2017

Superstition in Sport: A Phenomenological Study

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SUPERSTITION IN SPORT: A PHENOMENOLOGICAL STUDY

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A Masters Thesis presented to the Faculty of the
Graduate Program in Exercise and Sport Sciences
Ithaca College

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In partial fulfillment of the requirements for the degree
Master of Science

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by

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December 2017

Ithaca College
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Ithaca, New York

CERTIFICATE OF APPROVAL

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MASTER OF SCIENCE THESIS

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This is to certify that the Thesis of

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submitted in partial fulfillment of the requirements for the
degree of Master of Science in the School of
Health Sciences and Human Performance
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ABSTRACT

The purpose of the study was to examine different types of superstitions used by athletes, the reasons behind the use of these superstitious behaviors, and how the athletes believed these behaviors affected their performance. Participants included five male and three female NCAA Division I, II, and III collegiate athletes from the Northeast United States. There were one volleyball, four baseball, one softball, one lacrosse, and one soccer players; all were extremely superstitious. Each athlete completed a demographic questionnaire with a section of Likert type questions that were used to identify the athlete's interest in superstitions. If the athlete scored above a four on each question, they were asked to participate in the interviews, which lasted between 22 and 84 minutes each. The interview started with a set question about the athlete's experience with superstition in their sport and was followed by questions based on the athlete's responses. After the thematic structure was determined, the athlete received a copy of their personal interview and the proposed thematic structure for review and approval. Four main superstitious themes: Individual, Fear and Avoidance, Team, and Reasoning, and fifteen subthemes were found. The types of superstitions that each athlete discussed included luck, individual rituals and routines, team rituals and routines, clothing and equipment, and food and eating rituals. The participants used these rituals and behaviors as a way to bring themselves good luck and ward off bad luck, deal with high levels of stress and anxiety, gain control over uncertain factors, and recover from and avoid injury in the future. The findings suggest that athletes perform superstitions to put their minds at ease, build confidence, and give themselves that extra sense of luck in order to perform better.

ACKNOWLEDGEMENTS

Thank you to everyone that stood by me through this whole process. Especially Dr. Vosloo, Dr. King, and Dr. Ives, for not only believing in me, but also for their immense amount of patience and guidance. To my parents, sisters, grandparents, and husband for their unwavering support and motivation for all of these years. Without all of them this would not have been possible.

DEDICATION

This thesis is dedicated to my amazing parents, Michael and Eileen, my sisters, Kaylee, Randi, and Jamie, my husband, Mike, and my grandparents, who always asked when I would be finishing this. Without their love and support, I would not be the person I am today.

TABLE OF CONTENTS

LIST OF TABLES

Table Page

LIST OF FIGURES

Figure Page

Chapter 1

INTRODUCTION

Superstition is a widespread phenomenon that exists in all types of competition. It is defined as "a belief or practice resulting from ignorance, fear of the unknown, trust in magic or chance, or a false conception of causation" (Mish, 2004, p. 907). Almost every athlete possesses or engages in something that can be classified as a superstitious belief. These beliefs can be something as simple as relying on a lucky number (Ciborowski, 1997; Gregory & Petrie, 1972, 1975; Rudski, 2003, 2004) or carrying around a lucky charm (Bleak & Frederick, 1998; Ciborowski, 1997; Damisch, Stoberock, & Mussweiler, 2010; Gregory & Petrie, 1972, 1975; McCallum, 1992). However, these beliefs may also be more complex in their mannerisms, like a routine performed before a certain task, for example a batting routine (Burger & Lynn, 2005; Ciborowski, 1997; Fischer, 1997; Womack, 1992).

Certain superstitious rituals exist within many sports. Some of these sports include, but are not limited to, baseball (Burger & Lynn, 2005; Burke et al., 2002; Ciborowski, 1997; Fischer, 1997; McCallum, 1992; Wann & Zaichkowsky, 2009; Womack, 1992), football (Bleak & Frederick, 1998; Burke et al., 2002; Fischer, 1997; McCallum, 1992; Womack, 1992), and basketball (Brevers, Dan, Noel, & Nils, 2011; Burke et al., 2002; Foster, Weigand, & Baines, 2006; Gregory & Petrie, 1972, 1975; McCallum, 1992; Womack, 1992). Baseball, for example, is associated with the superstitious behavior of wearing rally caps during a game when the team is hoping to make a comeback (Ciborowski, 1997). Basketball teams, on the other hand, often hold

the superstition of making every basket while warming up for a game (Gregory, & Petrie, 1972).

Despite these sport related superstitions, most superstitions are associated with an individual athlete. Many athletes will develop their own superstitious beliefs and routines that they partake in throughout their competitions. These beliefs may include behaviors like taking off a hat with only the right hand (Burger & Lynn, 2005) or throwing up before a competition (Fischer, 1997; McCallum, 1992).

The reasons for the creation of sport related superstitions and individual athlete's superstitions differ from one another. Some of the superstitions used by athletes are more focused on the sport itself because there is a history of superstition in the sport (Ciborowski, 1997; Gregory, & Petrie, 1975) or because there is a high failure rate in the sport (Ciborowski, 1997). Still, more superstitions originate due to an individual's needs for their usage. These needs may include decreasing the pressure to succeed (Bleak & Frederick, 1998; Womack, 1992), building up an athlete's confidence (Burke et al., 2002; Womack, 1992), and even convincing the athlete that results are predetermined (McCallum, 1992).

Athlete's have used and will continue to use superstitions to enhance their performances. No matter what the sport, there will always be reasons for them to believe in their routines. Whether the reason is sport related or individually supplied, superstitious behaviors will continue to be easily incorporated into an athlete's game day ritual.

In McCallum's (1992) interviews, Lou Nanne, a former Minnesota North Star player and general manager, expresses the idea of superstitious routines in a simple

explanation, “little rituals become obsessions, obsessions become superstitions” (p. 210). This idea will forever hold true in regards to sports and the athletes who play them. Therefore, as superstitions play such a large role in athletics, it is important to learn more about the types of superstitions being used, the reasons for their usage, and the effects they have on the athlete using them. Speaking with highly superstitious athletes will better provide an understanding of these themes, as they will provide a stronger interview and reaction to the topic.

Statement of Purpose

The aim of the present study was to examine (a) the different types of superstitious behaviors used by highly superstitious athletes, (b) the reasons an athlete partakes in these behaviors, and (c) the athlete’s beliefs of how those behaviors affect their performance.

Research Questions

The following research questions were explored throughout this study:

1. What types of superstitious behavior are most used by highly superstitious athletes?
2. What purpose does the use of superstitions serve for the athlete?
3. What type of impact does the athlete using these superstitions believe superstitions have on his/her athletic performance?

Assumptions of the Study

For the purpose of this study, the following assumption was made at the start of the investigation:

1. The subjects will answer all questions asked in the interview honestly and provide as much detail as possible.

Definition of Terms

For the purpose of this investigation, the following terms were defined:

1. Superstition – a belief or practice resulting from ignorance, fear of the unknown, trust in magic or chance, or a false conception of causation (Mish, 2004).
2. Superstitious Behavior – actions which are repetitive, formal, sequential, distinct from technical performance, and which athletes believe to be powerful in controlling luck or external factors (Womack, 1992).
3. Highly Superstitious Athlete – a person who is trained to compete in sports or games that require physical skill, endurance, and strength and has a high degree of or amount of superstitions (Mish, 2004).

Delimitations of the Study

The delimitations of this study were:

1. Male and female NCAA Division I, II, III collegiate athletes were used as subjects.
2. These athletes were from select colleges (i.e., Dominican College, Rochester Institute of Technology, St. Thomas Aquinas College, Purchase College, University of Scranton, Towson University).
3. The sports included in this study are the following: baseball, softball, soccer, lacrosse, and volleyball.
4. All athletes were deemed highly superstitious.
5. A phenomenological interview was used as the main method of research.

Limitations of the Study

The limitations of this study were:

1. The number of sports that were used in this study is under-representative of the vast number of sports played in the world.
2. Since the level of competition being studied includes only athletes in the NCAA Division I, II, and III levels, this research may not be applicable to all athletes in lower or professional levels of competition.
3. The results may be less generalizable to other parts of the country and the world, as the study mainly uses athletes in the Northeastern part of the United States.
4. The results may not apply to athletes who have average to no superstitions.
5. Phone and video chat interviews were used instead of face to face interviews.

Chapter 2

REVIEW OF LITERATURE

Introduction

Superstition is a custom commonly practiced and widely accepted in athletics. "Indeed, across various sports, many superstitious practices have become so mythologized by players that their subsequent motivational efficacy leads to their ultimate legitimization" (Watson & Tharpe, 1990, p. 54). A superstitious behavior is an "excessive, rigid timing and fixed order" (Brevers et al., 2011, p. 4) that distinguishes the difference between superstitious routines and useful preparation, such as a pre-performance routine.

Ciborowski (1997) classifies superstition into two categories. The first is coincidental superstition, like that seen in Skinner's (1948) famous pigeon study. Skinner's research involving pigeons and operant conditioning showed that responses could be accidentally linked to reinforcement. The pigeons were given access to a food hopper at regular time intervals. However, over time, most of them began to partake in certain superstitious behaviors, like a bobbing of the head or pecking at the floor. This association is due to the performance of a certain behavior, which is then directly followed by food reinforcement. "The bird behaves as if there were a causal relation between its behavior and the presentation of the food, although such a relation is lacking" (Skinner, 1948, p. 171). Thus, coincidental superstition is when the link between response and reinforcement is fostered by accident, and it is unclear whether there is an actual belief in the relationship between the two (Ciborowski, 1997).

The second category is causal superstition, which is more prevalent in human beings. This is when there is a belief in the relationship between response and reinforcement. It is the idea that there are irrational beliefs that an object, action, or circumstance, not logically related to a course of events, influences its outcome (Damisch et al., 2010).

Superstitions versus Pre-Performance Routines

Superstitious Behaviors

Sport superstitions tend to lie more in the realm of casual superstition that takes on the form of personal or socially shared superstitions. A superstitious behavior in sport is defined as "a behavior which does not have a clear technical function in the execution of skill, yet which is believed to control luck and/or other external factors" (Moran, cited in Foster et al., 2006, p.167). These superstitions can involve batting routines, wearing the same clothing, listening to the same music, eating the same meal, or putting a uniform on in the same order (Fischer, 1997).

Pre-Performance Routine

A pre-performance routine differs from a superstitious behavior in the sense that it is a routine used before a game that employs a group of tasks used as a physiological and mental warm up for an individual (Cohn, 1990). Pre-performance routines are identified as routines that "involve an intricate combination of cognitive strategies coupled with behavioral responses that are most frequently used to prepare for the execution of self-paced motor skills" (Cohn, 1990, p. 301). These differentiate from superstitious behaviors because they include both cognitive components, such as relaxation or

visualization, and behavioral components, such as physically practicing a movement (Cohn, 1990; Cohn, Rotella, & Lloyd, 1990).

Pre-performance routines are learned and practiced before games and help to better perform a task during actual competition. These routines aid in "attentional control, warm-up decrement, and automatic skill execution" (Crews & Boutcher, cited in Foster, Weigand, & Baines, 2006, p.167). They are used to "intentionally help regulate arousal and enhance concentration" (Crews & Boutcher, cited in Foster et al., 2006, p.167). Therefore, pre-performance routines and superstitious behaviors are different from each other, as superstitions have no proven psychological or physiological benefits while pre-performance routines do.

Effect on Athletes

Foster and colleagues (2006) examined the effect of replacing superstitious routines with pre-performance routines. The study included a total of 20 male basketball players from a university or local basketball club who all participated in some form of superstition. The researchers used a 2 x 3 repeated measures design with an experimental group consisting of 14 players and a control group consisting of six players.

Both groups participated in a total of three trials, separated by three weeks each, in which they attempted 20 basketball free-throws. Between each trial the groups attended identically monitored practices twice a week for 15 minutes each. The control group used their superstitions in each of the three trials. The experimental group used their superstitions in the first trial, used no form of superstition or pre-performance routine in the second trial, and used a pre-performance routine in the third trial. The pre-performance routines consisted of "a concentration cue (bouncing the ball three times); a

relaxation cue (one deep breath); imagery (imagining a perfect shot); and a cue word ('accurate')" (p. 169).

The control group shot consistently across all three of their trials while the experimental group's score differed throughout them. As a result, the researchers were able to identify three main effects from their data. First, when neither a superstitious routine nor a pre-performance routine was used, the athletes performed the worst. This performance decrement may have been caused by the athlete's lack of mental and physical preparation before each shot. Second, when the athletes used their superstitious behaviors, they performed the best and had a mean similar to, albeit lower than, the control group. This outcome may be due to the fact that the athletes perceive more control over the situation when participating in their superstitious beliefs. Lastly, when the athletes were asked to use a pre-performance routine, they performed at a level only slightly lower than those using a superstitious routine. This result may mean that while pre-performance routines are effective regarding an athlete's performance, superstition is more effective because it gives them an extra sense of control.

