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Resources to Access Health Care for Low Socioeconomic Status Youth Athletes

Stephanie Walsh

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RESOURCES TO ACCESS HEALTH CARE FOR LOW SOCIOECONOMIC STATUS
YOUTH ATHLETES

by

STEPHANIE D. WALSH

(Under the Direction of Tamerah Hunt)

ABSTRACT

Background: Approximately 60 million youth participate in organized sports, with 13.5 million receiving care for sports related injuries each year. Most youth sports organizations do not have readily accessible health care resources; relying on parents and guardians to manage injuries. However, a majority of parents and guardians are untrained in appropriate management of injuries, therefore there is a need for understanding the availability of health care resources within the community. Resources necessary to access health care include health services, health insurance, transportation, and communication. Barriers to these resources may affect lower socioeconomic status family's accessibility to care. **Purpose:** Investigate the resources available to access health care and identify barriers to accessibility across varying levels of socioeconomic status youth athletes. **Methods:** 192 parents and guardians were recruited from two parks and recreation departments. Participants completed a 37-item survey measuring the four resources to health care. Questions were individually analyzed using percentages and frequencies, then grouped according to the respective resource. Kruskal-Wallis tests were calculated to examine differences across socioeconomic status (SES). **Results:** The sample was comprised of 24% low SES, 35.9% middle SES, and 40.1% high SES. Participants were found to use an array of health

care resources including health services, health insurance, transportation, and communication. Statistically significant differences existed between SES groups for health services ($H(2) = 11.00, p = 0.004$) and transportation ($H(2) = 14.39, p = 0.001$), with low SES having fewer resources than middle and high SES. No significant differences were found between SES and health insurance ($H(2) = 4.49, p = 0.11$) or communication ($H(2) = 3.86, p = 0.15$). **Conclusion:** Lower SES participants experienced barriers to accessing health care resources, specifically health services and transportation, compared to higher SES participants. Parents and guardians of varying levels of SES did not experience many difficulties with health insurance or communication between themselves and health care providers for their child. Our findings are consistent with previous literature regarding barriers to accessing health care. Future research should examine effective ways to improve resources available within rural communities for youth athletes in order to provide equitable access to health care.

INDEX WORDS: Medical care, At-risk, Sports, Guardians, Health care resources, Health services, Health insurance, Transportation, Communication, Rural communities

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YOUTH ATHLETES

by

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B.S., West Chester University, 2018

M.S., Georgia Southern University, 2020

A Thesis Submitted to the Graduate Faculty of Georgia Southern University

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MASTER OF SCIENCE

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DEDICATION

I would like to dedicate this thesis to my family for their everlasting love, support, and encouragement in all of my endeavors. Without them, I wouldn't be here today. I would also like to dedicate this to my friends and fellow graduate students who helped to foster inspiration, comfort, and support through the process.

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CHAPTER 1

INTRODUCTION

Youth Sports

Youth sports provide children with a considerable amount of benefits and encourage the development of an active, healthy lifestyle through organized activities (Coakley, 2002; Coakley, 2011; Koester, 2000; Logan & Cuff, 2019; Merkel, 2013). Participation teaches youth valuable life skills such as goal setting, time management, critical thinking, and socialization (Coakley, 2011; Koester, 2000; Merkel, 2013; Purcell, 2005). A positive sporting atmosphere allows children to develop, grow, and be challenged (Crane & Temple, 2014); while enhancing courage, self-confidence, and perseverance (Koester, 2000; Merkel, 2013). The positive impacts of sports may correlate to the continued growth in participation from the 1950s to the early twenty-first century. As of 2019, there are approximately 60 million children who participate in youth sports (National Council of Youth Sports, 2019), with almost 75% of American families having at least one child participating at varying levels of competition (Merkel, 2013).

The level and duration of youth sport participation may vary depending upon factors such as socioeconomic status, costs, and injuries. Socioeconomic status (SES) has been found to be a correlate of organized sports participation, meaning that higher SES individuals participate in higher levels of competition (i.e., elite or travel leagues) and lower SES individuals participate in lower levels of competition (i.e., leagues within local parks and recreation departments) (Logan & Cuff, 2019). The affordability of participation, such as registration fees, uniforms, and traveling, may be difficult for those of lower SES youth, therefore they tend to participate in recreational leagues rather than elite settings. However, over the last decade there has been a clear decline in all levels of youth sport participation due to increased costs (Vella et

al., 2014), specialization (Adirim & Cheng, 2003), unqualified coaches (Koester, 2000), and increased injuries (Durant, 1991; Findler, 2015). Specifically, football and soccer have seen as high as a 12% decline in participation (The Aspen Institute, 2019), primarily due to the increasing concern of head injuries while playing sports (Findler, 2015).

The National Center for Sports Safety (2013) reported that 13.5 million children aged 14 years and younger receive medical care for sports related injuries each year. Additionally, research has shown as many as 2.6 million youth sports injuries have resulted in emergency room visits (Adirim & Cheng, 2003; Burt & Overpeck, 2001). Youth are at a greater risk for injury compared to adults due to their bones rapidly growing during development which creates tension across the growth plates, apophysis, and joints (Adirim & Cheng, 2003; DiFiori, 2002; DiFiori et al., 2014; Hedstrom & Gould, 2004; Merkel & Molony, 2012). This tension, in addition to decreased flexibility, coordination, balance, and strength predisposes youth athletes to injuries (DiFiori et al., 2014). The increased risk of injury for youth warrants health care resources to be freely available in the scenario that an injury does occur.

Although most elite sports settings have health care providers and resources (such as athletic trainers, first responders, or EMTs) available to athletes, lower competitive levels (i.e., recreational leagues) typically do not (Logan & Cuff, 2019). In leagues without access to a health care professional, the medical management is customarily placed on parents and coaches, who typically do not have any formal training in management of sports injuries, basic first aid, cardiopulmonary resuscitation, and automated external defibrillation (Koester, 2000; Merkel, 2013). Moreover, these lower competitive levels typically have more athletes of lower SES, whom already experience decreased availability to health care resources (Adler & Newman, 2002). Thus, a lack of adequate injury management and health care resources may lead to worse

health and injury outcomes for youth athletes. Accessibility to health care resources are crucial for youth to provide a foundation of overall wellbeing and preservation of their career as an athlete.

Accessing Health Care

Accessing health care is a multi-dimensional concept, defined as “the timely use of personal health services to achieve the best health outcomes” (Institute of Medicine, 1993, p.6). To better understand this notion, researchers have identified “dimensions” of accessing health care (Angier et al., 2014; Gulliford et al., 2002; Penchansky & Thomas, 1981; World Health Organization, 2015). Common resources within the literature have been recognized as health services, health insurance, transportation, and communication.

Health Services

Health services are crucial for individuals seeking medical assistance, as they are considered “any medical care or service, including supplies, delivered in connection with the care or service” (“Legislative,” ORS 165.690). More so, health services entail individuals or objects to assist in providing health care. Services may include doctors or nurses, therapy sessions (i.e., physical/occupational therapy, counseling), imaging, and diagnostic testing. Regular and reliable access to these services prevent disease and disability, detect and treat health conditions and injuries, and increase quality of life (National Commission on Prevention Priorities, 2007). Individuals are often compelled to access care by the availability and convenience of these services. However, common barriers to obtain health services include facilities hours of operation, scheduling appointments, the timeliness of waiting for care, the abundance of health care providers, and continuity of care for individuals (Lara et al., 1999). For example, accessibility to health services has been found to be challenging due to long wait

times and inconvenient hours of operation (Hughes & Ng, 2003; Yin et al., 2012), which generally delays the person from seeking care. If the timeliness of care provided is not efficient or effective, individuals may not receive care, which can exacerbate health outcomes. Accessing health care, according to the literature, is not only affected by the barriers to health services but can also be influenced by health care affordability and insurance.

Health Insurance

The greatest economic resource to accessing care is an individual's capability to have health insurance and coverage of health services (Angier et al., 2014; Institute of Medicine, 2004; Lara et al., 1999). Health insurance provides financial coverage to health services in an effort to protect the insured from high medical costs (Health Care, n.d; Institute of Medicine, 2004; Price et al., 2013). Prior to 2010, nearly 40 million individuals in the United States did not have insurance coverage. However, following the enactment of the Patient Protection and Affordable Care Act, 20 million adults and 78 million youth now have health insurance (Uberoi et al., 2016).

The enactment of the Patient Protection and Affordable Care Act provided insurance to many individuals, however, there are still individuals who do not have insurance or experience difficulties paying deductibles, co-payments, and medication costs. In fact, research shows that 82% of families were unable to pay for health services that were not covered by their insurance and 88% reported the high cost of doctors' visits and medications affected their opportunity to seek care (Lara et al., 1999). Research shows a lack of insurance or inability to pay for care are significant barriers to accessing health services. However, another fundamental component of accessing health care is transportation.

Transportation

Transportation is a necessary resource to access health care providers and facilities (Syed et al., 2013), as it allows individuals access to appropriate and well-coordinated health services. Probst and colleagues (2007) found that the most commonly used transportation to health care facilities is a car (59.5%), van (15.4%), sports utility vehicle (10.7%) or pickup truck (8.2%). Depending on the geographic location of individuals and providers, transit options, cost, and availability of, and distance to providers may vary creating barriers to accessing care (Syed et al., 2013).

Individuals who live in rural areas travel an average of 32% longer than those who reside in urban areas and rely more on friends or family rather than public transportation (Probst et al., 2007). Regardless of the form and distance of travel, if transportation is limited it can potentially hinder an individual's ability to access care, thus resulting in worse health outcomes. Research has provided evidence that transportation can be a strong prohibiting factor to seeking care, however once the individuals arrive at health care providers offices, communication becomes a key resource for health care implementation.

Communication

Communication between individuals and providers allows for effective access to health services. Communication is a key factor for individuals understanding of medical regimes, complying with care, and making informed decisions regarding their health care. Individuals who understand the information a provider is giving are more likely to acknowledge health problems, understand the treatment options, modify their behavior accordingly, and follow their medical schedules (Travaline et al., 2005). Appropriate communication may include utilizing a

translator to interpret information in another language, explaining health care information in simpler terms, and considering cultural attitudes and beliefs that may influence individuals' decision to seek health care (Gadon et al., 2007; Lara et al., 1999).

