

# INDIANA

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Winter Issue

2010

# T<sup>3</sup>

*Tradition, Transition, Transformation*

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# JOURNAL

# Indiana AHPERD Journal

Volume 39, Number 1

Winter 2010

## Indiana Association for Health, Physical Education, Recreation, and Dance

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T<sup>3</sup>

Tradition, Transition, Transformation

## President's Message

Hello IAHPERD members! As I reflect on what 2009 brought the association and peer into what awaits us in 2010 all I can say is "Wow!" What an exciting time to be a member! There are many updates to be shared (PE Waivers, REPA, State Workshops, "the" National Convention) but, before I address those, let me explain the cover of this journal issue and, ultimately, the choice of T<sup>3</sup> as my theme for the next year.

**Tradition** – It is imperative that we, as an association, respect and acknowledge our own history. There is a lot to know and like about our past. We should be proud of our rich history.

**Transition** – That said, we cannot let history anchor or define us. We need to be nimble and welcome the change and evolutions all around us; and accept the fact that we do not need to agree with change in order to fully embrace it. Basically, change is good – challenges are beneficial; complacency is neither.

**Transformation** – Finally, we at the association are working hard in this ever changing educational and societal landscape to maintain our relevance for the citizens of Indiana as it relates to our "professions" (Health, Physical Education, Adapted Physical Education, Recreation, Dance, Sport Management, Higher Education, etc). For me, the most rewarding, exciting, and motivating aspect of all of this is that we are working to become an association that is not fully definable at this moment; basically, we are positioning ourselves to serve a citizenry that is changing and a profession that is still evolving (and will be for quite some time)...and these are terrific things to wake up to every day!

Hopefully, you can see why I find T<sup>3</sup> so appealing for a theme... we are in an exciting, different, and dynamic place and one that the association has not seen before.

Now for some important updates:

(a) **HS PE Waivers** – First, at the time of this writing, the expansion of waivers for HS PE has not officially been voted on nor "instituted" regarding state-wide adoption. While the waiver expansion was introduced February 2009 (and some elements were effective immediately) the formal waiver process as it related to meeting state standards and full vetting via State budget procedures has not occurred. Basically, while the expansion of the waiver process has some momentum, a few legislative steps still need to occur to formalize state-wide adoption as originally intended. Therefore, there is time to advocate and ensure all HS students are afforded an opportunity to participate in a quality PE program.

Additionally, I would be remiss to not acknowledge Lisa Miniear (Franklin Central High School). Not only is Lisa vice president of secondary physical education for IAHPERD, she chairs an advocacy task force as convened by then President Molly Hare. Lisa has been at the forefront in advocating state-wide on behalf of the association and building coalitions with interested organizations who support IAHPERD and what we do. Thank you Lisa!

(b) **REPA** – July 2009 presented us with REPA (Revisions for Educator Preparation and Accountability). This very well-intended educational mandate proposed, in essence, an overhaul in how pre-service teachers were trained and licensed; and also, how higher education was held accountable for said training and licensure. For us, the "expansion of the workplace specialist" was the most concerning. Early iterations redefined the workplace specialist to include: fine arts, health, and physical education (along with journalism, media and library). The minimum qualification to be a workplace specialist is a high school diploma. Certainly, for those that train teachers at the higher education level, passage would have been largely detrimental. Yet, most importantly, the K-12 students of Indiana would, again, have been asked to settle for less than exemplary teachers. The good news is that during a vote on REPA in early December, workplace specialist's designations for Health, Physical Education, and Fine Arts (along with journalism et al) was dropped and the clarification included that this was for vocational education settings only. This is good news for the K-12 students in general and Indiana and IAHPERD in particular.

(c) **2009 State IAHPERD workshops** – in light of the national convention being held here in Indiana (Indianapolis) Spring of 2010, it was determined we should offer regional workshops and not offer a traditional fall state conference. When the planning and preparations were occurring, speculation ensued that if we could get 125 TOTAL participants in all regional workshops, then we would be successful. I am happy to report that our regional workshop attendance total was 504 ... far exceeding our expectations! Certainly the workshops were not without error, and we have noted those and will work to ensure they will not be repeated in future conferences. However, it is important to note our high attendance is evidence that our members are active, engaged, and supportive of what IAHPERD is trying to accomplish. Thank you IAHPERD members!