Types of Superstitions

There are many different superstitious behaviors that athletes rely on during their athletic careers. Often they depend on the 'Win Stay - Lose Shift' mentality (Ciborowski, 1997; Womack, 1992), which implies that as long as you are winning you stay with your current behavior, but as soon as you lose you shift to another one. In turn, this belief triggers the creation of many diverse superstitions, which can be grouped into seven categories: clothing and equipment (Bleak & Frederick, 1998; Fischer, 1997; Gregory & Petrie, 1972, 1975; McCallum, 1992; Womack, 1992), food and eating rituals (Bleak &

Frederick, 1998; Ciborowski, 1997; Fischer, 1997; Gregory & Petrie, 1972, 1975), luck (Bleak & Frederick, 1998; Burger & Lynn, 2005; Ciborowski, 1997; Damisch et al., 2010; Fischer, 1997; Gregory & Petrie, 1972, 1975; McCallum, 1992; Rudski, 2003, 2004), abstention (Fischer, 1997), individual rituals and routines (Burger & Lynn, 2005; Ciborowski, 1997; Fischer, 1997; Foster et al., 2006; Gregory & Petrie, 1972, 1975; McCallum, 1992; Womack, 1992), team rituals and routines (Burke et al., 2002; Womack, 1992), and spectators (Gregory & Petrie, 1975).

Clothing and Equipment

Clothing and equipment superstitions are prominent across many different sports. These superstitions may include not washing a uniform during a winning streak (Gregory & Petrie, 1975), putting a uniform or equipment on in the same order (Fischer, 1997; Gregory & Petrie, 1972, 1975; Womack, 1992), or even wearing a suit and tie before and after a game (Gregory & Petrie, 1972). Some of these superstitions are even associated with individual sports, such as tapping the goalie's kneepads with the hockey stick before each game or period (Womack, 1992).

Food and Eating Rituals

It is not uncommon for an athlete to eat the same exact meal before each game as they did before a winning game. In a study done by Burger and Lynn (2005), questionnaires were distributed to 77 professional baseball players, 50 from America and 27 from Japan. The players were from five American major league teams: the Anaheim Angels, the Boston Red Sox, the Cleveland Indians, the San Francisco Giants, and the Tampa Bay Devil Rays, and three Japanese major league teams: the Chiba Lotte Marines, the Fukuoka Daiei Hawks, and the Nippon Ham Fighters.

The questionnaire was one page double sided and defined superstitious behavior as "anything you do that you feel might bring good luck during a game. Some common examples of superstition are wearing lucky clothes, sitting in lucky spots, not mentioning certain things, eating certain foods, and entering the field a certain way" (p. 73). It consisted of a total of 12 questions that included three Likert scale type questions, eight yes or no questions, and one non-structured question. After the questionnaires were completed, the results showed that partaking in a superstitious behavior was common among major league baseball players, and that there were many athlete's that participated in the same eating rituals before every competition, such as "eating chicken before each game" (p. 74).

Luck

Possibly the most well known and most frequently used type of superstitions are those dealing with being lucky. People will often say "good luck!" or "break a leg!" (Damisch et al., 2010; Gregory & Petrie, 1972, 1975) at the beginning of a competition. It is also common for an athlete to have a lucky charm (Bleak & Frederick, 1998; Burger & Lynn, 2005; Ciborowski, 1997; Damisch et al., 2010; Gregory & Petrie, 1972, 1975; McCallum, 1992; Rudski, 2003), number (Ciborowski, 1997; Gregory & Petrie, 1972, 1975; Rudski, 2003, 2004), color (Gregory & Petrie, 1975; McCallum, 1992), and even location (Burger & Lynn, 2005; Fischer, 1997). The idea of luck is also coupled with the idea of being unlucky; there are many instances in which athletes will avoid the use of unlucky practices. These may include missing baskets while warming up for a basketball game (Gregory, & Petrie, 1972) or having a funeral pass in front of you before a football game (Gregory, & Petrie, 1972).

In Gregory and Petrie's (1972) study, being lucky and unlucky were both common factors in their data. The researchers surveyed 252 male and female students, 137 athletes and 115 non-athletes, at the University of Western Ontario. Participants responded to open ended questions about general superstitions and sport related superstitions. The results showed that female athletes were more conscious of lucky and unlucky practices in a social setting, as compared to their male counterparts who were more conscious of them in a personal context. They also identified that athletes and non-athletes alike believe in the use of practices that are deemed lucky, such as wearing a black turtleneck under a uniform or taking a lucky form of transportation. Many athletes were often afraid of unlucky circumstances and tried to avoid anything that was deemed 'unlucky' including: changing a broken shoelace the day of a game, entering a track meet wearing clean pants, and shaving before a game.

Abstention

Fischer's (1997) study surveyed a total of 219 males: 83 football players from three colleges or universities, 73 baseball players from three colleges or universities, 27 track and field athletes from one university, and 52 non-athletes from Washington State University. Participants were asked to complete the 'Sex and Sport Survey' which included questions about demographics, sexual tolerance, sexual activity, religious beliefs, and ritualistic behaviors.

Based on the results, the researcher determined that male athletes frequently abstained from drugs, alcohol, and sex the nights prior to competition. The athletes believed that this conserved their strength and energy for the game. This type of superstition is more common in football players and may be attributed to the fact that

football teams are isolated before a game in a hotel and that their coaches encourage these behaviors. However, these superstitious behaviors are commonly believed by many male athletes in multiple sports.

Individual Rituals and Routines

Athletes participate in many different superstitious rituals or routines before, during, and after a game. They may get taped the same way by the same trainer (McCallum, 1992; Womack, 1992), kiss the ball before the game (Gregory & Petrie, 1975), repeat the same morning to night ritual as the day of a winning game (Womack, 1992), have to sink the basketball on the last shot of warm-ups (Gregory & Petrie, 1975), or even just warm up the exact the same way every game (Fischer, 1997; Gregory & Petrie, 1975). Following these rituals is important to the athlete as the inability to use them would cause distress (Womack, 1992).

Team Rituals and Routines

In team sports, routines and rituals involving all teammates are important. In a study completed by Bleak and Frederick (1998), three Division I teams were surveyed about their superstitions. The participants included 77 athletes from the football team, 12 athletes from the gymnastics team, and 18 athletes from the track team. Each athlete was asked to fill out a questionnaire packet that included a demographic questionnaire, the Religiosity Measure, the Fitness Locus of Control Scale, the Sport Anxiety Scale, and the Superstitious Beliefs Measure. The results showed that superstitions are common among teams and may include a team cheer, a team prayer, stacking hands, or a pep talk. These superstitions shared by the team can be used to instill a sense of team *camaraderie*.

Spectators

In Gregory and Petrie's (1975) study, 174 male and female athletes from the University of Western Ontario were surveyed. The athletes participated in six sports: basketball, volleyball, ice hockey, track and field, swimming, and tennis. In order to collect the data, all of the participants were given a questionnaire to answer. Spearman's rank-order correlation coefficient was used to measure the findings.

The researchers found that the spectators that attended an event could have a significant impact on an athlete. Men were more superstitious about which spectators were present at a competition than woman. However, both sexes indicated a belief in the effect of an audience member's presence on their performance. This finding was attributed to the fact that some spectators may have an influence on an athlete; one spectator may cause distress during a competition, while another may calm them. Thus, the people who attend a competition can have a significant effect upon an athlete's performance.

Reasons for Use of Superstitious Behaviors

There are five main rationales behind the use of superstitious behaviors. The first reason is accidentally correlating a behavior with an outcome (Brevers et al., 2011; Burger & Lynn, 2005; Ciborowski, 1997; Foster & Kokko, 2009; Skinner, 1948; Womack, 1992). This occurs when an athlete believes that a certain item or action is related to a result even when there is no true connection between the two. This relationship may be triggered by an athlete performing a certain act and then achieving a successful outcome or a poor outcome. The correlation may then in turn cause the athlete

to continue to execute the preceding act in order to further succeed, or attempt to avoid it in the future so as not to fail again.

The second reason is coping with uncertainty and fear of the unknown (Burger & Lynn, 2005; Burke et al., 2002; Ciborowski, 1997; Damisch et al., 2010; Foster & Kokko, 2009; McCallum, 1992; Schippers & Van Lange, 2006; Todd & Brown, 2003; Womack, 1992). If an athlete is afraid of the outcome of a situation, he or she was more likely to rely on superstitious behaviors. The attribution theory (Weinberg & Gould, 2003), which is the way in which athletes explain their successes and failures, states that athletes may relate their failures to unstable factors, i.e., superstitions. The use of superstitious behaviors allows an athlete to hold something other than themselves accountable in the case there is a negative result. Therefore, since a fear of the unknown can cause anxiety, superstitions can act as a buffer to decrease uneasiness and distress.

The third reason is belief in chance or luck (Burger & Lynn, 2005; Foster et al., 2006). Belief in chance or luck is possibly the most frequent motive for use of a superstition in sport and the most commonly known as well. Superstitions involving chance or luck are most common because an athlete sometimes believes that "success [is] dependent on external factors rather than as being under [their] own control" (Schippers & Van Lange, 2006, p. 2548). The more people attribute outcomes to chance or luck, the more likely they will turn to superstition (Burger & Lynn, 2005).

The fourth reason is the illusion of control (Brevers et al., 2011; Burke et al., 2002; Ciborowski, 1997; Damisch et al., 2010; Foster et al., 2006; Rudski, 2004; Todd & Brown, 2003). This rationale addresses the idea of success and having power over the

outcome of a situation. The concept of control is described within Weinberg and Gould's (2003, p. 91) adaptation of Jones' (1995) model of facilitative and debilitative anxiety.

In this model, the perception of control is affected by the athlete's expectations for the outcome of the event. If the athletes believe in their abilities and are able to cope with the stress, the symptoms will be interpreted as facilitative. On the other hand, if the athletes are doubtful of their abilities and are unable to cope with the stress, the symptoms will be considered debilitative. With that being said, the more important it is to succeed and find ways to cope with stress, the more an athlete will use superstitious behaviors. The superstitions increase their perceived control over the situation and, by doing so, help their performance.

Finally, the fifth reason for developing superstitious behaviors is dealing with high levels of stress and anxiety (Bleak & Frederick, 1998; Burke et al., 2002; Ciborowski, 1997; Damisch et al., 2010; Foster et al., 2006; Foster & Kokko, 2009; Schippers & Van Lange, 2006; Todd & Brown, 2003; Watson & Tharpe, 1990; Womack, 1992). Many athletes would feel anxious or uncomfortable if they were forced to vary their ritual, because they think it would "throw off their game" (Womack, 1992, p. 193). The stress model presented by Weinberg and Gould (2003) expresses this concern in four stages: environmental demand, perception of the demand, stress response, and behavioral consequences.

The environmental demand is the athlete's perception of performance or workload and how he or she views the demand in terms of their ability to cope with it. The stress response is the way that the athlete responds to the demand both physically and psychologically. Finally, behavioral consequences are the actual behaviors that the athlete

performs under stress. These four stages can cycle continuously if the athlete cannot learn to cope with the pressure. For this reason, the use of superstitions can serve as a stress response in order to alleviate the anxiety that the athlete feels. In fact, many athletes believe that superstitions decrease tension (Brevers et al., 2011; Damisch et al., 2010) and relieve pressure (Bleak & Frederick, 1998; McCallum, 1992; Womack, 1992).

Sports Where Superstitions are Prevalent

Athletes have always been a superstitious group of people (Gregory & Petrie, 1972; Neil, 1982). This is especially seen in the sport of baseball (Ciborowski, 1997; McCallum, 1992; Womack, 1992) where there are superstitious behaviors that span across all players and time periods, such as not stepping on the foul line when returning or leaving the field (Ciborowski, 1997; Fischer, 1997; Womack, 1992). While it is easier to see the superstitious behaviors used in baseball, superstition is pervasive across all sports (Watson & Tharpe, 1990).

There have been few studies conducted on the superstitious beliefs of athletes, however, within that research, superstition is found in numerous sports. These sports are presented in Table 1. With superstition being a part of numerous sports around the world, it is easy to understand how prevalent superstition is in an athlete's life. However, in spite of all of the past research, there are few, interviews of athletes, if any to completely grasp the full spectrum of superstition in sport. With a lack of studies completed using interview tactics, researchers have not been able to accurately understand an athlete's perceived benefits of superstition or the true causes for its usage. Questionnaires are incapable of inquiring for further information and thus may only scratch the surface of

superstition, as opposed to the information that can be accessed through the use of interviews.

How Athletes Perceive Superstition

In past research, when athletes were asked if they were superstitious, they would often deny it (Womack, 1992). This denial was attributed to many different reasons, including the fact that they were embarrassed to acknowledge their beliefs (Burger & Lynn, 2005). Superstitions are not always seen as something positive. For this reason athletes may become uneasy or may be afraid to share their beliefs since practicing them can be considered socially unacceptable. It may also be that athletes are afraid of talking about their superstitions because they think it will render them useless (Ciborowski, 1997; Womack, 1992). They feel that if they share their practices and behaviors, it will rescind any luck or purpose they correlate with it.

Regardless, athletes do tend to believe they are more superstitious than the general public (Gregory & Petrie, 1972). It is common to associate sports and superstition because it is an acceptable practice within sports. Society has begun to correlate superstition and sports (Gregory & Petrie, 1972), which may cause athletes to satisfy an 'other-fulfilling' prophecy. This idea means that the athletes are superstitious because other people believe that participating in those behaviors will help the athlete succeed. Athletes may also satisfy a self-fulfilling prophecy since they then also expect themselves to participate in superstitious behaviors in order to succeed.

