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Role Ambiguity of Head Volleyball Coaches and Strength and Conditioning Coaches in Division I Athletics

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ROLE AMBIGUITY OF HEAD VOLLEYBALL COACHES AND STRENGTH AND
CONDITIONING COACHES IN DIVISION I ATHLETICS

by

MEREDITH PASKERT

(Under the direction of Jody Langdon)

ABSTRACT

Role ambiguity is common in interdependent organizations and can negatively affect employee

performance and organizational effectiveness. NCAA Division I athletic departments are

examples of interdependent organizations containing the collaboration of many specialized staff

members. Therefore, collegiate athletic departments could be susceptible to the existence of role

ambiguity. The purpose of this study was to determine the prevalence of role ambiguity between

head volleyball coaches and strength and conditioning coaches within a collegiate athletic

department. Questionnaires were sent to head women's volleyball coaches and their respective

strength and conditioning coaches (who are in charge of creating and implementing strength and

conditioning programs for volleyball teams) at member institutions of one NCAA Division I

conference. Nine coaches participated in the study. The Role Questionnaire results ($M = 5.00$,

$SD = .63$) and Role Ambiguity Scale results ($M = 3.69$, $SD = .957$) indicated that role ambiguity

does not exist within this sample, however some role identification responses suggest the

opposite. Future research should seek to duplicate this research with a broader sample of

participants in hopes of discovering a more generalizable indication of whether or not this issue

exists in NCAA athletics.

INDEX WORDS: Role ambiguity, Strength and conditioning, NCAA, Division I athletics,
Volleyball, Coaching roles

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CHAPTER 1

INTRODUCTION

Role ambiguity is defined as a lack of clear, consistent information about the expectations associated with one's position (Bosselut, McLaren, Eys, & Heuzé, 2012). Organizations comprised of employees with high role interdependence have an increased potential for the existence of role ambiguity in comparison to organizations with less collaboration (Beauchamp, Bray, Fielding, & Eys, 2005). Along with role ambiguity, role conflict is also prevalent in organizations with high collaboration, especially when clear roles and boundaries are not established. Role conflict refers to the presence of incongruent expectations and performances (Beauchamp & Bray, 2001). To compare, role ambiguity is a lack of clear information whereas role conflict is the existence of contradictory information. However, both role ambiguity and role conflict can cause employees to experience stress and job dissatisfaction that leads to less effective job performance. Interdependent organizations can lessen the negative effects of role ambiguity and conflict by establishing organizational structure and increasing the amount of role clarity among employees. Role clarity is defined as the degree to which required information about how an employee is expected to perform his/her job is provided. Simply, role clarity is the opposite of role ambiguity.

When role clarity exists, it creates confidence among teams because the attention is focused on the group's abilities rather than individuals' strengths (Leo et al., 2015). This can be achieved through important group processes such as intra-team communication and task cohesion, which are both positively influenced by role clarity (Carron & Eys, 2012). Therefore, organizations must place an emphasis on establishing role clarity in order to maintain the effectiveness of employees and to ultimately lessen employee role ambiguity and role conflict on

the job (Campbell, 2016). This establishment of clarity can be done through an emphasis on creating structure among employees in the organization. Examples of such structural variables that can limit the effects of role ambiguity and role conflict when implemented include goal and role clarification and organization (Nicholson & Goh, 1983). Employees cannot properly fulfill the role if they are unaware of what is expected of them, which can further cause negative experiences (Beauchamp, Bray, Eys, & Carron, 2002; Kahn, 1964). Therefore, reducing role ambiguity and role conflict is vital when considering how these two elements influence an organization's effectiveness and the psychosocial well-being of employees.

Organizations with large amounts of human resources have more collaboration among employees, which can increase the chance of the existence of role ambiguity and role conflict. Human resource organizations are characterized by the employment of staff with diverse and specialized expertise that contributes to the overall effectiveness of the organization (Won & Chelladurai, 2016). NCAA Division I athletic departments are examples of organizations that employ specialized and interdependent staff members who are crucial for reaching organizational effectiveness. These highly collaborative organizations must create an environment for employees to strategically work together towards main objectives and goals that cannot be achieved independently in order to further develop the organization (Campbell, 2016; Chirilă, 2009). However, having large amounts of human resources within a department is only beneficial when role clarity is established. Therefore, the organization must have structure comprised of clear roles, communication, and cooperation among staff members. The ability to efficiently use resources, such as employee training, experiences, relationships, and insight is important in increasing the effectiveness of the organization (Won, 2004).

Individual employees within athletic departments have the potential to influence the success of the organization as a whole based on how each member performs in his/her roles. Such programs often succeed based on the degree to which there is a united pursuit of its goals and objectives (Carron & Eys, 2012). However, methods of measuring organizational effectiveness within collegiate athletic departments are difficult to determine (Cunningham & Rivera, 2001). Nonetheless, achieving success is possible if each member carries out their roles consistently with the expectations of role senders, and thus decreasing role ambiguity and role conflict (Carron & Eys, 2012).

Within interdependent organizations, members have varying professional backgrounds, also known as specialization, and therefore often have differing viewpoints of what is effective (Hall & Tolbert, 2005). With high role conflict, there is greater disagreement among group members in certain aspects including viewpoints, ideas, and opinions (Leo, González-Ponce, Sánchez-Miguel, Ivarsson, & García-Calvo, 2015). However, conflict can have both negative and positive impacts on an organization and its employees. More specifically, overlapping skills allows for the ability to share workloads, and therefore staff members have more time to concentrate on improving their own skills.

Elite levels of sport, such as Division I athletics, employ staff members, each with different experiences, expertise, and perspectives that contribute to the growth of athletes (Reid, Stewart, & Thorne, 2004). Therefore, the athletes' performances rely on the efficiency of the staff and the department instead of only the athlete. A study conducted by Cunningham and Rivera (2001) discussed that employed specialization within Division I athletic departments can occur in different directions and on various levels, both of which are often determined by the size of the department. In addition, departments have differing degrees of structure, including the

extent to which rules and procedures are enforced and where the authority to make decisions lies within the department. Leaders within athletic departments can manipulate the structure of these variables in hopes of reducing role ambiguity and role conflict among employees.

One example of a specialized staff member employed by an athletic department is the head volleyball coach. There are many different roles of a head coach both within the sport and administratively, and the roles of coaches and the influence they have on athletic development varies based on the level of play (Gilbert, Côté, & Mallett, 2010). This position specializes in the instruction and technique of volleyball, and organizes and plans team practices in hopes of improving performance. They must also implement leadership and motivational strategies for their team. In addition to athletic performance, head volleyball coaches must assess, identify, and recruit prospective athletes, which requires understanding and compliance with NCAA rules, regulations, and policies. Administratively, this position is responsible for staff hiring and management, as well as other various extra-role behaviors head coaches have such as helping other employees (Shanock & Eisenberger, 2006).

Along with head volleyball coaches, strength and conditioning coaches (SCCs) are also members of the diverse staff within athletics. The fundamental role of SCCs is to create periodized training programs, as well as instruct and motivate athletes to properly carry out their program (Dorgo, Newton, & Schempp, 2009). Strength and conditioning is an integral part of optimizing athletic preparation by developing athletes' physical abilities and to prevent injury, which leads to adequate performance. Similar to head sport coaches, SCCs also have administrative responsibilities in addition to the athletic development of student-athletes. In the past, strength training was more of a role assumed by a sport coach rather than a profession itself. However, athletic programs began to realize that in order to reach athletic success, it was

crucial to hire someone solely for the purpose of training athletes (Martinez, 2004). Employing professional SCCs meant hiring individuals with specific knowledge and education of how to train athletes, allowing for proper instruction and development of athletes in these terms.

When creating strength and conditioning programs for collegiate Division I athletic teams, SCCs often work side by side with head and assistant sport coaches. Without the establishment of a good relationship between these employees, many SCCs are left with an uncertainty as to how much of a role the team coaches wanted them to play, and therefore struggle with their role in athletes' lives. In one study, head sport coaches generally had difficult time believing in the strength programs that SCCs created and began to micromanage (Sartore-Baldwin, 2013). In these situations, the SCCs had to convince the sport coach to use the programs they created for the athletes. When persuasion failed, the SCCs were left unable to train the athletes with their expert knowledge, which was the fundamental purpose of their job. Due to the characteristics and significance of role clarity, the nature of this relationship creates the potential for an existence of role ambiguity and role conflict when structure or role definition are lacking.

Because all types of coaches have an influential and important role in the development of athletes, it demonstrates the significance of an essential knowledge base consisting of appropriate instruction and management of athletes. Without proper education, volleyball coaches rely on their own experiences and prior athletic knowledge when leading their programs (Wanless et al., 2014). Coach development can be accumulated through a combination of formal and informal instruction and situations. Coaches often value informal education more than formal education; however it is a combination of both that contributes to the necessary

knowledge for becoming a successful coach. Informal education is achieved through experiences such as mentoring and playing experiences.

In contrast, formal learning is offered through certification programs and memberships with numerous coaching associations. To ensure coaches are up-to-date on the most recent practices, there are a variety of strength and conditioning education programs available. The most widely accepted certification is offered through the National Strength and Conditioning Association (NSCA) called CSCS, as previously mentioned. The CSCS uses up-to-date literature in order to practice evidence based coaching skills (Wanless et al., 2014). In addition, the Collegiate Strength and Conditioning Coach Association (CSCCa) has two certifications with standards that are designed to enhance the credibility and unique knowledge of the intercollegiate SCC (Martinez, 2004). These two certifications were created due to the demands of a higher standard than the CSCS by many collegiate SCCs through either raising the bar on the current credential or by developing a different credential. Within these certifications, coaches must maintain the credential by keeping up with the latest practices through continuing education units (CEUs). CEUs are earned through qualified instruction in order to demonstrate that coaches' professional knowledge and skill is up-to-date (NSCA, 2017).

Among collegiate volleyball coaches, the most common type of certification is the USA Volleyball Coaching Accreditation Program (USAV-CAP). USAV-CAP is a volleyball coaching education program that begins with Increased Mastery and Professional Application of Coaching Theory (IMPACT). The completion of IMPACT is then followed by CAP which is broken down into four levels. Current literature does not outline CEU requirements for volleyball coach certifications.