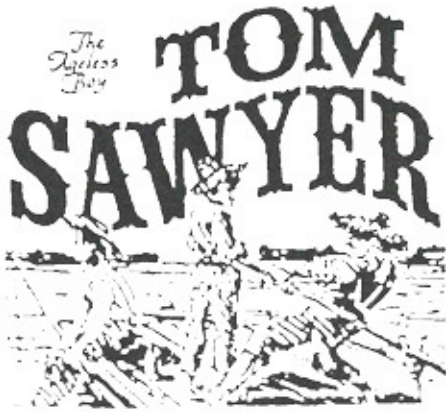
(d) **AAHPERD National Convention 2010** – Mark your calendars...March 16<sup>th</sup>-20<sup>th</sup>, 2010...held in downtown Indianapolis. IAHPERD members get a favorable rate when registering – so join IAHPERD and get your colleagues to join...not only can you take advantage of the National in March, but by staying involved you can be part of the transition of the state association for 2010-2011.

That is all for now, but stay tuned; if 2009 is any indication of what 2010 will be like, I have to think that my original summary of "wow" may end up being an understatement. Let me conclude by inviting you to join me and the association on a transformational journey promised to be filled with excitement and challenge as we work toward redefining who we are, what we do, and who we serve.

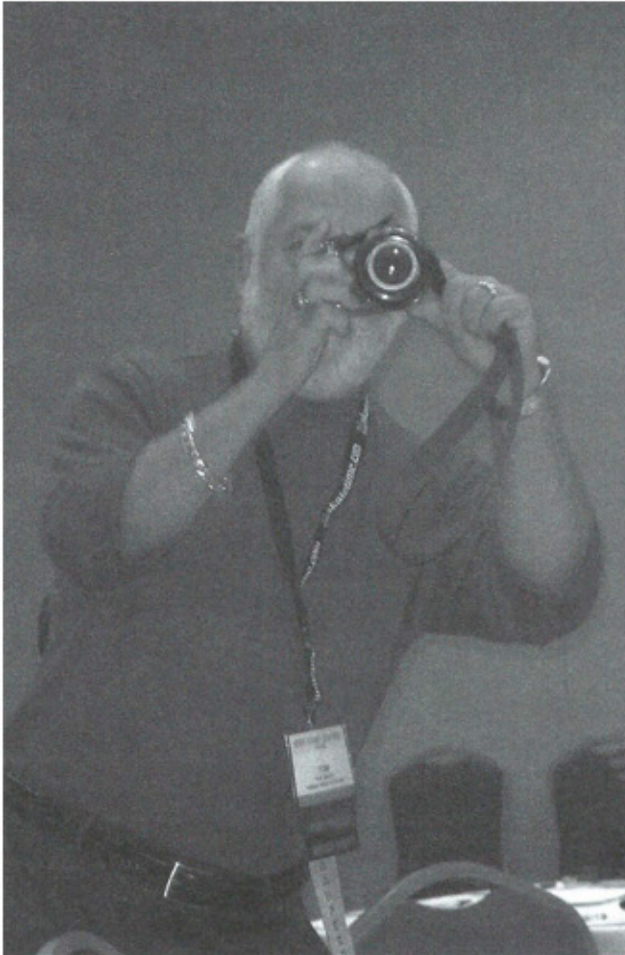
Let me know how I can help.