There is, however, conflicting research over whether athletes actually believe in the superstitions they are practicing. Seventy-seven professional baseball players from

Table 1

Sports Associated with Superstition by Study

Sport	Studies
Auto Racing	McCallum, 1992
Baseball	Burger & Lynn, 2005; Burke et al., 2002; Ciborowski, 1997; Fischer, 1997; McCallum, 1992; Wann & Zaichkowsky, 2009; Womack, 1992
Basketball	Brevers et al., 2011; Burke et al., 2002; Foster et al., 2006; Gregory & Petrie, 1972, 1975; McCallum, 1992; Womack, 1992
Boxing	McCallum, 1992
Fencing	Brevers et al., 2011
Field Hockey	Schippers, & Van Lange, 2006
Football	Bleak & Frederick, 1998; Burke et al., 2002; Fischer, 1997; McCallum, 1992; Womack, 1992
Golf	Burke et al., 2002; McCallum, 1992
Gymnastics	Bleak & Frederick, 1998
Hockey	Gregory & Petrie, 1972, 1975; McCallum, 1992; Womack, 1992
Judo	Brevers et al., 2011
Soccer	Brevers et al., 2011; Burke et al., 2002; Schippers & Van Lange, 2006
Softball	Burke et al., 2002
Swimming & Diving	Burke et al., 2002; Gregory & Petrie, 1972, 1975
Table Tennis	Brevers et al., 2011
Tennis	Brevers et al., 2011; Burke et al., 2002; Gregory & Petrie, 1972, 1975; McCallum, 1992
Track & Field	Bleak & Frederick, 1998; Burke et al., 2002; Fischer, 1997; Gregory & Petrie, 1972, 1975; Todd & Brown, 2003
Volleyball	Brevers et al., 2011; Burke et al., 2002; Gregory & Petrie, 1972, 1975; Schippers & Van Lange, 2006

Japan and America were asked “How much impact do you feel superstitious behavior has on your performance or the outcome of the game?” with the option “always, often, sometimes, hardly ever, or no impact” (Burger & Lynn, 2005). This item only yielded a mean score of 2.37 out of 5, wherein the score lies between hardly has an impact and sometimes has an impact. In fact, only 27.3% of the players believed that their superstitious behaviors always or often had an impact. Therefore the investigators found that while superstitions may be common among the athletes, they “were not as confident in the power of their superstitions as their behavior might suggest” (p. 74).

Ciborowski (1997) also found conflict between whether athletes believed in the power of their superstitions. This study included 83 baseball players and 348 students from the University of Hawaii, and was conducted over three full seasons. Throughout the three years, the baseball players had their batting routines videotaped during games and were interviewed about them. Each athlete was asked to outline the routine movement by movement and describe their thoughts while performing it.

During the study both the players and the non-athletes were also asked to fill out the Superstitious Belief Questionnaire. The results of the questionnaires showed that the athletes believed that they were more superstitious than non-athletes; however, they also denied there was a direct link between superstitions and performance. When asked why they still participated in the behaviors, the athletes responded by saying that “if [they] didn’t perform the behaviors and subsequently lost the game, [they] would have made a mistake” (p. 310).

In Womack’s (1992) interviews, she spoke with professional athletes about their use of superstition and the types of superstitions they have. She found that there were

many times when athletes changed their routines because the ritual was no longer working or failed the athlete. This behavior was seen primarily when "the team has a losing streak, or when the athlete goes into a slump" (p. 196). So, the ability to renegotiate these superstitious rituals can be vital to the athlete's routine. This outcome shows that athletes do "perceive a direct link between the behaviors and the outcome of the game" (p. 196). Thus, past research is inconclusive regarding results based on athletes' true perceptions of their superstitious behaviors.

Critical Analysis of "Why Athletes Need Ritual: A Study of Magic Among Professional Athletes"

Womack's (1992) paper is one of the few publications in which interviews were used to study athletes and their participation in superstitions. The author interviewed many high profile athletes and discussed their beliefs, routines, and the reasoning behind their uses of superstitions. She divided athletes' rituals into three categories: "initiation rites, preparatory rites, and rites of protection" (p. 195). These categories were then supported by quotes from the athletes that she had interviewed. She listed seven ways in which superstition was important to sports, including helping the player focus his attention and coping with high-risk situations. While the Womack's paper is informative about professional athletes' superstitions, there is one major flaw.

As it is an anthropological study, as opposed to a psychological one, there is a significant difference in the method of structuring the research. In terms of psychological research, this paper is a journalistic investigation, as there are no methods or results discussed. Instead it conveys the feelings of a short summary and classification based on her conversations with the athletes. Had Womack used this opportunity to implement a

complete phenomenological study, there would have been more information to gain from her interviews. While Womack did obtain imperative material regarding the athlete's superstitions, there is no validity or reliability to her study. Therefore her analytical paper is more an enlightening story than a research study that can purport significant findings. The lack of a formal outlined study limits the knowledge that one can obtain from the paper.

Theoretical Explanations for Superstition Usage

In Sport Psychology there are many different theories and concepts that help us to understand the mental aspect of an athletes' game. Of these numerous theories, three are closely related to superstition in sport: Self-Efficacy, Fear of Failure, and Attribution Theory.

Self-Efficacy

"The research demonstrating the positive effects of superstition on athletic performance has highlighted the importance of perceived self-efficacy" (Welch, 2015, p. 6737). Self-efficacy is "an individual's belief in his or her capacity to execute behaviors necessary to produce specific performance attainments" (Carey & Forsyth, n.d.). If an athlete feels as though they are not capable of achieving a positive outcome, they are more likely to turn to the use of superstitions. The usage of these superstitions then gives them a more positive perceived self-efficacy.

"The likely reason is that heightened self-efficacy with respect to the approaching task increases not only one's confidence in performing, but also willingness to work harder and longer at it" (Welch, 2015, p.6735). When an athlete uses their superstitions and continues to succeed, they become more confident in themselves and therefore have a

higher perceived self-efficacy. Their success acts as positive reinforcement, continuously building their confidence in their own abilities. So the more an athlete equates their superstitions to getting positive results, the more likely they are to continue using superstitious behaviors or begin using new superstitions to achieve that outcome.

Fear of Failure

Fear of failure is "a tendency that orients individuals to seek the avoidance of failure in achievement settings because one feels shame and humiliation upon failure" (Sagar, Lavallee, & Spray, 2007, p. 1172). The motive of avoiding failure is based on feelings of anxiety and is a huge concept in the use of superstitions. Athletes will depend on their superstitions more when the importance of an event is greater and their opponents are more evenly matched (Welch, 2015). The more that these two factors play a role in an athlete's fears, the more they will turn to using superstitions to give them an extra boost.

This can also be due to confirmation bias (Welch, 2015). "If asked, athletes…tend to overestimate the success rate of their superstitious behaviors and underestimate the failures" (Welch, 2015, p. 6735). Because of their fear of failing, athletes believe in their superstitions more, giving them a false sense of success and security. The more an athlete is afraid to fail, the more they will look to use superstitions to help them succeed.

Attribution Theory

The Attribution Theory is described as the way in which an athlete perceives the outcome of an event and their role in that outcome (Rejeski & Brawley, 1983), and is comprised of three tasks (Rejeski & Brawley, 1983). First is the explanation of outcomes and how an athlete "creates an understanding that they take with them into future situations" (Rees, Ingledew, & Hardy, 2005, p. 190). An athlete will contrive an

explanation as to how each outcome has occurred and uses that information in similar events in the future. Second is “forming social inferences about the disposition of actors and the properties of situations that influenced the participants' behavior” (Rejeski & Brawley, 1983, p. 84). An athlete will begin to contemplate what part of their performance influenced the outcome. Third is “predicting outcomes and behavior” (Rejeski & Brawley, 1983, p. 84). This idea of predicition causes an athlete to begin forming ideas as to what the expected outcome will be if they perform certain behaviors. The Attribution Theory is very closely related to superstition; the more an athlete believes in a negative or unexpected outcome, the more they will believe in explaining a bad performance. In the same sense, the more they believe a positive outcome was dependent on factors outside of their skill, the more they will use superstitions to explain things. (Rees et al., 2005)

Summary of Literature Review

In past research, many of the studies were done using questionnaires, with very few using an interview process. These studies yielded seven main types of superstitions and five main reasons behind the use of superstitions. Many of the athletes believed in a ‘Win Stay - Lose Shift’ mentality (Ciborowski, 1997; Womack, 1992), though they did not necessarily believe that their behaviors had an effect on the outcome of the game. With the majority of the studies using a questionnaire, it is difficult to understand exactly what purpose an athlete believes their superstitions serve, and if they truly believe that they have an effect on their performance.

Chapter 3

METHODS

In the present study, the researcher used a qualitative research technique that closely followed, with a few exceptions, the format of Thomas and Pollio's (2002) phenomenological interview method. This method was used to allow the researcher to openly communicate with the participants without a rigid interview format. The athletes were able to share their experiences with superstition in their own words and, as the leaders of the interviews, directed the researcher towards what they deemed was most important. "The interviewer's role is to closely track the words of the participant, ensuring that each experience is discussed in detail and seeking clarification for any statement not fully understood" (Thomas & Pollio, 2002, p. 26). The open-ended nature of these interviews provided information that would not have otherwise been acknowledged and identified using a formal interview or questionnaire. The more details and examples the researcher is able to uncover using this technique, the easier it will be to understand superstitions' overall purpose.

Exploring Researcher Bias

Bracketing Interview and Personal Statement

The researcher participated in a bracketing interview and wrote a personal statement in order to assess her own experiences with superstition in sport (see Appendix A). A fellow graduate student conducted the interview, while the personal statement was written by the researcher alone. The interview was then transcribed verbatim, and both the interview and personal statement were analyzed using the same methodology as all other interviews in this study.

The purpose of both the bracketing interview and the personal statement was "to learn about the researcher's presuppositions concerning the nature and meaning of the phenomenon" (Thomas & Pollio, 2002, p. 33). This method allowed the researcher the ability to recognize any prejudices or biases she may have had, which in turn helped her so that she did not lead the participants towards her own beliefs of the topic. Since bracketing is used to give the researcher the ability to "put aside theories, knowledge, and assumptions about a phenomenon" (Thomas & Pollio, 2002, p. 32), it also made the researcher aware of her own beliefs when interpreting the interviews, so as not to impose her own ideas into that interpretation.

Selection of Participants and Procedures

This study included eight participants (Thomas & Pollio, 2002; Guest, Bunce, & Johnson, 2006). The number of participants was adjusted based on when the data gathered during the interviews became saturated. Saturation is when a researcher has interviewed a significant number of subjects, the information obtained begins to become redundant, and the researcher no longer gains any new relevant information about the topic (Guest et al., 2006). After each interview is analyzed, if new information is not obtained, then there is "little to no need to seek more participants" (Thomas & Pollio, 2002, p. 42). When data supports that saturation has occurred, researchers interview two more participants as a general rule of thumb (Thomas & Pollio, 2002, p. 42).

Each participant was a collegiate athlete that played a NCAA Division I, II, or III sport at present or within the past three years. These athletes were asked to participate based on a convenience sample, as per proximity to and relationship of the researcher to

the team. The sample was also "purposeful" (Thomas & Pollio, 2002, p. 30), meaning that each participant had to meet certain criteria.

There were two main criteria for the eligibility of an athlete in this study. The first criterion was that the participants chosen either had current or past participation in superstitious rituals or behaviors and/or beliefs in superstitious objects or charms. The second was that the participant was willing to share their experiences with their superstitions.

When asking an athlete to participate, the researcher gave a full explanation of the purpose and procedure of the study along with a copy of the Informed Consent Form (see Appendix B) to read and endorse before continuing in the study. Preceding further involvement in the study, a short questionnaire (see Appendix C) was emailed to each participant to ensure that they fit the criteria of the research. The questionnaire used Likert scale based questions (see Appendix C) to learn how superstitious each athlete believed they were on a scale of one to five. All of the questions regarding superstitious behaviors and objects must have returned a score of at least a four in order for the athlete to be asked to further participate in the study. Each questionnaire also included a section of questions regarding the athlete's demographic information.

If the athlete met the criteria of having past or present superstitious beliefs and agreed to take part in the study, he or she was provided with the informed consent form (see Appendix B) a second time. After he or she had signed the informed consent form, a date, time, and location were determined for the interview.

The researcher contacted 32 athletes by email to participate in the study. Fifteen athletes responded and filled out the questionnaire. Of those 15 athletes, only 10 qualified

for the study by scoring above a four on all three questions. On the Likert type questions, the seven athletes that were not used in the study scored an average of 3.14 on the first question, 3.42 on the second question, and 2.7 on the third question, making them ineligible to participate in the study.

Eight athletes, five male and three female, were interviewed to learn about their experiences with superstition in their sports. Four former collegiate athletes and four current collegiate athletes were included in the final sample; the group included one athlete each from softball, lacrosse, soccer, and volleyball, and four baseball players. Their ages ranged from 19 to 23 with an average of 21 years of age; there were seven participants of Caucasian ethnicity and one participant of Hispanic ethnicity. The number of years of participation in their specific sport ranged from 8 to 10+ years, with the majority of the athletes having played for 10+ years. The sample was comprised of athletes from Dominican College (DII), Rochester Institute of Technology (DIII), St. Thomas Aquinas College (DII), Purchase College (DIII), University of Scranton (DIII), and Towson University (DI). On the Likert type questions (see Appendix C) they scored an average of 4.25 on the first question, 4.5 on the second question, and 4.13 on the third question.