An inability to communicate effectively may lead to worse health outcomes for individuals seeking care. Factors such as choices in words, information depth, speech patterns, body position, and facial expressions can cause barriers in communication between health care providers and individuals seeking care (Travaline et al., 2005). If patients are unable to comprehend information nor feel comfortable to ask questions, hindrance in following health care guidelines may occur. Therefore, not only should quality communication be recognized as an essential resource, but health care providers should ensure communication resources (i.e., translators, health literacy education) are available to individuals. Regardless of the resources available to access health care, SES greatly influences an individual's ability to access care (Alder et al, 1994).

Socioeconomic Status

Socioeconomic status has been found to be the strongest and most consistent predictor of an individual's health status (Hughes & Ng, 2003; Alder et al., 1994). SES is defined as "the relative position of a family or individual on a hierarchical social structure, based on their access to or control over wealth, prestige, and power" (Mueller & Parcel, 1981, p.3). Families of varying levels of SES may experience similar rates of injuries and illnesses, however those with a higher education and income may be in a better position to invest in their own health and make better decisions regarding the use of health services (Case et al., 2002; Dearden et al., 2011; Propper et al., 2007).

Although most individuals experience some form of difficulty accessing health care, low SES individuals have been found to encounter disadvantages compared to higher SES individuals (Alder & Newman, 2002). Specifically, lower SES individuals experience greater difficulty scheduling an appointment, receiving continuing care, traveling to facilities, managing health care costs, and communicating to providers (Arpey et al., 2017; Lara et al., 1999; Yin et al., 2012). This is thought to be due to lower SES individuals facing challenges such as increased stress regarding money, access to health services (via forms of transportation), and social support systems to assist in accessing care (Hughes & Ng, 2003). Those among lower SES report worse health outcomes, providing evidence that access to health care has a greater impact on the overall health status of low SES individuals (Allin & Stabile, 2012; Kennedy et al., 1998; Kitagawa & Hauser, 1973). Thus, accessibility of resources to health care contributes to the health status and outcomes of individuals seeking care.

Conclusion

Millions of youth sustain injuries each year while participating in sports, however most youth sports practices and games do not have health care resources or providers available to manage injuries. Therefore, the medical management of injuries is placed on parents, guardians, and coaches. Although the responsibility is placed upon parents and coaches, most are untrained in appropriate injury management (Koester, 2000), and unless they are aware of the available resources to refer the athlete, it could be detrimental to the youth's overall health status. Therefore, parental and guardian knowledge of the health care resources available is essential, as youth are reliant on them to manage and facilitate their care (Sanders et al., 2009; Viner et al., 2012). Health care accessibility and utilization will not only allow the child to have a healthier life but also proper injury management.

A thorough understanding of the health care resources parents and guardians are utilizing within the community and potential barriers that exist for their children will enable improvements in accessibility for youth sport participants. It is crucial for all youth to have access to health care resources such as health services, health insurance, transportation, and communication; however, it is especially important for those of lower SES who may already be disadvantaged. Therefore, the purpose of this study was to investigate the resources available to access health care and identify barriers to accessibility across varying levels of socioeconomic status youth athletes. The first aim of this study was to determine what medical components parents and guardians used for youth athletes. The researcher hypothesized that parents and guardians would identify numerous barriers to access health care facilities and scheduling appointments. Further it is hypothesized that most parents and guardians will have health insurance, travel long distances to their child's doctor's offices, and have low health literacy levels. The second aim of the study was to determine if medical resources were different across socioeconomic status. The researcher hypothesized that lower socioeconomic status parents, guardians, and youth athletes would have lower levels of access to health care resources (health services, health insurance, transportation, communication).

CHAPTER 2

REVIEW OF LITERATURE

Youth Sports

Youth sports provide children with a considerable amount of benefits and encourage the development of an active and healthy lifestyle through organized activities (Coakley, 2002; Coakley, 2011; Koester, 2000; Logan & Cuff, 2019; Merkel, 2013). Organized sport is defined as “physical activity that is directed by adult or youth leaders and involves rules and formal practice and competition” (Logan & Cuff, 2019, p.1). Participation in sports has been found to establish and evolve youth’s physical, emotional, social, and psychological health (Logan & Cuff, 2019; Wiggins, 2013). Particularly, youth develop physically through improvements in their hand-eye coordination, strength, functional movement, and motor skills (Logan & Cuff, 2019); while emotionally, youth are taught valuable life skills such as goal setting, time management, critical thinking, and lessons on adversity (Logan & Cuff, 2019; Purcell, 2005). Beyond these life skills, youth sports provide an environment for children to develop socially through friendships (Coakley, 2011) and interaction with peers and coaches (Koester, 2000), which leads to greater social identity and adjustment (Eime et al., 2013). Youth sports can provide children with an environment that enables flourishing during an essential time in their life at which continual development and growth is crucial.

Within a positive sporting atmosphere, children are able to develop, grow, and be challenged (Crane & Temple, 2014); allowing for heightened courage, self-image, self-esteem, and perseverance (Koester, 2000; Logan & Cuff, 2019; Merkel, 2013). Sports allow youth to establish a foundation of emotional stability and wellbeing. The emotional aspects of sports participation contribute to greater stress resistance, higher levels of confidence, and less feelings

of depression and anxiety (Eime et al., 2013; Logan & Cuff, 2019). The positive impacts of sports may correlate to the continued growth in participation from the 1950s to the early twenty-first century.

The History of Youth Sports

The industrialization in the 19th century led to the creation of organized sports in America (Albrecht & Strand, 2010; Koester, 2000). Through sport, young men were encouraged to develop essential skills such as self-sacrifice, obedience, discipline, self-control, and loyalty to prepare them for life (Albrecht & Strand, 2010; Wiggins, 1987). Sport programs were solely coordinated by local schools and churches within the community prior to the 1850's when the Young Men's Christian Association (YMCA) offered young men to compete against each other at a greater level of organized competition (Albrecht & Strand, 2010; Wiggins, 2013). The development of sports continued to grow and in the 1930's professional sports teams became a huge part of America's culture (Albrecht & Strand, 2010). This revolution led to a rapid rise in participation of sports. Shortly after, Little League baseball was created in 1939 to allow male youth to play competitively (Albecht & Strand, 2010; Wiggins, 2013). By the 1960s a multitude of youth sport organizations began to form, and in the 1970s and 1980s women and girls were able to participate, providing the opportunity for all youth to participate in sport. In 1972 Title IX legislation was passed requiring educational institutions to offer females of all ages an opportunity to participate in educational programs, activities, and sport in attempt to end sexual discrimination (Albrecht & Strand, 2010; Wiggins, 2013). With this rise in participation, researchers began studying the benefits of participation; such as the psychological, physiological, sociological, and motor development skills that youth sports offer (Wiggins, 1987). Awareness of the vast benefits of youth participating in sports led to even more

structured and official support of youth sports organizations such as the North American Youth Sports Institute, National Council for Youth Sports Directors, AAU Junior Olympics, American Youth Soccer Organization, Babe Ruth Baseball, National Federation of State High School Associations, Pop Warner Football, USA Wrestling, and the YMCA (Wiggins, 1987). These organizations have continued to grow throughout the years and allow youth the opportunity to compete in an array of sports.

Participation Rates in Youth Sports

As of 2019, there are approximately 60 million children who participate in youth sports (National Council of Youth Sports, 2019), with almost 75% of American families having at least one child participating in a varying level of competition (Merkel, 2013). The level and duration at which youth participate in sports may vary depending upon factors such as socioeconomic status (SES), costs, the sports environment, and injuries. SES has been found to be a correlate of organized sports participation, meaning that higher SES individuals participate in higher levels of competition (i.e., elite or travel leagues) and lower SES individuals participate in lower levels of competition (i.e., leagues within local parks and recreation departments) (Logan & Cuff, 2019). The affordability of participation, such as registration fees, uniforms, and traveling, may be difficult for those of lower SES youth, therefore they tend to participate in recreational leagues rather than elite settings. In addition to the cost of participation, the atmosphere of sports effects the duration of participation.

The environment in which youth participate contributes to the continuation of participation of sports. A positive sporting environment in which youth are having fun, creating friendships, and developing their skills entices continued participation (Koester, 2000). However, when the sports environment becomes negative, unfriendly, or unwelcoming, children

often choose to drop-out (Crane & Temple, 2014). Particularly, scholars argue that 70% of youth tend to drop-out in middle school due to sports becoming too competitive, having other interests, feelings of being burned out, or no longer having fun while playing (Koester, 2000; Logan & Cuff, 2019; Merkel, 2013; National Council of Youth Sports, 2019). More recently, researchers found with the rise of collegiate and professional sports opportunities, parents and coaches place immense pressure on children to win, specialize in a sport, practice for long hours, and travel far distances for practices and games (Koester, 2000; Logan & Cuff, 2019). Eventually, these factors affect the athletes' bodies and their desire to continue playing. Over the last decade there has been a clear decline in all levels of youth sport participation due to increased costs (Vella et al., 2014), specialization (Adirim & Cheng, 2003), unqualified coaches (Koester, 2000), and increased injuries (Durant, 1991; Findler, 2015). Specifically, football and soccer have seen as high as a 12% decline in participation (The Aspen Institute, 2019), primarily due to the increasing concern of head injuries while playing sports (Findler, 2015). While youth participation has many benefits, there is an inevitable risk of injury while playing sport.

Injury Rates in Youth Sports

The National Center for Sports Safety (2013) reported that 13.5 million children aged 14 years and younger receive medical care for sports related injuries each year. Specifically, research has shown as many as 2.6 million youth sports injuries have resulted in emergency room visits (Adirim & Cheng, 2003; Burt & Overpeck, 2001). Youth are at a greater risk for injury compared to adults due to their bones rapidly growing during development which creates tension across the growth plates, apophyses, and joints (Adirim & Cheng, 2003; DiFiori, 2002; DiFiori et al., 2014; Hedstrom & Gould, 2004; Merkel & Molony, 2012). This tension, in

addition to decreased flexibility, coordination, balance, and strength causes youth athletes to be prone to injuries (DiFiori et al., 2014). The increased risk of injury for youth is of immense concern for those participating in leagues that do not have health care resources readily available.

