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The Effects of Long-Term Participation in a Martial Arts Program
on Self-Esteem and Bullying Victimization

Pamela Jeanne Dahle

A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of
Educational Specialist

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ABSTRACT

The Effects of Long-Term Participation in a Martial Arts Program on Self-Esteem and Bullying Victimization

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Public concern over the occurrence of bullying in schools has increased considerably within the last decade. Although there are many programs in place that attempt to address the problem of bullying in schools, they have achieved only varying levels of success, with many failing to alleviate the problem. In addition, although some researchers have conducted studies on either the relationship between self-esteem and bullying victimization or the relationship between self-esteem and participation in martial arts, few have conducted studies seeking to understand the correlation between participation in martial arts, bullying victimization, and levels of self-esteem. The current study measured levels of self-esteem (*Rosenberg Self-Esteem Scale*; Rosenberg, 1965) and the frequency of bullying victimization (*Multidimensional Peer-Victimization Scale*; Mynard & Joseph, 2000) among twelve- to sixteen-year-old adolescents. The current study compared differences in self-esteem and bullying victimization between three groups of adolescents: one group consisted of students with less than two months of martial arts experience (minimal experience group; BG); one group consisted of students with 2–35 months of martial arts experience (moderate experience group; MG); and one group consisted of students with more than 36 months of martial arts experience (advanced experience group; AG). Participants ($N=XX$) were recruited from one county located in the Rocky Mountain Region of the United States. Analyses of the data included MANOVA, comparing the three groups' data on measures of self-esteem and bullying victimization. Correlational analyses and Chi-Square analyses were also conducted to show relationships between variables. No significant differences were found between the reported self-esteem scores and reported bullying victimization scores of the AG and the BG or MG. There was a significant negative correlation between self-esteem and bullying victimization. And a significant relationship was found, using the Chi-Square analysis, between length of participation in martial arts and reported self-esteem.

Keywords: self-esteem, bullying, victimization, martial arts

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Although this is my master's thesis, it has been a longer process than most of its kind. When my husband and I made the decision for me to attend graduate school we decided that we did not want to put our family on hold for additional schooling. We, quite possibly naively, determined that we, with each other's support and a good deal of balancing, could have children and make it through graduate school. While it is true that graduate school is coming to a close for me, and I have indeed made it through, there was a good deal more balancing, and being off-balance, than we originally imagined. Two children and five years of graduate school later, I can say, with confidence, that being a graduate student and mother of two "graduate school babies" has been the hardest thing I have ever done in my life, and without the support of some truly amazing people, I would not be completing this thesis or be about to graduate.

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CHAPTER 1: INTRODUCTION

Envision a 750 square foot ring with two men fighting to exhaustion until one capitulates—by choice or by force. Now imagine a room of silent students standing at attention, ready to complete, without complaint, any exercise their instructor assigns. These two scenarios encapsulate the essential differences between modern and traditional styles of martial arts. Whereas modern martial arts tend to focus on competition, traditional martial arts retain an all-encompassing philosophy, focusing on the physical, mental, and spiritual strength of the participants. In other words, a modern martial art is a sport, while the study of a traditional martial art can become a way of life.

Researchers have studied the impact of participating in traditional martial arts and have found that practitioners may benefit physically, mentally, and spiritually—the development of which is the focus of traditional martial arts. One area of controversy is whether participation in traditional martial arts has any effect on the self-esteem of the student. Most schools advertise that this is the case; however, research has garnered mixed results, with some studies stating increases and some stating no change. A possible explanation for this dichotomy is the length of participation needed to see results.

Another claim of many martial arts schools is that students will learn how to protect themselves from being bullied, both physically and mentally. Research has substantiated that bullying has become a large problem around the world, and that there are serious physical and mental complications when one is bullied or bullies others. However, research has not, thus far, been able to verify whether or not the study of martial arts reduces the amount of bullying children and adolescents experience. The lack of evidence for either side may be due to a general shortage of research in this area. While many individuals believe that martial arts worked for

them in this way, these ideas should be researched more thoroughly to ascertain the viability of martial arts as an anti-bullying intervention.

In the current study, the authors looked at adolescents participating in traditional martial arts and analyzed the participants' reported self-esteem and reported bullying victimization experiences. In this way, the authors hoped to provide evidence that studying martial arts helps increase self-esteem, and thereby decrease the amount of bullying that adolescents experience.

Because there is debate over the time needed to see results, the authors decided to look at advanced students with at least three years of experience. As comparison groups, the authors also recruited adolescents with little to no experience in martial arts (less than two months) and martial arts students with intermediate levels of experience (2–35 months).

The researchers determined the length of experience required for each group by examining the research on martial arts participation. In a study conducted by Harding (2003) a group of adolescents ranging in age from 10 to 18 years, who had participated in martial arts for at least six weeks, reported no difference between levels of victimization when compared to a group of age-mates with no martial arts experience. Other researchers found that after studying a Tai Chi program for 12 weeks, participants had significant increases in psychosocial and physical health; however, the participants in this study were a mean age of 66 years, and therefore may not be generalizable to adolescents (Taylor-Piliae, Haskell, Waters, & Froelicher, 2006). Regardless, because of the possibility of effect after twelve weeks, the beginner group cutoff was drawn at eight weeks (less than two months). According to the data in the Harding (2003) study, there is evidence that participation in martial arts for approximately two months will have limited to no effect on levels of victimization among adolescents. Foster (1997) similarly found no differences among college students in semester-long Karate and Aikido

classes. This group can therefore be considered equivalent to adolescents with no martial arts experience.

CHAPTER 2: LITERATURE REVIEW

The martial arts are codified systems of combat that are classified in a variety of ways. Categorizing martial arts into traditional versus non-traditional styles of practice is one broad way to organize these different systems. Many individuals also classify a style by its origin: eastern or western martial arts. It is also very common to categorize martial arts by the type of combat taught (i.e., armed or unarmed). Perhaps the most common way to group styles of martial arts, however, is by looking at the reasons for why the style was created and why it is practiced today: warfare, physical fitness, sport, self-defense, or personal development. Regardless of how they are classified, the list of martial arts from the different parts of the world is extensive.

While we generally think of primarily eastern styles (e.g., karate or kung fu), most parts of the world have developed their own unique fighting styles throughout history: Capoeira from Brazil, Wing Chun of China, Savate from France, pentjak-siat of Indonesia, Krav Maga from Israel, Aikido from Japan, Hapkido of Korea, Escrima of the Philippines, Muy Thai of Thailand, and Sayokan from Turkey, are just a small number of the styles of martial arts that exist around the world. Many more have been created and studied throughout history, and there is evidence that most, if not all, major civilizations have, at one time, practiced their own versions of hand-to-hand combat.

Martial Arts: Traditional vs. Modern Styles

Traditional martial arts have been described as a sort of training that leads to a detachment from violence. Through the ritualization of combat, such as with the kata (i.e., a routine demonstration of a series of techniques), students are able to fight and defend themselves with little to no feelings of aggression (Bäck & Kim, 1982). Traditional martial arts have also been described as teaching “the values of directness and honesty in communication,

assertiveness, ability to empathize, courage, humility, perseverance, gentleness, respect for others, responsibility, and self-improvement” (Weiser, Kutz, Kutz, & Weiser, 1995, pp. 118–119). These types of martial arts are rarely used primarily for sport, and were generally developed for self-defense and warfare, as well as personal enrichment. Many of the modern styles of martial arts evolved from traditional styles and became more sport-oriented in the process. Throughout history, humans have enjoyed competing in armed and unarmed combat to see which fighters and which fighting styles are the best. In the last 40 years, with the advent of mixed martial arts, this competition between styles and fighters has become increasingly popular.

Today, there are many martial arts schools that borrow fighting practices from traditional martial arts and combine them to form unique styles. These new styles usually look like karate, tae kwon do, aikido, etc., and may be difficult for the lay observer to differentiate. The only difference is often the lack of traditional philosophies guiding instruction. Modern, non-traditional schools often focus on the sport and competition aspect and touch very little on traditional philosophies (i.e., respect for all, harmony between mind/body/spirit, loyalty, and humility).

Negative Effects of Studying Martial Arts

Since researchers began studying the martial arts, they have debated over the potential results of participating in them. Many studies present the positive effects of studying martial arts (Alesi et al., 2014; Klein & Adams, 2004; Steyn & Roux, 2009; Taylor-Piliae et al., 2006; Twemlow & Sacco, 1998), and others discuss the potentially negative effects (Gubbels, Stouwe, Spruit, & Stams, 2016; Reynes & Lorant, 2004; Třebický, Havlíček, Roberts, Little, & Kleisner, 2013). The negative effects that have been studied and that the data support tend to revolve around increased levels of aggression and increased medical complications or injuries (Bledsoe,

Hsu, Grabowski, Brill, & Li, 2006; Reynes & Lorant, 2004; Třebický et al., 2013). The former are generally limited to modern styles of martial arts (Reynes & Lorant, 2004; Třebický et al., 2013), but the latter are common among all types of martial arts as amount of participation increases (Zetaruk, Violán, Zurakowski, & Micheli, 2005). For example, Gubbels et al. (2016) found in a meta-analysis that while there was no significant relationship between martial arts participation and externalizing behaviors among juveniles, martial artists studying a modern martial arts style had higher levels of externalizing behaviors than those studying a traditional martial art.

Some studies state that the prevalence of injury is fairly steady among most martial arts that focus on strikes, including both traditional and modern styles of martial arts (Bledsoe et al., 2006; Rainey, 2009). However, these studies referenced boxing as the comparison to the mixed martial arts, which is a much different style of fighting than the traditional martial arts styles (Bledsoe et al., 2006; Rainey, 2009). Additionally, these studies did not include knockouts or technical knockouts as injuries; these include being knocked unconscious due to a blow to the head and are the most prevalent cause for the end of a mixed martial arts match (Bledsoe et al., 2006).

One especially disconcerting type of injury that is associated with martial arts practice is head and brain injury. Many types of head injuries have been linked to martial arts practice. A common scenario involving a head injury is when a participant hits his/her head in a throw or fall, sustains a hematoma (ongoing bleed) in the skull, and continues to participate. Once the participant hits his/her head a second time the injury is exacerbated and may become much more serious (Kamitani, Nimura, Nagahiro, Miyazaki, & Tomatsu, 2013). Aside from throws and falls,

jumps (e.g., jump kicks or take downs) are also highly associated with injuries (McPherson & Pickett, 2010).