Even with the existence of educational programs for volleyball coaches, there are few prerequisites or mandatory licenses to coach at the collegiate level (NCAA Job Market, 2017). In addition, collegiate degree qualifications for head sport coaches are often unspecific. A study conducted by Judge and colleagues (2010) on the presence of coaching certifications and the influence it has on pre- and post-activity stretching found that 44.6% of volleyball coaches were uncertified in any area, while only 9% were CSCSs. In contrast, in order to work as a SCC, the qualifications are much more specific. Division I universities require a minimum of an undergraduate degree in the field of exercise science, with a master's degree in a similar field becoming a more common requirement within the last few years (Favre, 2016). In conclusion, coach development and education prior to and during employment can vary significantly between head sport coaches and SCCs. This potentially large variance of specialized knowledge due to required qualifications of employment that SCCs have in strength training compared to head sport coaches is significant to note. If role ambiguity exists between head coaches and SCCs in an organization of this type, it could prevent SCCs from utilizing this expertise to enhance their role performance. When coaches are trained with specific expertise, such as the knowledge gained through certification programs, it can help them perform their roles. However, when there is overlap between two employees, for example head volleyball coaches and SCCs both working with the same volleyball team, it leaves potential for one to cross over into a role outside of their expertise.

Although research exists, there is a scarce amount that has explored the structure of American intercollegiate athletics, or more specifically the operational success (Weight, Cooper, & Popp, 2015). Furthermore, there is little research examining role ambiguity within NCAA Division I athletic departments, especially as it pertains to strength and conditioning. The

purpose of this study was to determine the existence of role ambiguity between head volleyball coaches and strength and conditioning coaches within a collegiate athletic department. Additionally, this research aimed to determine the existence of role conflict from the perspective of strength and conditioning coaches, along with the amount of interdependence or centralization that exists between the two roles.

CHAPTER 2

LITERATURE REVIEW

This chapter provides a review of the literature on the prevalence of role ambiguity of coaches within collegiate athletic departments. It begins with a discussion of role ambiguity and other role identity concepts, followed by a review of organizational structure and effectiveness literature, as well as the presence and importance of role identity concepts within such organizations. Next, athletic department organizational structure is discussed and research on role ambiguity and its importance in the development of athletes is reviewed. This chapter will continue with a discussion of the roles and overall profession of both sport coaches and strength and conditioning coaches within Division I athletics and will conclude with a review of the education and development options and requirements of those coaches.

Role Ambiguity

Role ambiguity is defined as a lack of clear or consistent information about the expectations associated with one's position (Bosselut et al., 2012). Role ambiguity has a greater impact on organizations comprised of high levels of interdependence between members in comparison to organizations with less collaboration (Beauchamp et al., 2002). Interdependent organizations are comprised of specialized staff members that work together which causes a tendency for poorly defined roles and responsibilities. The existence of role ambiguity is strongly associated with the presence of vague information concerning roles and the structure of an organization. Therefore, the implementation or improvement of various structural variables through leadership can limit its effect (Nicholson & Goh, 1983). Examples of these structural variables that can be established through proper leadership include the clarification of goals, organization and clarification of roles, mediation and facilitation of decision making, member

training in task skills, and individual performance assessment (Northouse, 2003). Structure can certify organized and consistent communication, evaluation, and control of subordinate's work (Rizzo, House, & Lirtzman, 1970). The research conducted by Rizzo, House, & Lirtzman (1970) was the foundation of research that followed.

Previous studies state that role ambiguity negatively effects the employees experiencing it and thus impairs employee performance (Beauchamp et al., 2002). Kahn (1964) theorized that role occupants experience an inability to act appropriately due to a lack knowledge of what is expected within their roles causing negative affects which lead to dissatisfaction and feelings of futility. The research conducted by Kahn was pioneer research within the field of organizational and health psychology. The study proposed a theoretical model about a number of adverse responses caused by role ambiguity experiences and triggered large amounts of investigations within the relationship of role ambiguity and job satisfaction. In addition to Kahn's findings, other studies found the presence of role ambiguity to cause members to become resentful of role senders due to unfavorable attitudes, which increases tension and lowers job satisfaction (Vansell, Brief, & Schuler, 1981). This dissatisfaction causes the role occupant to experience anxiety, distort reality, and thus perform less effectively (Rizzo et al., 1970).

Due to the influence of role ambiguity on behavior, researchers in a study conducted by Rizzo et al. (1970) created a role questionnaire to determine the existence or clarity of behavioral requirements. Specifically, the questionnaire items demonstrate the level of certainty about duties, authority, allocation of time, and relationships with others, as well as the clarity or existence of instruction and policies, and the ability to predict behavioral approval. This study was conducted in an attempt to research role ambiguity in a more practical and functional manner than previous literature at the time. Prior to the development of the questionnaire, little

was known about the theoretical components of role ambiguity and research did not systematically relate the concepts to other variables within complex organizational settings.

More recently, Beauchamp and Bray (2002) constructed a Role Ambiguity Scale (RAS) questionnaire to assess and examine the relationships of four role ambiguity dimensions. Prior to this study, role ambiguity was examined within generic work roles, however, developing this questionnaire was the first step toward investigating the relationship between role ambiguity and performance within interdependent sports teams. Two studies conducted prior to the work of Beauchamp and Bray examined role ambiguity within interdependent groups using a multidimensional approach, however there were limitations with each. A study also conducted by Beauchamp and Bray (2001) examined role ambiguity across two contexts, however only across one dimension of role ambiguity. In contrast, a study conducted by Eys and Carron in the same year (2001) examined role ambiguity across four dimensions, however only across one context. Therefore, this study created the RAS questionnaire using the strengths of these two studies by examining four dimensions of role ambiguity across two contexts: offense and defense.

The four dimensions assessed through the RAS questionnaire include the degree of ambiguity and lack of clarity associated with the scope of personal responsibilities, the behaviors required to fulfill those responsibilities, the evaluation of performance associated with those responsibilities, and the consequences associated with the failure of performing those responsibilities successfully. Therefore, the RAS will be used in the current study to examine the dimensions in terms of the absence of clarity about the range, extent, and manner of how to act within the roles of both strength and conditioning coaches and head volleyball coaches. Furthermore, it will determine if there is inadequate information about how these scopes of

performance are evaluated and if the coach is provided information about the consequences of insufficient role performance.

Results of the Beauchamp and Bray (2002) study indicate that higher role ambiguity scores are associated with lower coach ratings of athlete performance. Moreover, results indicate that role ambiguity has a greater impact on the performance of individuals with roles that included a high degree of interdependence in comparison to those with role responsibilities that are executed independently of others. In terms of the four specific dimensions assessed with the RAS survey, ambiguity associated with the scope of responsibilities dimension was found to be largest predictor of role performance. In conclusion, researchers determined that an individual's lack of understanding of their different role responsibilities has a negative impact on both perceived capabilities and performance.

Role Conflict

Role ambiguity is one dimension of role issues associated with organizational behavior and is most prevalent in highly specialized and interdependent organizations. Another role issue prevalent to the current study is role conflict. Whereas role ambiguity is the lack of consistent information about a role, role conflict is when the information about a role is contradictory or inconsistent. Role conflict is defined as the presence of incongruent expectations within performances (Beauchamp & Bray, 2001). Additionally, it involves an incompatibility between job tasks, resources, rules, policies, and other people (Nicholson & Goh, 1983). Specialization is established as major source of conflict in organizations due to the interdependence required of the different units. Specialization, also known as division of labor, is defined as the way an organization's work is divided and differentiated among staff (Griffin & Moorhead, 2014). Research in which has been fundamental in this subject found that the specialization requires

coordination between groups and creates an environment with high conflict potential especially when group task overlap and similarity exists (Miles & Perreault, 1976). In addition, organizations with overlapping professional groups often have fragile or nonexistent boundaries between specialized roles (Hall & Tolbert, 2005). As a result, this absence of set boundaries within organizations creates a greater potential of role conflict.

Because members within such an organization have varying professional backgrounds, they often have differing viewpoints on what is rational or effective (Hall & Tolbert, 2005). This source of conflict can either positively or negatively impact the effectiveness of the organization. In addition, rivalry is often formed in situations of role conflict. However, if cooperation and collaboration are continuously emphasized, rivalry can be avoided and the employment of professionals with varying backgrounds and viewpoints can potentially benefit employees and organizations. Specifically, overlapping skills allows for the ability to share workloads, and therefore staff members have more time to concentrate on improving their own skills. In addition, conflict can allow for healthy growth and change by assisting in re-evaluation, stimulating new ideas, and clarifying misunderstandings (Reid et al., 2004).

Although role conflict can produce positive outcomes, it is also a source of dysfunction for employees and organizations (Rizzo et al., 1970). Tension due to role conflict is common in situations where employees have multiple lines of authority, when the role expectations and the individual needs of the role occupant contradict, and when behavior expectations of a role are inconsistent (Rizzo et al., 1970; Owens, 2004). With role conflict, employees begin to experience stress, job dissatisfaction, and therefore perform less effectively. However, the extent of these negative effects vary based on the awareness of role conflict, the acceptance of conflicting job pressures, the ability to tolerate stress, and the personality of the employee experiencing this role

conflict (House, 1970). Research also states that the conflicting pressures cause employees to experience a decrease of trust in the person who imposed the pressures. Trust is defined as the expectation of truthfulness, integrity, and a shared respect for one another's competence (Kerwin & Doherty, 2012). A lack of trust negatively affects communication and effectiveness (Kahn, 1964). Research also states that when trust is increased, members are more likely to accept fundamental disagreements at face value, therefore reducing negative effects. In conclusion, efforts for reducing role conflict are necessary to maintain the effectiveness of employees and organizations.

In seminal research conducted by Gross, Mason, and McEachern (1958), a sample of male school superintendents were studied, and the research emphasized intra-role and inter-role conflict in the perspective of the role occupant experiencing the incompatibility. In addition, research conducted by Kahn (1964) identified several general role conflict types including person-role conflict (incompatibility between the expectations held by the role incumbent and the expectations otherwise associated with his/her position), inter-role conflict (role pressures stemming from one position incompatible with the role pressures of a different position), intra-sender conflict (incompatible expectations from a single role sender), and inter-sender conflict (expectations from one role sender which are compatible with those from another role sender). Each situation of role conflict can be considered more than one type of conflict depending on whether or not it is from the point of view of the role occupant.