Data Collection

Interviews

Each interview began with one predetermined question, “Talk about your experiences with superstition in your sport”, while all succeeding questions were based upon the athlete’s answers. This format was followed throughout the interview, unless the interviewer felt the athlete had strayed off course from the topic or his or her answers

Table 2

Participant Information

Subject Number	Sport	Gender	Age	Years of Participation	Level of Participation
S1	Softball	Female	23	10+	DIII
S2	Soccer	Male	21	10+	DIII
S3	Baseball	Male	21	10+	DIII
S4	Volleyball	Female	19	8	DIII
S5	Lacrosse	Female	21	10+	DI
S6	Baseball	Male	22	10+	DII
S7	Baseball	Male	22	10+	DII
S8	Baseball	Male	21	10+	DIII

were lacking substance. In this case the interviewer either repeated the first question or utilized probe questions (see Appendix D) to obtain more information about the athlete's superstitions. The probe questions never began with "why" as that type of question tends to "lead the individuals from description to theory" (Thomas & Pollio, 2002, p. 24). Instead the probes included more "what" questions to enable the participant to further describe his or her experiences.

Along with these probe questions, the researcher also summarized the participant's answers at several points throughout the interview. This approach enabled the researcher to make sure she understood everything correctly, and also allowed the athlete to clear up any misconceptions and include additional information. The final

question that was asked in the interview was if the participant had anything else that they wanted to discuss regarding their experiences with superstition.

Four interviews were done in person and four were done on the phone, depending on the location and schedule of the athlete and the researcher. If the interview was done in person, the meeting location was at a place that was familiar to the athlete, yet private from outside disturbances. This approach helped to ensure the athletes comfort and in turn enabled them to be more open to sharing their experiences in the interview.

Field Notes and Audio Recordings

Field notes were taken before, during, and after each interview in order to further validate the study. The researcher recorded all of her observations about the participant, the location, and the setting throughout the process. This method allowed for the addition of context outside of the interview transcription, such as the way the participant seemed to communicate, the interaction the athlete had with the researcher and the surrounding environment, and the athlete's reaction to the questions.

The field notes were also used as a way for the researcher to bracket throughout the interview, as bracketing must be an "ongoing process" (Thomas & Pollio, 2002, p. 33) throughout the study. This process ensured that the researcher "maintain[ed] an open, non-judgmental attitude about the topic when conducting interviews and interpreting" (Thomas & Pollio, 2002, p. 33). Recording field notes enabled the researcher to identify any sections of the interview that she may have led the participant accidentally, and to express her own written opinion of a concept brought up by the participant so as not to lead them.

Audio recordings were also used during each interview. All of the interviews were recorded using an audio recorder and provided the researcher the ability to transcribe and review the interview after it had already occurred. Being able to revisit the interview provides further insight into the athlete's stories and gave the researcher the ability to evaluate whether there was any information that was previously missed. Only the researcher had access to these recordings.

Data Analysis

Directly after the interview, field notes were recorded to discuss the observations made throughout the process. The interview was transcribed verbatim by the researcher using Microsoft Word. The field notes were inserted directly after their subsequent interview sections. Each page and line were numbered to allow the researcher the ability to take notes and review the text.

When all interviews had been completed, the researcher reviewed all transcripts and determined the thematic structure. Each transcript was "examined for meaning units, themes, and patterns, while keeping in mind the sense of the whole text" (Thomas & Johnson, 2000, p. 688). As the researcher had to decode each interview, the transcriptions enabled the text to be read on multiple occasions. Initially, the transcript was read to gain a sense of the whole (Thomas & Pollio, 2002), in order to interpret the main theme of that participant's interview. Next it was read to gain a sense of the parts (Thomas & Pollio, 2002). This second reading was used to find meaning units, or significant elements in the story to support the main theme. The researcher then produced a thematic structure made up of the meaning units, patterns, and themes portrayed in the transcript.

To create a thematic structure, the researcher composed a list of proposed themes "with specific textual support (page numbers, line numbers, quoted words, and phrases)" (Thomas & Pollio, 2002, p. 38). The researcher then reviewed each proposed theme and decided which one best represented the main theme of the study. Having defined a thematic structure, the researcher constructed a diagram (see Figure 1) that "depict[ed] the themes and their interrelationships" (Thomas & Pollio, 2002, p. 38). This diagram enabled the themes and patterns to be more easily recognizable and understandable to the participants and readers of the study.

After the diagram had been completed, to ensure member checks occurred, a copy of the interview and the thematic structure were sent to the participant (Thomas & Pollio, 2002). This strategy allowed the athlete to review the interview and confirm the thematic structure with the researcher. The athlete also had the ability to change anything they felt was incorrect in the interview or add anything that they felt was missing. Upon the participant's approval, the thematic structure was finalized and the results were completed (Thomas & Pollio, 2002).

Issues of Validity and Reliability

Given that interviews are never the same, the issue of reliability in phenomenological research is assessed differently than other methods of research. One criterion is the idea of being able to generate the same or similar thematic structures should the study be repeated (Thomas & Pollio, 2002). However, since the purpose of research is to continuously gain more knowledge and to elaborate on past studies, this method of repetition is not always the best judge of reliability. Therefore, according to Giorgi (1975) the main criterion is whether "a reader, adopting the same viewpoint as

articulated by the researcher, can also see what the researcher saw, whether or not he agrees with it" (p. 93).

Validity, like reliability, is judged differently in phenomenological research as opposed to quantitative research. Within phenomenology, validity is based on two criteria. The first is plausibility, which means that the person reading the text is able to find the relationship between the intended interpretation and the data. The second is illumination, which means that the reader is able to see the phenomena in a way that allows them to gain new understanding of it (Pollio, Henley, & Thompson, 1997).

Chapter 4

RESULTS

The purpose of this study was to understand the athletes' experiences with superstition. Following a qualitative analysis of the transcripts, meaning units were found and grouped into sub-themes and general themes. Four general themes emerged from the interviews: Individual, Fear and Avoidance, Reasoning, and Team (see Figure 1). These themes portrayed an overview of the athletes' experiences with superstitions in their sports. Fifteen sub-themes that characterized the athletes' experience with superstition were revealed within the final thematic structure (see Appendix E).

Theme 1: Individual

The idea of the individual was a major theme in the interviews. One athlete described her experience with superstitions as being very much an individual practice. She believed that "[these] were very individualized" (S1). She mentioned that "it affects your mental performance and the way you're approaching the game and it affects the way you think about it" (S1). This mental approach to individualized routines was evident in many of the interviews.

Subtheme 1: Relaxation

One of the main reasons that athletes engaged in superstitions was because "it [makes] me relax" (S7). Six of eight athletes described the use of their superstitions as a source of relaxation (S1, S2, S3, S4, S5, S7). One athlete stated that he knew "that it's not gonna make you physically better, but…it puts your mind at ease" (S2). Having a superstition to another athlete meant that there was one less thing that she had to worry

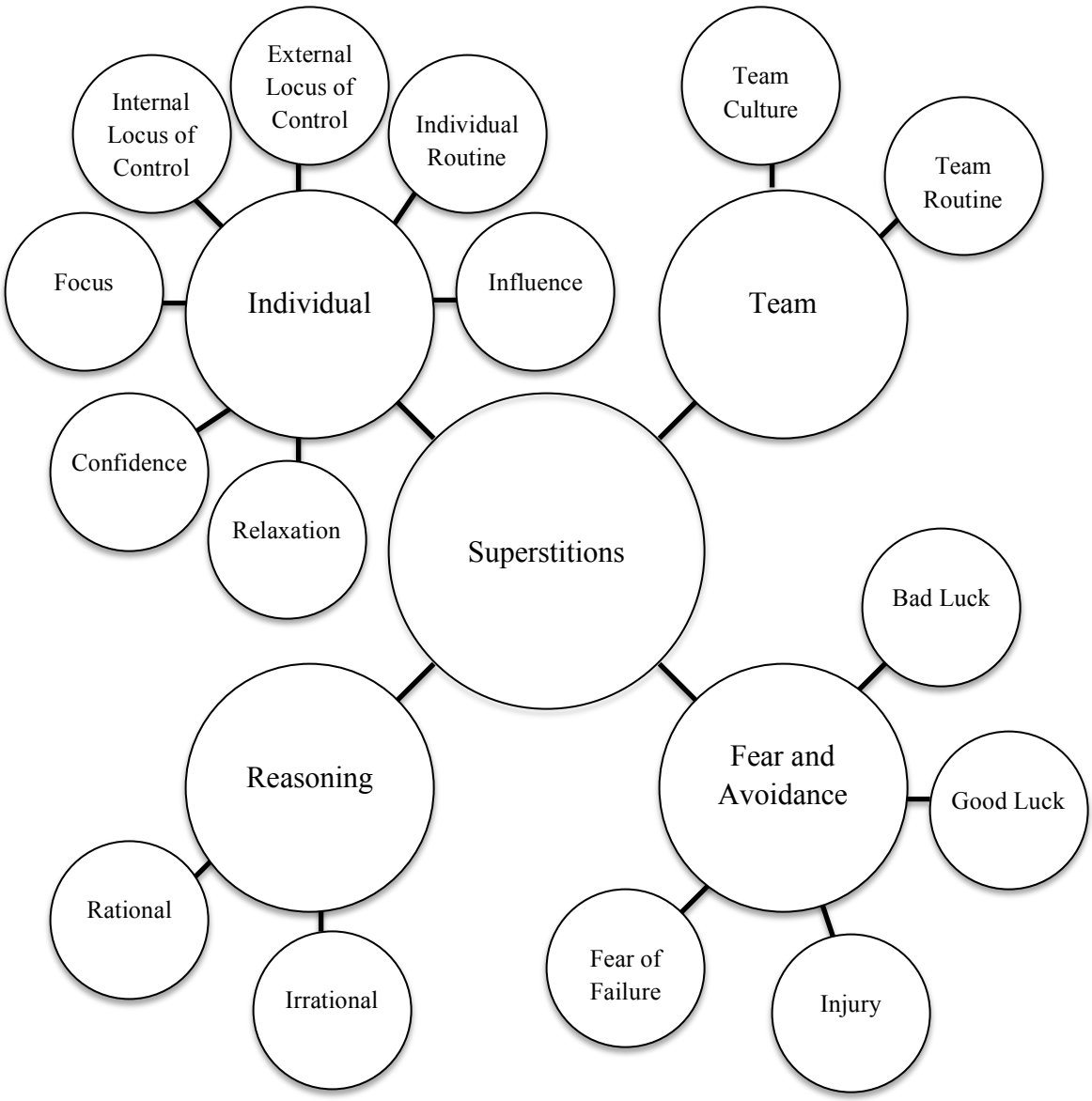

Figure 1. Superstition Themes and Subthemes

about. “You already did it so you can relax, you don’t have to worry about it and then like, what’s coming next” (S1).

In one of the interviews the athlete said that superstitions “would like, calm me down I think” (S5). It was very important that she used her superstitions because she

thought “it just helps [her] get a little more comfortable to play” (S5). The use of her superstitions gave her peace of mind when playing because they helped put her at ease.

One athlete stated that,

> “it’s more of a comfort factor, I know that it doesn’t necessarily directly affect my performance in any way, but I think I’m more just relaxed when I do them cause if I don’t in the back of my mind there’s a little anxiety” (S3).

Subtheme 2: Confidence

Feeling confident was a big factor in how an athlete performed in a game. Athletes used a superstitious behavior or ritual to help them mentally prepare, and in doing so elevated their confidence as well. Five out of eight athletes discussed how their superstitious routines gave them confidence to play better (S2, S4, S5, S6, S8). One baseball player said that his superstitions “made me feel confident in the situation that was in front of me” (S6).

The volleyball player added on saying,

> “I think that [superstition] definitely affects my mentality and I think that that’s how confident I am when I’m playing. So if I do everything normally…then I think we’ll have a good game. I’m more confident, I have more energy, I can hit…I think if something’s off then in my mind something’s off and I’m not gonna play as well, I won’t have enough confidence...It really just affects my mentality, and I’ll play with less confidence. If something’s wrong then I won’t have my peak performance” (S4).

She believed that being able to partake in her individual and team superstitions made her "feel confident because we're getting all of the jitters off, getting all of the mistakes [out]" (S4).

Subtheme 3: Focus

Having the ability to focus on the task at hand is extremely important during a game. The softball player stated, "alright your mind is here, softball, like I need to be paying attention, I need to focus" (S1). She believed that her superstitions helped her to achieve this. Seven of eight athletes discussed focus throughout their interviews (S1, S2, S3, S4, S6, S7, S8).

One baseball player believed that other athletes "will come up with superstitions and do things the same way every time because that'll calm their minds down. So, they don't have to think about other things…they can focus on what they're doing" (S3). That way, they get all other thoughts out of their minds and then can focus solely on the game and their part in it. When he was able to clear his mind by doing his routine, he did not have to think as much and was able to perform better.

Another athlete said "so, if I have all these factors that I can control and really focus on, then everything else can fall into place" (S8). He described his superstitions as a way to settle his nerves and focus on the game. His routines acted as a comfort for him during the match and allowed him to concentrate on the game better.

Subtheme 4: Internal Locus of Control

If an athlete has an internal locus of control it means that he or she "attributed the failure to meet a desired goal to poor personal preparation" (Marsh & Weary, 1995). Six

of eight athletes discussed this idea in their interviews (S2, S3, S5, S6, S7, S8). One athlete described this theory well,

> "I feel like it would just be eating away in the back of my mind that I didn't do it and it's just kind of a safety check to make sure that everything's in place to uh, ensure that like I didn't miss anything" (S2).

Another athlete said,

> "I can mess up this or that and then it can cost the game…it just allows me to be comfortable…I guess it kind of brings me down and helps me realize that 'hey, it's just a game in the end' and I don't need to stress over it" (S8).

He knew that the outcome of the game was directly related to the actions he took throughout it, but did not let that idea bother him during the game. He knew he could control his actions, which in turn made him more comfortable with the outcome, whether it was good or bad.