With gratitude,  
Mark Urtel, President – IAHPERD  
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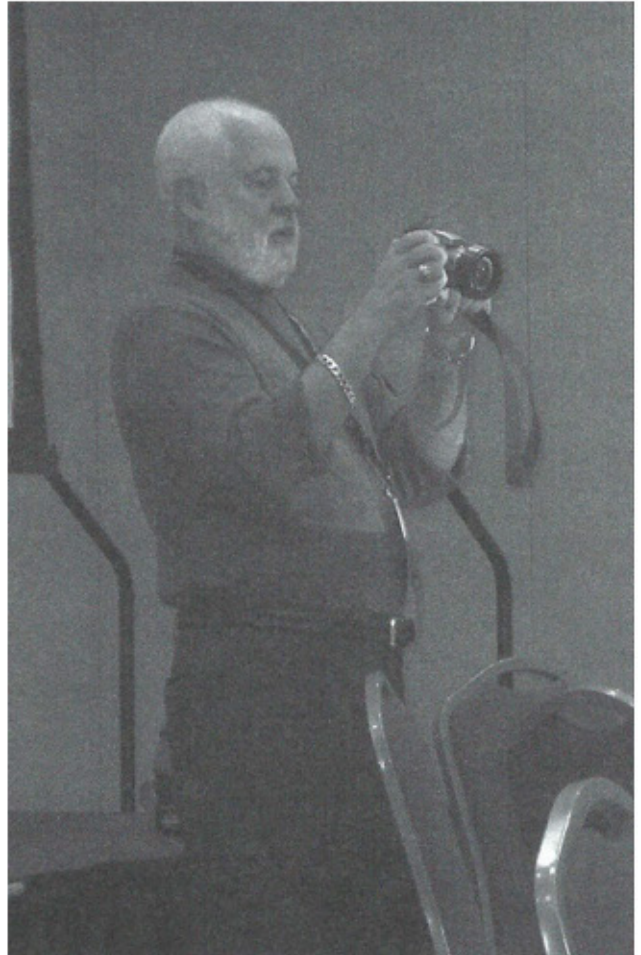
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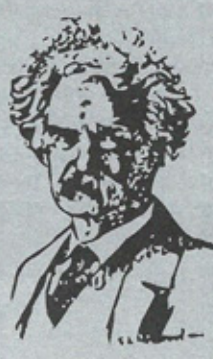
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*Taking Photos as Usual*



*Caught in the Act*



*The secret of getting ahead is getting started. The secret of getting started is breaking your complex overwhelming tasks into small manageable tasks, and then starting on the first one.*

— Mark Twain

**Error**  
Volume 38, Number 3, P. 31  
Mindy Mayol, a second author was accidentally left off the page. We are sorry Mindy!



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# Physical Therapists' Understanding of Physical Education

Alyssa Gutierrez  
Kathleen Stanton-Nichols  
Indiana University Purdue University Indianapolis

## Abstract

This project surveyed certified physical therapists in the state of Indiana regarding their understanding of physical education for students with disabilities. Physical education teachers can struggle to appropriately adapt activities for students with disabilities. There are a few reasons for this: the physical education teachers may not know how to incorporate students with disabilities into the games, the students with disabilities cannot perform the basic skills necessary to play in the game, or the students with disabilities are self-conscious about their game playing ability. The lack of appropriate instruction for students with disabilities lead the authors to wonder if the physical therapists of these students are keeping in contact with the physical education teachers so that together they can both prepare the students for success in their physical education classes. There has been little to no research based on this particular subject, but there have been some articles that are similar. The authors decided to survey physical therapists on their understanding of physical education, what they believe about physical education is beneficial or harmful for their students, and what about physical education for students with disabilities should be improved. The majority of the 114 responses stated an overall belief that physical education was beneficial to students with disabilities and the physical therapists should stay in contact with their clients' physical educators. Further research is needed to more fully understand the attitudes of physical therapists towards physical education and whether it impacts the quality of physical education received.

*Keywords:* Physical education, students with disabilities, physical therapists

## Review of Literature

Of the research projects conducted about the effects of physical activity on children with disabilities most, if not all, concluded that physical activity was beneficial to the general population, including children with disabilities. The majority of the articles found focused on teaching methods or techniques to improve physical activity skills for certain types of disabilities. An article by Plow, Matthew, Mathiowetz, Virgil, and Resnik (2008) states that regular physical activity may prevent comorbidities, improve quality of life, and help with the management of fatigue muscle atrophy, and joint contractures. An article by Jette (September 2003) showed that activity levels considerably decrease with age, especially after the age of twenty. Additional research by Longmuir, Patricia and Bar-Or (1994) suggested that students with disabilities have decreased motor skills abilities which can lead to decreased physical activity opportunities. While there is substantial literature to suggest the importance of physical activity/education for children with disabilities, little to no literature exists examining the role of related service providers such as physical therapists. Could it be that support of physical education by the physical therapists improves the quality of physical education service delivery? Therefore, the focus of this project was knowledge of physical education by physical therapist.

