, the interview will not more than one hour. Participants must also be 18 years of age or older, so that parental/guardian permission is not needed.

The interview will be recorded using two digital audio recorders (in case one malfunctions). I will tell you when the tape is on and the tape recorder will be only used in the interview and I will turn it off when interview ends. The interview will be recorded using two digital audio recorders (in case one malfunctions).

Your experience will be used to analyze women student-athletes' perspectives toward gender

and doping policy and cases in China. As there are not enough literature about how women athletes in China understand gender and doping policies and cases, your efforts will dedicate to this gap.

There are no risks for participants and interviews will not interrupt their regular life. Women students-athletes will not be asked if they have accessed to drugs and both athletes and coaches will not be asked to narrate if they know anyone who has used performance enhancing drugs.

As this study is for a master thesis, remuneration will not be provided to participants, but participants will receive a small souvenir, such as a pin or a key chain will be provided to participants after the interview. Participants who do not finish the interview or ask to withdraw from the study are welcome to keep the souvenir. The souvenirs were purchased by the PI, Dongwan He. The benefit is that their experience will be used to analyze gender and doping policy implementation in sport.

Participation is voluntary. Participants can withdraw from this study at any time if they do not feel comfortable continuing to participate. Participants can inform and tell the researcher at any time they want to withdraw and their prior data will be destroyed. No consequences will be taken by participants if they choose to withdraw from this research and they will still receive the souvenirs

This study is a master's thesis, which will be submitted to University of Manitoba's Faculty of Graduate Studies.

A 1-3 pages summary of results will be provided to participants. After completing all the analysis of data, summary will be send to participants in February 2015. Participants can choose to receive this summery by email or mail.

To protect your privacy, the digital audio recorders and signed consent forms will be locked in my drawer at home in China before I return to Canada to analyze the data. In Canada, the digital recorders, transcripts, and signed consent forms will be stored in a locked filing cabinet at my home in Winnipeg. Instead of your real names, pseudonyms will be used in this research in order to protect your privacy and mask their identities. The signed informed consent forms and list of participants will be stored in a locked filing cabinet the graduate student office (123B) in Frank Kennedy Centre accessible only to the PI (Dongwan He). PI's advisor, thesis committee members, other athletes and the track and field coordinator will not access to identities. In this study, to protect the privacy of your and make you comfortable, I will choose a quiet place which does not have people walking past to conduct each interview. All the data, including the transcript, will be saved in a password-protected laptop and will be deleted and reformatted one year later (June, 2016) after completing this study and hard copies of transcripts will be shredded at this time.

Interviews will be conducted in Mandarin or English, based on the participant's preference, and transcribed verbatim. When the transcription is complete, I will send a copy to each participant,

in English and Mandarin, by email with a request to add, expand, delete, or change any remarks they would like or feel could serve to identify them. Transcripts will be coded using emergent coding techniques. Participants will be sent a summary of the results of the study by email once it is completed, in summer 2015. This study is a master's thesis, which will be submitted to University of Manitoba Faculty of Graduate Studies. The PI's supervisor, Dr Sarah Teetzel, will have access to the interview transcripts. Results of this study might be presented at scholarly meetings or conferences and/or published in scholarly sources, such as journals or books.

This research has been approved by the University of Manitoba Education/Nursing Research Ethics Board. If you have any concerns or complaints about this project, you may contact me or my thesis advisor (Dr. Sarah Teetzel at 204-474-8762 or email: sarah.teetzel@umanitoba.ca) or the Human Ethics Coordinator (HEC) at 204-474-7122 or email: margaret.bowman@umanitoba.ca.

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation. The University of Manitoba may look at your research records to see that the research is being done in a safe and proper way. A copy of this consent form has been given to you to keep for your records and reference.

Participant's Signature _____ Date _____

Researcher and/or Delegate's Signature _____ Date _____

Appendix D: Interview Guide for Participants

Part 1: For women student-athletes

A: Background question

1. Can you introduce yourself first? Where do you come from?
2. How long have you been an athlete?
3. Do you participate in other sports, or just track and field?
4. How many coaches have you had in your career?
5. Which teams did you compete on before enrolling in university?
6. Do you think women athletes in China have more barriers than male athletes?

Please describe why.

B: Questions about doping policies in sport:

7. Do you think the current rules are easy to follow?
8. Do you believe you will be selected for drug testing in the next year?
9. Have you ever been selected for drug testing?
10. Do you think women selected for drug testing face discrimination?
11. Do you think athletes from other countries think athletes in China use drugs?
12. Have you read the World Anti-Doping Code yourself? Where do you get your information about doping restrictions in sport?
13. How confident are you about your knowledge of the current policy and rules about doping and drug testing from sports organization (IOC, WADA, IAAF, and COC)?

C: Questions about gender policies in sport:

14. Have you heard of the Stockholm Consensus, also known as the transgender policy?

What does it involve?

15. Who do you think these policies apply to? All women, or just some women?
16. Do you think you will ever be selected to take a sex verification test?
17. Do you remember Caster Semenya's suspension from running in 2009? Do you think that was fair?
18. Do you think it is fair that Caster Semenya can compete in the women's 800 m again?
19. Are you aware of the IAAF's hyperandrogenism policy? What does it involve?
20. Do you think women with high testosterone levels should be able to compete with the rest of the women?
21. Do you think women selected for sex verification face discrimination? If yes, what kind?

D: Open-ended questions about gender and doping issues:

22. How do athletes learn about policies and regulations for doping and sex verification in sports? Which ones do you know about?
23. To what extent do you believe drug testing or sex verification takes place in intercollegiate sports competition? What do you think of it?
24. Have you ever noticed cases or scandals in the media dealing with doping and gender issues? Describe them. Do you think it is fair for women athletes?
25. Can you describe what changes you have noticed in doping rules in the last few decades?
26. Can you think of any rules that you would like to see changed?

27. Do you think athletes from China are selected more often, less often, or the same amount, as women athletes from other countries? Why?
28. What do you think makes you a good athlete?
29. What is the image in your mind of an elite athlete?
30. What does it mean to you to be an athlete competing for BSU in national level competitions?

Appendix E: Questions Posed to the Participants' Coach

1. Can you provide a brief introduction about yourself and tell me about your coaching career?
2. Do you think women-athletes in track and field at BSU have barriers both in life and in their sports career?
3. Have women athletes in BSU ever faced problems with doping and sex verification issues in sports and daily life?
4. Does BSU have regulations and policies about doping and sex verification issues in sport competition?
5. Do you think these women athletes know the current policy from the IOC and WADA? Do they have opportunities to access them?
6. Do you think the World Anti-Doping Code is a fair policy and should be applied in university sport in China?
7. Do you think the Stockholm Consensus is a fair policy and should be applied in university sport in China?
8. Do you think the Hyperandrogenism policy is a fair policy and should be applied in university sport in China?
9. Do you think BSU women athletes will be selected for drug testing or sex verification this season?
10. Do you think athletes from China, generally, are selected more often, less often, or the same amount, as women athletes from other countries?