Multiple studies have looked at risk factors associated with length of participation, gender, and age, but the results are conflicting. Lystad, Graham, & Poulos (2013) found that while there were no significant differences between males and females or adults and children, the age range of 10–14 males and females among taekwondo participants received significantly more injuries than other age ranges. In another longitudinal study, researchers found that 90% of head injuries occurred in participants under the age of 20. These same researchers reported that most of the head injuries were among beginner practitioners (Kamitani et al., 2013). However, Judo is a borderline traditional martial art. It is based on traditional techniques and styles and may be taught in a traditional manner; however, the focus is often on competition and sport, and may therefore not be applicable to this review. In contrast to the Kamitani et al. (2003) study, Zetaruk et al. (2005), stated that while they found no differences between men and women participants, in their study of five different traditional martial arts, adults were at a much higher risk of injury than children or adolescents.

While the findings of this research may be alarming, it is worth noting that most researchers found that generally head and brain injuries were positively correlated with competition but not with class participation. In other words, those individuals who spend more time in competitions are more likely to sustain a head or brain injury than individuals who do not compete, or compete less often. Consequently, individuals participating in modern martial arts (e.g., mixed martial arts, boxing, competitive judo) are more likely to sustain such injuries because they compete more frequently than those studying traditional styles.

Because the main purpose of the non-traditional schools is to compete and become better fighters, there may be two main explanations for the higher rates of physical injury and increased aggression. First, these schools tend to embrace fighting and violence, and therefore, may attract individuals who tend towards aggression (Reynes & Lorant, 2001). Additionally, individuals may increase in aggression or violence due to the macho culture that surrounds these schools and the competitions between them (Vaccaro, Schrock, & McCabe, 2011). In a longitudinal study Reynes and Lorant (2004) linked participation in competitive Judo with increased aggression in young boys; whereas, boys of the same age in a traditional karate program remained constant in their aggression levels, providing further evidence that aggression is more typical in the non-traditional martial arts.

Everyday experience suggests that while participating in a competitive fight, higher levels of aggression would give an individual an advantage. Research also seems to support this. In a study by Třebický et al. (2013) perceived aggressiveness was positively correlated with the proportion of fights won in competition.

Another debated issue in this topic is whether the martial arts cause the psychological and cognitive effects or whether students with certain types of personalities self-select martial arts styles that match their personalities. For instance, in studying mediating factors between martial arts participation and psychological effects, Vertonghen, Theeboom, & Pieter (2014) found that individuals with a predisposition of aggression and a “fighting spirit” might lean towards joining boxing, Thai boxing, and mixed martial arts (MMA) over other more traditional styles.

Positive Effects of Studying Martial Arts

For more than 40 years, researchers have empirically studied the effects of martial arts. Positive effects have ranged from increased self-esteem, self-efficacy, and self-confidence

(Taylor-Piliae et al., 2006) to improved physical health and strength (Douris et al., 2013; Fukuda, Stout, Burris, & Fukuda, 2011; Klein & Adams, 2004), lower levels of aggression (Lamarre & Nosanchuk, 1999; Nosanchuk & MacNeil, 1989; Steyn & Roux, 2009; Twemlow et al., 2008; Twemlow & Sacco, 1999; Zivin et al., 2001), and increased attention and impulse control (Sanchez-Lopez, Fernandez, Silva-Pereyra, & Mesa, 2013). The list of positive outcomes associated with martial arts participation is long and notable; however, many of these studies have mixed statistical strength, with many of them offering only correlational evidence. That being said, many other studies have provided considerable evidence on certain outcomes (Steyn & Roux, 2009; Twemlow et al., 2008; Zivin et al., 2001).

One area that has been researched substantially is that of aggression and violence. While it was stated previously that modern styles of martial arts have been associated with increased aggression, a large number of researchers have found the opposite true for traditional martial arts. Zivin et al. (2001) found that adolescents in an urban middle school studying a traditional martial arts program decreased in violent behavior and tendencies after one school year of participation.

Steyn and Roux (2009) also saw decreased aggression in adolescent martial artists. They recruited fifteen- to eighteen-year-old martial artists (participating in tae kwon do) and fifteen- to eighteen-year-old hockey players and rated their levels of aggression over time. The tae kwon do practitioners showed greater decreases in aggression than the hockey players and control group (non-contact sport participants). Many other researchers have discovered similar results of lower aggression and bullying behavior (Lamarre & Nosanchuk, 1999; Nosanchuk & MacNeil, 1989; Twemlow et al., 2008; Twemlow & Sacco, 1999).

In addition to decreased aggression, other mental health benefits have also been looked at as a possible motivation for participating in martial arts. While improved self-esteem, self-confidence, and self-efficacy are probably the most commonly looked at, other mental health benefits include increased executive functioning (Diamond & Lee, 2011; Lantz, 2002; Sanchez-Lopez et al., 2013) and reduced externalizing behaviors in children (Palermo et al., 2006).

Martial Arts and Self-Esteem

Martial arts instructors around the world promise increased self-esteem as a benefit of learning at their studios. Martial arts schools within a rocky mountain county claimed increased self-confidence to walk away from a conflict without using violence (Kelly et al., n.d.), self-esteem (Bushi Ban International, 2014; Lawrence; 2014; Sonbae Academy, n.d.; West, n.d.), and other related self-improvement characteristics.

Aside from anecdotal evidence, some researchers have also looked at how martial arts participation may influence self-esteem. In a phenomenological study, Lantz (2002) studied the effect of martial arts involvement on family development and found that many couples reported increased levels of self-confidence, a characteristic similar to self-esteem, within themselves and other members of their families that participated. Clanton (2004) showed increased self-esteem only in females and that males did not have a significant increase. However, this study measured participants' psychological effects for only eight weeks of participation in a Karate course. It may be that longer participation is needed to significantly increase self-esteem in certain individuals, particularly males.

Boudreau, Folman, & Konzak (1995) provided evidence that long-term martial arts participation may reap better emotional well-being in males. They found that 58% of parents of non-beginner martial arts students believed their sons had increased levels of self-confidence.

However, while there have been some recent studies linking martial arts participation and self-esteem, much of the existing research is at least fifteen years old and may not be relevant or generalizable to current populations of adolescents (Finkenberg, 1990; Richman & Rehberg, 1986; Wilkinson, 1996).

Bullying and Martial Arts

Traditional martial arts programs have been researched as a means of helping those who bully in reducing aggressive and bullying behavior (Nosanchuk & MacNeil, 1989; Twemlow et al., 2008), but recently they have also been introduced as a means for helping victims of bullying overcome and prevent victimization. Moody (2012) found that on average adolescents who participated in the Karate for Kids program were bullied less than other adolescents across the nation. However, while this is promising research, there are few corroborating studies, and this area must be further researched.

One reason for Moody's (2012) finding may be the increase in self-esteem and self-confidence. Data show that children's and adolescent's self-esteem and self-confidence are negatively correlated with the amount of bullying victimization that they face (D'Esposito, 2006). Additionally, in a Swedish study by Frisé and colleagues, former victims of bullying stated that the bullying often stopped when they stood up for themselves in some way (Frisé, Hasselbald, & Holmqvist, 2012). Therefore, martial arts participation may help to decrease bullying victimization through giving children and adolescents the self-esteem needed to assert themselves.

Self-Esteem

Self-esteem is generally broken into two categories: global self-esteem and specific self-esteem. Rosenberg (1965) defined global self-esteem as positive or negative feelings towards

one's self, or simply the general feelings (Suls & Krizan, 2005). The evaluation is subjective and based on the individual's opinion (Orth & Robins, 2013, p. 455). Specific self-esteem looks at particular abilities; for instance, one may have high physical self-esteem but low self-esteem concerning mental abilities. In this situation, this individual would believe that he/she is competent physically and not competent for strenuous mental tasks. In this paper, the authors will be referring to global self-esteem as self-esteem, and will be referring solely to it when discussing self-esteem, unless stated otherwise.

It is a common assumption that self-esteem is an essential part of life. Data in this area are mixed but seem to suggest that self-esteem does contribute to a happy and successful life. In multiple studies individuals with low self-esteem also suffer from a variety of mental and physical health problems (Bum & Jeon, 2016; Kiviruusu et al., 2016). Conversely those with high levels of self-esteem tend to lead successful and at least mentally healthy lives (Lewandowski et al., 2014) and self-esteem has been seen as a mediating variable for depression (Johnson, Galambos, Finn, Neyer, & Horne, 2017). According to the researchers in these studies, it would seem that self-esteem does play a prominent role in our everyday lives. However, other researchers who provided data from an extensive 25-year longitudinal study argue that self-esteem seems to contribute little to areas of mental and physical health problems, but state that low self-esteem is rather more of a "risk marker" of poor mental health and low relationship satisfaction (Boden, Fergusson, & Horwood, 2008). These same researchers did, however, find a significant relationship between high adolescent self-esteem and later life satisfaction (i.e., those with higher self-esteem reported great life satisfaction; Boden et al., 2008). Regardless of the exact relationship, most researchers of self-esteem concede that there is at least an association

between self-esteem and life outcomes (e.g., mental health, relationship satisfaction, and overall life satisfaction).

Self-esteem across the lifespan. Many researchers have studied self-esteem and how it changes across the lifespan (Birkeland, Melkevik, Holsen, & Wold, 2012). However, there is not a general consensus of how it changes. Some researchers have found that self-esteem stays relatively steady through childhood, begins to decline at about late childhood to early adolescence, and only begins to rise in early adulthood (Robins, Trzesniewski, Tracy, Gosling, & Potter, 2002). Self-esteem then seems to increase gradually through middle and late adolescence and early adulthood, until it again stabilizes (Birkeland et al., 2012; Impett, Sorsoli, Schooler, Henson, & Tolman, 2008). Some, however, claim that self-esteem is much more stable and that, with the exception of small fluctuations, remains stable unless affected by outside events (Trzesniewski, Donnellan, & Robins, 2003).