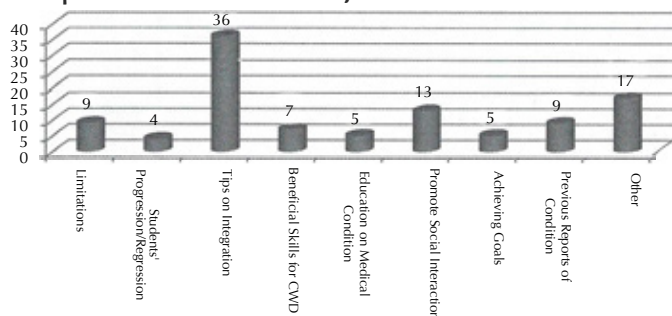
## Method

An internet pilot survey project was conducted in the spring of 2009 to assess Physical Therapists' attitudes towards Physical Education for students with disabilities. The purpose of this pilot survey was to address if there were any outstanding issues related to Physical Therapists' attitudes about Physical Education that could be further examined in a future research project. The Theory of Planned Behavior by Ajzen & Icek (2009) was used to design the survey questions. A 22 question survey was designed which included 10 demographic questions and 12 questions regarding Physical Therapists' attitudes toward Physical Education for their clients with disabilities. The survey was made using the internet survey creator Tiger Survey©. The survey was emailed to 12 participating Physical Therapists in the Indianapolis-Metropolitan area, and in the emails the recipients were encouraged to forward the survey onto their colleagues. Additionally the survey was posted on the American Physical Therapy Association© website. It is unknown how many people viewed the survey and opted not to take it, therefore, no return rate was calculated.

# Peer Reviewed: Physical Therapists' Understanding of PE

See you at the  
National  
Convention  
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### Topics to Discuss with Physical Education Teachers



### Results

Of the 114 surveys returned, the mean age of the Physical Therapists surveyed was 52 years old. The largest percentage of Physical Therapists treated clients in the pediatric age group. Most of the Therapists had been in practice for 30 or more years, with the majority of them earning a Baccalaureate's degree.

Of the 12 questions, results suggested that Physical Therapists had a positive attitude towards Physical Education for their clients with disabilities. For example, in question 16, when directly asked "Do you think Physical Education is beneficial to students with disabilities?", 98% responded yes. However, it is unclear what Physical Therapists find most beneficial for their clients with disabilities in Physical Education. For example, question 17 asked, "...what about Physical Education do you think is beneficial for students with disabilities?" Out of the 114 replies, no one response demonstrated an overwhelming answer. For example, their answers showed that 18% answered interaction with other students, while 17% answered instruction in physical fitness, etc. When asked about students who receive both Physical Education and Physical Therapy, 83% of the respondents stated that they felt their clients will improve motor skills if attending both simultaneously. In conclusion this survey was designed to see if Physical Therapists had a positive or questionable attitude toward Physical Education. Results of this survey clearly indicate a positive attitude, but it is unclear if that promotes a favorable relationship between Physical Therapists and Physical Educators.

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# Influential Factors on Athlete Doping: Using What We Know to Stop the Epidemic

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## Abstract

The practice of enhancing performance through foreign substances or other artificial means is as old as competitive sport itself. Fan reaction, the institution of new drug testing procedures and policies, and governmental intervention illustrate the public's disapproval of the use of performance enhancing drugs (PED's). Numerous studies have reported that an athlete's drug use in sport could be credited to a complex interaction of personal and environmental factors. The literature tells us we have a few options: 1) increase testing so that the perception of getting caught is greater, 2) remove the substantial rewards associated with a high level of success, 3) do just the opposite and instead decriminalize PED use in sport and/or 4) remove dirty coaches/programs from the sport for life. However, none of these positions alone would completely eliminate doping in sports. The purpose of this article is to jumpstart a crucial conversation among academics about the prevention of the growing trend of PED use in sport.