The same study by Rizzo et al. (1970) that used a questionnaire containing role ambiguity items included role conflict items as well. Items in this survey assess role conflict of the congruency-incongruency or compatibility-incompatibility dimensions within the requirements of a role, which results in various kinds of conflict. One dimension, which can be referred to as

intra-role conflict (person-role conflict of the role occupant), is conflict between the internal standards or values of the role occupant and the defined behavior. An additional source of role conflict assessed through this survey is due to conflict between time, resources, or the capabilities of the person and the defined role behavior. This type of conflict is referred to as intra-sender or from the point of view of the role incumbent it is considered intra-role conflict or person-role conflict. Role conflict is also experienced when a role occupant has several roles, each requiring different, incompatible behaviors or adjustments in behavior due to situational changes, and this is identified as role overload. From the perspective of a role occupant filling more than one position in the role system, this type of conflict is considered inter-role conflict. Finally, role conflict was assessed by measuring conflicting expectations or demands in the form of incompatible policies, requests from others, and inconsistent standards of evaluation. All of these dimensions of role conflict are related to role ambiguity components involving the prediction of the outcomes of one's behavior.

A study conducted by Cicero, Pierro, and van Knippenberg (2010) used this questionnaire to investigate the influence of role ambiguity on the extent that employees' perceive that their leader represents the identity of the group and how employees evaluate the leadership. Results stated that role ambiguity and this type of leadership are predictors of effectiveness, job satisfaction, and turnover intentions. More specifically, the degree to which leaders are representative of group identity is strongly correlated with the effectiveness of the leader and the existence role ambiguity among employees. Therefore, whether leadership reflects the group's overall identity determines the degree role ambiguity, which then influences the leader's effectiveness.

Role Clarity

Role ambiguity and role conflict are the two concepts that role clarity consists of (Mendes and Stander, 2011). Essentially, role clarity is the opposite of role ambiguity and is defined as the degree to which required information about how an employee is expected to perform his/her job is provided. An individual must receive and understand information required to do their job in order to experience role clarity (Mukherjee & Maihotra, 2006). The absence of role clarity is linked to higher levels of job-related tension, job dissatisfaction, reduced organizational commitment, impaired performance, and burnout (Beauchamp & Bray, 2001). Previous fundamental studies concluded that greater role clarity creates a number of desirable outcomes, reducing the amount of negative effects from role ambiguity and role conflict (Kelly & Hise, 1980). In addition, role clarity is positively correlated to employee self-esteem and job satisfaction (Kohli, 1985). In contrast, situations with a lack of any or adequate information necessary for an employee to effectively carry out their job leaves the worker conflicted or with an ambiguous understanding of the intended role (Donnelly & Ivancevi, 1975). Therefore in order for an organization to maintain the effectiveness of employees, role clarity must be emphasized.

In a study conducted by Mukherjee and Maihotra (2006), researchers used the role ambiguity and role conflict questionnaire created by Rizzo et al. (1970) to examine the effects of role clarity on employee-perceived service quality. Because of the inverse relationship of role ambiguity and role clarity, this instrument was able to determine the amount of role clarity based on the responses to the role ambiguity items. For example, a score of high ambiguity indicated low role clarity. The results revealed that role clarity plays an important role in determining the perception of service quality, and that various factors influence role clarity, indicating that role

clarity has an influence on job satisfaction and organizational commitment. In an additional study using the Rizzo et al. (1970) role ambiguity and role conflict instrument, Mendes and Stander (2011) aimed to investigate leader behavior, its impact on role clarity, and the effect of the existence of role clarity on retaining talent within organizations. The study found that the existence of role clarity has the capability to affect the dedication and development of employees.

Organizations

The effectiveness of organizations is most often dependent on the amount of resources available. The resource-based view of organizational effectiveness (OE) states that organizations have bundles of resources, including human resources (defined as to the employment of staff members with diverse expertise, experience, and perspectives) (Won & Chelladurai, 2016), which contribute to the growth of the department (Won, 2004). When individuals are distinguished by their unique skills, attitudes, and social skills, these characteristics further develop the organization (Chirilă, 2009). Human capital, which is a form of human resources, adds value to processes of organizations and is difficult to replicate and substitute for, especially when the human capital is diverse (Huselid, Jackson, & Schuler, 1997). Therefore, research states that it is believed to be one of the most important elements within an organization (Skaggs & Youndt, 2004).

An organization's main source of competitive advantage is the ability to use its resources efficiently, as stated by the resource-based theory of competitive advantage and strategy analysis (Northouse, 2003). Improvements of human resources can be achieved through the selection and/or training of the individuals (Skaggs & Youndt, 2004). Selection is the efforts of organizations to hire employees with high levels of expertise and education, while training is an

organization's efforts in the development of current employees. Therefore, regardless of which component the organization puts more emphasis on, the training, experience, judgement, intelligence, relationships, and insight of individual employees are important in increasing the level of effectiveness (Won, 2004).

Human resource management includes many processes that are determined by broader goals, structure, resources, and the culture of the organization (Chirilă, 2009). However, research states that having a vast amount of human resources in a department is only beneficial if the organization is structured with clear roles, communication, and cooperation among staff members. Due to the nature of human resources and the idea that individuals have unique roles, coordination and collaboration between the groups is required for OE (Zaccaro & Klimoski, 2002). Collaborative climates include trust between individuals of different departments and is based on honesty, openness, consistency, and respect and allow individuals to stay focused and willing to take risks (Northouse, 2003). Communication is also vital in coordinating the diverse personnel of organizations (Hall & Tolbert, 2005). Because organizational success is largely influenced by the ability to achieve a collaborative climate rather than producing negativity, it allows these differences to be constructive, improve teamwork, and to make human resources a more valuable asset (Likert, 1967). Therefore, role clarity and proper resource management are important in reducing role ambiguity and conflict to increase the commitment levels and job satisfaction of employees.

Business firms are examples of organizations that often merge and manage resources (human capital, social capital, organizational learning, and creative cognition) strategically, apply creativity, and develop innovation to create a competitive advantage and establish success. Staff members within these organizations have varying degrees of involvement in the strategy-

making process due to the hierarchy of the organization. Specifically, employees at each level of the organization have different levels of involvement and begin to identify an organization's character differently through varying perceptions of the firm's strategic plan (Monsen & Boss, 2009). In addition to business firms, hospitals too have specialized employees that must work together. In hospitals, research states that when valuable human resources are efficiently utilized, it causes a decrease in workload and therefore creates time for employees to remain current on research and facilitate their professional development (Jones, 2005).

Within organizations of this type, role identity issues such as ambiguity and conflict are often seen due to the nature of the interdependent environment. When organizations have different groups with overlapping functions, it creates a problem of ambiguity in authority and especially when it is not clearly established as to who makes organizational decisions in various situations (Hall & Tolbert, 2005). For example, salespeople often experience multiple role ambiguity dimensions, and therefore the amount of role clarity established has a strong impact on the self-esteem, job satisfaction, and performance of these employees (Beauchamp & Bray, 2001; Kohli, 1985). Salesmen state their need to perform with inadequate or nonexistent information and are often experiencing situations that require them to cross role boundaries between departments within an organization. In addition, salesmen must be somewhat innovative in nature, and innovative roles are very susceptible to a lack of role clarity. Therefore, in order for salesmen to have more job interest, more opportunity for job innovation, and more job satisfaction, organizations must provide a clear understanding of the requirements of their job by establishing expectations and specific evaluation criteria (Donnelly & Ivancevi, 1975).

Another example of resource based organizations employing staff members with diverse expertise, experience, and perspectives is collegiate athletic departments. The employees within

athletic departments are fundamental for OE, and because athletic departments have specialization and individuals who perform specific duties based on their specific strength and weaknesses (Cunningham & Rivera, 2001), there is more interdependence of staff members, making structure important. Due to this interdependence, evidence indicates that strategies for reducing role ambiguity and role conflict are essential for improving effectiveness and performance (Beauchamp & Bray, 2001). Human resources are only beneficial if the organization has a structure containing clear roles, communication, and cooperation among the members. Since the department has different groups with overlapping functions, ambiguity in authority occurs, especially when it is not established who makes organizational decisions. In addition, conflict is expected to be prevalent due to the commonality of developmental and performance goals representing contrasting objectives (Kerwin & Doherty, 2012).

As previously mentioned, a hospital is an example of an organization that employs specialized individuals that must coordinate in order to achieve OE. Due to the style of specialized departments, hospitals often experience role conflict. In a study conducted by Zawacki (1963), results state that role conflict is caused by a dual hierarchy structure of hospitals and that those affected respond to physicians with hostility and passively resist formal rules. Of the employees, nurses often experience role conflict due to the contact with a wide range of health care professionals and the complex structure of hierarchy within hospitals (Tunc & Kutanis, 2009). In addition to hospitals, call center representatives often experience role conflict due to the opposing nature of the customer service they provide. In the service industry, employees operate with the two objectives of needing to be cost efficient while maintaining the ideal that customers are the priority, which are conflicting in nature. For example, a call center's standard of reducing call abandonment rates, by resolving customers' issues in the first call

without transferring, requires call center representatives to immediately attend to the customers' concerns to their satisfaction, also leading to issues of role clarity (Mukherjee & Maihotra, 2006).

Athletic Departments

As previously mentioned, an example of resource based organizations is collegiate athletic departments and the employees within these departments are fundamental for organizational effectiveness. Just as with general organizations, the main source of competitive advantage in athletic departments is the ability to efficiently use resources. However, methods of measuring organizational effectiveness within collegiate athletic departments are difficult to determine, nevertheless departments can determine which people seem to be important both inside and outside the organization. A study by Cunningham and Rivera (2001) discussed that even though measures are a challenge to define, two areas are usually of top priority. These measures include athletic achievement and the education of student-athletes, and therefore leading to two primary goals of athletic departments: student-athlete development and performance. Developmental goals refer to the student-athlete social and moral citizenship, and the performance goals refer to winning.

Cunningham and Rivera (2001) also discussed and introduced three dimensions that are theoretically diverse and useful for identifying the structural framework within Division I athletic departments. The first dimension is the idea of formalization which is defined as the extent to which rules, procedures, instructions, and communications are written down. The second element of structure is centralization, which is where the authority to make critical decisions and the amount of participation in decision making lies within the hierarchy. Departments are considered to be centralized when the decision making resides in the top-level positions, and

organizations are considered to be decentralized when the decision making is disseminated to lower level positions.