Gender and self-esteem. Researchers have consistently found that adolescent males tend to have higher levels of self-esteem than adolescent females (Birndorf, Ryan, Auinger, & Aten, 2005). In a longitudinal study by Birndorf and colleagues, 16,489 adolescents were surveyed in grades 8, 10, and 12. The males in this study had significantly higher levels of self-esteem than the females at every grade level (2005). Additionally, Birndorf et al. (2005) showed that adolescent boys consistently reported higher self-esteem across all ages of adolescence. In reviewing current literature, these differences appear to begin in early adolescence, when there is a significant drop in self-esteem among both males and females, but more markedly in females (Sprecher, Brooks, & Avogo, 2013). Researches have noted that self-esteem then begins to increase throughout the remainder of adolescence (Impett et al., 2008).

Physical activity and self-esteem. While there is much evidence to suggest that physical self-esteem does rise significantly when individuals engage in successful physical activities (e.g., winning or completing a race in a good time; Schmalz, Deane, Birch, & Davison, 2007), there is also evidence to suggest that physical activity may help to increase global self-esteem (Schmalz, et al., 2007). In a study by Schmalz et al. (2007) researchers found that higher levels of physical activity at ages 9 and 11 were predictive of higher self-esteem scores at ages 11 and 13 (two years later) among non-Hispanic white females.

Bullying and self-esteem. There are several studies that report relationships between bullying or bullying victimization and self-esteem. D'Esposito (2006) found that while low self-esteem was not a good predictor for victimization, there was a strong negative correlation between the two variables. Egan and Perry (1998) found similar negative correlations between bullying victimization and self-esteem. They reported that individuals with low self-esteem may “attract” negative attention from peers and subsequently and unintentionally provoke bullying behaviors in peers who are more inclined to such behaviors. Additionally, Seals and Young (2003) looked at 454 seventh and eighth-grade students at a rural middle school in the United States and noted a relationship between bullying victimization and self-esteem. Using the Rosenberg Self-Esteem Scale, they found that victims of bullying rated lower levels of self-esteem than bullies and non-bullies/non-victims.

Along with evidence that low self-esteem is correlated with bullying victimization while the child or adolescent is being bullied, there is also evidence to suggest that adults who recall being victimized as children report lower levels of self-esteem than adults who do not report being victimized as children (Blood & Blood, 2016).

Bullying

The definition of bullying is a commonly debated issue. Researchers and practitioners have described bullying in a variety of ways. And in the general population, there is an even less standardized definition of bullying. When asked what they thought bullying was, parents of students who were bullied gave various responses (Sawyer, Mishna, Pepler, & Weiner, 2011). In one study by Sawyer et al. (2011), some parents stated that bullying was only physical and that name-calling or teasing wasn't as big of a deal. Others weren't sure if bullying had to be a long-term problem, but thought that there must be a power imbalance between those involved. Most parents participating in the study considered bullying to be a normal part of growing up (2011).

Although there have been various definitions and characteristics of bullying documented, some scholars have defined it more specifically. According to Daniel Olweus, a leading researcher in the field of victimization, bullying occurs when the behavior is intentional, aggressive, occurs over an extended period of time, and involves an imbalance of power between the parties (Olweus, 1993). The power imbalance may occur in different forms. It may be physical, psychological, status-related, or something else entirely (Nansel et al, 2001; Naylor, Cowie, Cossin, de Bettencourt, & Lemme, 2006). Currently, Olweus's definition is commonly accepted among most professionals working with children who bully and/or are victims of bullying (Wang, Lannotti, & Luk, 2012).

While there are many actions that can be categorized as bullying, most researchers agree that there are generally three traditional types of bullying: physical, verbal, and relational bullying (Mynard & Joseph, 2000; Wang, Nansel, Lannotti, 2011), and one newer form that has been rising in occurrence: cyber bullying. Physical bullying is probably the most well-known and easily identifiable type (Olweus, 1993). This form of bullying is direct and more prevalent among males than females (Baldry & Farrington, 1999; Wang, Lannotti, & Nansel, 2009).

Verbal bullying is also direct, but it tends to be more difficult to identify, and can be much more damaging emotionally (Olweus, 1993). Relational bullying most often takes place amongst females and involves excluding individuals from peer interaction, spreading rumors, and rejection (Crick & Grotpeter, 1995; Wang et al., 2009). Recently, cyber bullying has also been added to the list as incidents of it have become much more prevalent (Marees & Petermann, 2012; Mishna, Cook, Gadalla, Daciuk, & Solomon, 2010; Sakellariou, Carroll, & Houghton, 2012; Wang et al., 2009).

Prevalence of bullying. Studying the prevalence of bullying is often complicated because the varied definitions and the many factors involved are difficult to reliably measure. Seeley and colleagues (2009) reported that while many researchers have accepted a general definition of bullying, there are slight variations between studies. Due to the somewhat vague nature of this definition of bullying (i.e., power imbalance, intentional, and recurrent), researchers often disagree on what qualifies as bullying, even when using the same definition. Additionally, researchers continually use different methods to assess bullying and victimization: self-, peer-, teacher-, or parent-report, as well as various assessments (Seeley, Tombari, Bennett, & Dunkle, 2009; Solberg & Olweus, 2003). However, while it has been and continues to be difficult to maintain consistency in prevalence reports on bullying and victimization, some sort of statistical report is necessary. Therefore, many researchers have attempted to gather data in the field and have given fairly corroborating data.

The National Association of School Psychologists (NASP) rated bullying as the most prevalent form of violence in the United States (Cohn & Canter, 2003; Johnson, 2010). A major study by Nansel et al. (2001) revealed that 8.4% of children in the United States are bullied at least once a week. This is estimated at approximately 611,809 children who are bullied on a

frequent basis. These researchers also found that in the United States approximately 30% of children a year are involved in peer-bullying in one of three ways: bullying others, becoming victims of bullying, or becoming victims who in turn bully others. Other studies on bullying prevalence showed that boys participate in bullying and are bullied much more frequently than girls (Baldry & Farrington, 1999; Solberg & Olweus, 2003).

Certain types of bullying are more ubiquitous than others. Researchers in one study of 7,508 adolescents in grades 6-10 found that 53.6% of the participants who had experienced bullying reported that they had either been verbally bullied or verbally bullied a peer in the last two months. This was compared to only 20.8% of students reporting physical bullying, 51.4% relational, and 13.6% cyber (Wang et al., 2009). Harding (2003) studied a group of 122, 10-18 year-olds and found that 35% were involved in physical bullying in the past year (i.e., bullied physically or physically bullied others); 79% were involved in social manipulation; 90% were involved in verbal victimization; and 70% reported having experienced attacks on property. According to the data presented by these researchers, verbal and relational bullying appear to be the most frequent means of victimizing others.

Effects of bullying. Many researchers have studied the effects that bullying can have on children and adolescents. According to the research done, victims of bullying suffer from a range of negative effects, including behavioral issues, poor mental health, and poor physical health (Biebl, DiLalla, Davis, Lynch, & Shinn, 2011; Bond, Carlin, Thomas, Rubin, & Patton, 2001; Turner, Finkelhor, & Ormrod, 2010). In a recent longitudinal study, Turner et al. (2010) administered surveys to a group of one thousand 10–17 year old youth. They found a significant positive correlation between children and adolescents who had been victimized within the last year of completing the survey and high levels of depressive symptoms. Bond and colleagues

(2001) found that bullying correlated with poor mental health in adolescents (i.e., anxiety and depression) up to two years following the onset of bullying. Other researchers found that bullying was associated with adjustment problems among young children and adolescents (Arseneault et al., 2006). Likewise, additional research revealed that bullying may lead to lower school involvement in some adolescents. These same researchers also showed associations among low school involvement, truancy, delinquency, and bullying (Seeley et al., 2009).

Research in the field of neuropsychology has also looked at the effects of peer victimization on children and adolescents. In a recent study, researchers linked bullying with physiological changes in the body. They looked at cortisol levels (a hormone that is released in our brain during times of stress) in victims of bullying and non-victims and found that victims displayed a similar characteristic of individuals suffering from Post-Traumatic Stress Disorder (PTSD), in that when exposed to stress they actually released lower amounts of cortisol than individuals in a control group (Vaillancourt, Hymel, & McDougall, 2010). In a different study Vaillancourt and colleagues found a causal relationship between bullying and memory levels. The researchers discovered that victims of bullying had lower memory functioning than non-victims over a 2-year period (Vaillancourt et al., 2011). The data from these studies provide evidence of the long-term and negative implications of bullying that are often not externally visible.

Additionally, while many studies give evidence to the negative effects of bullying during childhood and adolescence (Arseneault et al., 2006; Biebl et al., 2011; Bond et al., 2001; Seeley et al., 2009; Turner et al., 2010), there is also a growing amount of literature covering the long-term effects of bullying (i.e., effects lasting into adulthood; Wolke, Copeland, Angold, & Costello, 2013). In a longitudinal study following victims of bullying from childhood through

early adulthood, researchers found that childhood victimization “was a predictive of negative health, financial, behavioral, and social outcomes in adulthood” (Wolke et al., 2013, p. 1967). In this same study, these researchers found that those who were bullied as children were often bullied as adults as well.

Characteristics of victims. There are multiple reasons for bullying. At times bullying occurs because there is a clash between the personalities of the bully and the victim. Although most children experience teasing at some point in their lives, research suggests that certain children and adolescents may be more vulnerable to bullying than their peers. Researchers have found that students who have frequent feelings of vulnerability and helplessness tend to become victims of bullying more often than other students. As they are bullied more often, those levels of vulnerability and helplessness tend to increase (Duncan, 1999; Olweus, 1997).

D’Esposito (2006) studied 233 middle and high school students between the ages of 12 and 15, and those who showed symptoms of depression or anxiety, suffered from low self-esteem, and elevated level of inadequacy, low self-resilience, or had a high external locus of control were more likely to be victims of peer aggression. According to Meland and colleagues as adolescents’ experiences of victimization increased, their levels of anxiety, self-reproach, and social seclusion also increased (Meland, Rydning, Lobben, Breidablik, & Ekeland, 2010).