Subtheme 5: External Locus of Control

If an athlete has an external locus of control it means that he or she "attributes failure to circumstances beyond the individual's control" (Marsh & Weary, 1995). Five of eight athletes mentioned this idea within their interviews (S1, S4, S5, S6, S7). One athlete described this idea perfectly. "Mentally it's like 'Okay, well you know that didn't work, so we're gonna change it up, try something new" (S1). She felt that if the superstitious behavior she was using was not working for her, that if she changed something about it, it could affect her performance positively.

> "If I pitched a strike, I would keep the dirt on the mound exactly how it was. I wouldn't touch it because for some reason I was like 'alright, well, it was perfect

like that, I'm leaving it, I'll pitch again'. But, if I got like a ball or something, I'd kick the dirt, or move the dirt, or put dirt on the mound, or move it off the mound" (S1).

Subtheme 6: Individual Routine

A person's routine is part of their every day life and carries over to sports. From a morning wakeup routine to a bedtime routine, our lives have a consistent set of actions that we take throughout the day. There is nothing different when it comes to athletes and the sports they play. The routines that they make are imbedded into their minds and many of them have to complete these routines in order to feel prepared for their game. "I would do at least, the same exact thing every time that I went up there, like the same routine over and over again" (S1). All eight athletes discussed superstitious routines in their interviews (S1, S2, S3, S4, S5, S6, S7, S8).

The softball player had a routine for every pitch at an at bat that she felt she needed to do in order to get into the other player's mind. She said that "it was just something I did every single time so if I didn't do it then I was thrown off my regular – and I was thinking like 'Ah crap, I didn't do it this time'" (S1). One of the baseball players had a batting routine as well. "I have a set routine that I do when I'm on deck…without the batting routine, I felt as if I wasn't really ready to bat, and that this at bat was wasted because I didn't do my routine" (S3). These routines are easy to begin, but once the player had their mind set on it, it could really affect their mental game.

Another athlete said that his warm-up routine was extremely important to him and his mental toughness. "We would do the same exact thing, like every single time…so if it

got messed up, then it would mess us up mentally" (S7). Any change in his routines made it very difficult for him to concentrate on the rest of the game. His superstition,

> "helps get me in the zone, helps get me comfortable, cause like I said whatever I did that day as I'm going through my routines, everything else washes away and I'm in a familiar setting, I know exactly where I am, what I'm doing and I'm just getting ready to play baseball" (S7).

Subtheme 7: Influence

An athlete can invent superstitions alone or through the influence of others. All eight athletes agreed that while some superstitions were created on their own, that others were influenced by listening to coaches and watching professional athletes perform (S1, S2, S3, S4, S5, S6, S7, S8).

The lacrosse player came up with her own superstition early in her career, she wears a shirt under her jersey, but that shirt must be inside out. "When I was younger, I accidentally put the shirt under my jersey on inside out, and didn't notice until after the game…but that was the first game I ever scored in, so I've done it ever since" (S5). Sometimes simple mistakes can be turned into superstitious rituals based on a specific outcome that the athlete associates with it.

One athlete expressed the importance of his coach by saying that he would "always eat a cliff bar 15 minutes before the start of the game" (S2) and that it started because "when I was younger I would always be really tired during games and I was told by a coach that you gotta eat something right before a game" (S2). Because of his coach's recommendation he was able to "make sure that [he'd] covered his bases, that [he had] enough energy throughout the whole game" (S2).

> A baseball player said that his batting routine came from a professional athlete. "It was mostly just me emulating my favorite major league baseball player at the time, I watched what he would do and…they weren't just there, up there either standing or taking swings, they all had something else they were doing and…there was a little technique thing we were working on my swing and so I wanted to remind myself of that before I got in the batter's box…but then in between pitches I would do that little technique [as] a reminder" (S8).

Summary of Theme 1

Many superstitions that the athletes used were extremely individualized. They developed superstitions to help themselves mentally prepare to perform, and were able to improve their superstitions to the point that they no longer had to focus on what they were doing and could relax their minds and concentrate on the task at hand. These superstitions were important to athletes because they were able to help mediate their feelings, could calm them down in stressful situations, and could boost their confidence so that they were able to perform to their optimal potential.

Superstitions developed with an internal locus of control gave the athletes that extra help that they were looking for before a game. They made sure to complete their rituals so that they were fully prepared both mentally and physically and felt that they were at their optimal skill potential for the day. This type of superstition was an extra aid used to help them better their performance, as they already believed that they were prepared for the situation.

In situations where the task at hand may be difficult or the outcome is uncertain, it was more likely for an athlete to develop a superstition so that they can place blame

somewhere else. This external locus of control gave the athlete an out so that they do not get frustrated with themselves. This type of superstition was extremely frequent when an athlete was not dominant in a skill or when they were part of a team sport where they could not control all of the factors in a game.

An athlete's routine was an extremely important part in all sports. In the interviews, each athlete had a routine that they would be uncomfortable and uneasy if they were unable to perform. One baseball player stated "it'd be weird [if I didn't do the routine], I'd get over it eventually" (S3), but feels as though it would be difficult if he was unable to complete it because he "think[s] I'm at a point now where I've tinkered it and evolved it enough where at least in my mind what I'm doing on deck is the best thing for me to get me ready to hit" (S3).

Superstitions were always influenced by something, whether an athlete started them on their own or because of a teammate, coach, or even a professional athlete, there was always a reason behind the behavior. Some superstitions began as small things that turn into something more. One athlete stated, "My superstition my senior year was to stop all of my superstitions" (S7). He had realized that the superstitions he had were taking his focus away from the game.

Theme 2: Fear and Avoidance

The idea of fear and avoidance was rampant throughout the athletes' interviews. Many of the superstitious behaviors and rituals that they participated in were used out of fear or avoidance of negative repercussions. Their routines helped them feel as if they had controlling factors to help them attain positive results throughout their games.

Subtheme 1: Fear of Failure

Fear of failure is defined as "persistent and irrational anxiety of failing to complete a certain task or meet a specific standard" (Nugent, 2013). It is a major concept in sport psychology, and is also extremely prevalent in superstitions. All eight athletes discussed the fear of failing in their interviews (S1, S2, S3, S4, S5, S6, S7, S8).

Without the use of superstitions, all of the athletes felt as though they would have problems during their games. The soccer player joked that if he could not use his superstitions that there would be "chaos, everything [would] fall apart, the world [would] end" (S2). He believed that if he did not feel like he had control over certain factors that it would affect his game negatively. He was afraid that if he was unable to perform his superstitions, that he would be unable to perform.

The volleyball player said that her superstition was that she "never wash[es her] kneepads during the season because then they feel a little bit tighter and [she] won't be able to jump properly" (S4). She was afraid that if she were to wash them, that it would affect her playing ability. "I don't think I would play as well, I think I wouldn't be as good on the court, I think I would make more mistakes than usual…I wouldn't be at my peak performance" (S4).

Subtheme 2: Injury

With every sport comes the possibility of sustaining an injury. Superstition plays a part in returning from injuries for many athletes, and in preventing new injuries from occurring. Athletes that have sustained an injury in their sport are put on a vigorous rehabilitation program that can greatly influence their superstitious rituals before, during,

and after play. Five out of eight athletes spoke about how injury influenced their superstitions (S2, S3, S4, S5, S8).

One of the baseball players began his pregame superstitions because of a shoulder injury he sustained. He said that "it started because I hurt my shoulder and they just had me do it for rehab and now I just do it before I play catch every time" (S3). He felt that if he did not perform the routine that "probably nothing [would happen], but in my mind, um, I would feel as though my shoulder was tight or I would feel that I might hurt it again because it's not as loose as it could be" (S3). His superstitious routine made him feel more comfortable throughout the game and took his mind off of the injury he had previously sustained.

The soccer player said that after coming back from his injury,

> "it would affect me in a confidence way because I've had a lot of pulled hamstrings so that's really just for me, I really just go out there just as a way to make sure I'm loose and stretched out so I don't pull anything and if I don't do that, at least until the games started, I kind of have a nagging or worry in the back of my mind that I'm too tight, I might pull something" (S2).

Without being able to perform his superstitious routine, he would worry about getting injured again, so being able to partake in it put his mind at ease.

Subtheme 3: Good Luck

When asked about superstitions, the first ones that many athletes discussed were those relating to "good" luck. Whether they have a "lucky pair of shoes", a "lucky pair of socks", or even a "lucky shirt/uniform", it is extremely prevalent in life and sports. Many athletes believed that good luck would help get them through the event by keeping away

negative outcomes. All eight athletes mentioned good luck in their interviews (S1, S2, S3, S4, S5, S6, S7, S8).

> Two athletes always did things from right to left as indicated by these statements: "I always [did] things from right to left because in my head the right is always right" (S2).
>
> "The way I would put on my catching gear, I would always start with the right shin guard and then put on the left one, then I would put on my chest protector. If I put the left one on first, I would have to take it off and put the right one on first" (S6).

Doing everything from right to left was lucky for them and they had to make sure they did this every time they played. If for some reason they put anything on from left to right that day, they would have to restart and put it on correctly so that they avoided any possibility of something negative happening.

For the lacrosse player, it was very important to tape her stick the same way every time she got a new one because "the first time I taped it, I had a really good game and played really well, and I felt that the tape job was a factor in that" (S5). She said that "The way I taped it that game was lucky for me and I was afraid to change it because I didn't want to play badly" (S5).

Subtheme 4: Bad Luck

Just as much as having something or believing in something for good luck was important for many athletes, so was staying away from things that were deemed bad luck or unlucky. Many athletes feared doing something unlucky and could be completely

thrown off their game because of it. All eight athletes described their fear of bad luck (S1, S2, S3, S4, S5, S6, S7, S8).

There are many different phrases or sayings across sports that are said to be bad luck. The idea that there were certain things that, if said, would bring bad luck to an athlete was an extremely popular superstition.

> "If you're up to bat and you're fouling a million off and they say like um…'with it' or 'don't lose it now' or like something like that, then I would've been like 'Crap, I'm gonna strike out, now that you just said that I'm gonna strike out" (S1).

Summary Theme 2

The fear and avoidance of a negative outcome was extremely prevalent in superstitions. As many of the athletes were afraid to fail, they used their superstitions as a way to take control and avoid any negative outcomes. Their superstitions gave them the ability to face any fears and play the game to the best of their ability without worrying about any outside factors.

Many of the athletes in this study came back from an injury in their sport. While being injured was never fun and always required a lot of hard work to come back from, it could be the reason behind many superstitious rituals. When coming back from an injury there were many things that an athlete had to accomplish before they were strong enough, both physically and mentally, to return. During this time, it was likely that an athlete picked up on some routines or behaviors that turned into a superstition. They believed that their superstitions also helped them avoid injury later on.

All of the athletes in this study brought up the concept of luck at some point in their interviews. Luck was the most prevalent superstition. It is seen in everyday life,

which makes it especially dominant in sports. Many athletes used superstitions to bring themselves good luck, while keeping away the bad luck. There were many different things that athletes did to incorporate this belief into their game day rituals.

Theme 3: Team

Superstitions are not just an individual theme, but a team one as well. There are many teams that have superstitious routines that they perform to bring everyone together. These routines could act as a source of team bonding, as older athletes taught the younger ones what the superstitions were, as well as team cohesion to keep up team moral throughout the game.

Subtheme 1: Team Culture

There are certain superstitions that have been passed down to new athletes based on sport rituals or team warm-ups. They have learned them from teammates and/or coaches and perform them with their team throughout the day of the game. Seven of eight athletes spoke to this in their interviews (S1, S3, S4, S5, S6, S7, S8).

This superstition is huge in baseball and softball, and gets passed down through players very often. The softball player said “I first started because I heard it was bad luck [to step on the foul lines]”, “I guess I do still think of it as bad luck because when I’m playing catch, I also don’t want to step on it” (S1). One of the baseball players (S3) also commented that he tried “not stepping on the foul line as I’m going on and off the field” because of the fear of bad luck throughout the rest of the game. This player also stated,

> “And if I have to look down the line and I accidentally step on the line, I kind of cringe at first, and then I have to tell myself ‘ok well that’s just not an actual

> thing', but it's still, my first instinct if I step on the line is 'oh, crap, we're gonna be in trouble today now'" (S3).

Another athlete had a phrase that the team had to say before the start of a game because without saying it, they would perform poorly. "I don't know why, it's one of the traditions that's been passed down for years and years, so whenever we start a game, the starting six have to do that and if we don't say it, we don't do well" (S4).

Subtheme 2: Team Routine

Just like there were superstitious routines that the athletes performed individually, there were also many that they performed with their teams. These routines were important to keep up team moral and ensure team cohesion throughout the game. Four of eight athletes spoke about superstitious routines that they participated in with their teammates (S1, S4, S5, S8).

For one of the athletes, the team huddles before and during the game were extremely important.

> "You all like do the little huddle like before and you say something and if you did well the inning before you say the same thing that you said the time before, but if you did bad then you have to say something different because it didn't work last time" (S7).

This athlete believed that if his coach or teammate said a certain word or phrase and they did well, that they would have to repeat that same exact thing the next time, but if they did not do well, that they would have to change it. He felt that what his coach or teammates said could affect the outcome of the inning.

The volleyball player's team had many different team superstitions. One main one was specific to their warm-up.

> "When we warm-up, we always have to run to the left and do all of our stretches. We have them based to our music, and if we don't line them up right then we don't think we're going to do well" (S4).

As a team it was very important that they made sure these superstitions were done every game, otherwise they did not feel as confident throughout the game as they usually would.