The last of the three dimensions discussed by Cunningham and Rivera (2001) is the specialization of employees within athletic departments. Specialization is defined as the extent to which roles are differentiated according to a particular task or purpose. Each staff member within this department has diverse expertise, experience, and perspectives on athletics and coaching, as well as contribute to the overall growth of the department. Members of this staff can include several assistant coaches, sports medicine professionals (such as doctors and athletic trainers), strength and conditioning coaches, and psychologists (Reid et al., 2004). Hence, in elite levels of sport such as collegiate athletics, an athlete's performance is no longer reliant on the athlete alone; rather on the efficiency of a performance staff each with specialized roles. Because of the high degree of distribution of expertise among sports teams, it creates a larger level of interdependency and members with numerous and various role responsibilities (Beauchamp & Bray, 2001).

In the case of intercollegiate athletics, a study conducted by Kent and Chelladurai (2001) discussed three levels of employee hierarchy within these departments that differs slightly. The top level consists of the athletic director and the middle level contains assistant or associate athletic directors. The lower level is considered the subordinates and the operating core. The operating core includes coaches, their staff, and the athletes. In addition, a study conducted by Oja, Bass, and Gordon (2015) expanded on this research and defined a middle management level that includes other supplemental employees that are not considered as top tier but also are not in the operating core. Examples of middle management employees include compliance officers, ticket office employees, and equipment employees.

Moreover, Cunningham and Rivera (2001) found this specialization to occur either horizontally or vertically. This study states that in departments with vertical differentiation, there are four levels of employees such as executive (athletic directors), top administration (assistant athletic directors), coaches, and players. In addition, there are employees in peripheral positions that supplement the duties of other employees. These peripheral employees include administrative assistants, academic support, and athletic trainers. The size of each level varies based on the size of the department, however the structure is consistent throughout athletics. In terms of horizontal differentiation, Cunningham and Rivera state that it is not consistent from department to department and it can be based off of the degree to which the department is specialized.

By using the three dimensions of athletic departments that Cunningham and Rivera (2001) found to be useful for identifying the structural framework, they determined that there are two different structural trends within athletic departments: simple and enabling. The simple structure is defined by lower levels of specialization and formalization with higher centralization. This means this type of department is more likely to contain generalized employees, rather than specialized employees, that assume many diverse roles and therefore lacking a specific job description. In addition, the decision making in simple structured athletic departments typically resides with the athletic director. In contrast, the enabling structure is characterized by decentralization and high levels of specialization and formalization. Due to the highly specialized structure, employees within this type of athletic department perform duties based on strengths and weaknesses. In terms of the impact these two structures have on the organizational effectiveness of athletic departments, Cunningham and Rivera concluded that departments with a decentralized decision making structure, or the enabling structure, have better athletic

achievement, however there was no difference in the education of student-athletes between the two structures.

Regardless of which type, structure is important in order to reduce role ambiguity and role conflict due to the interdependence involved in Division I athletic departments. With proper structure, including clear roles and communication, employee effectiveness and performance can be improved. Since the department has different groups with overlapping functions, ambiguity in authority occurs, especially when it is not established who makes organizational decisions. Of the specialized staff members in collegiate athletic departments, the current study looks specifically at the structure, roles, and role identity issues of head volleyball coaches and strength and conditioning coaches (SCCs).

Sport Coach Profession

The roles of coaches and the influence they have on athletic development can vary due to culture, sport, and level of play (Gilbert et al., 2010). In NCAA Division I athletics, there are many staff members and coaches whom contribute to the overall development of a student-athlete. Of all staff members, sport coaches spend the most contact time developing the athletes in season. Further, head sport coaches are in charge of planning and organizing team practices, as well as instructing them to improve sport performance. It is necessary for coaches at this level to provide and implement strategies to properly motivate and lead their team. Additionally, head coaches must assess, identify, and recruit prospective athletes, which requires understanding and compliance with NCAA rules, regulations, and policies. Head coaches are also in charge of staff management, which includes hiring and supervising assistant coaches and director of operations. Due to the nature of NCAA athletics, college coaches have additional roles outside of the actual coaching of their sport that could be considered extra-role behaviors (Rocha & Turner, 2008).

Extra-role behaviors are defined as behaviors that generate the efficiency of others or manage the co-ordination of group members (Widmeyer & Ducharme, 1997). Examples of these roles include scheduling, fundraising, supervising staff, and overall team management in areas such as academics and discipline.

Strength and Conditioning Coach Profession

As stated earlier, athletes' development and progress at the Division I level is due to the contributions of many different types of coaches and administrators. In addition to sport coaches, another coach with the job of improving athletic performance is SCCs. The fundamental job of SCCs is to create and implement appropriate training programs comprised of appropriate exercises for athletes that aids in the prevention of injuries while simultaneously enhancing performance. In the off season, generally SCCs spend an increased amount of time with the student-athletes when compared to competition season. During weight training activities, SCCs responsibilities include counseling, organizing, managing, observing, monitoring, and motivating athletes. Outside of team weight training, SCCs often handle consequences of athletes (such as running punishments or conditioning), as well as meet with prospective student-athletes to provide a tour of the weight facilities and discuss the training aspect of their sport. In addition, they often have various administrative responsibilities which can include budgeting finances and organizing team weight room schedules.

Strength and conditioning became more prevalent as a profession, rather than a role, as athletic programs began to realize that hiring someone solely for the purpose of training athletes was vital for athletic success (Martinez, 2004). Prior to the establishment of the SCC profession, sport coaches often assumed this role in addition to their sport coaching role because they had some knowledge or interest in weight training. However, the sport coaches in this role generally

lacked the proper knowledge required for designing proper weight training programs at this level (Martinez, 2004). Once universities began to see the importance of employing a professional, they began hiring SCCs who had this knowledge and education. Proper coaching of strength training and conditioning techniques requires knowledge of constantly evolving strategies through research (Wanless et al., 2014). It is significant to note that coaches at this level are hired with specific education of how to train athletes to allow for optimal instruction and development of athletes in these terms.

In terms of employment structure of SCCs in Division I athletic departments, programs often hire one or two head SCCs that are primarily responsible for the training of football. Additionally, there are varying numbers of assistant SSCs that often assist with the training of football in addition to their other sport training responsibilities. These other sports are divided among the SCC staff in various ways such as men's and women's sports, varsity sports and Olympic sports, or football only and all other varsity sports (Martinez, 2004).

Strength and Conditioning Coaches' Work Relationships

Strength and conditioning coaching now exists as a profession outside of the individual sport coaches, and therefore SCCs have a responsibility to cooperate and build a relationship with the head sport coach to develop training for the athletes of that sport. As previously stated, trust is important in collaborative climates and is based on honesty, openness, consistency, and respect. Therefore, due to the collaboration required between SCCs and sport coaches, SCCs feel the need to get sport coaches to understand how and why they coach the way they do. However, if the sport coach is dissatisfied with it, SCCs feel the need to persuade them to allow them to implement the training program. Some sport coaches have a hard time "buying into" strength and conditioning programs causing sport coaches to overstep commonly unclear or unestablished

boundaries by getting too involved and micromanaging (Sartore-Baldwin, 2013). This crossing of boundaries shows a lack of structure in some manner because SCCs feel the need to gain a sport coaches' approval of their work. Therefore, it seems to lead SCCs to believe that sport coaches feel that they have some degree of authority over them and how they coach.

One SCC in a study by Massey, Vincent, and Maneval (2004), stated that assistant sport coaches go behind their back to a supervisor and attempt to threaten or overturn their training efforts. The same SCC added the example that "when it comes to training athletes, everyone thinks they're an expert" and pointed out to the sport coach that the SCC does not "come on the field and tell you how to coach your position, don't come into my area and tell me how to do my job". If the persuasion does not work, the SCCs (who have the specialized knowledge in creating these programs) were left unable to perform their fundamental job of instructing the training of the athletes. This type of conflict with the sport coaches leads SCCs to be left with an uncertainty as to the role they are wanted to fill, causing many to struggle with their part in each athlete's life and a decrease in individual and team outcomes (Sartore-Baldwin, 2013). It was stated that service industry employees operate with two different objectives that are conflicting in nature. The same could be said for SCCs if what they have learned and what they know contradicts with what the sport coach tells them or wants them to do. This is important to the current study because establishing if there is role ambiguity and conflict between the two populations can potentially help lead to making changes in improving role clarity, job satisfaction, and athletic success.

Similar to sport coaches, administrators often have a lack of understanding as to what exactly a SCC's job entails (Massey et al., 2004). However, research shows that SCCs are generally trusted by their administration to carry out their jobs effectively (Sartore-Baldwin,

2013). Massey et al. (2004) found that SCCs felt administrators allowed them significant freedom to conduct their training programs as they felt appropriate. However, within athletic departments overall, SCCs feel there is a lack of respect and appreciation of what their jobs entail and that peers do not view them as legitimate coaches, and thus leading to job dissatisfaction (Massey et al., 2004). Researchers recognize the absence of well-defined job roles and responsibilities as contributing factors for this lack of understanding. With this type of confusion within the athletic department, SCCs find it difficult to meet the varying demands of numerous people who have subjective perceptions of their performance and outcomes.

This relationship can be impacted by specialization within the athletic department. Specialization is stated as one of the major causes of role conflict. Staff members are hired with diverse experiences, expertise, and perspectives in an effort to increase organizational effectiveness. However, if this is not well differentiated, boundaries between the specializations are blurred, causing a lack of role clarity. Therefore, the degree of formalization within the department also affects SCCs' relationships with other members within the department. If rules, procedures, and communication is not written down, this too could cause role issues within the department.

The division of roles and responsibilities among SCCs and within the relationship between SCCs and sport coaches is important because it can increase time for coaches to continue education. Hospitals and athletic departments are similar in that they are comprised of interdependent specialized staff members. Therefore, it can be concluded that because hospital employees have more time for professional development when valuable human resources are used efficiently due to a decrease in workloads, the same would be true for athletic department employees.

Coach Development and Education

As with general human resource-based organizations, athletic departments can also make improvements through the selection and hiring of employees that have high levels of expertise and experience, as well as the training and development of current employees. Because coaches have an influential and important role in the development of athletes, it demonstrates the significance of an essential knowledge base of appropriate instruction and management of athletes. This knowledge allows coaches to improve the experience of the athletes and increase the level of performance. In order to gain knowledge in this profession, effective coach development and education is done through a combination of formal and informal situations (Werthner & Trudel, 2006). The understanding that becoming a successful coach requires unique contributions of and participation in formal and informal education is fundamental in the process of improving as a coach professionally.