Many characteristics within a child can lead him/her to become a victim (Harding, 2003). For instance, Olweus (1997) found that students who are victims are either weaker than others or believe that they are weaker. They tend to avoid conflict because they do not think that they have the capacity to, or believe that they should, stand up for themselves. Duncan (1999) found that they feel helpless and stuck in their situation. Some research suggests that victims may not have many friends or allies. They may experience more seclusion and loneliness

(Junger-Tas & van Kesteren, 1999). The bullying that these individuals face often exacerbates the “victim” traits, leading to increased bullying and a self-perpetuating cycle, in which bullying may continue indefinitely.

Research Questions

1. Do adolescents that have participated in a traditional martial arts program for at least three years (Advanced Experience Group) report higher levels of self-esteem than adolescents with little to no martial arts experience (Minimal Experience Group) and adolescents with intermediate martial arts experience (Moderate Experience Group)?
2. Do adolescents that have participated in a traditional martial arts program for at least three years (Advanced Experience Group) report lower levels of bullying victimization than adolescents with little to no martial arts experience (Minimal Experience Group) and adolescents with intermediate martial arts experience (Moderate Experience Group)?

Hypotheses

1. We hypothesize that adolescents who participate in a traditional martial arts program for at least 3 years will report higher levels of reported self-esteem than their comparison groups of beginner/non-martial artists group and the moderate experience group.
2. We hypothesize that adolescents who participate in a traditional martial arts program for at least 3 years will report lower levels of bullying victimization than the comparison groups of beginner/non-martial artists group and moderate experience group.
3. Based on previous research, in the area of self-esteem, female adolescents showed lower self-esteem scores than male adolescents; therefore, we hypothesize that female adolescents will have lower scores of reported self-esteem than their male counterparts.

CHAPTER 3: METHODS

Participants

Upon receiving approval from the Institutional Review Board (IRB), participants were recruited from martial arts studios and public junior high and high schools located in the Rocky Mountain Region of the United States. They were recruited through convenience sampling methods. Participants and their parents signed assent and consent forms respectively. Originally participants were recruited to participate at two separate times; however, later in the study the researchers recruited additional participants, meeting the same demographics, but only had them complete the forms once. Parent consent forms and child assent forms were altered from the first recruitment period to the second. Forms are found in Appendix B (original) and Appendix C (revised).

Participants included male and female adolescents between the ages of 12 and 16. Participants were separated into three comparison groups: one group consisted of students with less than two months of martial arts experience (minimal experience group; BG); one group consisted of students with 2–35 months of martial arts experience (moderate experience group; MG); and one group consisted of students with more than 36 months of martial arts experience (advanced experience group; AG).

Initially, participants were recruited directly from martial arts studios within the U.S. Rocky Mountain Region. Instructors were contacted for permission to conduct the research studies at their specific studios. On the night of class, researchers arrived and introduced the study to the martial arts students. They asked for volunteers and sent consent and assent forms home with the students. The researchers then returned to subsequent classes and administered the questionnaires to students who had returned the signed consent/assent forms. Researchers

returned again two months later and re-administered the same questionnaires to the participating students (those who were in attendance).

After recruiting from five martial arts studios, there was not a sufficient number of participants meeting the minimal experience group criteria. Therefore, researchers sought additional means of recruiting participants. After receiving approval from the university institutional review board and approval of a school district located in the same area as the martial arts studios, the researchers sought participants from one junior high and one high school. Researchers defined the minimal experience group to include martial artists with less than two months experience, which included adolescents who had never participated in martial arts.

After receiving district and each school's permission, researchers provided main office secretaries with a short script to read over the announcements (see Appendix D). Students meeting the criteria then came to the front office and collected packets that consisted of consent forms, assent forms, and questionnaires. The first 30 students to return the questionnaires, along with signed consent/assent forms, received a full-size candy bar.

Instruments

This study involved three paper-pencil measures. Participants independently completed the measures. These measures are described in the following sections.

Demographic questionnaire. Participating students responded to a questionnaire with items covering gender, age, grade in school, ethnicity, belt rank, length of participation in martial arts, and reason for joining martial arts (if applicable). The demographic questionnaire is included in Appendix A.

Self-esteem. The Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965) was designed to assess participants' self-reported levels of self-esteem. It has been used with many different

populations, including adolescents from both culturally and linguistically diverse backgrounds (Chao, Vidacovich, & Green, 2017; Impett et al., 2008; Miyamoto et al., 2001; Puskar et al., 2010; Supple & Plunkett, 2010). It is scored using a four-point Likert-type scale, ranging from 0 (*strongly disagree*) to 3 (*strongly agree*). There are a total of 10 items on the scale. Five of these items are positive: “On the whole, I am satisfied with myself.” Five items are negative: “I wish I could have more respect for myself.”

The RSE items have excellent internal reliability ($\alpha = .92$), and good test-retest reliability ($\alpha = .85$ and $\alpha = .88$). One recent study reported good reliability for RSE scale scores ($\alpha = .86$; Allen, Garriott, Reyes, & Hsieh, 2013). Raw scores below 15 (potential range is 0–30) on the RSE suggest low self-esteem; scores of 15-24 suggest average self-esteem, and scores of 25-30 suggest high self-esteem.

Bullying. The Multidimensional Peer-Victimization Scale (MPVS; Mynard & Joseph, 2000), a 3-point Likert-type scale, that was designed to assess adolescents’ self-report of the types and frequencies of bullying behaviors that they experienced over a specified period of time. For the purpose of this study, we designated a time period of “within the last month.”

This measure was normed on a group of 812 adolescents between the ages of 11 and 16. A principal components analysis of all 45 items produced 9 factors, of which only 4 had 4 or more items and were therefore retained: Physical Victimization (e.g., punched me); Social Manipulation (e.g., tried to get me into trouble with my friends); Verbal Victimization (e.g., called me names); and Attacks on Property (e.g., tried to break something of mine). A test of convergent validity was performed by having self-proclaimed non-victims and self-proclaimed victims take the assessment. Their scores were significantly different at the .001 level. The Cronbach’s alpha scores for the individual subscales were as follows, attacks on property 0.73,

social manipulation 0.77, verbal victimization 0.75, and physical victimization 0.85 (Mynard & Joseph, 2000). It has previously been used with adolescents in determining victimization and bullying exposure (Harding, 2003). Scores of a 17 and above (potential range is 0–32) on the *Multidimensional Peer-Victimization Scale (MPVS)* indicate that the student has been bullied in the last two months.

Data Analysis

Participants' demographic information is summarized in Table 1. This information includes descriptive statistics for participants' gender, grade in school, ethnicity, belt rank, and length of participation in martial arts.

Multiple statistical analyses were conducted. All statistical significance levels were set at $p = .05$. In order to assess differences in self-esteem and bullying victimization between the three groups of adolescents, the researchers conducted a MANOVA. To determine whether the reported levels of self-esteem were higher than for males than females, the researchers conducted an analysis of means and an ANOVA.

Next, the researchers conducted a correlational analysis to determine if levels of self-esteem and likelihood of victimization vary with participants' length of participation in martial arts. The correlational analysis was conducted with the following variables: length of participation, participants' ages, MPVS, and RES. The researchers included age in the correlation analyses because researchers in previous studies have found evidence to suggest that bullying victimization varies by age, depending on the type of bullying (Finkelhor, Turner, Shattuck, & Hamby, 2015).

Last, a Chi-Square goodness of fit analysis was completed in order to determine the differences between the actual and expected scores on the RES and MPVS when divided by experience levels.

CHAPTER 4: RESULTS

The researchers addressed two research questions: (1) Do adolescents that have participated in a traditional martial arts program for at least three years (Advanced Experience Group; AG) report higher levels of self-esteem than adolescents with little to no martial arts experience (Minimal Experience Group; BG) and adolescents with intermediate martial arts experience (Moderate Experience Group; MG)? (2) Do adolescents that have participated in the AG report lower levels of bullying victimization than adolescents in the BG and MG?

Data were collected using specific questionnaires that measured self-esteem and peer victimization. These instruments were the Rosenberg Self-Esteem Scale (RES) and the Multidimensional Peer Victimization Scale (MPVS). The researchers analyzed the participants' responses on these questionnaires in order to determine whether data supported the researchers' hypotheses.

Participants provided information about themselves by completing a short demographics questionnaire. This information included age, grade level, time in marital arts, belt rank (if applicable), ethnicity and gender. Descriptive statistics are provided in Table 1. Of the 58 individuals who participated, 35 (60.3%) were male, and 23 (39.7%) were female; participants ranged from 6th–11th grade. Although there was a higher percentage of males than females, most of the difference occurred within the BG and MG. Within the AG, the male-female ratio was much closer (12:10).

Fourteen participants (24.1%) either had no belt (non-martial artists) or a white belt, nine participants (15.5%) had a belt that was equivalent to the yellow/orange/green ranks, eight (13.8%) held a rank equivalent to blue/purple belt, eleven (19.0%) held a rank equivalent to brown/red belt, and eleven (19.0%) had a belt equivalent to a black/advanced black belt. Belts

were reported as a specific color or as equivalent to a specific color due to the slight differences between styles of martial arts (e.g., a yellow belt with a green stripe is within the same category as a yellow or green belt).

Most of the participants that completed the questionnaires for this study were white. Four participants (6.9%) were Hispanic, one participant (1.7%) was Native American/Alaskan, two (3.4%) were Asian, 50 (86.2%) were White, and one participant (1.7%) was of two or more races. Three participants (5.2%) were in 6th grade, 13 (22.4%) in 7th grade; 14 (24.1%) in 8th grade; 11 (19.0%) in 9th grade; 13 (22.4%) in 10th grade; and four (6.9%) in 11th grade.

With the first research question, the researchers sought to examine the relationship between long-term participation in a traditional martial arts program and levels of reported self-esteem. The three participant groups, Minimal Experience Group (BG), Moderate Experience Group (MG), and Advanced Experience Group (AG), completed the RES in order to report their levels of self-esteem. Differences between groups were examined, and the researchers found no significant differences between AG and the BG and MG combined.

As part of the second research question, the researchers examined differences between the reported bullying victimization of the BG and MG and how their scores compared to those of the AG. The researchers asked if the AG would report lower levels of bullying victimization than their counterparts in the BG and MG. The researchers measured levels of reported bullying victimization with the MPVS. They did not find any significant differences in the reported levels of bullying victimization. Both research questions were analyzed using a MANOVA, and there were no statistically significant differences between the reported self-esteem scores and the reported bullying victimization scores of the BG and MG and the AG, $F(4, 108) = .81, p = .52$; Wilk's $\Lambda = 0.94$, partial $\eta^2 = .03$.