Summary of Theme 3

Team sports had many superstitious rituals and behaviors that had been passed down to new athletes. There were also certain routines that each team performed before and during each game that help them to be more confident and motivated to play. Without these superstitions, the teams felt as if something would go wrong and worried more about the outcome of a game. The use of these behaviors or rituals brought the team together and allowed them to perform optimally and cohesively. Superstitions acted as a form of team bonding and team building, allowing for teams to work better together throughout the game.

Theme 4: Reasoning

There were many different reasons for the athletes' superstitious beliefs. These beliefs can either be rational or irrational. A rational belief is something that the athlete uses to give reason to their superstitions. A rational belief is defined as "having reason or understanding" (Mish, 2004). In their minds, the superstitious behaviors made sense and had a significant purpose.

An irrational belief is when the superstition is something that the athlete knows should not have any real effect on the outcome of their game, but that they still cannot stop doing for fear of repercussions. An irrational belief is defined as "not endowed with reason or understanding" (Mish, 2004). The reasoning behind these types of superstitions does not always have a significant purpose, and many times are thought of to be 'crazy' or 'weird'.

Subtheme 1: Rational Beliefs

Athletes often rationalized their behaviors in different ways. Some players used it as a source of blame, while others used it to settle their nerves, and still others used it as a way to make sure something went in their favor during a game. Five of eight athletes spoke to the idea of rationalizing their superstitious beliefs (S1, S2, S4, S6, S8).

One athlete was a pitcher during her softball career and said "I wanted to think of something else that was causing things and I wanted to blame it on other things because I didn't want it to be my fault" (S1). She brought up the idea of blame, which she used to rationalize her errors;

> "I think when I get tense, I become more superstitious. So I come quick to blame it on other things…but, if I'm relaxed and I know I can do well and it doesn't matter…about the superstitions as much as if I'm tense" (S1).

The perception she held of using outside factors for rationalization and blame were very evident in her interview. She explained the use of these outside factors when she would "like just get nervous and like use the superstitions to kind of rationalize it" (S1).

One of the baseball players spoke about the stress of playing at a collegiate level;

> "When you're at the collegiate level, everyone's at that high level and you have a smaller margin for error so, any mistake that you make is amplified ten fold…So there's all these new factors and you just have to be on the edge…So it just helps me knowing that if something's not going right in the game at least one thing's going right" (S8).

He believed that because of the fast pace and higher level of competition, his superstitions gave him the ability to control part of the game. By being able to participate in his superstitions, he was already regulating one aspect of the game and could use that to rationalize mistakes that may be made throughout it.

Subtheme 2: Irrational Beliefs

While many of the athletes used superstitions to rationalize their behavior, one of the athletes mentioned many times that "some people are crazy with it" (S8). Seven of eight athletes spoke to the idea of irrational beliefs in superstitions (S1, S2, S4, S5, S6, S7, S8). The softball player talked about how, although she was superstitious, she "knows there are some pitchers who were like, intense. I mean, I was, but there were some girls who were like crazy with their superstitions" (S1). The athlete believed that many other people were "crazy" when it came to superstitions and gave herself more of a normal position. Yet, even though she believed her superstitions aided in her mental performance, she states "it's one of those stupid irrational things that there's no reason for it" (S1).

Another athlete said that "I know superstitions have no real basis behind them, they don't really do anything for you, but I feel if I didn't do mine, that so many things would go wrong" (S5). She knew that the idea of having a superstition was irrational, but

could not see herself stopping any of her routines for fear of negative consequences. She stated that,

> "it makes absolutely no sense for me to have superstitions, or anyone else for that matter…and I know that, but I just can't bring myself to stop them. There's just something about that them makes it so easy to start, and then I can't get over them...unless I start doing poorly" (S5).

A different athlete said that as a team "we can't do it, because it feels weird" (S4). There is no true basis behind the superstitious behavior that they engaged in, but they could not stop doing it because it did not feel right to them. She also said about her own superstitions, "I'm very weird like that" (S4). She knew that superstitions had no real effect on the outcome of her performance, but she still needed to do them before every game for fear that something would go wrong that she could have prevented with her routines.

Summary of Theme 4

The athletes realized that having a superstition did not necessarily make sense since it had no real effect on the outcome of their performance; yet, they still rationalized their behaviors in their minds. One athlete said,

> "At first when I was younger I would think it was weird since I was the only one doing it, and then as I got older and older I, like, started picking up on what other kids tended to do since I played with them for multiple years. Then I realized that mine's just a different form of a superstition. Then I realized there was nothing wrong with it, it was just people expressing it in different ways" (S7).

When it came to other athlete's superstitions though, they said that "people can get really intense and go overboard" (S8). The perception of superstitious behaviors was that if your behavior is less rigid or strenuous than another person's, it is normal, and they then rationalized performing it because they were not going overboard. However, when someone else had a behavior or routine that was more out of the box or vigorous, then they believed that it becomes irrational.

Summary of Results

This study found that superstition had four main themes and 15 subthemes. The beliefs and rituals of highly superstitious athletes had many common threads and spoke to the intense nature of the use of superstitions in NCAA college level sports. These superstitions helped the athletes with anything from mental preparation to the illusion of control or to returning from injury; and, each subtheme was discussed in at least half of the interviews making the use of them extremely prevalent throughout the study.

Chapter 5

DISCUSSION

The results of this study delved into a highly superstitious athlete's belief in superstitions, the use of those superstitions, and the types of superstitions that they used. Unlike past research, which was mostly quantitative, this study used a qualitative approach which allowed the researcher to gain a better understanding of the athletes' perceptions of their superstitions. Four common themes emerged in the results: Individual, Fear and Avoidance, Team, and Reasoning. Within those four main themes, fifteen subthemes arose: Relaxation, Confidence, Focus, Internal Locus of Control, External Locus of Control, Individual Routine, Influence, Fear of Failure, Injury, Good Luck, Bad Luck, Team Culture, Team Routine, Rational, and Irrational.

Research Question 1: What types of superstitious behavior are most used by highly superstitious athletes?

The athletes in this study had an array of superstitions that they used throughout their careers, including putting on their uniform in a specific order, braiding their hair a certain way, and eating a specific meal before every game. As in previous research, this study found superstitious behaviors and routines that included clothing and equipment (Bleak & Frederick, 1998; Fischer, 1997; Gregory & Petrie, 1972, 1975; McCallum, 1992; Womack, 1992), food and eating rituals (Bleak & Frederick, 1998; Ciborowski, 1997; Fischer, 1997; Gregory & Petrie, 1972, 1975), luck (Bleak & Frederick, 1998; Burger & Lynn, 2005; Ciborowski, 1997; Damisch et al., 2010; Fischer, 1997; Gregory & Petrie, 1972, 1975; McCallum, 1992; Rudski, 2003, 2004), individual rituals and routines (Burger & Lynn, 2005; Ciborowski, 1997; Fischer, 1997; Foster et al., 2006; Gregory &

Petrie, 1972, 1975; McCallum, 1992; Womack, 1992), and team rituals and routines (Burke et al., 2002; Womack, 1992). There was no variation in these types of superstitions reported in this study compared to past research with highly superstitious athletes.

In contrast with previous research, however, abstention and spectators were not evident in the interviews. In Fischer's (1997) study, abstention was seen as a superstition in football, though about a third of the participants were baseball players. As more than half of the current study were baseball players and majority were also male, it is possible that abstention is no longer a main category of superstition. However, this may be also be related to the level of play and anonymity of the questionnaire used in Fischer's study. The athletes in this study may not have been comfortable speaking about abstention during their interviews, or it is possible that they would not even recognize the concept of this superstition without prompting from the interviewer.

In Gregory and Petrie's (1975) study, 174 male and female athletes from the University of Western Ontario were surveyed. Men were more superstitious about which spectators were present at a competition than woman usually were. However, both genders indicated a belief in the affect of an audience member's presence on their performance. This category was not discussed in any of the interviews of this current study, which may mean that the athletes did not believe that spectators had a serious effect on the outcome of their games and were not worried about who watched them on the field or court. It is also possible that, like abstention, the athletes would not have considered the idea of this superstition without the survey or researcher specifically asking about it, which the survey did.

Research Question 2: What purpose does the use of superstitions serve for the athlete?

The second research question in this study was used to determine the purpose of superstitions for the athletes. This study found seven main reasons that athletes used superstitions; Mental Preparation, Self-Efficacy, Illusion of Control, Fear of Failure-Need to Achieve, Attribution Theory, Team Bonding and Cohesion, and Injury.

Mental Preparation

As in past research, highly superstitious athletes used their superstitions for mental preparation which they believed elevated confidence (Burke et al., 2002; Womack, 1992), helped maintain focus (Womack, 1992), and decreased stress and anxiety (Bleak & Frederick, 1998; Brevers et al., 2011; Damisch et al., 2010, McCallum, 1992; Womack, 1992). Throughout the interviews, mental preparation was the main topic of discussion leading to the use of superstitions. The athletes felt that the majority of their superstition usage was to help them relax and become comfortable with the situation.

Many of the athletes spoke about how they needed to participate in their superstitious rituals or behaviors because if they did not they would feel discomfort and things would go wrong throughout the rest of their game. Womack (1992) found that athletes that were not able to practice their superstitious routines were thrown off their game until they were able to do so. The themes from this study support this idea, as all athletes felt that their superstitions helped them to mentally prepare for their games.

Self-Efficacy

As defined by Bandura (1994, p. 71), self-efficacy is “people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. In this study, self- efficacy beliefs determine how people

feel, think, motivate themselves and behave". Self-efficacy played a large part in the creation of superstitions, as someone who did not believe that their skill alone could get them through the game many times turned to superstitions. In their study, Schippers & Van Lange (2006) found that,

> "relative to an inferior opponent, an opponent that was believed to be superior or equal to the own team elicited greater levels of ritual commitment….ritual commitment was [also] greater when the importance of the outcome was believed to be high (i.e., finals), rather than low (i.e., a training match)." (p. 2547)

The more a player was unsure of themselves and their ability, the more they turned to superstition for luck. Their superstitions gave them an extra boost of motivation to feel more in control of the situation and helped them become more mentally prepared for the situation.

Illusion of Control

In past research, the illusion of control was viewed as the perception that an athlete can alter the outcomes of their performance by performing a superstitious routine (Brevers et al., 2011; Burke et al., 2002; Ciborowski, 1997; Damisch et al., 2010; Foster et al., 2006; Rudski, 2004; Todd & Brown, 2003). The athletes interviewed in the current study showed that this is still the case, as many of them discussed the idea of control as part of the reason for their superstitious behaviors. Their use of superstitions depended on the motivational valence of the situation, which is defined as "a feature of the stimulus' relation to current goals or concerns. Stimuli that enhance goal attainment lead to positive evaluations; those that block or obstruct goal attainment lead to negative evaluations" (Moors, de Houwer, Hermans, & Eelen, 2005, p. 1044).

When an athlete was stressed because there was a lower chance of success, such as batting, or they felt as they were weaker in a certain skill, they were much more likely to partake in a superstition to try and boost their control over the situation. They felt as though they needed a superstition in order to attain their goal of success. The superstitious behavior allowed them to boost their confidence when the superstition was based on an internal locus of control, or to place blame on an external factor when the superstition was based on an external locus of control (Weinberg & Gould, 2003).

Fear of Failure – Need to Achieve

Fear of failure was a huge reason that athletes created superstitions. When an athlete was afraid to fail, they were much more likely to develop superstitions to help them succeed (Sagar, Lavallee, & Spray, 2007; Weinberg & Gould, 2003). This notion was also associated with Competitive Trait Anxiety (CTA). Competitive Trait Anxiety is

> "a construct that describes individual differences in the tendency to perceive competitive situations as threatening. Higher levels of CTA may be the consequence of the young athlete's perceptions that he or she does not possess sufficient competency to succeed in this domain of achievement" (Brustad & Weiss, 1987, p. 98).

The higher the level of trait anxiety in an athlete, the more that an athlete was afraid of failing and the more likely they were to believe in superstitions (Brustad & Weiss, 1987; Sagar et al., 2007; Weinberg & Gould, 2003).

The more important an event is and the more evenly matched their opponents are, the more they will lean towards to the use of superstitions (Welch, 2015). In this study, one of the athletes (S8) spoke about how at the collegiate level there was a much smaller

margin for error and how his superstitions helped him forget about that. Since he was surrounded by athletes that have similar or higher skill levels, he felt that he needed to add something to his repertoire. With the added pressure of not being as dominant in his field, there was a rise in his fear of failing and his need to achieve. The use of superstitions added that extra bit of confidence that he needed so that he could be successful.

Attribution Theory

The attribution theory is based on the way an athlete perceives their contribution to a certain event (Rees et al., 2005; Rejeski & Brawley, 1983). When an athlete correlated a certain behavior with a negative outcome, they were much more likely to try to avoid that behavior in the future (Rees et al., 2005). So, if an athlete completed one of their superstitions and something went wrong, many of the athletes said that they would change their superstition. They believed that what they did caused an undesirable result and wanted to do anything they could to change that in the future.

Just as an athlete is going to try to avoid a negative situation, they are going to try to recreate a positive one. When an athlete correlated a certain behavior with a positive outcome, they began trying to copy the behavior to bring future success (Rees et al., 2005). The more an athlete identified success with a specific behavior, the more likely they were to begin creating superstitions.

Team Bonding and Cohesion

Superstitions are extremely common among athletes in team sports as a "team culture keeps superstitions alive by passing them down from veterans to newcomers"

(Welch, 2015, p. 6731). As all of the athletes in this study participated in team sports, it is not surprising that majority of them had superstitions associated with their team or sport.