Although most elite sports settings have health care providers and resources available to athletes, lower competitive levels (i.e., recreational leagues) typically do not (Logan & Cuff, 2019). In leagues without access to a health care professional, the medical management is customarily placed on parents and coaches, who typically do not have any formal training in management of sports injuries, basic first aid, cardiopulmonary resuscitation, and automated external defibrillation (Koester, 2000; Merkel, 2013). Within common league structure, lower competitive leagues typically have more athletes of lower socioeconomic status, whom already experience decreased availability to health care resources (Adler & Newman, 2002). Thus, a lack of adequate injury management and health care resources may lead to worse health and injury outcomes for youth athletes. Accessibility to health care resources are crucial for youth to provide a foundation of overall wellbeing and preservation of their career as an athlete.

Accessing Health Care

Health care serves as an essential resource for providing care to maintain and improve an individual's health status. The primary role of health care is to prevent, detect, and mitigate problems as they emerge (Hughes & Ng, 2003), therefore accessibility to care is paramount. Accessing health care is a multi-dimensional concept, defined as “the timely use of personal health services to achieve the best health outcomes” (Institute of Medicine, 1993, p.6). To better understand this notion, researchers have identified “dimensions” of accessing health care (Angier et al., 2014; Gulliford et al., 2002; Penchansky & Thomas, 1981; World Health

Organization, 2015). Common resources within the literature have been recognized as health services, health insurance, transportation, and communication.

Health Services

An essential resource to health care is the accessibility of health services for patients. Health services are considered “any medical care or service, including supplies, delivered in connection with the care or service” (“Legislative,” ORS 165.690). Services may incorporate individuals or objects, such as doctors or nurses, therapy sessions (i.e., physical/occupational therapy, counseling), imaging, or diagnostic testing to aid in providing health care. Regular and reliable access to services can detect and treat health conditions, illnesses, and injuries (National Commission on Prevention Priorities, 2007). Individuals are often compelled to access care by the availability and convenience of these services. However, common barriers to services include facilities hours of operation, scheduling appointments, the timeliness of waiting for care, abundance of health care providers, adequate staff to coordinate care and educate patients, and continuity of care for patients (Lara et al., 1999). If health services are not accessible within a reasonable and safe proximity, individuals may not receive care, which can exacerbate health outcomes (Angier et al., 2014).

Health services are an essential resource to patients seeking care; however, accessibility relies on several factors. Traditionally, the availability of services is measured using indicators such as the number of health care providers per head of the population (Gulliford et al., 2002). An abundance of providers and staff allows for greater time spent with patients during office visits, including more extensive evaluations and therapy times (Lara et al., 1999). Due to the increased time and resources, providers are able to coordinate better care, implement greater education, and be more knowledgeable of the patient’s illness and injuries, as well as their

socioeconomic and cultural needs. A continuous relationship between health care providers and patients allows for greater trust, communication, and an increased likelihood that the patient will receive appropriate care (Angier et al., 2014; World Health Organization, 2015), as the provider is familiar with the patient and their medical history. However, without these aspects, accessibility to care may be diminished, resulting in worse health outcome for those seeking care.

Patients may be compelled to access health care by the availability of scheduling appointments and timeliness of waiting for care. Timeliness of care is “the health care system’s ability to provide health care quickly after a need is recognized” (“National Healthcare,” 2013, p.1). Timeliness can be measured by the patient’s ability to physically access care with reasonable waiting times and facilities hours of operation (“National Healthcare,” 2013; Primary Health Care Performance Initiative, 2018). Unfortunately, patients often are unaware of provider’s hours of operations or how to contact providers following normal hours (Yin et al., 2012), and face many barriers accessing care due to inconvenient hours of services (Hughes & Ng, 2003). In fact, 45.8% of patients reported not being able to reach someone after hours and 7.9% were unsure if they could even do so (Yin et al., 2012). It is crucial that patients are able to find a time to visit provider’s offices without sacrificing other obligations and duties. Often patients report missing appointments because of long wait times or due to being forced to schedule an appointment that was inconvenient for them (Yin et al., 2012). If the timeliness of care provided is not efficient, patients may delay seeking care. Delay of care between patients identifying a need for services and receiving services can impact their overall health (“National Healthcare,” 2013), thus it is essential that health care providers are considerate of the timeliness of care provided.

The accessibility to health services varies upon numerous factors, with individuals that are vulnerable (i.e., minorities, children, adolescents, those residing in rural areas) potentially experiencing greater difficulty (Angier et al., 2014; World Health Organization, 2015). Therefore, availability of care should be designed around the needs of patients. Patients are entitled to schedule appointments that are accommodative to their schedules, experience reasonable wait times, and have access to additional facilities hours of operations (Gulliford et al., 2002; Lara et al., 1999; Padela & Punekar, 2009; Penchansky & Thomas, 1981; Seid et al., 2001, Seid et al., 2009, World Health Organization 2015). Accessing health care, according to the literature, is not only affected by the barriers to health services but can also be influenced by health care affordability and insurance.

Health Insurance

The greatest economic resource to accessing care is an individual's capability to have health insurance and coverage of medical services (Angier et al., 2014; Institute of Medicine, 2004; Lara et al., 1999). Health insurance provides financial coverage to health services in an effort to protect the insured from high medical costs. More so, insurance may provide free or reduced preventive care such as vaccines, screenings, and check-ups (Health Care, n.d; Institute of Medicine, 2004). Through insurance coverage patients have greater opportunities to receiving care, an increased likelihood of a timely diagnosis and treatment of health conditions, fewer unmet needs, and a greater chance to living a longer, healthier life by having accessibility to more health care resources (Institute of Medicine, 2004; Price et al., 2013). Both private and public insurance coverages have been found to contribute greatly to the health care received (Adler & Newman, 2002; Ogbuanu et al., 2012); however different plans may provide varying levels of access to resources. Private coverage is marketed by private health insurance industries

and is usually obtained through an employer or purchased individually; while public coverage is government-run insurance programs such as Medicaid, Medicare, and Children's Health Insurance Program (CHIP) (Kaiser Family Foundation, 2008). Public insurance may be more affordable, but private insurance policies often have more options as to which doctors or medical facilities may be visited. Regardless of the type of insurance policy, individuals with insurance have greater access to health services and reduced costs. However, not all individuals have health insurance coverage.

Following the enactment of two bills, health insurance has become more accessible and affordable throughout the years. In 1997, Congress created Title XXI of the Social Security Act to provide health care for the growing number of uninsured children in the United States. This legislation enabled states to create State Children's Health Insurance (CHIP) programs for children who were not covered and lived in families with incomes up to 200% of the federal poverty level (American Academy of Pediatrics, 2014). Following this enactment, most youth in America received health insurance from their guardians (54%), with 25% covered by Medicaid, 6% from CHIP, and 5% insured by the military, Indian health services or individually purchased plans (Kaiser Family Foundation, 2008). Unfortunately, 10% of children, approximately 8 million, were left without health insurance coverage. Of the uninsured children, 64% were eligible for enrollment in health insurance, specifically 41% for Medicaid and 23% for CHIP (Kenney et al., 2009). More so, 88% of all low-income uninsured children were eligible to be enrolled in one of these two programs, however there was shown to be an underuse of health insurance plans, particularly when patients were eligible (Lara et al., 1999; Kenney et al., 2009). In 2010, the Patient Protection and Affordable Care Act (ACA) was enacted to provide more fair and affordable health care for Americans. The ACA enabled all US citizens younger than

65 years old with household incomes less than 133% of the federal poverty level to become eligible for Medicaid (American Academy of Pediatrics, 2014), thus permitting more than 20 million adults and 78 million youth to have health insurance in the US (Patient Protection and Affordable Care Act, 2010; Uberoi et al., 2016). These legislations warranted opportunities for people to receive health care for themselves and their children, allowing for affordable health care options.

Although the enactment of the ACA provided insurance to many individuals, insurance coverage alone does not guarantee consistent access to care. While insurance may improve accessibility to care, it does not always ensure access to the same locations and providers nor uniformity across varying insurance plans (Hughes & Ng 2003; Lara et al., 1999). Patients with public insurance reported having a limited availability of providers whom accept their insurance; while patients with private health insurance reported issues with medical costs (Angier et al., 2014; DeVoe et al., 2007). Regardless of individuals insurance plans, difficulties may still arise such as high cost deductibles, co-payments and medications (Angier et al., 2014). In fact, 82% of families were unable to pay for health care services that were not covered by their insurance, with 88% reporting the high cost of medications, equipment, and doctors' visits affected the availability and affordability of care (Lara et al., 1999). Research shows a lack of insurance or inability to pay for care are significant barriers to accessing health services. Accessing care not only relies on the affordability of health services, but also how easily the services can be acquired.

Transportation

Transportation is a necessary resource to access health care providers and facilities (Syed et al., 2013), as it allows individuals access to health services. Individuals have been

found to mostly travel to facilities via a personal or private vehicle (i.e., friend or family members), with few using public transportation or walking (Arcury et al., 2005; Probst et al., 2007; Syed et al., 2013). The most commonly used modes of transportation to health care facilities were found to be by car (59.5%), van (15.4%), sports utility vehicle (10.7%) or pickup truck (8.2%) (Probst et al., 2007). Depending on the geographic location of individuals and providers, transit options, costs, and the availability of, and distance to health care providers may vary creating barriers to accessing care (Syed et al., 2013).

Individuals residing in rural areas travel an average of 32% longer (i.e., 8 miles further and 6 minutes longer) than those who reside in urban areas and rely more on family or friends, rather than public transportation (Probst et al., 2007). More so, rural residents experience difficulties with limited time to travel, the route taken, and decreased flexibility that comes with relying on others to transport them (Probst et al., 2007). On the other hand, research shows individuals who utilized public transportation services were twice as likely to miss their appointments compared to those who utilized a car to get to health care facilities (Silver et al., 2010).

Regardless of the form and distance of travel, if transportation is limited it can potentially hinder an individual's ability to access care, thus resulting in worse health outcomes. Twenty-five percent of all missed or rescheduled appointments were due to transportation issues (Silver et al., 2010). Barriers to transportation may be decreased if providers arrange services locally or have offices in remote locations (Arcury et al., 2005), therefore allowing for greater access to health services and facilities. Research has provided evidence that transportation can be a strong prohibiting factor to seeking care, however once the individuals arrive at health care providers offices, communication becomes a key resource for health care implementation.