Table 1
Descriptive Statistics Relevant to the Research Questions

		Minimal group (BG) <i>N</i> =14		Moderate group (MG) <i>N</i> =21		Advanced group (AG) <i>N</i> =23	
		<i>n</i>	Percent	<i>n</i>	Percent	<i>n</i>	Percent
<u>Gender</u>	Male	9	64.3	14	61.9	12	56.5
	Female	5	35.7	8	38.1	10	43.5
<u>Grade in School</u>	6	0	0	1	4.8	2	8.7
	7	6	42.9	5	19	2	13.0
	8	3	21.4	5	23.8	6	26.1
	9	5	35.7	1	4.8	5	21.7
	10	0	0	7	33.3	6	26.1
	11	0	0	3	14.3	1	4.3
	12	0	0	0	0	0	0
<u>Belt</u>	None/White	14	100	5	23.8	0	0
	Yellow/Orange/ Green	0	0	7	28.6	2	13.0
	Blue/Purple	0	0	6	28.6	2	8.7
	Brown/Red	0	0	3	14.3	8	34.8
	Black/above	0	0	1	4.8	10	43.5
<u>Ethnicity</u>	Native/Alaskan	0	0	1	4.8	0	0
	Asian	0	0	2	9.5	0	0
	Hispanic	2	14.3	1	4.8	1	4.3
	White	12	85.7	18	81	20	91.3
	Black	0	0	0	0	0	0
	Two/More	0	0	0	0	1	4.3
<u>Self-esteem category</u>	Low	2	14.3	6	28.6	2	8.7
	Average	8	57.1	14	61.9	9	43.5
	High	4	28.6	2	9.5	11	47.8
<u>Bullying victimization</u>	Not likely bullied in last 2 months	12	85.7	21	95.2	20	91.3
	Likely bullied in last 2 months	2	14.3	1	4.8	2	8.7

Although not one of the research questions, the researchers also hypothesized, based on support from current research, that female participants would report lower levels of self-esteem than the male participants. Differences between the reported levels of self-esteem from each gender were analyzed, but no significant differences were found $F(1, 56) = 1.45, p = .233$.

Results from this analysis are reported in Table 2.

Table 2
Mean Self-Esteem and Bullying Victimization Scores by Gender

		Raw self-esteem	Raw bully victim
Male	<i>N</i>	35	35
	<i>M</i>	19.20	7.10
	<i>SD</i>	5.68	7.20
Female	<i>N</i>	23	23
	<i>M</i>	21.20	4.90
	<i>SD</i>	6.71	5.60

The researchers completed correlational analyses between the participants' age, their reported levels of self-esteem (raw scores), reported levels of bullying victimization (raw scores), and time in martial arts. No significant correlations were found between age and reported self-esteem or reported bullying victimization. Neither were any found between the length of time in martial arts, reported self-esteem or reported bullying victimization. However, between reported self-esteem and reported bullying victimization, the researchers identified a significant negative correlation $r = -.35, p = .007$. Other researchers examining the areas of bullying and self-esteem have found similar correlations between these two factors. Results from the correlational analyses are reported in Table 3.

Table 3

Correlational Analyses

		Age	RES Score	MPVS Score	Time in MA
<u>Age</u>	Pearson Correlation	1	-0.108	-0.075	
	Sig. (2-tailed)		0.418	0.575	
	<i>N</i>	58	58	58	58
<u>RES Score</u>	Pearson Correlation	-0.108	1	-.351**	
	Sig. (2-tailed)	0.418		0.007	
	<i>N</i>	58	58	58	58
<u>MPVS Score</u>	Pearson Correlation	-0.075	-.351**	1	
	Sig. (2-tailed)	0.575	0.007		
	<i>N</i>	58	58	58	58
<u>Time in MA</u>	Pearson Correlation	0.089	-0.029	-0.097	1
	Sig. (2-tailed)	0.507	0.83	0.468	
	<i>N</i>	58	58	58	58

** Correlation is significant at the 0.01 level (2-tailed).

The researchers also conducted a chi-square test of goodness of fit to determine if the distribution of participants reporting high self-esteem and low bullying victimization was higher among AG than among BG or MG. A significant relationship was found between length of participation and levels of self-esteem, $X^2 (4, N=58) = 9.6, p = .048$. There was not a significant relationship between length of participation in martial arts and bullying victimization, $X^2 (2, N=58) = 1.04, p = .59$. Results from the Chi-Square analysis are reported in Table 4.

Table 4
Chi-Square Analyses

		Self-Esteem Category			Category Bully Victim	
		Low Self-Esteem	Average Self-Esteem	High Self-Esteem	Not Likely Bullied	Likely Bullied Within Last Two Months
Minimal Experience Group	Count	2	8	4	12	2
	Expected Count	2.4	7.5	4.1	12.8	1.2
	% Within Self-Esteem Category	20.0%	25.8%	23.5%	22.6%	40.0%
	% of Total	3.4%	13.8%	6.9%	20.7%	3.4%
Moderate Experience Group	Count	6	14	2	21	1
	Expected Count	3.8	11.8	6.4	20.1	1.9
	% Within Self-Esteem Category	60.0%	45.2%	11.8%	39.6%	20.0%
	% of Total	10.3%	24.1%	3.4%	36.2%	1.7%
Advanced Experience Group	Count	2	9	11	20	2
	Expected Count	3.8	11.8	6.4	20.1	1.9
	% Within Self-Esteem Category	20.0%	29.0%	64.7%	37.7%	40.0%
	% of Total	3.4%	15.5%	19.0%	34.5%	3.4%

CHAPTER 5: DISCUSSION

This study sought to examine the effects of studying a traditional martial art over an extended period of time; specifically, it focused on levels of self-esteem and bullying victimization (amount of bullying a participant reported experiencing). The researchers recruited students with less than two months of experience of martial arts training (BG) martial arts students with 3-35 months experience (MG), and martial arts students with 36 or more months experience (AG) and compared their scores on three surveys: the Peer Victimization Scale, the Rosenberg Self-Esteem Scale, and a demographics survey. Their reported levels of self-esteem and victimization were analyzed. The researchers found no significant relationships between the length of participation and the levels of reported self-esteem or levels of bullying victimization through the MANOVA; however, the AG was found to have significantly higher numbers of participants with high self-esteem (higher than expected).

Implications

There is strong prior evidence that children and adolescents who participate in traditional martial arts reap both social-emotional and physical benefits (Douris et al., 2013; Fukuda et al., 2011; Klein & Adams, 2004; Taylor-Piliae et al., 2006). However, it is not always feasible for youth to join and stick with martial arts programs. Reasons for discontinuance may be due to financial reasons or logistics (e.g., lack of a transportation, participation in other after-school activities that conflict with schedules, or lack of martial arts school within a reasonable distance from home or school; Gabelhouse, 2005). Schools could help to reduce or eliminate these difficulties by offering martial arts clubs, classes, or teams.

On an international basis, social-emotional and anti-bullying programs are wide-spread. These programs are routinely implemented due to current research suggesting the benefits

(Juvonen, Schacter, Sainio, & Salmivalli, 2016; Schonert-Reichl, Smith, Zaidman-Zait, & Hertzman, 2012) and need of these programs (Craig et al., 2009). The current study contributes to prior evidence that martial arts programs could be used as a powerful tool for strengthening social-emotional learning and reducing bullying. Therefore, schools, elementary through high school, may wish to consider implementing martial arts programs as either an extra-curricular activity or as a built-in curriculum. Currently, schools around the world are utilizing martial arts for both purposes, with schools in Japan having compulsory martial arts participation at the junior high level (Wert, 2017) and are reporting significant benefits (Haydicky, Wiener, Badali, Milligan, & Ducharme, 2012; Lakes & Hoyt, 2004; Twemlow et al., 2008).

As martial arts programs become available in schools, teachers, counselors, school psychologists, and other service providers can “piggyback” off the ideals implicitly taught in martial arts to better integrate important social-emotional learning across settings. For instance, many aspects of traditional martial arts are implicitly, or somewhat explicitly, taught (e.g., respect or emotional regulation). These basic skills could be taught explicitly and expanded in classrooms throughout the school and also included in counseling services (individual, small group, and classroom). As students learn how to regulate their emotions effectively and respect everyone (i.e., themselves and others), and then practice these ideals within the martial arts programs, generalization is created and the skills become increasingly automated.

Limitations

This study was limited by a number of factors. The major limitation faced by the researchers was the relatively short time frame in which the study was conducted. A study of how reported self-esteem and bullying victimization changed over time, within each individual,

would have given the researchers a more clear view of the relationships between martial arts participation and self-esteem/bullying victimization.

Another limitation was the sampling method. The researchers utilized convenience sampling and found that bullying victimization was not correlated with age. They also found that there was no significant relationship between gender and self-esteem. Researchers from previous studies have provided evidence of both of these relationships, and the lack within the current sample may indicate that it is not indicative of adolescents in the general population.

Another limitation was the grouping of the participants' levels of experience in martial arts. Rather than utilizing length of participation as a continuous variable, the researchers placed participants into three groups based on a range of experience. This was done to eliminate the possible calculation error of asking adolescents how many months they had participated. The researchers thought that it likely that many of the participants would not have an accurate idea of the exact number of months they had participated and would have only guessed. However, because the number of months were grouped, it hindered the researchers from calculating a more accurate correlational analysis and did not allow for as large of differences between the groups. This may have confounded the resulting levels of significance.

Last, the researchers determined that the lower cutoff for the AG would be 36 months; however, that may have been an insufficient amount of time to observe significant benefits of martial arts practice. Because students of martial arts, especially young students, rarely study more than three days a week (two is more common), a longer period of time may be necessary to have a strong effect on levels of self-esteem, and especially bullying victimization. In future research, it would likely be beneficial to set the AG at five years. This is generally considered the

least amount of time needed, for an average student, to obtain the level of black belt and to be considered a master of the basics.