As stated in previous research, not stepping on the foul line was a superstition passed down through all generations of softball and baseball players (Ciborowski, 1997; Fischer, 1997; Womack, 1992). In this study, the softball player and all four baseball players mentioned this superstition at least once in their interviews, showing that team culture and sports were a huge part of superstitions. It is even possible that because of the nature of team mentality, it is much easier to preserve superstitions and partake in them, even if the player does not have individual behaviors or rituals.

Injury

One new factor that was found, and not supported in past research, was the use of superstitions when recovering from and avoiding future injury. Just like abstention and spectators were not categories found in this study because of the type of research, it is possible that injury was not present in previous research due to the use of questionnaires. As athletes were given a set of questions to answer, it restricted their ability to share other superstitions outside of what was asked. In the present study, all five of the athletes that had a serious injury spoke about how part of their recovery became a superstitious ritual. This strategy ranged from saying a certain word to remember their strength, to putting on their uniform in a certain order, or to adding a section to their warm-up. Each athlete believed that their superstitions helped them to remember their past injuries and in doing so, helped them to avoid reinjuring themselves.

This finding may be connected to reinjury anxiety which is defined as “a negatively toned emotional response, with cognitive (e.g., negative thoughts and images)

and somatic symptoms (e.g., feeling nauseous and tense) that arise due to the possibility of an injury reoccurring after an initial injury of the same type and location" (Wadey, Podlog, Hall, Hamson-Utley, Hicks-Little, & Hammer, 2014, p. 257). The thought of possibly suffering the same injury made the athletes extremely nervous and anxious. They wanted to do everything they could in order to avoid another injury, so to help fight their reinjury anxiety they began using superstitions to become more relaxed and feel more in control of the situation.

Research Question 3: What type of impact does the athlete using these superstitions believe superstitions have on his/her athletic performance?

The third topic researched in this study was the impact of superstitions on the athletes. A majority of the athletes did not believe that superstitions had a true impact on their performance and the outcome of the game. They did, however, believe that their superstitions helped calm them down and keep them relaxed.

Many of the athletes stated that they knew that what they were doing had no real effect on the outcome of the game and did not correlate their behaviors with success or failure. The use of their superstitions simply helped them mentally prepare for what was to come, and gave them an outlet to express any frustrations and place blame somewhere beside themselves (Weinberg & Gould, 2003). It also increased their confidence and helped them focus on what they needed to do during the competition (Burke et al., 2002; Womack, 1992).

One negative impact of superstitions that was not seen in past research did surface throughout the interviews. These highly superstitious athletes used an extreme amount of superstitions which could be more damaging to their performance than advantageous.

While they mostly used their superstitions to relax, boost confidence, and stay focused, the thought of not being able to use their superstitions made them extremely uncomfortable and nervous, and in some instances, they were harmful to their health. A baseball player said,

> "one that was kind of detrimental to me was I wouldn't drink water during the games, I didn't drink water unless I was dying. If I drank water, or any liquid, I wouldn't perform…Why would I do that? That's like stupid" (S7).

Such types of superstitions may be extremely dangerous for an athlete, especially on hot days, and could have been the cause of severe health problems.

He added that "mentally it is not easy, it literally takes over, it takes over your life" (S7). The superstition may become so dominant in the everyday routine of athletes that they stop focusing on what they actually need to do because they are so obsessed with completing all of their superstitions. The types of and the amount of superstitions that an athlete partakes in can be seriously debilitating. This athlete only felt free during his senior year when "my superstition was to not have any superstitions…I actually think that helped me out a lot because I wasn't focused on if I didn't do everything in an exact order, I'm going to have a bad game" (S7).

Practical Implications

The practical implications of this study may be significant. *First*, when instructing young athletes, it is important that the coach be careful to teach them the correct technique and watch what they say to an athlete. Athletes will many times develop superstitious rituals from the routines taught by their coaches, as they are an extremely important source of their learning. More often than not, athletes respect their coaches and

want to impress them, so they take what they say and do so very seriously. If improper technique is taught or negative statements are made, it is possible the athlete will incorporate those aspects into their rituals in a way that may be detrimental to them. Using superstitions may cause feelings of frustration and can be difficult to correct (Weinberg & Gould, 2003). In this instance, it is important for coaches to discourage an athlete from performing a superstition that neglects traditional training methods (Welch, 2015) or is damaging to their success, both mentally and physically.

Second, since coaches are influential in the creation of superstitions, it may be beneficial for them to aid the athlete in the developmental stages. The coach should first have a basic understanding of sport psychology techniques and second know their athletes and their personalities. Since superstitions are used as a form of relaxation (Bleak & Frederick, 1998; Burke et al., 2002; Ciborowski, 1997; Damisch et al., 2010; Foster et al., 2006; Foster & Kokko, 2009; Schippers & Van Lange, 2006; Todd & Brown, 2003; Watson & Tharpe, 1990; Womack, 1992), focus (Womack, 1992), and confidence boost (Burke et al., 2002; Womack, 1992), it is important for athletes to integrate relaxation behaviors into their pre-performance routines. In order to assist with this process, the coach should apply these sport psychology techniques by learning what calms the athlete down. Then, if the coaches are able to train their athletes to use methods that will benefit them personally, the athletes will be able to incorporate them into their routines and may no longer have to rely on superstitions.

Third, using imagery, positive self-talk, and team building are important to the development of athletes. Having an athlete learn and use imagery will assist them in mentally preparing, controlling anxiety, focusing, building confidence, learning new

skills, and recovering from injuries (About Applied Sport & Exercise Psychology, n.d.). Teaching an athlete to use positive self-talk will help improve self-confidence, focus, and motivation (About Applied Sport & Exercise Psychology, n.d.). Working on team building can improve team cohesion, communication, group goals, trust, and respect (About Applied Sport & Exercise Psychology, n.d.). As many of the athletes in this study had superstitions that originated because of these factors (e.g. focus, mental preparation, etc.), using techniques like imagery, positive self-talk, and team building when working with individual athletes and teams can impact the use of superstitions. If coaches teach sport psychology techniques, then athletes will have other skills to depend on and may not necessarily need to develop superstitions.

Chapter 6

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

There were four major findings within this study. The first was that athletes believe that superstition was a mental aspect of their game. The interviews revealed that athletes knew superstitious behaviors would have no affect on their physical performance, but that it instilled a sense of relaxation and confidence in them.

The second major finding was that not all superstitious behaviors and routines were created by the individual on their own. In many situations, teammates and coaches may have also contributed to their behavior, as well as famous athletes or traditions passed down through specific sports. This effect could be seen in customs like chants, cheers, and focus words. It also appeared during training techniques taught by coaches.

The third finding was the idea that superstitions were used as a source of blame to rationalize mistakes. This thinking may be seen when an athlete's skill level is not up to par, so they deem behaviors and objects as lucky or unlucky to take focus away from themselves. The idea also surfaces when an athlete is nervous or tense and needs an outlet to express their frustrations.

The fourth finding was that athlete's used superstition to cope with or to avoid injury. The interviews showed that after injury, many of the athletes began to partake in superstitions that they had not previously relied on. By constructing new behaviors and routines, it allowed them to feel like they were in control of their body and surroundings. These new superstitions presented a way to protect themselves from suffering any future injuries.

Conclusions

Superstitions may be a component of sports for many athletes, and while there are definitely people that do not believe in or have any superstitions, many athletes believe in superstitions and use them every day. These superstitions can be putting on their uniform a certain way to having their belt a certain way to playing catch at a certain distance for a certain amount of time. Athletes may not always know why they came up with a superstition or what purpose it served, but the majority of the time, superstitions acted as a way to calm the athlete and place blame on a routine instead of on the individual themselves.

These athletes had many different superstitions that they believed in and used for a variety of reasons ranging from an illusion of control to injury avoidance. When athletes were not able to perform their superstitions, they became worried and uneasy that things would not go the way that they had planned. Superstitions were an important part of the athletes' routines, and one of them said it the best; "some of them have gone away, some of them have changed, but I've always had superstitions" (S2).

The athletes' superstitions gave them that extra boost that they needed to feel ready on both an individual and team level. They gave them an extra sense of security and helped them to mentally prepare for their games. Without the routine the athlete felt that they would be distracted from the game and would not be able to properly focus on the task at hand.

One baseball player said "I realized there was nothing wrong with [my superstitions]…like this thing does exist and if you believe in something, and if you do it the right way, then maybe you can dictate the outcome of something" (S6). Superstitions

are becoming more normalized throughout sports, and used rationally, can help to elevate the athlete's performance as a technique to aid in their mental preparation. However, athletes must be careful that they do not become too preoccupied with their superstitions, as the use of too many can become detrimental to their game. They must learn to differentiate between which of their superstitions are positive and aid in their quest to succeed, and which are negative and cause more damage than good.

Recommendations

In future studies, interviewing athletes within a wider range of sports would assist in gaining further insight into all athletes' experiences with superstition. The use of more than four sports will allow them to probe the minds of athletes that may view their experiences with superstition differently based on the nature of their sport. It is also necessary to interview athletes in individual sports, as superstitions are more common in team sports and therefore more likely to be believed by athletes in team sports.

Another recommendation would be to interview athletes within a wider age range. The use of a broader range of ages would allow us to better understand the experiences of a more diverse group of athletes at different playing levels and at different periods of time within their careers. This approach could give more insight into how superstitions develop and evolve over time.

Future research should also include athletes within a more specific level of play to better comprehend superstitions on a more detailed basis. Interviewing children at the beginning of their sports careers could give understanding as to when and how superstitions really begin to develop. Interviewing teenagers in high school and young

adults in college would show how superstitions can change and evolve over time. Finally, interviewing adults at the professional level would give us an idea of how superstitions

Another study should include the use of athletes with more diverse ethnicities. It is possible that people of different backgrounds will have different superstitions based on their culture and family traditions. By interviewing participants within a broader range of ethnicities, we would be able to gain a better perspective on superstitions throughout the world.

Future research should also examine superstitions by gender. An even amount of male and female athletes, or just a study for female athletes or male athletes, may help our understanding of whether different genders are prone to more specific types of superstitions. It will also help us better understand how these superstitions are formed for each gender and how society has influenced them.

Finally, a descriptive study should be done on the number and types of superstition in relation to an athlete's level of superstition. This type of study could help us understand the relationship between the level of play and the amount of superstitions an athlete uses. It would also help to define the difference between athletes that are not superstitious, those that are moderately superstitious, and those that are highly superstitious.

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APPENDIX A

Personal Reflection – How the researcher views superstition in sports

Superstition is something that truly interests me. I want to understand why people partake in it, what they think it does for their performance, and whether or not it truly affects their ability level. I want to know what rituals and behaviors they have, how they started, and why they continue to use them. I am curious as to what they think would happen if they were unable to partake in that behavior anymore, and if they did not carry it out, whether there would be any repercussions. I am interested in whether the superstitious behavior the person believes in really does have an impact on their performance and, whether they feel it is a mental or physical impact, how it will affect their playing abilities. I would like to understand how they come to believe in these superstitions, whether or not they change something from their normal routine and perform better that day, or if they change something and feel that not going through their normal ritual that day affected them in a negative way.

I played many different sports growing up, but my key sports, softball and volleyball are the most prominent in my mind in terms of superstition. I played them both throughout high school and in some form throughout college as well. During different seasons, I would come up with different reasons for keeping certain behaviors, rituals, and lucky objects around me or as part of my routine before a game or a practice.

In softball I followed some of the stereotypical baseball routines or superstitions. As a pitcher I never stepped on the foul line, I always jumped over it; and I had a batting routine that involved swinging the bat over the plate three times before setting into my stance. A significant amount of my superstitions came about from my own experiences

though. I wore ankle socks even though we were supposed to wear knee socks because they were lucky. I never wore my hair in pigtails, especially braided pigtails, because every time I did, something bad would happen. I even went as far as needing a certain catcher when I was pitching because the other one was, for some reason, unlucky to me. I did really poorly when she was catching as opposed to having my "lucky" catcher whom I pitched better with. I had a sliding pad, but never wore it because whenever I did wear it I would end up with scratches or bruises, which is the opposite reason for wearing a sliding pad. My pitching routine actually changed a couple of times: I started the season by going through my windup and throwing the ball into my glove, but that became unlucky for me when I would miss my glove on the follow through. I also had to fill in any holes on the mound and near the rubber left from the opposing pitcher in the previous inning and started talking to myself and saying what I needed to do in order to get through the rest of the game.

In terms of volleyball, my superstitions were slightly different. I actually had to wear knee socks because if I wore ankle socks there was more of a chance I would get injured. There was a period of time that I could not, or would not, wear kneepads because they made me play worse, and then there was a period of time where I could only wear yellow kneepads and that made me play better. I had a serving routine that include bouncing the ball, spinning it my hands, and then taking a deep breath before even throwing it in the air to being my serve. There was a certain type of music I listened to, a specific song, which did not have any words and calmed me down a lot. I had a superstition of needing to use the same ball after an ace, which was actually the same for me when I played tennis.

For both of my main sports, there were a couple of years in time that I did not want anyone from my family coming to any of my games. I believed that their presence was unlucky because I did not perform well when they were there. I had problems concentrating on the games with them present, so as a rule they were not allowed to watch. I could not have them there because I would not be able to do what I needed to do. This superstitious belief held for a couple of years, but changed when my mom decided she was going to come to my games anyway. In the subsequent years, I believed it was luckier for my family to be present at the games.