Several studies show that informal education, such as lessons learned through experiences, are significant sources of coaching knowledge and are valued more by coaches than formal education (Werthner & Trudel, 2006). Successful coaches first gain experience with several thousand hours of athletic participation in numerous sports (Gilbert et al., 2010). In addition to playing experience, mentoring is another form of informal education for coaches to gain crucial experience. However, this type of learning has advantages and disadvantages based on where the mentoring occurs. Mentor coaches could have improper or unsuccessful methods of coaching, therefore teaching the wrong ideals. Additionally, mentoring can cause one to be limited in learning only one way to coach (Werthner & Trudel, 2006). This is important to note because experiences can sometimes be the largest way, or only way, coaches expand professional knowledge.

Informal Education

        In addition to informal education, coaches can receive formal education through certification programs and other various associations. Formal learning is offered through certification programs and memberships with numerous coaching associations. As far as collegiate SCC specific certifications, the most common includes the Certified Strength and Conditioning Specialist (CSCS) and Collegiate Strength and Conditioning Coach Association (CSCCa) certification programs. In terms of collegiate volleyball coaching, the most common continuing education programs are through USA-Volleyball (USAV) and the American Volleyball Coaches Association (AVCA). Being a member of or having certifications through these associations provides coaches with resources for continued education including articles, research, instructional videos, conventions, and even mentoring programs. In addition, many certification programs have continuing education unit (CEU) requirements in order to maintain the credential. CEUs are a way to ensure coaches are diligent with the education process throughout their careers. Additionally, CEUs provide coaches with current research and techniques. However, even with all the responsibilities at hand, SCCs involved in the Massey et al. (2004) study stated that the vast majority of their time was spent on the training of athletes. It is crucial to avoid overloading SCCs with responsibilities because time must be allocated in order to continue professional development and remain educated on up-to-date techniques within the field.

Formal Education

        Researchers in a study by Gilbert et al. (2010) analyzed coaches' involvement in career developmental activities across sports of three different levels. Results of this study indicated that a relatively small amount of time is invested annually in formal coach education.

Additionally, the study stated that Division I volleyball coaches, the highest level of competition involved in the study, spend the least amount of hours annually in coach education[23]. In a separate study analyzing the education of coaches at Division I volleyball programs (Judge, Bodey, Bellar, Bottone, & Wanless, 2010), researchers found that 44.6% of volleyball coaches had no certifications, 50% had some level of USAV certification, 5.4% had only the CSCS certification, and 3.5% had both a USAV and the CSCS certifications (Judge et al., 2010). Considering the potential issues with role ambiguity and role conflict, lack of formal education in coaching is troubling.

There are a variety of reasons for the lack of certifications and education among coaches. Collegiate coaches have a difficulty making time for continuing education due to the demands of the position. Whereas, some coaches have a fear of change in the way they coach, thus closing them off to new ideas and making them conservative or even static (Reid et al., 2004). Another reason for a coach to not become certified is because they lack awareness of their coaching education needs (Vargas-Tonsing, 2007). Concerning knowledge of certified coaches, the age of certification could also have an impact on the education and knowledge of coaches if the credential program does not include a CEU requirement. USAV certification programs is one example of this, however, the CSCS does have a CEU requirement. In order to remain certified, coaches must complete the required amount of CEUs within the specified amount of time. Certifications that lack a CEU requirement have no way of ensuring the continuation of education of the certified, and thereby rending the certification static. This is another reason why volleyball coaches are seemingly less formally educated than strength and conditioning coaches. To avoid this, research indicates that it is important for coaches to re-evaluate their own practices in ways such as cross-checking with those of other peers and by staying current with ongoing

research. Additionally, one way to increase the potential of participation in education and

certification programs, there is a need for increased marketing efforts since there has not been

much wide-scale support (Judge et al., 2010). Therefore, efforts can be made both by coaches

and education programs to increase participation.

Types of Certifications

Certified Strength and Conditioning Specialist. Once a full-time job in strength and

conditioning is attained, the education process continues throughout their careers because

understanding of the latest research is essential for creating effective strength and conditioning

programs (Szedlak, Smith, Day, & Greenlees, 2015). One of the measures in place to reinforce

the continuation of studies in the potentially ever-changing literature is through certifications

(Wanless et al., 2014). The National Strength and Conditioning Association (NSCA) was formed

in 1978 not only to further educate SCCs on the current trends within the field, but to also

educate those who would benefit from this type of expertise (Martinez, 2004). The NSCA

created the CSCS credential in 1985 with the goal of certifying individuals encompassing the

knowledge and skills necessary for designing and implementing safe and effective strength and

conditioning programs (Judge et al., 2010). Through this program, and by earning the CSCS

credential, coaches attend NSCA-endorsed clinics and receive formal education of the proper

form and techniques in weight lifting (Martinez, 2004). Today, more than 21,000 professionals

have this credential from various backgrounds, such as strength coaches, sport coaches, athletic

trainers, physical therapists, personal trainers, physicians, and chiropractors (Judge et al., 2010).

Collegiate Strength and Conditioning Coaches Association. The Collegiate Strength and

Conditioning Coaches Association (CSCCa) was formed as the result of a request by many

collegiate SCCs for a higher standard than the CSCS. This association has two certifications with

standards that are designed to enhance the credibility and unique knowledge of the intercollegiate SCC (Martinez, 2004). Certification programs such the CSCCa assist in the reduction of improper coaching cues by providing methods that are grounded on research to encourage the advancement of training practices so that athletes are prepared effectively and safely for both training and competition (Wanless, 2014). Another certification, Strength and Conditioning Coach Certified (SCCC), is the most comprehensive and specific of its kind. The goal of this certification is to identify, serve, and prepare those wanting to solely be full-time SCCs of collegiate and professional teams, and requires the completion and passing of three different criteria. This criteria includes a 640-hour practicum/internship program, a comprehensive science-based written exam, and a practical exam conducted in front of and approved by a panel of Master Strength and Conditioning Coaches (MSCC). The second certification provided by the CSCCa is the MSCC certification. This credential is the highest honor that can be achieved as a SCC and represents professionalism, knowledge, experience, expertise, and longevity in the profession. In order to achieve this title, SCCs must be an active member of the CSCCa, have the SCCC credential, and have worked as a full-time SCC at the collegiate or professional level for twelve years.

　　　USA Weightlifting. USA Weightlifting (USAW) offers a number of different sports performance certifications on various levels (USAW, 2017). The first, called the Sports Performance Certification, has no required perquisites and the objective is to gain a baseline knowledge about training and technical weightlifting programming. More specifically, participants are instructed on the technical progressions of a snatch, clean and jerk, and all associated movements. This certification includes nine hours of practical, hands on training and four to five hours of classroom lecture instruction and is suitable for strength and

conditioning/sports performance coaches, health and fitness, and beginning level weightlifting coaches. Another certification offered by USAW is for current Sports Performance certified coaches or club coaches and is called the Advanced Sports Performance Coach Certification. It consists of formal instruction in several areas including advanced strength and power principles, biomechanical principles, and program design application, as well as nutrition, and sports psychology for weightlifters. This certification is also a requirement for any coaching seeking the National Coach credential, which is the next level of USAW certification. This credential also requires a passing score on the Advanced Sports Performance Coach Course test, a completed National coach application, and an active USAW membership and certification.

     USA-Volleyball. The most common type of volleyball-specific coaching certification is a five-phase accreditation program offered by USA-Volleyball (USAV) (Judge et al., 2010). The credential begins with an entry level certification called Increased Mastery and Professional Application of Coaching Theory (IMPACT), which provides a general overview of volleyball drill development and ethical coaching. Following the completion of IMPACT, coaches can enroll in a four-level program called the USAV Coaching Accreditation Program (USAV-CAP). Each level of this program includes a special emphasis on building the foundation for creating a well-prepared coach and is constructed for professional preparation and advancement for volleyball coaches. Levels I and II highlight teaching the skills of the game and organizing and developing team play, respectively. Following the completion of the second level, coaches can enroll in the third level which emphasizes taking your team to the next level through advanced training and conditioning. Finally, the highest certification level of USAV-CAP, level IV, is reserved for those coaches who have coached for or assisted with an official USA National and Olympic team.

American Volleyball Coaches Association. One established coach development system in which a volleyball coach professional can receive formal and informal education is through the AVCA (AVCA, 2017). The AVCA is a non-profit educational corporation that provides coaching education materials for all levels of the sport. The AVCA began as the Collegiate Volleyball Coaches Association (CVCA) in 1981, and after rapid growth throughout the collegiate volleyball coaching ranks, the CVCA renamed itself the AVCA in 1986, and permitted memberships to high school and club volleyball coaches in addition to collegiate level coaches. From 2006 to 2016, the AVCA grew from over 3,200 members to over 7,000 members, which includes 739 NCAA division I level coaches today. This paid membership has benefits such as full access to the website and all of its resources, in addition to a mentor-mentee program for those who feel they have so much to teach to those who feel they have so much to learn. To gain further knowledge, the AVCA also holds annual conventions that offer educational sessions for all levels of coaching to ensure improvements of coaching and leadership skills. The AVCA convention currently offers more than 90 sessions that vary from on-court to classroom environments and include instruction of coaching philosophy, in-match strategies, injury prevention, and new drill ideas. In addition, in four of the last five years convention attendance has surpassed 2,200 causing it to be the largest volleyball coach gathering in the world.

Educational Requirements

Although there are educational opportunities for both sport coaches and SCCs, there are varying requirements for acquiring a job in Division I athletics in these respective positions. When looking specifically at head coaches, minimum qualifications can vary, however most require a bachelor's degree with the major not specified. In addition, in order to be hired as a head coach, collegiate or professional coaching experience of varying lengths of time is

mandatory and often is based on the level of historical success of the hiring institution. Some universities prefer that the candidate has playing experience at a similar level. Other preferred qualifications include a master's degree in an unspecified field and successful coaching experience at the same level are often listed. Research conducted through the NCAA job market website shows that universities do not require any coaching certifications in order to be a head sport coach at the Division I level.