Communication

Effective communication between patients and providers allows for comprehensive access to health care. Communication is a key factor to understand medical regimes, compliance with care, and making informed decisions regarding an individual's health care. Individuals who understand the information the provider is giving are more likely to acknowledge health problems, understand the treatment options, modify their behavior accordingly, and follow their medical schedules (Travaline et al., 2005). The Accreditation Council for Graduate Medical Education (n.d.) states that health care providers should become competent in five key communication skills: (1) listening effectively; (2) eliciting information using effective questioning skills; (3) provide information using effective explanatory skills; (4) counseling and educating patients; and (5) making informed decisions based on patient information and preference. These skills encourage health care providers to establish a dependable relationship with their patients, however ineffective communication may still arise between patients and providers.

An inability to communicate effectively may lead to worse outcomes for individuals seeking care. Factors such as choices in words, information depth, speech patterns, body position, and facial expressions can cause barriers in communication between health care providers and patients (Travaline et al., 2005). Not only should quality communication be recognized as a resource, but health care providers should establish communication resources available to patients. To ensure appropriate communication providers are recommended to explain health care information in simpler terms, utilize a translator to convey information in another language, and consider cultural attitudes and beliefs that may influence the individuals' decision to seek health care (Gadon et al., 2007; Lara et al., 1999). Respectively, health literacy,

linguistic compatibility, and cultural competency are all indispensable resources to accessing health care.

Health literacy (HL) is critical for the compliance with recommendations of health promotion, disease prevention, and management (Davis et al., 2013), and is defined as “the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions” (Ratzan & Parker, 2000, p.2). Yin and colleagues (2009) estimated that 90 million Americans have low HL, with greater than 21 million US parents displaying limited HL skills. For parents and guardians, HL skills are a necessary aspect of caring for their children including the ability to obtain health insurance, interpret over the counter medication and nutrition labels, and follow recommended medical regimes (Yin et al., 2009); thus a lack of parental HL skills may lead to worse health outcomes for children. Research has found that 19.3% of parents struggle with obtaining health insurance, 73.6% experience difficulty understanding over the counter medication labels, 28.3% reported never using or reading a food label, and 48.4% were unable to keep track of their child’s immunization records (Yin et al., 2009). Adequate levels of HL assists individuals in accessing health services, thus is an essential aspect of the framework to improving the delivery of services (Sanders et al., 2009). Health care provider’s use of clear communication strategies such as reducing the complexity of information, focusing on two or three concepts, and providing supplemental written information aids to provide more comprehensive resources for patients (Yin et al., 2012). Adaptations of communication styles between providers and patients allows for greater care and adherence to medical regimes.

Efficacious communication includes linguistic compatibility in which proper interpretation and translation of health care information is shared between the provider and

patient (Wafula & Snipes, 2013). It is crucial that patients are able to understand, comprehend, and ask questions regarding their health care in order to follow suggest medical guidelines. Providers whom work with patients that speak a variety of languages may face barriers in thorough communication. The use of professional interpreters, telephonic interpreter services, family members and friends, and bilingual administration has been found to aid in communication between themselves and their patients (Gadon et al., 2007). However, research shows that the most common method providers use is communicating through family and friends, which may violate patient confidentiality or lead to inaccurate translations (Gadon et al., 2007). Bilingual providers or staff offer the most effective and efficient medical care during visits (Gadon et al., 2007; Wafula & Snipes, 2013), ensuring appropriate translation and interpretation, while maintaining patient confidentiality. It is important for health care providers to ensure adequate communication with their patients, encompassing tools to allow for linguistic compatibility.

Communication skills may also include cultural competence of patients who come from varying backgrounds. Patient trust and empowerment is created when providers display appropriate cross-cultural communication skills, allowing the patients to make their own informed decisions regarding their health care (Padela & Punekar, 2009). Research shows providers who are able to connect with patients culturally allow for heightened encouragement to continue care (Núñez, 2000), as culture may shape the patient's belief and influence their behaviors. Cultural competency is defined as "a set of academic and interpersonal skills that allow individuals to increase their understanding and appreciation of cultural differences and similarities within, among, and between groups" (Núñez, 2000, p.1072). Cultural competency is critical, as patients may delay seeking care due to cultural beliefs, such as utilizing herbal and

traditional forms of medicine and religious practice before consulting with health care providers (Wafula & Snipes, 2013). Providers that allocate time to provide culturally competent care have been found to accommodate for various cultural practices and optimize access to health care (Wafula & Snipes, 2013). Regardless of the resources available to access health care, SES greatly influences an individual's ability to access care (Alder et al, 1994).

Socioeconomic Status

Socioeconomic status (SES) has been found to be the strongest and most consistent predictor of health status (Adler et al., 1994). SES is defined as “the relative position of a family or individual on a hierarchical social structure, based on their access to or control over wealth, prestige and power” (Mueller & Parcel, 1981, p.3). Variations of SES (i.e., low, middle, and high) have been shown to result in differences of health status and outcomes; with most individuals aware that their SES affects their health care directly, such as their access to care (Arpey et al., 2017).

Although most individuals experience some form of difficulty accessing health care, low SES individuals have been found to not utilize health care resources to the same extent as higher SES individuals (Alder & Newman, 2002). Specifically, lower SES individuals experience greater difficulty scheduling an appointment, receiving continuing care, managing health care costs, traveling to facilities, and communicating to providers (Arpey et al., 2017; Lara et al., 1999; Yin et al., 2012). Low SES families have been found to only utilize health services when a family member was sick, however high SES families used preventative care, as well as care when they were sick or injured (Allin & Stabile, 2012). Additionally, difficulties in traveling to health care providers was found to be experienced by 1 in 10 low SES patients due to commute time, distance, accessibility to providers, inability to pay for gas, and an unreliable form of

transportation (Arpey et al., 2017; Yin et al., 2012). The accessibility of health services, cost of care, and communication between patients and providers has been shown to provide barriers to low SES individuals accessing care.

Lower SES patients reported unfavorable experiences when accessing health services. Researchers found that patients of low SES often felt unwelcome and disregarded by their health care providers while accessing health services (Arpey et al., 2017; DeVoe et al., 2007; Yin et al., 2012). Arpey et al. (2017) found patients reported a negative experience regarding their belief that their SES influenced the timeliness of a diagnostic test scheduled and the length of time it took for the test to be approved; thus, resulting in a delay in of treatment and health care. Congruently, Olah et al. (2013) found that physicians perceived patients of low SES more negatively and failed to provide equal health care. Research consistently shows lower SES patients face immense barriers to accessing health care due to health care providers perceptions of their socioeconomic constraints.

Physicians have reported a lack of adequate and equal health care is caused by difficulties treating low SES patients. Ninety-four percent of physicians reported feelings of frustration that the health care system was unable to aid in providing continuing care to patients, 65% reported patients lacked a regular primary care provider due to a lack of providers, 41% reported issues with assistance in obtaining medications and equipment for patients, 29% reported being unable to provide timely appointments, and 12% reported lacking medical chart systems that were able to provide updated information on their patients (Lara et al., 1999). Additionally, physicians have reported difficulties maintaining patient and family compliance with recommended regimens while working with low SES populations (Lara et al., 1999).

Despite the principle that equal care should be given to all patients seeking health care, research shows that low SES patients often receive lessened and unequal care.

Researchers convey that families of varying levels of SES may experience similar rates of injuries and illnesses, however those with a higher education and income may be in a better position to invest in their own health and make better decisions regarding the use of health services (Case et al., 2002; Dearden et al., 2011; Propper et al., 2007). Unfortunately, lower SES patients face challenges throughout their lives such as increased stress regarding money, access to health care, and social support systems (Hughes & Ng, 2003). Those among lower SES report worse health outcomes, providing evidence that access to health care has a greater impact on the overall health status of low SES individuals (Allin & Stabile, 2012; Kennedy et al., 1998; Kitagawa & Hauser, 1973). Thus, accessibility of resources to health care contributes to the health status and outcomes of individuals seeking care.

Conclusion

Overall, accessibility to care allows individuals the opportunity to receive appropriate health care resources to maintain or improve their health (Gulliford et al., 2002). More so, health services are able to prevent, detect, and treat injuries and illnesses (National Commission on Prevention Priorities, 2007). Health care should be appropriate for the needs of the individuals seeking care; considering differing SES, perspectives, health needs, and cultural beliefs that may influence individuals to access health care (Aday & Andersen, 1974; Gulliford et al., 2002). Research has provided significant evidence that the resources needed to adequately access health care are health services, health insurance, transportation, and communication (Andersen, 1995; Angier et al., 2014; Arcury et al., 2005; Dubay & Kenney, 2001; Institute of Medicine, 1993; Institute of Medicine, 2004; Kaiser Family Foundation, 2008; Kenney et al.,

2009; Klerman & Parker, 1991; Lara et al., 1999; National Commission on Prevention Priorities, 2007; Newacheck, 1988; Newacheck et al., 1998; Newacheck et al., 2000; Ogbuanu et al., 2012; Padela & Punekar, 2009; Patient Protection and Affordable Care Act, 2010; Price et al., 2013; Probst et al., 2007; Rask, 1994; Seid et al., 2001; Seid et al., 2009; Silver et al., 2010; Uberoi et al., 2016; World Health Organization, 2015).

While the accessibility to health care resources is important for all individuals, youth are at an increased risk of medical issues and injuries. Most youth sports practices and games do not have health care resources or providers available to manage injuries, therefore the medical management is customarily placed on parents, guardians, and coaches. However, most parents and coaches are untrained in appropriate injury management (Koester, 2000), and unless they are aware of the available resources to refer the athlete, it could be detrimental to the youth's overall health status. There is a prerequisite of understanding the health care resources parents and guardians are utilizing and potential barriers that exist for their children's health care that will eventually enable improvements in accessibility for youth sport participants.

CHAPTER 3

METHODS

Design

This study design is descriptive.

Participants

A sample of parents and guardians ($n=192$) from two local parks and recreation departments in southeast Georgia (Bulloch and Chatham County) were recruited to participate in this study. The parks and recreation departments were similar in structure, goals, and missions. Additionally, each department provided equal and fair opportunities for all children that expressed interest in participating in sports programs, regardless of their circumstances. In order to accommodate all socioeconomic status levels, departments offered a sliding scale registration payment based upon a family's financial status.