Key words: Competition, Doping, Fair Play, Steroids

## Introduction

With the recent media coverage bordering on obsession, one would think that doping in athletics is a new phenomenon. The reality, however, is that nothing could be further from the truth (Metzl, 2002). In the first modern Olympic Games the drugs of choice included cocaine, heroine, strychnine, and morphine, all of which likely had only negative effects on athletic performance (Noakes, 2004). This was the first, but not the last, time that athletes would risk their health for the mere possibility of getting an edge over the competition. Concerns about ethics and controversy over the safety of doping among top athletes first surfaced during the 1920's and 1930's at a time when sport became a part of popular culture (Hoberman, 2002). During the 2<sup>nd</sup> World War, amphetamine use among soldiers was prevalent and this later crept over into the realm of sport in the 1950's. In the beginning of drug use in sport, performance enhancing drugs (PED's) were segregated, for the most part, to just

cycling. Synthetic testosterone first made its appearance in sport after the 1948 Olympic Games (Bahrke & Yesalis, 2002). Erythropoietin, a hormone that regulates red blood cell volume, made its competitive debut in the 1980's. It is hard to say when athletes first started using human growth hormone (HGH) as there is still no fool-proof test available to drug testing entities.

The new performance enhancing method on the horizon in the not too distant future is gene doping, which will also be virtually undetectable and at this point, doctors aren't even sure about the side effects that gene doping would have on a healthy person (Unal & Unal, 2004). Every one of the aforementioned substances and methods have resulted, or more than likely will result, in sport punishment and sometimes fatal consequences for athletes, yet their use continues despite the likelihood of being caught. Performance enhancing drugs are viewed to threaten sports' veracity by removing any sense of fair play, while the illicit (mainly performance diminishing) drugs threaten sports' integrity by tarnishing its public image. The potential damaging effects on the athlete's health and the depth of corruption of fair play strongly advocate a determined campaign against doping. The purpose of this article is to jumpstart a crucial conversation among academics about the prevention of the growing trend of PED use in sport.

## An Institution in Crisis

Sport is acknowledged as "the most important and quite possibly the sole repository for myth in American society today" (Oriard, 1982, p. 212). The sustaining myth of the athlete as a moral hero has been broadly accepted and eagerly embraced; it has justified a colossal gamut of sporting activity. The sports idol myth transcends race, class, and gender. The idea that sport should set good examples for easily influenced children and provide them with an unswerving moral compass is commonly held, and is mirrored in the extensive list of personal and social benefits attributed to sport involvement (White, Duda & Keller, 1998). But, because success in sport is coupled with fame and financial rewards, the use of banned PED's to

gain a competitive edge is extremely tempting.

American sport is presently burdened to withstand the widespread use of steroids and how their use turns athletes as mythical heroes into cheaters (Hartman, 2008). Today, the prevalence of doping is estimated at 3% to 5% in children and adolescents participating in sports and at 5% to 15% in adults (Laure, 2000). The current steroid calamity in baseball has received a lot of attention because it is a direct frontal attack to the esteemed mythic storyline of sport as a moral and character building endeavor (Hartman, 2008). Currently, one cannot open a major newspaper without reading about growth hormone, anabolic steroids, or testosterone use by a well-known, "branded" athlete. On top of this myth of the athlete as a moral hero exists the myth of sport that espouses sport as a morality builder? However, the realities of sport at its most elite levels show that it's not much more than a bastion of egocentricity because in order for athletes to be successful at the highest levels of sport, a high level of self-absorption is needed (Goodman, 1993). A great body of research indicates that sport participation promotes moral bankruptcy and that the moral fabric of a person actually deteriorates the longer they participate in sport (Dunning & Waddington, 2003; Savulescu, Foddy & Clayton, 2004).

Public awareness of this institutional failure is growing. The American society's response to performance enhancing drug (PED) usage is a fairly recent phenomenon. In earlier periods, intermittent news reports would develop out of an obscure Olympic event halfway around the world with little known athletes and sports being reprimanded for steroid use, and the American public did not notice (Metzl & Herzig, 2007). Fan support for the establishment of new drug testing procedures and policies, and congressional involvement reinforced the public's disagreement with the use of PED's (Hartman, 2008). Many believe that sport doesn't actually foster a certain behavior set, but more provides a place for those whom already possess the skills necessary for success in sport (Hartman, 2008).