In contrast, strength and conditioning coaches have additional and more specific mandatory qualifications for employment than those of head coaches. One of the qualifications includes a bachelor's degree in exercise science, physiology, sport science, or related field. Additionally, a master's degree is often required in the same fields. Athletic departments also mandate that a SCC candidate has at least one certification including the CSCS, SCCC, and MSCC. The NCAA even passed legislation that became effective in 2015 requiring all Division I full-time SCCs to be certified by an accredited certification with the purpose of protecting the health and safety of student-athletes (CSCCa, 2017). There is also a minimum amount of years of experience required that varies based on the level of the hiring institution. The ability to train and coach many sports is obtained through these experiences and internships, which is desirable considering that most SCCs are eventually needed to train nearly all male and female teams at some point during their career (Martinez, 2004). As stated earlier, these informal learning processes of internships can either benefit or impair the development of a SCC based on the differences in environment, program, and mentoring coach. In conclusion, employment requirements for head sport coaches and SCCs are significant to this study by presenting the differences in education qualifications necessary for each.

Role ambiguity and role conflict are more likely to be present in specialized, interdependent organizations. Role clarity can be achieved through formalization of the hierarchal structure and the degree of centralization of decision making within the organizations. Division I athletic departments have specialized staff members that each contribute to the development of the athletes and the growth of the department, and therefore are examples of interdependent organizations. Head volleyball coaches and SCCs are two examples of specialized staff members within the department. The two positions each have essential duties, however research is unclear as to how the two roles overlap, as well as what head volleyball coaches' roles are in terms of strength and conditioning. The literature does show that SCCs must cooperate with head volleyball coaches. SCCs also feel that they need to convince head coaches that the training program they create will work, and that the department overall has a lack of an understanding as to what SCCs' jobs entail. In addition, qualifications for employment show that SCCs must have education and certifications in strength and conditioning, however head volleyball coaches do not have specific educational qualification requirements. The training, education, and background of each employee, in addition to the establishment of role clarity are important in organizations because members influence organizational success based on how each performs his/her roles. This study aimed to find if this interdependent relationship experiences any role ambiguity or role conflict.

CHAPTER 3

METHODS

Participants

The participants included a convenience sample of eleven head women's volleyball coaches (HVC) and eleven women's volleyball strength and conditioning coaches (SCC) from one NCAA Division I conference in the United States. The sample included male and female coaches. Of the 22 surveys sent out, 11 were returned. From these, two surveys were discarded due to incompletion. Among the nine remaining, participants included five females and four males. The SCC group (n = 4) contained all white female participants ranging from 23 to 44 years of age. Two from this group had 8-11 years of experience, one had 16-19 years of experience, and one had 20 or more years of total coaching experience. In terms of collegiate coaching experience, the SCCs identified having worked 4-6 years, 7-9 years, 10-12 years, and 16 or more years. Two coaches from the SCC group had been employed at their current institution for 1-3 years, one for 4-6 years, and one for 7-9 years. Of these years of experience, two coaches have 11 or more years of experience with volleyball teams and two have 3-4 years of experience specifically with volleyball teams. With regards to job responsibilities, two SCCs stated that their current responsibilities included coaching three sports, one stated coaching four sports, and one stated coaching five sports. In terms of education, all four have earned a bachelor's degree with three being in a sports training or kinesiology-related field. Three SCCs have earned a master's degree as well. Of the four SCCs, all stated that they currently have both CSCS and CSCCa certifications and two have additional certifications including the USAW certification.

The HVC group (n = 5) contained both males and females mostly between the ages of 40 and 44 years. All HVCs had 12 or more years of coaching experience at all levels, with at least

seven years of collegiate coaching experience. Two of these coaches had been at their current

institution for 1 to 3 years, two for 4 to 6 years, and one had been in their current institution for

over ten years. In terms of education, all five HVCs have earned a bachelor's degree and three

stated having a master's degree. In terms of program of study, two of the HVCs have earned

degrees in physical education, which is a kinesiology or exercise science-related field, and all

HVCs have a degree in some type of education-related field. None of the HVCs that participated

in the study have any strength and conditioning specific certifications, with three having no

coaching certifications at all. The two coaches with certifications are both IMPACT certified and

one additionally has the USAV-CAP I certification. Four of the participants are current members

of the AVCA. However, all five have attended at least three of the AVCA conventions in the last

five years.

Table 1. *Demographics* (n = 9)

	SCC (n = 4)		HVC (n = 5)		Total	
	#	%	#	%	#	%
Gender						
Men	0	0.0%	4	80.0%	4	44.4%
Women	4	100.0%	1	20.0%	5	55.6%
Total Years Coaching Experience (All Levels)						
8-11	2	50.0%	0	0.0%	2	22.2%
12-15	0	0.0%	1	20.0%	1	11.1%
16-19	1	25.0%	1	20.0%	2	22.2%
20 or more	1	25.0%	3	60.0%	4	44.4%
Total Years Coaching (Collegiate)						
4-6	1	25.0%	0	0.0%	1	11.1%
7-9	1	25.0%	1	20.0%	2	22.2%
10-12	1	25.0%	1	20.0%	2	22.2%
16 or more	1	25.0%	3	60.0%	4	44.4%
Certification						
CSCS	4	100.0%	0	0.0%	4	44.4%
CSCCa	4	100.0%	0	0.0%	4	44.4%
ATC	1	25.0%	0	0.0%	1	11.1%
USAW	2	50.0%	0	0.0%	2	22.2%
IMPACT	-	-	2	40.0%	2	22.2%
USAV-CAP I	-	-	1	20.0%	1	11.1%

| Other | 2 | 50.0% | 0 | 0.0% | 2 | 22.2% |
| None | 0 | 0.0% | 3 | 60.0% | 3 | 33.3% |

Instrumentation

Identification of primary role responsibilities. Using the protocol outlined by Beauchamp and Bray (2001), a two stage process was completed to focus participants on their primary role functions. The process was as follows: (a) a specific definition of roles and focused questions on the coach's overall role was introduced and (b) listing up to four specific role functions for strength and conditioning along with brief descriptions of these roles. Any results that needed further clarification was done so with a follow-up e-mail to the coach.

Role ambiguity and role conflict. Since this is a population that has not been heavily studied in terms of role ambiguity and role conflict, the researchers chose to use two separate measures of role ambiguity for strength and conditioning coaches, and one measure for volleyball coaches. In the survey sent to SCCs, the Role Questionnaire by Rizzo et al. (1970) contained 14 items that focuses more on reporting role ambiguity and role conflict in general. Role conflict components (eight items) assessed with this survey included conflict between the coach's internal values and the defined role behavior; between the time, resources, or capabilities of the coach's defined role behavior; between several roles for the same person requiring different behaviors or changes in behavior based on the situation; and conflicting expectations and organizational demands in the form of dissenting policies and standards and conflicting requests from others. An example of a role conflict item from this survey is, "I receive incompatible requests from two or more people." This questionnaire contained six items assessing role ambiguity which reflect the certainty about duties, authority, distribution of time, and relationships with others, as well as the clarity or existence of guides, instructions, policies,

and the ability to predict the consequences of behavior[37]. An example from this questionnaire of a role ambiguity item is, "I feel certain about how much authority I have." Coaches indicated the degree to which each statement applies to them based on a 7-point Likert-type scale (1-very false, 7-very true). To determine overall role ambiguity and role clarity of the study, the role clarity items were reversed and scored to match the role ambiguity item scales. The scores of each item were averaged. Acceptable internal consistencies (Cronbach's alpha) of greater than .70 were recorded based on Nunnally's (1978) criteria for the psychological domain. The reliability was consistent in this study as well, with a Cronbach's alpha of .76.

The second measure of role ambiguity, which was sent to both SCCs and HVCs, further breaks down the construct. Using the Role Ambiguity Scale created by Beauchamp et al. (2002), coaches responded to questions regarding the degree to which they perceive their role responsibilities to be ambiguous. The instrument focuses on three key features of roles that includes assessing perceived ambiguity, measuring perceived formal roles, and within the relation of the major behaviors of each context (Beauchamp, Bray, Eys, & Carron, 2003). The 20-item scale was given to assess the degree of role ambiguity and lack of clarity associated with (a) the scope of personal responsibilities (5 items), (b) the behaviors necessary to carry out those responsibilities (5 items), (c) how performance associated with those responsibilities is evaluated (5 items), and (d) the consequences of a failure to successfully carry out those responsibilities (5 items) (Beauchamp et al., 2002). An example of an item from this survey is, "I understand the extent of my responsibilities." Coaches rated their agreement with each role ambiguity statement using a 9-point Likert-type scale (1-strongly disagree, 9-strongly agree). Higher scores reflect lower role ambiguity (higher clarity) and lower scores reflect greater role ambiguity (lower clarity). The scores of each item were averaged. Acceptable internal consistencies (Cronbach's

alpha) of greater than .70 for each of the subscales were recorded (Nunnally, 1978). The reliability was consistent with this instrument as well with a Cronbach's alpha of .96. Each of the four dimensions also separately had a Cronbach's alpha of greater than .70. The reliability was consistent for each of the four dimensions as well, each with alpha levels of .904, .897, .831, and .924 respectively.

Both scales were reviewed by coaches not involved in the study with similar experience to the population of interest. Feedback was requested in terms of wording and content. The identification of primary role responsibilities was adjusted from a three stage process to a two stage process to make it more convenient and simple to complete. Any items considered to be awkwardly worded were rephrased.

Procedures. After checking for content validity, survey links were e-mailed to participants and data was collected over an 18 day period. Surveys were sent through e-mail, and only one coach and SCC were e-mailed from each program. Current e-mail addresses were obtained from each institution's athletic website. In the event that the e-mail was sent to a SCC who's position does not involve creating and implementing training programs for the volleyball team, they were instructed to forward it to whoever was in the position at the time. A reminder e-mail was sent out after the first week, and then again after another week. There was an introductory e-mail explaining the purpose of the study and the IRB tracking number was included. Participants were informed of the voluntary nature of the study, confidentiality was assured, and participants completed a passive informed consent prior to beginning the survey. The surveys were completed through Qualtrics.

Data Analysis. Upon receiving the completed surveys at the conclusion of the two and a half week period, the individual data was coded and entered into SPSS version 23.0 by the

primary researcher for analysis. Internal consistencies for each of the role ambiguity and role conflict scales were determined first. Descriptive statistics of demographics, such as certifications and education, were analyzed along with coaches' identifications of primary role responsibilities. Descriptive statistics were used to assess the level of role ambiguity and role conflict that exists within the roles of SCCs and HVCs, using mean and standard deviation. Comparisons of coaches' role ambiguity were carried out via t-test, with separate comparisons made for role ambiguity, including ambiguity related to scope of responsibility, behavior, evaluation, and consequences. The data did not violate statistical assumptions, having homogeneity of variance, linearity, and independent data with a normal distribution. To check that normality assumptions were met, skewness and kurtosis tests were run. All tests assumed an alpha level of .05.