I believe that during my freshman and sophomore years, my ability of play and my ability to focus on the game, and not everything around me, had a lot to do with my superstitions. I think that since I was still learning my sports, my family's presence at the games threw me off because I would think more about them than what I actually needed to think about. However, in my junior and senior years I became more confident in my ability as a player, which enabled me to tune them out, no matter who was there or what was going on. It was easier for me to have them present at the games because it gave me both a sense of calmness and fired me up at the same time. I wanted to play better to show them that I could do it, and so I needed them there in order to perform to the best of my ability.

Having superstitions allowed me to focus on what I needed to be doing at that time and most of them were created to help with that. For example, in my pitching routine, filling in the holes would take me away from the rest of the game which allowed me to calm down and think about what I needed to be doing. I would not be worrying about anything else going on, whether the score was 40-0 or 0-0, it did not matter at that

point because it was all about how I was able to bring my focus together and get through to the next inning.

I believe that the use of superstitions, in a way, let me blame other things for the outcome of whatever happened. If it was a negative outcome that would be outside of my personal ability and my control, but the items that I used for luck, like the kneepads or the socks, calmed me down just knowing I had them. My superstitions gave me a sense of control over my body and the situation that enabled me to go into a competition and play to the best of my ability. They gave me the ability to say, oh well this happened because I was not wearing my lucky socks, I struck out because I did not perform my three swings before I went up to bat, or I missed my serve because I was wearing different kneepads. Really it just gave me a scapegoat of being able to state that it was not because I was bad at something or because I played poorly, but it was because my superstitions were not available to me that day, I was unable to partake in my usual ritual, or it was something that I just deemed unlucky.

Most of my superstition began because I played well that day and overcame something that I had been having problems with in the past. I usually attributed this to something I did before the game or wore that day. Another reason they were invented was because something went wrong, and although I personally may have played poorly, I was able to say I did badly because of that superstition. This made it easier for me to keep the confidence in myself and my playing ability and to keep going and moving on from what I was doing wrong during the game. It allowed me to calm myself down because even though it may not have actually been because of that unlucky thing, the idea that it was, allowed me to bring my focus back on to the right cues.

APPENDIX B

INFORMED CONSENT FORM
(Superstition in Sport: A Phenomenological Study)

1. Purpose of the Study
   The purpose of the study is to examine the different types of superstitious behaviors used by athletes, the reasons an athlete partakes in these behaviors, and the athlete's beliefs of how those behaviors affect their performance.

2. Benefits of the Study
   The benefit of the study as an athlete is that the research will provide a greater self awareness of your superstitious practices and beliefs. It will also help other athletes and coaches understand the causes and uses of superstitious behaviors.

3. Your Participation Requires
   You will first complete a survey and then may be asked to partake in a follow-up interview. The survey will be used to record your demographic information and your beliefs in the use of superstitions. If you are asked to proceed in the study, you will participate in a thirty (30) to sixty (60) minute interview with the researcher. In this interview you will be asked to go more in depth into your experiences with superstition in sports by answering the question "Talk about your experience with superstitions in your sport." All follow-up questions will be based on your responses. An audio recorder or video recorder will be used to help record the interview. The interview will then be transcribed. Upon completion of the research you will be sent a copy of both the transcription and the results, and asked to review each for any inaccurate information. Athletes with no belief in or use of superstitions will be excluded from this study.

4. Risks
   There are minimal risks involved in participating in this study. However, please note that any of your responses may elicit a question from the researcher that may cause you uneasiness, discomfort, or embarrassment. If at any time this occurs, please feel free to pass on that question.

5. If You Would Like More Information about the Study
   Please contact Danyel del Rosario at (845) 304-5801 or danyel.delrosario@gmail.com or you may contact the faculty sponsor, Dr. Justine Vosloo, at (607) 274-5190 or jvosloo@ithaca.edu.

6. Withdrawal from the Study
   This study is voluntary. You are free to withdraw at any time without penalty, and to omit answers on questionnaires that you feel uncomfortable answering. In the event that you terminate your participation, all of your information will be destroyed.

_____
Initial

7. How the Data will be Maintained in Confidence
   All data collected will be kept strictly confidential. Your name and any identifying information will not appear anywhere in the study and your interview will be coded to insure your confidentiality. Your information and interview responses will only be seen by the researcher and research supervisors. All audio and video recordings will be stored on the researcher's personal computer and password protected with access granted only to her. The recordings will be kept for five (5) years after the conclusion of the study and then deleted.

I have read the above and I understand its contents. I am 18 years or older. I agree to participate in the study.

_____
Print or Type Name

_____ _____
Signature Date

I give my permission to be audiotaped and/or videotaped.

_____ _____
Signature Date

Note: This information may be used for archival research in the future

APPENDIX C

Subject Questionnaire

Part A.

1. Gender
   □ Male □ Female □ Transgender □ Prefer Not to Answer

2. Ethnicity (Check all that apply)
   □ African-American □ Asian □ Caucasian □ Hispanic
   □ Native American □ Other _____

3. Age
   □ 18 □ 19 □ 20 □ 21 □ 22 □ 23 □ 24 □ 25 □ 26 □ 27 □ 28 □ 29 □ 30
   If older than 30 please write your age: _____

4. Marital Status
   □ Single □ Married □ Divorced □ Widowed □ Domestic Partnership

5. Sport
   □ Baseball □ Softball □ Soccer □ Volleyball □ Lacrosse

6. Position
   Please write the position(s) you play _____

7. Years of Participation in Sport
   □ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7 □ 8 □ 9 □ 10+

8. Current Level of Participation in Sport
   □ DI □ DII □ DIII

Part B.

	Not at All Like Me		Somewhat Like Me		Completely Like Me
1. I believe in the idea of superstition	1	2	3	4	5
2. I have superstitious behaviors/beliefs	1	2	3	4	5
3. I believe that superstitious behaviors/beliefs effect my performance	1	2	3	4	5

APPENDIX D

Interview Guide

In this interview you will be asked to go more in depth into your experiences with superstition in sports by answering a set of questions and follow-up questions that will be based on your responses. An audio recorder or video chat recorder will be used to help record the interview. The interview will then be transcribed. Upon completion of the research you will be sent a copy of both the transcription and the results, and asked to review each for any inaccurate information. You are free to discontinue your participation in this interview at any time. Do you consent to this interview?

Interview Question:

Talk about your experience with superstitions in your sport.

Probe Questions:

1. Tell me more about that…
2. How has that affected you?
3. How do you feel about that?
4. Explain more about that…
5. Could you give me some examples of…
6. What makes you feel that way?
7. You mentioned…Can you elaborate on that?
8. What would that look like?
9. Can you take me through that routine?
10. How do you do that?
11. If I were watching you do that, what would I see?
12. What makes that stand out in your memory?
13. Have you always felt this way?
14. How has your approach changed over time?
15. Can you think of another situation in which you….?

APPENDIX E

THEMES, SUBTHEMES, AND INITIAL CODING

Theme 1: Individual

Relaxation (S1, S2, S3, S4, S5, S6, S7)

- **Relax, Relaxed** (You already did it so you can relax)
- **Relaxed**
- **Relaxed, Calm** (I'm more just relaxed when I do them)
- **Relax**
- **Calm** (would like, calm me down I think)
- **Comfort, Comfortable** (I do it because it makes me more comfortable)
- **Relax** (it [makes] me relax)

Confidence (S2, S4, S5, S6, S8)

- **Confidence**
- **Confident, Confidence** (I think that that's how confident I am when I'm playing)
- **Confident**
- **Confident** (made me feel confident in the situation that was in front of me)
- **Confident** (it helped me feel confident)

Focus (S1, S2, S3, S4, S6, S7, S8)

- **Focus** (I need to focus)
- **Focus**
- **Focus** (they can focus on what they're doing)
- **Focused** (I'll be more focused, I'll be ready to go)

- **Focus**
- **Focused** (it helps me be more focused)
- **Focus** (so, if I have all these factors that I can control and really focus on, then everything else can fall into place)

Internal Locus of Control (S2, S3, S5, S6, S7, S8)

- **Control** (it's just kind of a safety check to make sure that everything's in place to uh, ensure that like I didn't miss anything)
- **Control** (I don't want to overthink anything, so when I do those, do those superstitions as habit, I let go of all the thoughts I have, all the, I guess worries I have when I'm doing those and when I finish it's just me and the pitcher)
- **Control** (I think it affects your mental performance and the way you're approaching the game and it affects the way you think about it)
- **Control**
- **Control**
- **Control** (I guess it kind of brings me down and helps me realize that 'hey, it's just a game in the end' and I don't need to stress over it)

External Locus of Control (S1, S4, S5, S6, S7)

- **Control** (Mentally it's like 'Okay, well you know that didn't work, so we're gonna change it up, try something new)
- **Control**
- **Control** (I couldn't change it or it would affect my game)
- **Control** (And let's say if I didn't get a hit that at bat, maybe it's the way I did it that was off)

- **Control** (If I didn't have the control over these factors, things would just go wrong)

Individual Routine (S1, S2, S3, S4, S5, S6, S7, S8)

- **Routine** (I would do at least, the same exact thing every time that I went up there, like the same routine over and over again)
- **Routine** (this routine that I do every single time)
- **Routine** (I have a set routine that I do when I'm on deck)
- **Routine** (And if I don't do it in that order I have to start over because I feel like it's not right)
- **Routine**
- **Routine** (I started doing things over and over again, and I just thought…uh, I can't break it)
- **Routine** (as I'm going through my routines, everything else washes away and I'm in a familiar setting)
- **Routine** (If you don't do everything exactly the same, then you're not doing it right)

Influence (S1, S2, S3, S4, S5, S6, S7, S8)

- **Coach** (they would either do something or say something and then we'd want them to do it or say it every time because they did it once and it worked)
- **Coach** (I was told by a coach)
- **Parent** (When my dad would come out and get ready to throw to me and be like 'alright make sure you stretch and get loose before I start throwing to you'…then I would do that each time"

- **Coach** (coach needs to be using a purple pen when he's taking stats and he has to be chewing gum and he can't use a pencil because one time he used a pencil and we did horribly and we think it's because of that)
- **Self** (When I was younger, I accidentally put the shirt under my jersey on inside out)
- **Professional athlete** (it started when I was watching my favorite player)
- **Self** (My superstition my senior year was to stop all of my superstitions)
- **Professional athlete** (It was mostly just me emulating my favorite major league baseball player)

Theme 2: Fear and Avoidance

Fear of Failure (S1, S2, S3, S4, S5, S6, S7, S8)

- **Fear** (I'm nervous, I don't wanna mess anything up)
- **Fear** (chaos, everything [would] fall apart, the world [would] end)
- **Fear**
- **Fear** (I don't think I would play as well, I think I wouldn't be as good on the court, I think I would make more mistakes than usual)
- **Fear**
- **Fear** (I'd feel anxious because I'm not following the same pattern)
- **Fear** (If I don't do it I feel stressed, and I don't perform as well)
- **Fear**

Injury (S2, S3, S4, S5, S8)

- **Injuries**
- **Hurt my shoulder**

- **Sprained ankle, Broken ankle** (Then once I broke my left ankle in high school, I just had to make sure the left ankle was more secure first)
- **Torn ACL**
- **Injury**

Good Luck (S1, S2, S3, S4, S5, S6, S7, S8)

- **Luck**
- **Good Luck, Lucky** (I, um, wasn't wearing like the lucky pair of shoes or whatever it needed to be to happen before the game)
- **Luck**
- **Luck** (We just know at home we have that extra bit of luck, but if we didn't do it at home, we would probably not do well)
- **Lucky** (The way I taped it that game was lucky for me)
- **Luck**
- **Luck**
- **Lucky** (I had a lucky pair of socks)

Bad Luck (S1, S2, S3, S4, S5, S6, S7, S8)

- **Bad Luck** (I guess I do still think of it as bad luck because when I'm playing catch, I also don't want to step on it)
- **Bad Mojo (**I can get all the, like, bad mojo out of my system)
- **Bad Luck**
- **Bad Luck** (And if you don't it's bad luck)
- **Bad Luck**
- **Bad Luck** (it was bad luck to do that)

- **Bad Luck**
- **Bad Luck** (you couldn't step on the foul lines or it was bad luck)

Theme 3: Team

Team Culture (S1, S3, S4, S5, S6, S7, S8)

- **Stepping on foul lines** (you don't want your team to be the first team to step on the chalk lines. The other team has gotta do it, we'd always jump over them)
- **Stepping on foul lines** (not stepping on the foul line as I'm going on and off the field)
- **Tradition** (I don't know why, it's one of the traditions that's been passed down for years and years)
- **Tradition** (my team has always done it)
- **Stepping on foul lines**
- **Stepping on foul lines**
- **Stepping on foul lines**

Team Routine (S1, S4, S5, S8)

- **Routine** (if we got to the field late and we couldn't do it…we'd all get like worked up like "Ahh, we need to do our routine")
- **Routine** (we all have to do our hair before going off to the court, like in the team room)
- **Routine** (we have to say it before the game)
- **Routine**

Theme 4: Reasoning

Rational (S1, S2, S4, S6, S8)

- **Blame** (I didn't want it to be my fault)
- **Reason**
- **Reason**
- **Blame** (I wanted something else I could blame)
- **Reason** (So it just helps me knowing that if something's not going right in the game at least one thing's going right)

Irrational (S1, S2, S4, S5, S6, S7, S8)

- **Irrational**
- **Weird** (It's like really weird)
- **Weird** (I'm very weird like that)
- **No basis** (I know superstitions have no real basis behind them)
- **Weird** (At first when I was younger I would think it was weird since I was the only one doing it)
- **Weird** (I didn't have any weird ones)
- **Crazy** (some people are crazy with it)