Areas of Future Research

The research surrounding traditional martial arts, especially as a tool for increasing self-esteem and reducing bullying, is in short supply. Therefore, future research is needed to investigate the possible connections of which factors actually impact these characteristics. Specifically, it would be highly beneficial for researchers to recruit participants who are currently experiencing, or have recently experienced, bullying to participate in a long-term traditionally based martial arts program. The amount of time in the program would primarily depend on how intensive it is (i.e., meetings per week and length of meetings). Future researchers could also recruit a general same-age population who are not participating in martial arts (or another anti-bullying program), but who are experiencing bullying. By analyzing the data longitudinally and with a comparison group, the researchers could draw more causal conclusions on the impact of martial arts participation.

An examination of how traditional martial arts compare to modern or mixed martial arts as a function of bullying prevention programs may also be beneficial. This may be studied by measuring levels of adolescents' bullying victimization before and after participation in martial arts programs (one traditional and one modern). Although modern styles do not generally espouse the ideals associated with traditional martial arts, similar changes may be noted in participants' levels of bullying victimization due to other variables (e.g., self-confidence, physique).

While this study focused on bullying victimization (how often and to what extent students experience bullying) and its relation to martial arts, it may be beneficial to conduct

research into how martial arts practice affects those who bully. For example, do bullies and bully-victims join martial arts, and if so, do they continue to bully if they remain in the program long-term? There is strong evidence to suggest that those who bully not only cause harm to others, but also face detrimental consequences from their actions (Forero, McLellan, Rissel, & Bauman, 1999; Shetgiri, 2013). Additionally, bully-victims (those who bully and are bullied) are in a precarious position where they are impacted on both sides, and often suffer more negative and long-term outcomes than either of the other two groups (i.e., bullies and victims; Forero et al., 1999; Shetgiri, 2013). Therefore, if participation in a traditional martial arts program affects children's and adolescents' bullying (by decreasing the amount), it would be highly beneficial for students to participate in such programs.

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APPENDIX A: Questionnaires

Demographic Questionnaire for Students

I am a:

Male

Female

I am:

12 Years Old

13 Years Old

14 Years Old

15 Years Old

16 Years Old

What race best describes you?

American Indian or Native Alaskan

Asian

Polynesian/Pacific Islander

Black/African American

Hispanic/Latino

White/Caucasian

Two or more races (Please List): _____

Other: _____

What color belt do you have now? (Please Choose One)

White

Yellow

Green

Blue

Purple

Orange

Red

Brown

Black (Any Degree)

Other (Please List): _____

How long have you consistently been doing martial arts? (Please Choose One—12 Months is Equal to One Year):

8 weeks (about 2 months) or less

3 months to 11 months

12 months to 23 months

24 months to 35 months

36 months or more

What grade in school are you?

Fifth Grade

Sixth Grade

Seventh Grade

Eighth Grade

Ninth Grade

Tenth Grade

Eleventh Grade

Twelfth Grade

Multidimensional Peer-Victimization Scale

Below is a list of things that some children do to other children. How often during the last month has another pupil done these things to you? Please answer by putting a check in one of the three columns for each of the 16 questions.

	Not at all	Once	More than Once
1. Punched me			
2. Tried to get me into trouble with my friends			
3. Called me names			
4. Took something of mine without permission			
5. Kicked me			
6. Tried to make my friends turn against me			
7. Made fun of me because of my appearance			
8. Tried to break something of mine			
9. Hurt me physically in some way on purpose			
10. Refused to talk to me			
11. Made fun of me for some reason			
12. Stole something from me			
13. Beat me up			
14. Made other people not talk to me			
15. Swore at me			
16. Deliberately damaged some property of mine			

Rosenberg Self-Esteem Scale

Below is a list of statements dealing with your general feelings about yourself. If you strongly agree, check SA. If you agree with the statement, check A. If you disagree, check D. If you strongly disagree, check SD.

	SA	A	D	SD
1. On the whole, I am satisfied with myself.	3	2	1	0
2. At times, I think I am no good at all.	0	1	2	3
3. I feel that I have a number of good qualities.	3	2	1	0
4. I am able to do things as well as most other people.	3	2	1	0
5. I feel I do not have much to be proud of.	0	1	2	3
6. I certainly feel useless at times.	0	1	2	3
7. I feel that I'm a person of worth, at least on an equal plane with others.	3	2	1	0
8. I wish I could have more respect for myself.	0	1	2	3
9. All in all, I am inclined to feel that I am a failure.	0	1	2	3
10. I take a positive attitude toward myself.	3	2	1	0

APPENDIX B: Student Assent and Parent Consent Forms (Original)

**ASSENT FORM**

TITLE OF RESEARCH: The Effects of Long-Term Participation in a Martial Arts Program on Self-Esteem and Bullying Victimization

RESEARCHERS: Pamela Dahle B.S., G.E. Kawika Allen Ph.D., Sam Hardy Ph.D., Betty Ashbaker Ph.D., and Melissa Heath Ph.D.

These are some things we want you to know about research studies:

We are asking you to be in a research study. Research is a way to test new ideas. Research helps us learn new things.

It is your choice if you want to be a part of the study or not. You can say Yes or No. Whatever you decide is okay.

Why am I being asked to be in this research study?

You are being asked to be in the study because you are between the ages of 12 and 16 and you are a beginner or advanced martial arts student.

What is the study about?

This study is looking at changes teenagers may have after learning martial arts. The researchers want to know if there is a difference between teenagers who have just begun learning martial arts and those who have been studying it a long time. They want to know if there is a difference between how much self-esteem they have and how often they are bullied.

What will happen during this study?

- You will fill out a form asking you a little about yourself, like your age, whether you're a boy or girl, what grade you're in, belt rank, and how long you've studied martial arts (the last two only if you participate in martial arts). Then you'll fill out another short form asking you questions about how you feel about yourself. The last form you'll fill out will ask you if you've been bullied and in what ways. You'll be given these three forms to fill out two separate times. Each time will take about five minutes, but might take a little longer. Then you're done!
- The researchers then take all your answers and compare them between the beginner group/non-participant group and the more advanced group.

Will the study hurt?

No, the study will not hurt. Some of the questions may make you feel a little weird, because they ask about your feelings and experiences.

What else should I know about the study?

This study will help us know if learning martial arts really can help kids get bullied less and feel better about themselves. If we find out that it does, we can try to get more kids to study martial arts and feel better about themselves.

What are the good things that might happen?

There won't be any good things that happen if you fill out our forms, we'll just learn more.

What if I don't want to be in this study?

You do not have to be in the study if you do not want to. Nothing bad will happen to you if you decide not to. And you can change your mind whenever you want.

Who should I ask if I have any questions?

If you have any questions about this study, you or your parents can call Pamela Dahle at (570) 660-4670 or Kawika Allen, Ph.D. at (801) 422-2620. You can also contact IRB Administrator at (801) 422-1461, A-285 ASB, Brigham Young University, Provo, UT 84602, irb@byu.edu.

Do I have to be in the study?

No, you do not have to be in the study. Even if you say yes now, you can change your mind later. It is up to you.

Signatures

Before deciding if you want to be in the study, ask any questions you have. You can also ask questions during or after the study.

If you sign your name below, it means that you agree to be a part of our research study.

Your Name (Printed)

Age

Your Signature

Date

Signature of Your Parent/Guardian

Date

Signature of Researcher

Date



Parental Permission for a Minor

Introduction

My name is Pam Dahle. I am a graduate student from Brigham Young University. I am conducting a research study about how martial arts participation affects self-esteem and bullying victimization. I am inviting your child to take part in the research because (he/she) is between the ages of 12 and 16 and is participating in a martial arts program. G.E. Kawika Allen, Ph.D., a professor in the Counseling Psychology and Special Education department at BYU, is supervising my research.

Procedures

If you agree to let your child participate in this research study, the following will occur:

- Your child will be asked to complete three forms: a demographics form, a bullying victimization questionnaire, and a self-esteem rating checklist
- This will take place at their martial arts class during normal participation time. It will take approximately five minutes to fill out these forms, but may take up to ten minutes.
- Your child will be asked to do this twice: once in August or September and again in October or November.
- The forms will be completed on paper.

Risks

There is a risk of loss of privacy, which the researcher will reduce by not using any real names or other identifiers in the written report. The researcher will also keep all data on a locked computer and in a secure location. Only the researchers will have access to the data. At the end of the study, data will be kept for up to three years.

There may be some discomfort caused by being asked some of the questions. If your child does not want to continue he/she may stop the entire process at any time without affecting his/her standing in the martial arts class.

Confidentiality

Data that are collected at time one will be sorted by the use of a nickname chosen by each child and not the your child's actual name. The research data will be kept on a password-protected computer and in a secure location; only the researchers will have access to the data. At the conclusion of the study, all identifying information will be kept for up to three years on a secure computer. At the end of the three years all data will be destroyed.

Benefits

There are no benefits for you or your child for participation in this study.

Compensation

Participants will not receive any compensation for participation in this study.

Questions about the Research

If you have any questions about this study, you can call Pamela Dahle at (570) 660-4670 or Kawika Allen Ph.D at (801) 422-2620. You can also contact IRB Administrator at (801) 422-1461, A-285 ASB, Brigham Young University, Provo, UT 84602, irb@byu.edu.

Questions about your child's rights as a study participant or to submit comment or complaints about the study should be directed to the IRB Administrator, Brigham Young University, A-285 ASB, Provo, UT 84602. Call (801) 422-1461 or send emails to irb@byu.edu.

You have been given a copy of this consent form to keep.

Participation

Participation in this research study is voluntary. You are free to decline to have your child participate in this research study. You may withdraw you child's participation at any point without your child's standing in the martial arts class.

Child's Name: _____

Parent Name: _____

Signature: _____

Date: _____



Formulario de asentimiento

TÍTULO DE INVESTIGACIÓN: Los Efectos a largo plazo de la participación en un programa de artes marciales en el autoestima y la intimidación por parte de peleones

LOS INVESTIGADORES: Pamela Dahle B.S., G.E. Kawika Allen Ph.D., Sam Hardy Ph.D., Betty Ashbaker Ph.D., and Melissa Heath Ph.D.

Estas son algunas cosas que nos gustaría que sepas acerca del estudio de investigación:

Te pedimos tu participación en nuestro estudio de investigación. Un estudio de investigación es un método para probar ideas nuevas. Los estudios de investigación nos ayudan a aprender cosas nuevas.