CHAPTER 4

RESULTS

Participants included four males and five females (SCC: No males, four females; HVC four males, one female) and ages ranged from 23-49 years old. In terms of coaching experience, HVCs have more overall and collegiate coaching experience than SCCs, as displayed on Table 1. All of the HVCs have at least 12 years of experience, whereas only two from the SCC group have that amount of experience. Each of the SCCs currently work with anywhere from 3 to 5 sports (M = 3.75). All nine participants have earned a bachelor's degree, and three from each group have earned a master's degree. In terms of bachelor degrees, all nine HVCs received their degree in education, with two of them being in physical education. Out of the four SCCs, three of them earned their bachelor's degree in a kinesiology-related field. Continuing with formal education, all four SCCs have at least two strength and conditioning-specific certifications, compared to none of the HVCs. However, there are two HVCs with volleyball-specific certifications.

Identification of Primary Role Responsibilities

Of both the SCC and HVC groups combined, one of the roles most commonly listed pertained to injury prevention and health maintenance of athletes. The second-most common role mentioned was strength coaching. Of the two, this role was listed by more HVCs than SCCs, with one HVC listing that he/she is the "person in charge of making [his/her] team stronger". Roles that develop athletes mentally were also listed by both groups, however they were listed much more frequently by SCCs than HVCs. The most common psychological role was being a mentor and someone the athletes can look to for guidance. Additionally, both groups also listed developing mental toughness as a role.

Of the completed surveys, there were three institutions in which both the HVC and SCC responded. With two of the institutions, both the SCC and HVC listed strength development as a role. With the third school, the HVC listed being a strength coach as his/her first role, whereas the SCC never mentioned strength specifically.

Role Questionnaire

Among SCCs, overall averages on the Role Questionnaire (Rizzo et al., 1970) were M = 5.00, SD = .63, indicating that overall levels of role ambiguity and conflict were low and levels of role clarity were fairly high. Means calculated are based on a scale from one to seven and role conflict items were reverse scored. Therefore, high scores indicate low levels of role ambiguity and conflict. Role ambiguity and role conflict items were then also scored separately. Role ambiguity item results indicate that SCCs are experiencing low amounts of role ambiguity (M = 5.92, SD = .646). However, role conflict item results revealed measures of M = 3.69, SD = .72 (on a scale from one to seven), which is inconclusive. When role conflict items were scored independent from role ambiguity, they were not reverse scored, and therefore a high score indicates high levels of role conflict. A few individual items had a large range of responses, especially with items that demonstrate the amount of conflict between the time, resources, or capabilities of the focal person and the defined role behavior. For one concept in which SCCs experience conflict between several roles for the same person that require different or incompatible behaviors, there was a high result (M = 6.25, SD = .957), which illustrates low levels of role clarity within this dimension.

Table 2. *Role Questionnaire*

	M	SD
Overall	5.00	0.63
Role Conflict	3.69	0.72
Role Ambiguity	5.92	0.65

Role Ambiguity Scale

An independent t-test was run for each of the four dimensions to determine a significance between the two groups and mean values were determined for each of the four dimensions, as well. Means of each dimension were based on a scale of one to nine, with a higher score indicating lower levels role ambiguity. The independent t-test for the degree of ambiguity associated with the scope of personal responsibilities revealed a non-significant difference between HVCs and SCCs, $t(7) = -1.34$, $p = .224$, 95% CI = -2.08 - .58. Mean values were similar, demonstrating that this type of role ambiguity was low for both groups ($M_{SCC} = 7.65$, SD = .85; $M_{HVC} = 8.4$, SD = .82). Results for the degree of ambiguity with the behaviors necessary to carry out those responsibilities also indicate a non-significant difference between the groups, $t(7) = -.026$, $p = .980$, 95% CI = -1.87 – 1.83. Again, mean values were similar for both groups suggesting that levels of role ambiguity associated with required behaviors was low ($M_{SCC} = 7.7$, SD = .74; $M_{HVC} = 7.72$, SD = 1.4).

In terms of role ambiguity with the evaluation of the performance associated with responsibilities, the independent t-test revealed a non-significant difference between both groups, $t(7) = -1.29$, $p = .238$, 95% CI = -3.49 – 1.03. The mean values were again similar for both groups and indicates a low amount of ambiguity ($M_{SCC} = 5.85$, SD = 1.32; $M_{HVC} = 7.08$ SD = 1.49). Although there is no significant difference between the groups, ambiguity was lower for HVCs in this dimension compared to SCCs. Additionally, when compared to all the dimensions, this one scored the highest overall for both groups. Lastly, the degree of ambiguity associated with the consequences of failing to successfully carry out those responsibilities also revealed similar mean values that indicate low levels of ambiguity ($M_{SCC} = 6.65$, SD = 1.61; $M_{HVC} = 7.52$, SD = 1.63). Ambiguity is slightly higher in this dimension for SCCs compared to HVCs,

although there is no significant difference between the two groups, $t(7) = -.80$, $p = .450$, 95% CI

$= -3.44 - 1.70$.

Table 3. *Role Ambiguity Scale*

	Cronbach's α	F	p	SCC (n = 4)		HVC (n = 5)	
				M	SD	M	SD
Responsibility	0.904	0.121	0.224	7.65	0.85	8.40	0.82
Behaviors	0.897	2.863	0.98	7.70	0.74	7.72	1.40
Evaluation	0.831	0.363	0.238	5.85	1.32	7.08	1.49
Consequences	0.924	0.218	0.45	6.65	1.61	7.52	1.63

CHAPTER 5

DISCUSSION

The purpose of the current study was to determine if role ambiguity exists for strength

and conditioning coaches and head volleyball coaches. Overall, our results indicated that role

ambiguity does not exist, however some outcomes are indicative of the opposite. While overall

perceptions of ambiguity were low, head volleyball coaches and strength and conditioning

coaches both listed having roles of strength coaching and development.

Even though survey results indicated that role ambiguity does not exist, both groups,

SCC and HVC, identified strength coaching as a primary role. Furthermore, two institutions had

a participant in each group that listed the same role for themselves at least once. Based on the

review of the literature, the fundamental role of SCCs is to create periodized training programs

(Dorgo et al., 2009), however job descriptions for HVCs do not list any specific roles regarding

coaching and developing the strength and conditioning of their athletes. For further clarification,

HVCs were asked to describe how they accomplish each of the roles they listed. Of the coaches

that responded, they each indicated that they work with the SCC to complete these tasks through

communication. This shows that HVCs can often have a part in all aspects of their program, but

to varying degrees.

In addition to roles that improve physical aspects of student-athletes, both groups

mentioned having roles that affect the athletes' psychological well-being as well. In a study by

Sartore-Baldwin (2013), SCCs stated that even though this is not part of the "job description",

their opportunity to impact student-athletes' emotional and maturational development is a source

of job satisfaction. Therefore, this could explain why SCCs in our study responded with more

roles affecting the mental aspect of athletes when compared to HVCs. Another potential

explanation for why more SCCs listed roles having to do with improving the mentality of athletes could be due to the CEUs required by their certifications. Different workshops can offer varying areas of education, and the mental aspect of strength training could be one such area.

The Role Questionnaire results indicate that SCCs do not perceive any role ambiguity, however the role conflict item results were inconclusive as evidenced by a wide range of responses. This indicates that there is not a lack of clear information about expectations, however for some, there is a presence of incongruent expectations. Based on survey responses, SCCs have differing experiences relating to the conflict of the time and resources available to them. This could be due to the differences of their respective athletic department and the resources they provide to SCCs. The amount of resources an athletic department has and how they use them is significant because the more efficiently they are used, the more likely effectiveness within the organization can be improved.

In addition, SCCs indicated having several roles that require different or incompatible behaviors. This could be explained by the fact that SCCs and HVCs are two groups of employees with varying professional backgrounds in athletic departments that can have differing viewpoints on what is effective (Hall & Tolbert, 2005). Furthermore, SCCs listed having the responsibility of coaching three to five sports (M = 3.75). Each HVC could have different coaching strategies that require the SCC to fill different roles. Working with a large number of sport coaches that could have very different experience, education, and philosophies could potentially cause an SCC conflict through contradictory roles. In addition, different sports could require different types of training, which can also cause the SCC to fill various roles. Therefore, there are many possible explanation for why SCCs feel they have several roles requiring different behaviors.

Based on survey responses, the largest amount of time a current SCC and HVC have been at the institution together is only 1-3 years. This means that none of the coaches have been working together for very long, causing a potential for some discrepancies on how the two should interact. Additionally, because each SCC coaches multiple sports, even though they have been at the institution for a certain period of time, it does not necessarily mean that they have worked with the volleyball team that entire time. This study also only had female SCC participants. Future research could expand on this to determine whether the gender, of both SCCs and HVCs, influences the existence of role ambiguity.

Although HVCs and SCCs list many of the same role responsibilities, results of the Role Ambiguity Scale show that this is the dimension where HVCs experience the least amount of ambiguity. HVCs were shown to have more experience than the SCC group and because previous research shows that informal experiences are often valued more than any formal learning, HVCs may feel they have more knowledge. This leads them to also feel confident in their responsibilities (Werthner & Trudel, 2006). However, their experience is in collegiate coaching, and it is not known how much experience HVCs have in strength training specifically. Moreover, SCCs have more specific formal education than the HVC group, including certifications. None of the HVCs had a strength and conditioning certification while the SCCs each had at least two. With the SCCs' combination of formal education experiences, it could be argued that they are more prepared to fill this role even though informal experiences are often perceived as being more important by coaches (Werthner & Trudel, 2006). Differing from HVCs, SCCs experience the least amount of ambiguity with the behaviors necessary to carry out the role responsibilities. Their amount of formal education could explain why SCCs have a clearer idea of what behaviors are required to perform their responsibilities.

The highest amount of role ambiguity by both groups is experienced within the dimension of evaluation of performance of the role responsibilities. Based on the literature, there is no job description for HVCs when it comes to strength and conditioning, and this likely causes there to be no one established to evaluate coaches' performances when it comes to strength and conditioning. Clearer job descriptions for both SCCs and HVCs along with an established hierarchy could help establish who it is that would be evaluating them on job performance. Furthermore, if whoever is doing the evaluation is not trained or educated in strength and conditioning, they could not have the educational base necessary to correctly evaluate this role.