Registration for programs was open to all youth aged three to seventeen, with those residing outside of the county paying an additional fee. Both parks and recreation departments offered football, soccer, cheerleading, volleyball, basketball, baseball, softball, tumbling, gymnastics, dance, and a variation of sports camps. Additionally, one of the departments (Bulloch County) also offered golf, tennis, archery, wrestling, kickball, track, after school programs, swim lessons, equestrian lessons, and outdoor recreation activities such as fishing, kayaking/boating, hiking/wilderness interpretation. For each program, youth were required to play in their respective age category which was determined by their birth year. Pre-participation screenings or annual physicals were not required for youth participation, nor did recreation departments provide medical care for sporting events. Coaching of all programs was voluntary,

with (minimal) training provided by recreational departments during a coaches' meeting prior to the start of the season to ensure proper understanding of the game's fundamentals and rules.

Participants recruited for this study were required to be parents and/or guardians over the age of eighteen that had a child aged 4-14 years old participating in youth sports through the parks and recreation departments. Participants were excluded if they were not parents and/or guardians of a child participating in youth sports, could not read, reported English was not their primary language, and/or resided outside of the county in which data collection was occurring.

Instrumentation

The survey used in this study was modified from the Black Health Care survey (Houston, 1993). The survey was originally developed through the coordinated efforts of the Black Health Care Task Force and Memorial Medical Center to assess opinions of African Americans in the Savannah, Georgia community regarding health care, health care delivery systems, and utilization of the services in the area (Houston, 1993). Data collected by Houston (1993) included demographic information such as age, sex, highest level of education completed, occupation, and annual household income, family members presently in household, health insurance status, and type of transportation used to get to health care facilities. Attitudinal and perceptual measures were used to determine opinions and utilizations of health care delivery systems (Houston, 1993).

The survey questions were measured based upon responses on a 4-point Likert scale, ranging from "always"=3, "most of the time"=2, "sometimes"=1, or "never"=0. A combination of "always" and "most of the time" were categorized as satisfying opinions, while "sometimes" and "never" were categorized as dissatisfied opinions.

The survey was adapted for use in this study through expert review and pilot testing to investigate the resources available to access health care and identify barriers to accessibility across varying levels of socioeconomic status youth athletes. Initial investigation of the original survey determined the presence of questions not relevant to the current study, such as race and geographic-specific questions, thus were deleted. Additionally, five questions to determine the county participants resided in and injury-related scenario questions were added. This resulted in reducing the original 43-item survey to 37-items. Finally, the order of questions was modified to increase the readability and flow of the survey.

Questions were modified around the dimensions of accessing health care identified in previous literature (Angier et al., 2014; Gulliford et al., 2002; PENCHANSKY & THOMAS, 1981; World Health Organization, 2015) using the four major resources of health care: health services, health insurance, transportation, and communication. The 37-item survey was divided into the following sections: health services, health insurance, transportation, communication, injury, demographics, opinion, and child health care and took approximately 10 minutes to complete. Each question within the resources to health care (health services, health insurance, transportation, and communication) sections were scored individually. Then, questions within each resource to health care section were grouped respectively (four in health services, four in health insurance, three in transportation, and six in communication) and the means of each resource group were compared to low, middle, and high socioeconomic status.

Procedures

Following Institutional Review Board approval, an initial recruitment e-mail briefly explaining the study was sent to administrators at four local parks and recreation departments. The researcher was able to recruit two local parks and recreation departments (Bulloch and

Chatham County). Upon administrative approval, two methods of recruitment occurred (face to face and online survey response). First, administrators provided schedules of winter sports season practices and games to the researcher. In accordance with the schedules, the researcher attended six mid-week practices and games (Tuesday and Thursday evenings) and games on one weekend day (Saturday) for a total of seven days of data collection. Data collection days were subject to the researcher's availability, congruent with the recreational schedules, and primarily consisted of basketball practices and games. Approximately 300 parents and guardians were approached at sports practices and games, in which the researcher explained the purpose of the research project and asking for participation to complete the survey. Upon verbal agreement of participation, participants were instructed to take the survey which was administered through Qualtrics on an iPad. If individuals denied participation, they were thanked for their time. A total of 266 agreed to participate in the study, resulting in an in-person response rate of about 89%.

The second method of data collection occurred via emails sent to parents and guardians that had a child participating in fall, winter, spring, or summer sports, through the parks and recreation department administrators. The email contained a cover letter explaining the study and steps to participate, as well as the link to the Qualtrics survey. Participants were enrolled in the study by completing an informed consent form approved by Human Subjects Review committee. Upon clicking "I agree" to participate in the study, they were directed to the survey. An online survey response could not be determined as the investigator could not obtain the total number of participants surveyed. Survey data was self-administered, and all responses remained anonymous. Participation in the survey was voluntary and there was no reward or compensation for completion.

Upon completion of the survey, participants were divided into socioeconomic status (SES) groups based upon their response to the question, “how much money is made each year by all your family members combined.” The response options were provided in ranges of \$9,999 (i.e., \$10,000 - \$19,999), and participants were instructed to answer as closely as possible. After data collection occurred, using the median household income of Georgia (\$55,679), low, middle, and high SES groupings were determined based upon the median household income of Georgia as well as the local county (Table 1). Low SES participants were deemed those that reported an income below the median household income of Georgia (household income of less than \$49,999). Middle SES was deemed households that made between \$50,000- \$99,999 and high SES were those that reported an income greater than \$100,000. Sixty participants reported making greater than \$150,000 annually, however this was uncharacteristic of the county’s median income (Bulloch County \$41,789, Chatham County \$54,911). Therefore, following post hoc analysis, participants that reported annual household incomes greater than \$150,000 were removed from the sample as they were not representative of the county population. An additional fourteen survey responses were excluded due to participants residing outside of the counties that were surveyed (Bulloch or Chatham County). Thus, the final sample included 192 parents and guardians that had a child participating in youth sports through the parks and recreation departments.

Pilot Study

The modified survey was piloted to a sample of six parents and guardians who had a child participating in youth sports to establish content and face validity before being used for this study. Content and face validity were established by asking participants to examine the individual questions to ensure readability (Flesch-Kincaid determined readability below a sixth-

grade level) (Kincaid et al., 1975), and that the target sample could understand the meaning of the question. The pilot participants described no concerns or modification to the survey were necessary.

Data Analysis

Data from the survey responses was analyzed for descriptive statistics using SPSS version 25.0 (IBM). Prior to data analysis, data was cleaned by removing any outliers and exclusionary criteria. Demographic data was described using percentages and frequencies. Research question one was analyzed using frequencies and percentages of responses to each question. Research question two was analyzed by first grouping questions within each resource section (health services, health insurance, transportation, and communication) as well as grouping participants into low, middle, and high SES. Data was assessed for normality and homogeneity. The data violated the assumptions for normality and homogeneity requiring calculations of nonparametric statistics for hypothesis testing. Multiple Kruskal-Wallis tests were calculated to examine the group differences between SES and resources to health care. The injury, opinion, and child health care questions did not advance the findings, therefore were not analyzed.

Table 1*Socioeconomic Status Grouping of Participants*

Socioeconomic Status	Annual Household Income	Percentage	Frequency
Low SES	Less than \$10,000 - \$49,999	24.0%	46
Middle SES	\$50,000 - \$99,999	35.9%	69
High SES	Greater than \$100,000	40.1%	77

CHAPTER 4

RESULTS

Participants Demographics

The sample included 55.7% ($n=107$) of parents and guardians residing in Bulloch County and 44.3% ($n=85$) in Chatham County. The mean age of participants was 37.39 ± 0.535 with a majority identifying as female (70.3%, $n=135$), of white (49.0%, $n=94$) or African American (43.8%, $n=84$) race, and had a college degree (61.9%, $n=119$). The socioeconomic status (SES) of the sample was 24.0% ($n=46$) low SES (less than \$10,000-\$49,999), 35.9% ($n=69$) middle SES (\$50,000-\$99,999), and 40.1% ($n=77$) high SES (greater than \$100,000), with the average number of family members in the household being 3.99 ± 0.081 .

Health Care of Youth Athletes

Parents and guardians were asked four questions regarding their child's health care to gain a better understanding of the general health status of youth athletes in the community. Approximately 65% ($n=163$) of all parents and guardians reported that their child's health was in excellent condition, while 31.2% ($n=79$) reported their child's health as good, and 0.4% ($n=1$) as poor. Coinciding with parents and guardians believing their child to be relatively healthy, 88.9% ($n=225$) of all participants reported that their child exercised at least three times a week for thirty minutes and 92.5% ($n=234$) had at least one balanced meal a day at home. A majority (82.6%, $n=209$) of the athletes had a check-up from a doctor, nurse, or clinic less than a year from the time of the response, with 11.5% ($n=29$) having a check-up one year prior, and 2.0% ($n=5$) having a check-up two to four years prior. A closer examination of the resources available revealed an array of findings across accessibility to resources.

Health Services

Four questions addressed health services, regarding the utilization of services within the community. When asked if participants knew the times when their child's doctor's office was open, 58.9% ($n=113$) of all parents and guardians responded that they were always aware. However, participants across all levels of SES didn't always know the times the office was open (36.9% ($n=36$) of low SES, 46.4% ($n=32$) middle SES, 39.4% ($n=54$) high SES). Additionally, 67.2% ($n=129$) of participants across all levels of SES reported that they never struggled to schedule doctor's appointments due to the times in which the office was open. Though, 39.1% ($n=18$) of low SES parents and guardians, 31.9% ($n=22$) middle SES, and 30.7% ($n=42$) high SES experienced various levels of difficulty scheduling appointments. Nearly half of the entire sample 51.0% ($n=98$) reported that they sometimes waited too long at the hospital, clinic, or doctor's office when their child needed care. Furthermore, parents and guardians of all levels of SES (most of the time to always) experienced long wait times (32.6% ($n=15$) low SES, 20.2% ($n=14$) middle SES, 18.2% ($n=25$) high SES). More so, 79.7% ($n=153$) of all parents and guardians reported that they would never prefer to take their child to the emergency room rather than a doctor's office. Upon further evaluation, 43.4% of low SES ($n=20$) parents and guardians were found to prefer taking their child to an emergency room compared to 18.8% ($n=13$) middle SES and 13.2% high SES ($n=18$) parents and guardians.