Tú decides si deseas participar en este estudio de investigación. Puedes decir, “Sí” o “No.” Lo que decidas está bien.

¿Por qué se me ha pedido participar en este estudio?

Te pedimos que participes en este estudio porque tienes de doce a dieciséis años de edad y eres un estudiante principiante o estudiante de nivel avanzado en las artes marciales.

¿De qué se trata el estudio?

Este estudio examina los cambios que un adolescente podría tener después de aprender las artes marciales. Los investigadores quieren saber si existe una diferencia entre los adolescentes que han comenzado a estudiar las artes marciales y los adolescentes que han estudiado por mucho tiempo. También quieren saber si existe una diferencia en su autoestima y la frecuencia con que son intimidados por peleones.

¿Qué pasará durante este estudio?

- Llenaras unos formularios que te preguntaran tu edad, si eres varón o mujer, tu grado escolar, el rango de tu cinturón, y cuánto tiempo haz estudiado artes marciales (si estudies los artes marciales). El segundo formulario tendrá preguntas acerca de cómo te sientes sobre ti mismo. El último formulario que llenarás te preguntará si has sido víctima de peleones y de qué manera. Llenaras estos formularios dos veces. Cada vez tomará aproximadamente cinco minutos, pero pueda que tome un poco más de tiempo. Luego habrás terminado.
- Los investigadores tomarán todas tus respuestas y las compararán entre el grupo de principiantes y el grupo avanzado.

¿Causará dolor el estudio?

No, el estudio no causara ningún dolor. Es posible que te sientas incomodo o extraño porque algunas de las preguntas serán acerca de tus sentimientos y experiencias.

¿Que más debo saber sobre el estudio?

Este estudio nos ayudará a saber si las artes marciales ayudan a que los adolescentes no sean víctimas de peleones y se sientan mejor sobre sí mismos. Si descubrimos que es así, intentaremos a que más adolescentes estudien las artes marciales y se sientan mejor de sí mismos.

¿Qué cosas buenas podrían suceder?

Nada bueno sucederá si llenas los formularios. Únicamente aprenderemos más.

¿Qué pasa si no quiero participar en este estudio?

No tienes que participar en este estudio. Nada pasara si decides no participar. Puedes cambiar tu decisión en cualquier momento.

¿A quién debo acudir si tengo preguntas?

Si tienes preguntas acerca de este estudio, tú o tus padres pueden llamar a Pamela Dahle al (570) 660-4670, Kawika Allen Ph.D. al (801) 422-2620, o el administrador del IRB al (801) 422-1461, A-285 ASB, Brigham Young University, Provo, UT 84602, irb@byu.edu.

¿Tengo que participar en este estudio?

No tienes que participar en este estudio. Aunque decidas participar en este estudio ahora, puedes cambiar tu decisión en cualquier momento.

Firmas

Antes de decidir si quieres participar en el estudio, haz cualquier pregunta que tengas. También puedes hacer cualquier pregunta durante del estudio o después del estudio.

Si firmas tu nombre debajo, significa que estás de acuerdo en participar en este estudio.

Tu nombre (impreso)

Edad

Tu firma

Fecha

Firma de tus padres / tutor legal

Fecha

Firma de la investigadora

Fecha

Autorización de los padres para menores

Introducción

Hola, mi nombre es Pam Dahle. Soy una estudiante de maestría en la Universidad Brigham Young. Estoy llevando a cabo un estudio investigación acerca de: como la participación en las artes marciales afecta el autoestima y la intimidación por parte de peleones. Invito a su hijo a participar en el estudio de investigación porque él o ella están entre los 12 y 16 años de edad y está participando en las artes marciales. G.E. Kawika Allen Ph.D., profesor en el departamento de Consejería Psicológica y Educación Especial en la Universidad Brigham Young, está supervisando mi investigación.

Procedimientos

Si usted permite a su hijo participar en el estudio de investigación, lo siguiente ocurrirá:

- Le pediremos a su hijo que complete tres formularios: un formulario demográfico, un cuestionario de intimidación por parte de peleones, y una encuesta sobre la autoestima.
- Completara los formularios en su clase de artes marciales. Necesitara aproximadamente cinco a diez minutos para completar los formularios.
- Le pediremos a su hijo que llene estos formularios dos veces: una vez en agosto o septiembre y una segunda vez en octubre o noviembre.
- Los formularios serán completados en papel.

Riesgos

Existe un riesgo de la pérdida de privacidad la cual los investigadores intentaran reducir al no usar el nombre real de su hijo o cualquier información que pueda identificarlo. Los investigadores mantendrán todos los datos en una computadora protegida por una contraseña que estará ubicada en un lugar seguro. Únicamente los investigadores tendrán acceso a los datos. Al final del estudio, conservarán los datos por tres años y después de tres años, toda la información será destruida.

Es posible que ocurra cierta incomodidad causada por ciertas preguntas. Si su hijo no quiere seguir él / ella puede dejar de participar en cualquier momento sin que esto le afecte su posición en la clase de artes marciales.

Confidencialidad

Los datos personales que los investigadores recopilen serán completamente clasificados con el uso de un sobrenombre y no el nombre real de su hijo. Los investigadores mantendrán todos los datos en una computadora protegida por una contraseña que estará ubicada en un lugar seguro. Únicamente los investigadores tendrán acceso a los datos. Al final del estudio, conservarán los datos por tres años y después de tres años, toda la información será destruida.

Beneficios

No habrá ningún beneficio para usted o su hijo por participar en este estudio.

Compensación

Los participantes no serán compensados por su participación en este estudio de investigación.

Preguntas acerca de la investigación

Si tiene alguna pregunta acerca de este estudio de investigación, puede comunicarse con Pamela Dahle al (570) 660-4670 o Dr. Kawika Allen al (801) 422-2620. También puede comunicarse con el Administrador del IRB al (801) 422-1461, A-285 ASB, Brigham Young University, Provo, UT 84602, irb@byu.edu.

Para preguntas acerca de los derechos de su hijo como participante o para someter comentarios o quejas acerca del estudio deber dirigirse al administrador del IRB, Brigham Young University, A-285 ASB, Provo, UT 84602. Llame al (801) 422-1461 o envíe correos a airb@byu.edu.

Le hemos proporcionado una copia de este documento para sus archivos.

Participación

La participación en este estudio de investigación es voluntaria. Usted puede rehusarse a permitir que su hijo participe en este estudio de investigación. También puede retirar la participación de su hijo en cualquier momento sin que esto afecte la posición de su hijo en la clase de artes marciales.

Nombre de su hijo/a: _____

Nombre de los padres: _____

Firma: _____

Fecha: _____

APPENDIX C: Student Assent and Parent Consent Forms (Revised)

ADOLESCENT ASSENT FORM

TITLE OF RESEARCH: The Effects Of Long-Term Participation In A Martial Arts Program On Self-Esteem And Bullying Victimization

RESEARCHERS: Pamela Dahle B.S., G.E. Kawika Allen Ph.D., Melissa Allen Heath Ph.D., and Sam Hardy Ph.D.

These are some things we want you to know about research studies:

We are asking you to be in a research study. Research is a way to test new ideas. Research helps us learn new things.

It is your choice if you want to be a part of the study or not. You can say Yes or No. Whatever you decide is okay.

Why am I being asked to be in this research study?

You are being asked to be in the study because you are between the ages of 12 and 16. The researchers are asking two groups of teenagers to be a part of the study: 12—16 year olds that have studied martial arts for three years or more, and 12—16 year olds that don't have any experience in martial arts.

What is the study about?

This study is looking at changes teenagers may have after learning martial arts. The researchers want to know if there is a difference between teenagers who have just begun learning martial arts/or who don't study martial arts at all and those who have been studying it a long time. They want to know if there is a difference between how much self-esteem they have and how often they are bullied.

What will happen during this study?

- You will fill out a form asking you a little about yourself, like your age, whether you're a boy or girl, what grade you're in, belt rank, and how long you've studied martial arts (the last two only if you participate in martial arts). Then you'll fill out another short form asking you questions about how you feel about yourself. The last form you'll fill out will ask you if you've been bullied and in what ways. It will take about five minutes, but might take a little longer. Then you're done!
- The researchers then take all your answers and compare them between the beginner group/non-participant group and the more advanced group.

Will the study hurt?

No, the study will not hurt. Some of the questions may make you feel a little weird, because they ask about your feelings and experiences.

What else should I know about the study?

This study will help us know if learning martial arts really can help kids get bullied less and feel better about themselves. If we find out that it does, we can try to get more kids to study martial arts and feel better about themselves.

What are the good things that might happen?

There won't be any good things that happen if you fill out our forms, we'll just learn more.

What if I don't want to be in this study?

You do not have to be in the study if you do not want to. Nothing bad will happen to you if you decide not to. And you can change your mind whenever you want.

Who should I ask if I have any questions?

If you have any questions about this study, you or your parents can call Pamela Dahle at (570) 660-4670 or Kawika Allen Ph.D at (801) 422-2620. You can also contact IRB Administrator at (801) 422-1461, A-285 ASB, Brigham Young University, Provo, UT 84602, irb@byu.edu.

Do I have to be in the study?

No, you do not have to be in the study. Even if you say yes now, you can change your mind later. It is up to you.

Signatures

Before deciding if you want to be in the study, ask any questions you have. You can also ask questions during or after the study.

If you sign your name below, it means that you agree to be a part of our research study.

Your Name (Printed)

Age

Your Signature

Date

Signature of Your Parent/Guardian

Date

Signature of Researcher

Date

PARENTAL PERMISSION FOR A MINOR

TITLE OF RESEARCH: The Effects of Long-Term Participation in a Martial Arts Program on Self-Esteem and Bullying Victimization

RESEARCHERS: Pamela Dahle B.S., G.E. Kawika Allen Ph.D., Melissa Allen Heath Ph.D., and Sam Hardy Ph.D.

Introduction

My name is Pam Dahle. I am a graduate student from Brigham Young University. I am conducting a research study about how martial arts participation affects self-esteem and bullying victimization. I am inviting your child to take part in the research for one of two reasons: because (he/she) is 12—16 and has participated in a martial arts program, for at least three years, or because (he/she) is 12—16 and has never participated in a martial arts program long-term (more than eight weeks). G.E. Kawika Allen Ph.D, a professor in the Counseling Psychology and Special Education department at BYU, is supervising my research.