Because the athletes' performances rely on the efficiency of the department to use resources such as experiences, expertise, and perspectives, establishing roles that optimize the use of the employees would contribute to an increase in competitive success. Although the results indicated that participants do not perceive any role ambiguity, it is clear based on other findings that clear role boundaries for the two groups needs some attention through further research.

The present study has provided a foundation for the evaluation of SCC and HVC roles in regards to strength and conditioning. However, these results are limited in the degree to which they are generalizable for Division I athletics as a whole. The participants in this study were limited to one Division I conference and other conferences are likely to have varying amounts of resources. The ability to generalize the results is also restricted due to the small sample size. Future research should seek to duplicate this research with a broader sample of participants in an attempt to gain a larger picture of this issue within NCAA athletics.

This study was also limited by the responses due to the Likert-type scale response questions in the survey. Therefore, future research could be conducted using qualitative

methodology to determine what amount structure is provided for the two roles in terms of strength and conditioning. This could help provide an understanding as to why the results indicated there was no role ambiguity in existence even though both groups stated having the same roles. Additionally, qualitative methodology could seek to determine the nature of the working relationship between the HVC and SCC groups.

This study suggests that SCC and HVC roles needs more attention. There is a lack of job descriptions for HVCs that includes roles pertaining to strength and conditioning. As the knowledge base for sport coaching and strength and conditioning coaching continues to evolve, coaches of all varieties should continue their education to maintain current knowledge of their specialty in order to properly fill established roles. Additionally, because athletic performance relies on the ability of the department to efficiently utilize resources, studying and improving these roles can optimize employee contribution towards athletic department success.

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APPENDIX A

Survey
Strength and Conditioning Coach

Section 1: Informed Consent

Section 2: Demographics
- Age
    - 18-22
    - 23-29
    - 30-34
    - 35-39
    - 40-44
    - 45-49
    - 50-54
    - 55-59
    - 60 and above
- Gender
    - Male
    - Female
- Ethnicity
    - White
    - Hispanic or Latino
    - Black or African American
    - Native American or American Indian
    - Asian/Pacific Islander
    - Other
- Total years coaching experience (all levels)
    - 1-4
    - 4-7
    - 8-11
    - 12-15
    - 16-19
    - 20 or more
- Total years coaching at the collegiate level
    - 1-3
    - 4-6
    - 7-9
    - 10-12
    - 13-15
    - 16 or more
- Current Institution

- Total years with current institution
    - 1-3
    - 4-6
    - 7-9
    - 10 or more
- Coaching/ Professional Certifications
    - CSCS
    - CSCCa
    - Other
        - List
- Education
    - Highest level degree completed
        - Bachelor's Degree
        - Associate Degree
        - Doctorate
        - High School
        - GED
        - Master's Degree
        - Other
            - Major/Specialization – fill in
    - Additional Education
        - Bachelor's Degree
        - Associate Degree
        - Doctorate
        - High School
        - GED
        - Master's Degree
        - Other
            - Major/Specialization – fill in
    - Number of sports currently coaching
    - Please list the sports currently coaching
    - Total years with volleyball strength and conditioning programming
        - 1-2
        - 3-4
        - 5-6
        - 7-8
        - 9-10
        - 11 or more

Section 3: Identification of Primary Role Responsibilities
- Please read the following definitions
    - Roles: expectations for the behavior of an individual who occupies a specific position (Sherif and Sherif, 1953)

- o Formal roles: directly established by the group or organization
- o Informal roles: evolve as a result of the interactions that take place among group members
- Please pick four roles that you believe to be your primary roles in relation to the volleyball program. Please provide written descriptions of those four primary roles.
    - o Open-ended

Section 4: Role Questionnaire (Rizzo, 1970)

- For the following section, please rate the degree to which each of the following statements apply to your job, using a scale of very false (1) to very true (7): 1 - very false, 2 - mostly false, 3 - somewhat false, 4 - neither false nor true, 5 - somewhat true, 6 - mostly true, 7 - very true
    1. I feel certain about how much authority I have.
    2. I have clear, planned goals and objectives for my job.
    3. I have to do things that should be done differently.
    4. I know that I have divided my time properly.
    5. I receive an assignment without the manpower to complete it.
    6. I know what my responsibilities are.
    7. I have to buck a rule or policy in order to carry out an assignment.
    8. I work with two or more teams who operate quite differently.
    9. I know exactly what is expected of me.
    10. I receive incompatible requests from two or more people (coaches, administrators, etc.).
    11. I do things that are apt to be accepted by one coach and not accepted by others.
    12. I receive an assignment without adequate resources and materials to execute it.
    13. Explanation is clear of what has to be done.
    14. I work on unnecessary things.

Section 5: Role Ambiguity Scale (Beauchamp, 2002)

- For the following section, please rate the degree to which each of the following statements apply to your job, using a scale of strongly disagree (1) to strongly agree (9) : 1 - strongly disagree, 2 - disagree, 3 - moderately disagree, 4 - mildly disagree, 5 - neither agree nor disagree, 6 - mildly agree, 7 - moderately agree, 8 - agree, 9 - strongly agree

    1. I understand the extent of my responsibilities.
    2. I understand the scope of my responsibilities.
    3. I understand all of my responsibilities.
    4. I am unclear about the breadth of my responsibilities.
    5. I am clear about the different responsibilities that make up my role.

    6. I understand what adjustments to my behavior need to be made to carry out my role.
    7. I understand the behaviors I must perform to carry out my role.

8. I know what behaviors are necessary to carry out my responsibilities.
9. It is clear what behaviors I should perform to fulfill my role.
10. I am unclear what behaviors are expected of me in order to carry out my role.

11. I understand the criteria by which my role responsibilities are evaluated.
12. I understand how my role is evaluated.
13. It is clear to me how my role responsibilities are evaluated.
14. I am unclear about the way in which my role responsibilities are evaluated.
15. The criteria by which my roles are evaluated is clear to me.

16. It is clear to me what happens if I fail to carry out my role responsibilities.
17. I understand the consequences of failing to carry out my role responsibilities.
18. I am unclear about the consequences of failing to carry out my role responsibilities.
19. I understand the consequences of unsuccessful role performance.
20. I know what will happen if I don't perform my role responsibilities.

Survey
Volleyball Coach

Section 1: Informed Consent

Section 2: Demographics
- Age
  - 18-22
  - 23-29
  - 30-34
  - 35-39
  - 40-44
  - 45-49
  - 50-54
  - 55-59
  - 60 and above
- Gender
  - Male
  - Female
- Ethnicity
  - White
  - Hispanic or Latino
  - Black or African American
  - Native American or American Indian
  - Asian/Pacific Islander
  - Other
- Total years coaching experience (all levels)
  - 1-4
  - 4-7
  - 8-11
  - 12-15
  - 16-19
  - 20 or more
- Total years coaching at the collegiate level
  - 1-3
  - 4-6
  - 7-9
  - 10-12
  - 13-15
  - 16 or more
- Current Institution
- Total years with current institution
  - 1-3
  - 4-6

- o 7-9
- o 10 or more
- Coaching/ Professional Certifications
  - o IMPACT
  - o USAV-CAP I
  - o USAV-CAP II
  - o USAV-CAP III
  - o USAV-CAP IV
  - o CSCS
  - o CSCCa
  - o Other
    - ▪ List
- Education
  - o Highest level degree completed
    - ▪ Bachelor's Degree
    - ▪ Associate Degree
    - ▪ Doctorate
    - ▪ High School
    - ▪ GED
    - ▪ Master's Degree
    - ▪ Other
      - • Major/Specialization – fill in
  - o Additional Education
    - ▪ Bachelor's Degree
    - ▪ Associate Degree
    - ▪ Doctorate
    - ▪ High School
    - ▪ GED
    - ▪ Master's Degree
    - ▪ Other
      - • Major/Specialization – fill in
- Are you an AVCA member?
  - o Yes
  - o No
  - o Unsure
- Have you attended an AVCA convention in the past 5 years?
  - o Yes
  - o No
- If yes, how many AVCA conventions have you attended in the past 5 years?
  - o 1
  - o 2
  - o 3
  - o 4

      ○ 5

Section 3: Identification of Primary Role Responsibilities
- Please read the following definitions
  - Roles: expectations for the behavior of an individual who occupies a specific position (Sherif and Sherif, 1953)
  - Formal roles: directly established by the group or organization
  - Informal roles: evolve as a result of the interactions that take place among group members
- Please pick up to four roles that you believe to be your primary strength and conditioning coaching roles for your team. Please provide written descriptions of the primary roles you list.
  - Open-ended

Section 5: Role Ambiguity Scale (Beauchamp, 2002)
- For the following section, please rate the degree to which each of the following statements apply in regards to your experiences with your teams' strength at conditioning programs, using a scale of strongly disagree (1) to strongly agree (9): 1 - strongly disagree, 2 - disagree, 3 - moderately disagree, 4 - mildly disagree, 5 - neither agree nor disagree, 6 - mildly agree, 7 - moderately agree, 8 - agree, 9 - strongly agree

    1. I understand the extent of my responsibilities.
    2. I understand the scope of my responsibilities.
    3. I understand all of my responsibilities.
    4. I am unclear about the breadth of my responsibilities.
    5. I am clear about the different responsibilities that make up my role.

    6. I understand what adjustments to my behavior need to be made to carry out my role.
    7. I understand the behaviors I must perform to carry out my role.
    8. I know what behaviors are necessary to carry out my responsibilities.
    9. It is clear what behaviors I should perform to fulfill my role.
    10. I am unclear what behaviors are expected of me in order to carry out my role.

    11. I understand the criteria by which my role responsibilities are evaluated.
    12. I understand how my role is evaluated.
    13. It is clear to me how my role responsibilities are evaluated.
    14. I am unclear about the way in which my role responsibilities are evaluated.
    15. The criteria by which my roles are evaluated is clear to me.

    16. It is clear to me what happens if I fail to carry out my role responsibilities.
    17. I understand the consequences of failing to carry out my role responsibilities.

18. I am unclear about the consequences of failing to carry out my role responsibilities.
19. I understand the consequences of unsuccessful role performance.
20. I know what will happen if I don't perform my role responsibilities.