Health Insurance

The health insurance section included four questions regarding insurance coverage and assistance with children's medical bills. Almost all participants (99.0%, $n=190$) reported that their child had health insurance, with 68.8% ($n=132$) claiming that health care providers always accepted their child's health insurance. However, 43.5% of low SES ($n=20$), 27.5% ($n=19$)

middle SES, and 19.0% ($n=26$) high SES parents and guardians reported that the provider did not always accept their child's insurance. More so, 63.0% ($n=121$) reported they were always able to pay for their child's medical insurance, bills, doctor's visits, and medicine. Further, 50% ($n=23$) of low SES participants, 36.2% ($n=25$) middle, and 21.9% ($n=30$) high SES parents and guardians were found to struggle paying their child's medical costs. When asked if it was hard to get help to pay for their child's health insurance, 59.4% ($n=114$) of all participants reported never experiencing difficulties. However, 56.5% ($n=26$) of low SES, 43.4% ($n=30$) middle SES, and 26.2% ($n=36$) high SES participants reported (sometimes to always) experiencing difficulties with assistance in paying their child's medical bills.

Transportation

Three questions were included to gather information on the transportation resources within the community. Most of the participants across all levels of SES responded that they never experienced transportation issues getting to their child's doctors (81.8%, $n=157$), with a car being the most commonly used transportation method (97.4%, $n=187$). However, 32.7% ($n=15$) of low SES parents and guardians reported experiencing transportation issues, compared to 15.9% ($n=11$) middle SES, and 13.2% ($n=18$) high SES experiencing issues. When asked if they traveled long distances and times to their child's doctors' offices, 66.1% ($n=127$) of all participants reported never. Although, 56.6% ($n=26$) of low SES participants reported traveling long distances and times, while only 26% ($n=18$) middle SES and 28.5% ($n=39$) high SES participants reported traveling extended distances and times.

Communication

Communication questions were comprised of six questions regarding healthy literacy, linguistic compatibility, and cultural beliefs. Most participants across all levels of SES (67.2%, $n=129$) felt that the doctor or nurse always explained their child's sickness and treatment to them in a way that they understood (56.5% ($n=26$) low SES, 65.2% ($n=45$) middle SES, 75.2% ($n=103$) high SES). More so, 88.0% ($n=169$) of all parents and guardians reported they always made sure that their child took their medicine when the doctor told them to (89.1% ($n=41$) low SES, 84.1% ($n=58$) middle SES, 86.9% ($n=119$) high SES). When asked if their child has seen a health care provider or staff that speaks their primary language, 94.8% ($n=182$) of all participants reported they always did (91.3% ($n=42$) low SES, 91.3% ($n=68$) middle SES, 97.8% ($n=134$) high SES). Additionally, 70.8% ($n=136$) felt as if their health care provider always considered their child's cultural beliefs, such as traditions. On the other hand, 43.5% ($n=20$) low SES, 31.8% ($n=22$) middle SES, and 19.0% ($n=26$) high SES parents and guardians did not always feel as if their provider considered their child's cultural beliefs.

Sixty-two percent ($n=119$) of all participants felt confident that they always knew the health care options for their child, with all levels of SES sometimes feeling that they do not know health care options (37% ($n=17$) low SES, 20.3% ($n=14$) middle SES, 21.9% ($n=30$) high SES). Additionally, 51.6% ($n=99$) of all parents and guardians claimed to never have trouble understanding the bills they got for their child's health care, while 41.2% ($n=19$) low SES, 33.2% ($n=23$) middle SES, 43.1% ($n=59$) high SES claimed to experience varying levels of trouble understanding their child's medical bills.

Socioeconomic Status and Health Care Resources

Multiple Kruskal-Wallis calculations examined the differences between low, middle, and high SES and each resource group (health services, health insurance, transportation, and communication). Statistical findings for each resource group and SES can be found in Table 2. A statistically significant difference existed between SES groups for health services ($H(2) = 11.000, p = 0.004$). Dunn's post hoc analysis with a Bonferroni correction for multiple comparisons were performed to examine group differences. The results suggest a significant difference in health services between low and middle SES ($p = 0.020$) and high SES ($p = 0.004$). There was no significant difference found between middle and high socioeconomic status for health services ($p = 0.807$).

A statistically significant difference existed between low, middle, and high SES groups for transportation ($H(2) = 14.388, p = 0.001$). Dunn's post hoc analysis with a Bonferroni correction for multiple comparisons revealed a significant difference in transportation between low and middle SES ($p = 0.002$) and low and high SES ($p = 0.001$). There was no significant difference found between middle and high SES for transportation ($p = 0.827$). No significant differences existed between SES and health insurance ($H(2) = 4.490, p = 0.106$) or communication ($H(2) = 3.859, p = 0.145$).

Table 2*Statistical Findings for Participants Access to Health Care Resources*

Health Care Resources	Mean \pm SD	<i>H</i>-statistic	<i>P</i>-value
Health Services		11.000	0.004*
Low	2.27 \pm 0.50		
Middle	2.01 \pm 0.29		
High	2.05 \pm 0.38		
Health Insurance		4.490	0.106
Low	2.39 \pm 0.31		
Middle	2.46 \pm 0.24		
High	2.48 \pm 0.19		
Transportation		14.388	0.001*
Low	1.81 \pm 0.93		
Middle	1.33 \pm 0.57		
High	1.31 \pm 0.51		
Communication		3.859	0.145
Low	3.09 \pm 0.44		
Middle	2.98 \pm 0.30		
High	3.03 \pm 0.25		

CHAPTER 5

DISCUSSION

This study investigated the resources available to access health care and identified barriers to accessibility across varying levels of socioeconomic status youth athletes. Participants were found to utilize an array of medical resources for their child regarding health services (i.e., doctors' offices, emergency departments), health insurance (i.e., insurance plans), transportation (i.e., a car), and communication (i.e., healthy literacy, linguistic compatibility, cultural competency). However, several barriers accessing health resources were also presented within health services and transportation, specifically.

Socioeconomic Status

Socioeconomic status (SES) has been found in previous literature to be the strongest predictor in an individual's health status (Hughes & Ng, 2003; Alder et al., 1994), therefore I hypothesized that lower SES parents, guardians, and youth athletes would have lower levels of access to health care resources (health services, health insurance, transportation, communication). Findings of this study partially support this hypothesis, showing accessibility to health services and transportation resources statistically differed across SES, with lower SES experiencing difficulties compared to higher SES.

Nearly 40% of low SES parents and guardians struggled to schedule doctor's appointments due to the times the doctor's office was open. This is consistent with research providing evidence that 45.8% of low SES patients reporting not being able to reach someone after hours and 7.9% unsure if they could even do so (Yin et al., 2012). Low SES parents and guardians often work multiple jobs to support their families, resulting in long work hours (Al-

Matalka, 2014; Holt et al., 2011), thus complications may arise in scheduling appointments for their child due to limited hours of operation or accessibility to traveling to health care facilities. This research is supported by difficulty in data collection within this study potentially as a result of low SES parents and guardians working multiple jobs or long hours to provide for their families. Obtaining low SES participation was difficult to obtain on weekdays however, weekend practices and games were more successful for recruiting lower SES families. Additionally, 44% of low SES participants preferred to take their child to the emergency room rather than the doctors. Low SES parents and guardians within this rural population may have been inclined to take their child to an emergency room rather than a doctor's office due to the location of the facility and increased hours of operation for the emergency room. Research provides evidence that lower SES individuals often struggle with convenience, cost, and quality of primary health care (Kangovi et al., 2013), resulting in greater use of the emergency departments.

While most participants in the sample did not report difficulties traveling to their child's doctors' appointments, those that did were among low SES parents and guardians. Specifically, 33% of low SES parents and guardians reported transportation issues traveling to their child's doctors; with 57% of low SES participants residing in rural communities reporting traveling long distances and times to their child's doctor's office. Prior research shows 1 in 10 low SES individuals have been found to report difficulty traveling to health care providers due to commute time, distance, accessibility, and cost of traveling to providers (Arpey et al., 2017; Yin et al., 2012). More so, those that reside in rural areas have been found to travel an average of eight miles further and six minutes longer to health care providers compared to urban residents (Probst et al., 2007). Low SES parents and guardians participating in our study may have

experienced hindrance in accessibility to transportation due to immense burdens arising in managing the time, resources, or capability to take their child to the doctors. While significant differences existed across SES, with low SES participants experiencing more barriers, this finding also justified a more thorough examination of the individual health care resources.

Health Services

Health services are identified as individuals or objects that assist in providing health care. Specifically, services accessible within communities may include doctors, clinics, and hospitals in which parents and guardians may utilize to receive care for their child. It was hypothesized that parents and guardians would identify numerous barriers to access health care facilities and schedule appointments for their child. Findings from this study show most parents and guardians of all levels of SES (93%) were aware of the times in which their child's doctor's office was open. A majority (80%) of all participants preferred a doctor's office over an emergency room in the scenario that their child became ill or injured. Regardless of the preference of health services for their child, all parents faced barriers to accessing these services within their rural community.

Twenty-seven percent of all parents and guardians reported experiencing difficulties scheduling an appointment. Parents and guardians often struggle to schedule appointments due to health care facilities inconvenient hours of operation and long wait times during visits, resulting in missed appointments (Yin et al., 2012). Although this number may seem negligible, nearly one fourth of parents and guardians across all levels of SES experienced some form of difficulty accessing services for their child, which may lead to worse health or injury outcomes for youth athletes.

Not only did some participants struggle to schedule an appointment, more than half (51%) of the sample reported they sometimes waited too long at the hospital, clinic, or doctor's office. Parallel to our findings, research shows barriers can arise due to facilities hours of operation, scheduling appointments, the timeliness of waiting for care, and continuity of care (Lara et al., 1999). The timeliness of care is imperative to accessibility as a result of the fast-paced lifestyles most individuals within our society live. Due to our need for efficiency, long wait times often lead to dissatisfaction or discouragement from seeking care ("National Healthcare," 2013). Findings from this study show accessibility to health services has been found to aid parents and guardians in utilizing services, with health insurance plans also being a contributing factor to not only the accessibility of services, but also the affordability.

Health Insurance

Health insurance provides financial coverage to health services in an effort to protect the insured from high medical costs (Health Care, n.d; Institute of Medicine, 2004; Price et al., 2013). It was hypothesized that most parents and guardians would have health insurance for their child. Almost all parents and guardians (99%), regardless of SES, in this rural sample, reported that their child had health insurance coverage. Findings may be due to the enactment of Title XXI of the Social Security Act and the Patient Protection and Affordable Care Act which enabled nearly 100 million citizens of the United States access to affordable health insurance (American Academy of Pediatrics, 2014; Patient Protection and Affordable Care Act, 2010; Uberoi et al., 2016).