Procedures

If you agree to let your child participate in this research study, the following will occur:

- You child will be asked to complete three forms: a demographics form, a bullying victimization questionnaire, and a self-esteem rating checklist
- Your child will complete these at home and return them to the school with the signed consent forms.
- The forms will be completed on paper.

Risks

There is a risk of loss of privacy, which the researcher will reduce by not using any real names or other identifiers in the written report. Names will be collected to match the surveys with consent/assent forms. The researcher will keep all data on a locked computer and in a secure location. Only the researchers will have access to the data. At the end of the study, data will be kept for up to three years.

There may be some discomfort caused by being asked some of the questions. If your child does not want to continue he/she may stop the entire process at any time.

Confidentiality

Data that are collected will be sorted by the use of an ID number and not your child's actual name. The research data will be kept on a password-protected computer and in a secure location; only the researchers will have access to the data. At the conclusion of the study, all identifying information will be kept for up to three years on a secure computer. At the end of the three years all data will be destroyed.

Benefits

There are no benefits for you or your child for participation in this study. However, the researchers will be able to gather important information concerning martial arts participation, self-esteem, and bullying. Currently, there is little scientific evidence to support claims made

by martial arts schools (e.g., your child will be able to stand up against bullies, etc.). Researching the potential benefits of martial arts study can help parents and educators make more informed decisions when seeking beneficial programs for their children or students.

Compensation

Participants will not receive any compensation for participation in this study. [Participants received candy bars for returning parent permission forms.]

Questions about the Research

If you have any questions about this study, you can call Pamela Dahle at (570) 660-4670 or Kawika Allen Ph.D. at (801) 422-2620. You can also contact IRB Administrator at (801) 422-1461, A-285 ASB, Brigham Young University, Provo, UT 84602, irb@byu.edu.

Questions about your child's rights as a study participant or to submit comments or complaints about the study should be directed to the IRB Administrator, Brigham Young University, A-285 ASB, Provo, UT 84602. Call (801) 422-1461 or send emails to irb@byu.edu. You have been given a copy of this consent form to keep.

Participation

Participation in this research study is voluntary. You are free to decline to have your child participate in this research study. You may withdraw you child's participation at any point without any penalty.

Child's Name: _____

Parent Name: _____

Parent Signature: _____ Date: _____

Formulario de asentimiento

TÍTULO DE INVESTIGACIÓN: Los Efectos a largo plazo de la participación en un programa de artes marciales en el autoestima y la intimidación por parte de peleones

LOS INVESTIGADORES: Pamela Dahle B.S., G.E. Kawika Allen Ph.D., Melissa Allen Heath Ph.D., and Sam Hardy Ph.D.

Estas son algunas cosas que nos gustaría que sepas acerca del estudio de investigación:

Te pedimos tu participación en nuestro estudio de investigación. Un estudio de investigación es un método para probar ideas nuevas. Los estudios de investigación nos ayudan a aprender cosas nuevas.

Tú decides si deseas participar en este estudio de investigación. Puedes decir, “Sí” o “No.” Lo que decidas está bien.

¿Por qué se me ha pedido participar en este estudio?

Te pedimos que participes en este estudio porque tienes de doce a dieciséis años de edad. También, eres un estudiante de nivel avanzado en las artes marciales o no eres un estudiante en las artes marciales.

¿De qué se trata el estudio?

Este estudio examina los cambios que un adolescente podría tener después de aprender las artes marciales. Los investigadores quieren saber si existe una diferencia entre los adolescentes que han comenzado a estudiar las artes marciales o no estudia las artes marciales y los adolescentes que han estudiado por mucho tiempo. También quieren saber si existe una diferencia en su autoestima y la frecuencia con que son intimidados por peleones.

¿Qué pasará durante este estudio?

- Llenaras unos formularios que te preguntaran tu edad, si eres varón o mujer, tu grado escolar, el rango de tu cinturón, y cuánto tiempo haz estudiado artes marciales (si estudies los artes marciales). El segundo formulario tendrá preguntas acerca de cómo te sientes sobre ti mismo. El último formulario que llenarás te preguntará si has sido víctima de peleones y de qué manera. Cada vez tomará aproximadamente cinco minutos, pero pueda que tome un poco más de tiempo. Luego habrás terminado.
- Los investigadores tomarán todas tus respuestas y las compararán entre el grupo con ninguna experiencia en las artes marciales y el grupo avanzado.

¿Causará dolor el estudio?

No, el estudio no causara ningún dolor. Es posible que te sientas incomodo o extraño porque algunas de las preguntas serán acerca de tus sentimientos y experiencias.

¿Que más debo saber sobre el estudio?

Este estudio nos ayudará a saber si las artes marciales ayudan a que los adolescentes no sean víctimas de peleones y se sientan mejor sobre sí mismos. Si descubrimos que es así, intentaremos a que más adolescentes estudien las artes marciales y se sientan mejor de sí mismos.

¿Qué cosas buenas podrían suceder?

Nada bueno sucederá si llenas los formularios. Únicamente aprenderemos más.

¿Qué pasa si no quiero participar en este estudio?

No tienes que participar en este estudio. Nada pasará si decides no participar. Puedes cambiar tu decisión en cualquier momento.

¿A quién debo acudir si tengo preguntas?

Si tienes preguntas acerca de este estudio, tú o tus padres pueden llamar a Pamela Dahle al (570) 660-4670, Kawika Allen Ph.D al (801) 422-2620, o el administrador del IRB al (801) 422-1461, A-285 ASB, Brigham Young University, Provo, UT 84602, irb@byu.edu.

¿Tengo que participar en este estudio?

No tienes que participar en este estudio. Aunque decidas participar en este estudio ahora, puedes cambiar tu decisión en cualquier momento.

Firmas

Antes de decidir si quieres participar en el estudio, haz cualquier pregunta que tengas. También puedes hacer cualquier pregunta durante del estudio o después del estudio.

Si firmas tu nombre debajo, significa que estás de acuerdo en participar en este estudio.

Tu nombre (impreso)

Edad

Tu firma

Fecha

Firma de tus padres / tutor legal

Fecha

Firma de la investigadora

Fecha

AUTORIZACIÓN DE LOS PADRES PARA MENORES

TÍTULO DE INVESTIGACIÓN: Los Efectos a largo plazo de la participación en un programa de artes marciales en el autoestima y la intimidación por parte de peleones

LOS INVESTIGADORES: Pamela Dahle B.S., G.E. Kawika Allen Ph.D., Melissa Allen Heath Ph.D., and Sam Hardy Ph.D.

Introducción

Hola, mi nombre es Pam Dahle. Soy una estudiante de maestría en la Universidad Brigham Young. Estoy llevando a cabo un estudio investigación acerca de: como la participación en las artes marciales afecta el autoestima y la intimidación por parte de peleones. Invito a su hijo a participar en el estudio de investigación porque él o ella están entre los 12 y 16 años de edad un estudiante de nivel avanzado en las artes marciales o no eres un estudiante en las artes marciales (tiene menos que nueve semanas experiencia en las artes marciales). G.E. Kawika Allen Ph.D, profesor en el departamento de Consejería Psicológica y Educación Especial en la Universidad Brigham Young, está supervisando mi investigación.

Procedimientos

Si usted permite a su hijo participar en el estudio de investigación, lo siguiente ocurrirá:

- Le pediremos a su hijo que complete tres formularios: un formulario demográfico, un cuestionario de intimidación por parte de peleones, y una encuesta sobre la autoestima.
- Completara los formularios en su casa. Necesitara aproximadamente cinco a diez minutos para completar los formularios.
 - Los formularios serán completados en papel.

Riesgos

Existe un riesgo de la pérdida de privacidad la cual los investigadores intentaran reducir al no usar el nombre real de su hijo o cualquier información que pueda identificarlo. Los investigadores usarán el nombre de su hijo para pueden emparejar los formularios de asentimiento con sus formas. Mantendrán todos los datos en una computadora protegida por una contraseña que estará ubicada en un lugar seguro. Únicamente los investigadores tendrán acceso a los datos. Al final del estudio, conservarán los datos por tres años y después de tres años, toda la información será destruida.

Es posible que ocurra cierta incomodidad causada por ciertas preguntas. Si su hijo no quiere seguir él / ella puede dejar de participar en cualquier momento sin que esto le afecte su posición en la clase de artes marciales.

Confidencialidad

Los datos personales que los investigadores recopilen serán completamente clasificados con el uso de un número de identificación y no el nombre real de su hijo. Los investigadores mantendrán todos datos en una computadora protegida por una contraseña que estará ubicada en un lugar seguro. Únicamente los investigadores tendrán acceso a los

datos. Al final del estudio, conservarán los datos por tres años y después de tres años, toda la información será destruida.

Beneficios

No habrá ningún beneficio para usted o su hijo por participar en este estudio.

Compensación

Los participantes no serán compensados por su participación en este estudio de investigación.

Preguntas acerca de la investigación

Si tiene alguna pregunta acerca de este estudio de investigación, puede comunicarse con Pamela Dahle al (570) 660-4670 o Dr. Kawika Allen al (801) 422-2620. También puede comunicarse con el Administrador del IRB al (801) 422-1461, A-285 ASB, Brigham Young University, Provo, UT 84602, irb@byu.edu.

Para preguntas acerca de los derechos de su hijo como participante o para someter comentarios o quejas acerca del estudio deber dirigirse al administrador del IRB, Brigham Young University, A-285 ASB, Provo, UT 84602. Llame al (801) 422-1461 o envíe correos a airb@byu.edu.

Le hemos proporcionado una copia de este documento para sus archivos.

Participación

La participación en este estudio de investigación es voluntaria. Usted puede rehusarse a permitir que su hijo participe en este estudio de investigación. También puede retirar la participación de su hijo en cualquier momento sin que el castigo.

Nombre de su hijo/a: _____

Nombre de los padres: _____

Firma: _____

Fecha: _____

APPENDIX D: Announcement Script

Announcement Script:

Interested in receiving a full-sized candy bar? Come to the front office to pick up a survey packet. Have your parent sign the permission slip and complete the forms. Return them by Friday April 14th to receive a full-sized candy bar!