More than half of all participants (60%) reported financial capability of paying copays, bills, and services rendered without assistance. These findings are supported by the health insurance legislation that warranted opportunities for parents and guardians to receive health

insurance for their child, allowing for affordable health care options. Despite most children having health insurance coverage, 26% of all parents and guardians (50% low SES, 36% middle SES, 22% high SES) occasionally struggled to pay for their child's medical insurance, bills, doctors' visits, and medicine. This finding suggests that while 26% of the total sample had difficulty, this was primarily low SES participants (50%). This is supported by research that found 82% of families were unable to pay for health care services that were not covered by their insurance, with 88% reporting the high cost of medications, equipment, and doctors' visits affected the availability and affordability of care (Lara et al., 1999).

While 40% of all parents and guardians experienced difficulty finding assistance in paying their child's bills, only 69% of all participants reported that health care providers consistently accepted their child's health insurance plan. Results may be due to higher SES parents and guardians having better insurance plans (i.e., higher premiums with lower co-payments), thus experiencing lower medical costs and vice versa for lower SES parents and guardians. Additionally, different insurance plans (private or public) provides varying levels of access to health services. Although public insurance may be more affordable, those with private insurance often have more options regarding medical facilities and doctors that they are able to visit (Ogbuanu et al., 2012). Therefore, in the scenario of an unplanned doctors or emergency room visit, those that have public insurance (primarily those of lower SES) may not be able to access or afford medical bills associated with the visit. However, previous research has shown regardless of insurance coverage, parents and guardians experience difficulties affording care for their child due to high cost deductibles, co-payments, and medications (Angier et al., 2014).

Findings suggest a need for more affordable care options (i.e., lower premiums, deductibles, co-payments, and medications) and doctors that accept variations in child's health

insurance plans within rural communities. While health insurance plans may lessen the cost of care, difficulties affording health services was experienced across all levels of SES. Not only did the affordability of health services affect access to care, but transportation to services may further limit access to care.

Transportation

Transportation is a necessary resource to access care as it allows individuals to attend appointments, pick up medications, and visit health services. It was hypothesized that parents and guardians would travel long distances to their child's doctors' appointments. Findings from this study show all parents and guardians (82%) were able to travel to their child's doctor's appointments, with almost all (97%) traveling by car. These findings are consistent with previous research that shows the most common form of transportation to health services is by car, with most using a private vehicle, and few using public transportation or walking (Probst et al., 2007).

The geographic location of individuals and health services can greatly affect the transit options, costs, availability of, and distance to care (Syed et al., 2013). Results support our hypothesis that parents and guardians would travel long distances and times, with 34% of participants across all levels of SES reported that they traveled extended distances and times to their child's doctor's office. However, 57% of low SES parents and guardians were found to travel greater distances and times more often, compared to 26% middle SES and 28% high SES. Previous literature shows that 10% of all low SES individuals experience difficulties traveling to health care providers due to a number of factors (i.e., commute time, distance, accessibility to services) (Arpey et al., 2017; Yin et al., 2012). Although the communities had general health care resources and providers, parents and guardians reported that their rural communities lacked

specialists, requiring greater distances to travel to receive care. Thus, greater access to health care facilities (i.e., hospitals, specialists) within rural communities may attenuate the distance and time traveling, therefore reducing the need or duration of utilizing transportation. Upon parents and guardians accessing services by transportation, communication between themselves and providers was found to be effective.

Communication

Health literacy, linguistic compatibility, and cultural competency are imperative aspects to effective communication between individuals and health care providers. Appropriate communication entails information given by health care providers in a way that parents are able to understand and follow medical regimes suggested by providers (Travaline et al., 2005). It was hypothesized that parents and guardians would have low levels of health literacy. However, results show that all parents and guardians within the sample displayed appropriate health literacy (i.e., knowledge of health care options, comprehension of medical bills and sicknesses/treatments, regulation of child's medical regime). Parents and guardians of all levels of SES reported minimal difficulty knowing health care options and understanding bills (only sometimes experiencing the difficulties). Further, participants reported that their providers shared appropriate levels of linguistic compatibility and cultural competency. These findings may be due to providers within these rural communities having similar language and cultural backgrounds of those seeking health care, supported by DeVoe and colleagues' (2008) findings claiming that individuals living in non-metropolitan areas were more likely to report positive experiences regarding communication with health care providers.

Research shows that most barriers in communication between providers and patients arise from a provider using a poor choice of words to explain illnesses and injuries, failure to

utilize a translator to deliver information in another language, if necessary, and inconsideration for cultural attitudes and beliefs (Gadon et al., 2007), however this was not the case for our study. Findings from this study show parents and guardians of varying levels of SES did not experience communication barriers with their child's health care providers.

Limitations

This study is not without limitations. There may have been a sample bias of parents and guardians, as data collection was primarily in person and possibly could have missed those who did not attend their child's sports practices, games, and events. In order to account for this potential limitation, online surveys were distributed to parents and guardians. Unfortunately, online data collection may have been limited to those that had access to a computer or internet to complete the survey (United States Census Bureau, 2019a; United States Census Bureau, 2019b). This is evident as the sample studied had poverty rates of 22.9% (Bulloch County) and 14.4% (Chatham County) (United States Census Bureau, 2019a; United States Census Bureau, 2019b). However, the sample in this study only represented 24% of low SES families between both counties, resulting in a larger high SES sample than expected given the demographics of the rural counties where data was collected. As such, the sample collected may not be an adequate representation of the local rural communities' population, however data was analyzed to account for aberration.

Conclusion

Nearly 60 million youth participate in organized sports (National Council of Youth Sports, 2019), with millions of injuries occurring annually. Regardless of the immense injury rates and risk of playing, most organizations do not provide health care resources to youth athletes. Due to the lack of medical support available for athletes, parents and guardians are held

accountable for managing their child's injuries; however, they are often uneducated in recognizing and treating injuries, therefore the health of the child can be jeopardized. Thus, to ensure youth athletes are receiving appropriate health care parents and guardians responsible for care must understand the resources that are available within the community and the barriers that may arise accessing them. If barriers exist for parents and guardians, the likelihood of obtaining care for youth is limited. Therefore, the knowledge of the access and barriers to health care resources (i.e., health services, health insurance, transportation, and communication) within the community is imperative to increasing the medical management and health outcomes of youth.

While crucial to the health and wellbeing of youth athletes, accessibility to health care resources has been found to vary upon levels of SES. The sample consisted of rural parents and guardians that lived in small communities with a true "Southern Hospitality" mentality. Many of the health care resources were provided by local hometown providers that had similar cultural and linguistic backgrounds and understood the insurance providers and coverage commonly utilized in the community. While the community provided adequate accessibility to health insurance and communication for all levels of SES, barriers were faced by low SES parents and guardians accessing health services and transportation. I expected that participants located within these communities faced reduced access to these resources, and therefore findings would be similar to national research in larger cities, however that was not the case. It appears that living in a small close-knit community may be a mitigating factor to common barriers to access care, specifically communication and health insurance. These resources have been known to elicit significant barriers to accessing care but were not present across all levels of SES in our study.

The safety of youth athletes and their health and wellbeing is crucial; thus, enhancements in accessibility to health care resources must be made. Researchers should aim to discover ways to improve accessibility, specifically increasing health services (i.e., clinics, additional doctors, specialty care), reducing wait times, and increasing transportation services; thus, mitigating disadvantages to health care resources and assisting in the wellbeing of the youth athlete population as a whole. Knowledge from this study can influence future research in determining effective ways for advancements in health care resources. Future research should expand within rural low SES communities to understand if different population specific needs are present. If these findings are indeed generalizable to the greater population, research should examine effective strategies to improve the resources to access health care for low SES youth athletes. This may include methods to improve health services and transportation options in rural communities, such as offering health care clinics accessible in recreational departments or the community and forms of public transportation, thus allowing for greater accessibility to health care resources for low SES.

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APPENDIX A
EXTENDED METHODS

Research Questions

- RQ₁: What medical components do parents and guardians use for youth athletes?
- RQ₂: Are medical resources different across socioeconomic status?

Hypotheses

- H_{1a}: Parents and guardians will identify numerous barriers to access health care facilities and scheduling appointments for their child.
- H_{1b}: Most parents and guardians will have health insurance for their child.
- H_{1c}: Parents and guardians will travel long distances to their child's doctors' appointments.
- H_{1d}: Parents and guardians will have low health literacy levels.
- H₂: Lower socioeconomic status parents, guardians, and youth athletes will have lower levels of access to health care resources (health services, health insurance, transportation, communication).

Inclusion/Exclusion Criteria

- Inclusion Criteria
 - Parents and/or guardians over the age of eighteen
 - Parents and/or guardians that had a child aged 4-14 years old participating in youth sports
- Exclusion Criteria
 - Individuals that were not guardians of a child participating in youth sports
 - Parents and/or guardians that could not read
 - Parents and/or guardians that English was not their primary language
 - Parents and/or guardians that resided outside of the county in which data collection was occurring

Limitations/ Delimitations

- Limitations
 - Sample bias of only obtaining data from parents and/or guardians who attended youth sports games
 - Sample is not representative of the rural communities' population
- Delimitations
 - Sample limited to South Georgia

Assumptions

- Participants answered the survey honestly
- Participants understood the survey content
- Varying levels of SES participants

APPENDIX B
HEALTH CARE SURVEY

I. Please answer the following question about yourself and your family.

1. Are you fluent in English?

Yes _____

No _____

2. What county do you live in?

Bulloch County _____

Bryan County _____

Effingham County _____

Chatham County _____

3. How much money is made each year by all of your family members combined?

Less than \$10,000 _____

\$10,000-19,999 _____

\$20,000-29,999 _____

\$30,000-39,999 _____

\$40,000-49,999 _____

\$50,000-59,999 _____

\$60,000-69,999 _____

\$70,000-79,999 _____

\$80,000-89,999 _____

\$90,000-99,999 _____

\$100,000-149,999 _____

More than \$150,000 _____

II. Please check the answer that shows how often you feel the statements written below are true regarding health services.

4. I know the times when my child's doctor's office is open.

a. Always

b. Most of the time

c. Sometimes

d. Never

5. I struggle to schedule doctor's appointments for my child due to times when the doctor's office is open.

a. Always

b. Most of the time

- c. Sometimes
 - d. Never
6. I wait too long at the hospital, clinic, or doctor's office when my child needs health care.
- a. Always
 - b. Most of the time
 - c. Sometimes
 - d. Never
7. I would rather take my child to an emergency room than a doctor's office.
- a. Always
 - b. Most of the time
 - c. Sometimes
 - d. Never

III. Please check the answer that shows how often you feel the statements written below are true regarding health insurance.

8. Do you have health insurance for your child?
- Yes _____
- No _____
9. Health care providers accept my child's health insurance.
- a. Always
 - b. Most of the time
 - c. Sometimes
 - d. Never
10. Are you able to pay for your child's medical insurance, bills, doctors' visits, and medicine?
- a. Always
 - b. Most of the time
 - c. Sometimes
 - d. Never
11. It is hard to get help to pay for my child's health care.
- a. Always
 - b. Most of the time
 - c. Sometimes
 - d. Never

IV. Please check the answer that shows how often you feel the statements written below are true regarding transportation.

12. I have transportation issues getting to my child's doctor.

- a. Always
- b. Most of the time
- c. Sometimes
- d. Never

13. Most often, how do you get your child to appointments?

Bus _____

Car _____

Taxi/Uber/Lyft _____

Walk _____

Neighbor _____

Friend _____

Family _____

Non-emergency transport _____

Other (Please name) _____

14. I travel long distances and times to my child's doctors' offices.

- a. Always
- b. Most of the time
- c. Sometimes
- d. Never

V. Please check the answer that shows how often you feel the statements written below are true regarding communication.

15. I feel like I do not know much about health care options for my child.

- a. Always
- b. Most of the time
- c. Sometimes
- d. Never

16. I have trouble understanding the bills I get for my child's health care.

- a. Always
- b. Most of the time
- c. Sometimes
- d. Never
- e. Not applicable

17. The doctor or nurse explains my child's sickness and treatment to me in a way that I understand.

- a. Always
 - b. Most of the time
 - c. Sometimes
 - d. Never
 - e. Not applicable
18. I make sure my child takes their medicine when their doctor tells them to.
- a. Always
 - b. Most of the time
 - c. Sometimes
 - d. Never
19. My child sees a health care provider or staff that speaks our primary language.
- a. Always
 - b. Most of the time
 - c. Sometimes
 - d. Never
20. I feel like the health care provider takes into account my child's cultural beliefs, such as traditions.
- a. Always
 - b. Most of the time
 - c. Sometimes
 - d. Never

VI. Injury: Please answer the following questions as if your child got hurt on the field while playing sports.

21. What would you do if your child breaks a bone?

22. What would you do if your child gets a concussion?

23. What would you do if your child twists their ankle, knee, elbow, or other body part?

24. What would you do if your child pulls their muscle?

VII. Please answer the following questions about yourself and your family.

25. What is your age? _____

26. What is your sex?

Male _____

Female _____

Other _____

27. What is your race/ethnicity? (check all that apply)

Black or African American _____

Hispanic _____

Asian _____

White _____

American Indian or Alaska Native _____

Native Hawaiian or Pacific Islander _____

Other _____

28. What is the highest level of education you completed?

Less than high school

Some high school

High school graduate/GED

Trade/Technical school graduate

Some college, no degree

Associate degree

Bachelor's degree

Graduate/Professional degree

Doctoral degree

29. What is your occupation?

Agriculture

Clerical

Construction

Education

Finance /Insurance /Real estate

Fishing and Hunting

Forestry

Government

Health Care Provider

Homemaker

Hospitality/ Food Services

Manual Labor

Manufacturing

Military

Mining

Professional

Public Utilities
 Social Assistance
 Transportation
 Wholesale/Retail Trade
 Other _____

30. Number of family members presently in household (including yourself) _____

VIII. Opinion: Please answer the following questions regarding resources available to you.

31. What health services does your community lack?

32. If it were possible, what changes would you make to improve health care?

33. If you were unable to pay your medical bills, would you apply for public assistance for health care?

Yes

No

VIII. Child health care: Please answer the following questions regarding your child's health care.

34. My child exercises at least three times a week for at least 30 minutes.

Yes No

35. My child has at least one balanced meal a day at home.

Yes No

36. Check the answer that best describes your child's health.

Excellent _____

Good _____

Fair _____

Poor _____

37. How long has it been since your child has had a check-up from a doctor, nurse, or clinic?

Less than a year _____

1 year _____

2-4 years _____

5-10 years _____

Greater than 10 years _____

They have never had a check-up _____

APPENDIX C

INSTITUTIONAL REVIEW BOARD FORMS

Georgia Southern University Office of Research Services & Sponsored Programs Institutional Review Board (IRB)	
Phone: 912-478-5465	Veazey Hall 3000 P.O. Box 8005 Statesboro, GA 30460
Fax: 912-478-0719	IRB@GeorgiaSouthern.edu

To: Walsh, Stephanie; Hunt, Tamerah; Byrd, Megan; Gipson, Christina

From: Office of Research Services and Sponsored Programs

Initial Approval Date: 11/20/2019

Expiration Date: 10/31/220

Subject: Approval with Conditions from the Georgia Southern University Institutional Review Board -
Expedited Review

After a review of your proposed research project numbered **H20160**, and titled "**Resources to Access Health Care for Low Socioeconomic Status Youth Athletes**," it appears that (1) the research subjects are at minimal risk, (2) appropriate safeguards are planned, and (3) the research activities involve only procedures which are allowable. You are authorized to enroll up to a maximum of 300 subjects.

Therefore, as authorized in the Federal Policy for the Protection of Human Subjects, I am pleased to notify you that the Institutional Review Board has approved your proposed research **with the understanding that you will abide by the following conditions:**

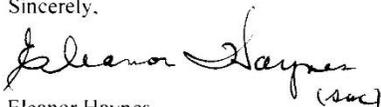
- **You are approved to conduct research at the following organization for which you have obtained letters of cooperation:**
 - Bulloch County Recreation Department
 - City of Pooler Leisure Services

Additional organizations may be added to this study by submitting additional letters of cooperation.

Description: The purpose of this research is to investigate the resource available to access health care for varying levels of socioeconomic status youth athletes.

If at the end of this approval period there have been no changes to the research protocol; you may request an extension of the approval period. In the interim, please provide the IRB with any information concerning any significant adverse event, **whether or not it is believed to be related to the study**, within five working days of the event. In addition, if a change or modification of the approved methodology becomes necessary, you must notify the IRB Coordinator **prior** to initiating any such changes or modifications. At that time, an amended application for IRB approval may be submitted. Upon completion of your data collection, you are required to complete a *Research Study Termination* form to notify the IRB Coordinator, so your file may be closed.

Sincerely,



Eleanor Haynes
Compliance Officer

RECRUITMENT EMAIL

Dear parents and guardians,

My name is Stephanie Walsh, and I am a graduate student in the Department of Health Sciences and Kinesiology at Georgia Southern University. In partial fulfillment of my Master's degree, I am conducting a thesis project examining the resources available to access health care for youth athletes.

Participation requires completion of a one-time survey that examines resources you use to access health care for your child and common information related to you. This survey can be completed at your convenience online through the link below or during your child's recreational sports practice, game, or event and should take approximately 10 minutes.

To participate in this research study, you must be a parent and/or guardian of a child participating in youth sports and 18 years of age or older. Participation in this research study is voluntary and can be terminated at any point in the study. There is no penalty for deciding not to participate in the study or for withdrawing from participation at any point.

If you would be interested in participating, please click the following link:

****Qualtrics link****

Sincerely,

Stephanie Walsh, LAT, ATC

INFORMED CONSENT

Hello, my name is Stephanie Walsh, and I am a graduate student in the Department of Health Sciences and Kinesiology at Georgia Southern University. The purpose of this study is to investigate the resources available to access health care for low socioeconomic status youth athletes.

If you are a parent and/or guardian of an athlete participating in youth sports, we would like you to complete a one-time survey which includes resources you use to access health care for your child and common information related to you. This survey can be completed at your convenience either online or during your child's recreational sports practice, game, or event and should take approximately 10 minutes. Completion of the survey will cause no more than minimal discomfort associated with responses given.

No monetary compensation or direct benefits will be provided to the participants. However, participants will be able to reflect upon the resources they use to access health care for their child. This research will enhance our understanding of the accessibility of resources for parents and/or guardians and their children in South Georgia.

Any information obtained from this study will not be identified by name in the data set or any reports. Your confidentiality as a participant in this study will remain secure. Subsequent uses of records and data will be subject to standard data use policies which protect the anonymity of individuals and institutions.

Data obtained from password protected iPads will be imported into a statistical analysis program. Data will then be stored on a protected computer, in a locked office and locked filing cabinet of the researchers involved in this study. After data analysis, the data will be stored for 3 years then safely discarded.

If you have any questions about this study please contact Stephanie Walsh and Dr. Tamerah Hunt, at 912-478-8620 or thunt@georgiasouthern.edu. For questions concerning your rights as a research participant, contact Georgia Southern University Institutional Review Board at (912) 478-5465.

To participate in this research study, you must be a parent and/or guardian of a child participating in youth sports and 18 years of age or older. Participation in this research study is voluntary and can be terminated at any point in the study. You have the right to not answer any of the questions. There is no penalty for deciding not to participate in the study or for withdrawing from participation at any point.

You will be given a paper copy of this consent form to keep for your records upon request. This project has been reviewed and approved by the GSU Institutional Review Board under tracking number H20160.

Title of Project: Resources to Access Health Care for Low Socioeconomic Status Youth Athletes

Principal Investigator: Stephanie Walsh, 912-478-8620, sw23398@georgiasouthern.edu

Research Advisor: Dr. Tamerah Hunt, Georgia Southern University, Department of Health Sciences and Kinesiology, PO BOX 8076, Statesboro GA 30458, 912-478-8620, thunt@georgiasouthern.edu

By selecting the “I agree” option, you are indicating that:

- You are a parent and/or guardian of a child participating in youth sports
- You are at least 18 years of age
- You have read the above information
- You voluntarily agree to participate

If you do not wish to participate in the research study, please decline participation by selecting the “I disagree” option and return the iPad to the researcher.