#### **International NGB's Ban PED's**

The IAAF (International Amateur Athletic Federation) and FINA (Fédération Internationale de Natation) were the first international sport governing bodies to enact drug testing programs in 1928 (WADA, 2009). WADA, the World Anti-Doping Agency, was only formed on November 10, 1999 to hopefully be in place in time for the 2000 Olympic Games which were to take place in Sydney, Australia. Plagued by continuous claims of drug use in international sport along with the Tour de France drug crisis of 1998, the IOC led the push for the establishment of an agency with the task of managing and enforcing global anti-doping policy (IOC, 2001). WADA was born in 1999 and has become a global force in the war on drugs-in-sport. WADA then developed the World Anti-Doping Code, a list of all prohibited substances and methods, to which all Olympic Sports must comply, year round, in order to retain their eligibility to compete in the Olympic Games. Although the efforts of WADA and other anti-doping authorities have obviously proven to be successful at catching drug cheats, we don't know how many are not being caught. It is often said now within athletic circles that being successful is about which athlete has the best chemist; the best drugs and the best drug regimen that results in no positive drug tests.

In order for all Olympic sports to comply with WADA code, which includes random, out of competition drug testing year round, all "elite" athletes whom are of a certain world

ranking in their sport must submit a whereabouts form that covers a 3-month time span, four times a year. Even with the threat of testing throughout the year hanging over the heads of athletes, the doping continues, possibly beyond the extent to which we are all aware. Obviously, not all realms of sport are required, nor feel compelled, to comply with WADA code. Athletes on many levels of sport are being subject to drug testing whether by the NCAA, their professional league or another entity, but not all of these organizations will have the same code that athletes are required to follow. So what exactly influences athletes to make the decision to take the risk of using a performance enhancing drug? And given these influences, is there anything more that WADA, or any other testing agency or governing body, could be doing to discourage PED use in sport? These are the questions that will be addressed in this review of literature.

#### **Review of Penalties**

The National Collegiate Athletic Association (NCAA) has made strides within its legislation to protect the health of intercollegiate athletes: drug tests condemn the misuse of harmful legal and illegal substance abuse, and educational program implementation gives both athletes and coaches the knowledge to prevent health-related problems. The NCAA banned steroid use among athletes in 1973, but did not begin a random testing program until 1986. In the beginning, this testing only occurred among Division I football players at bowl games and some NCAA championships. This policy was reformed in 1990 when the NCAA began random testing of Division I track and field athletes and football players in Division I-A, I-AA and Division II (Diacin, Parks & Allison, 2003).

In 2003 the NCAA started its first year round out of competition drug testing program for all their Division I institutions; in this context "all" means the 119 Division I schools with a football program. While the NCAA's intentions may be good, a policy that tests only 28 athletes from each of its 119 schools with a football team once a year is porous at best. This policy amounts to approximately 13,000 tests for 400,000 athletes (Judd, 2008). Unlike testing that is performed at NCAA Championships, this out of competition testing does not include testing for any stimulants other than ephedrine. The NCAA sanctions an athlete with the loss of one complete season for the first violation. Upon the second violation, the athlete loses all remaining seasons in all sports. If the athlete is of a high enough level to be tested by USADA or WADA and they fail a test, the NCAA enforces the ban of USADA/WADA (NCAA Drug-Testing Program, 2008).

An additional policy dealing with related performance enhancing supplements was adopted by the NCAA to protect the health of student-athletes. Metzl, Small, Levine & Gershel, (2001), reported that 28% of collegiate student-athletes and a similar number of 11<sup>th</sup> and 12<sup>th</sup> graders using creatine as an ergogenic aid. Because of the absence of long term studies determining the safety of creatine, the routine use by young athletes was questioned (Metzl et al., 2001). In 2001 the NCAA also restricted member institutions from providing athletes with supplements such as creatine and protein but did not ban the substances from use (NCAA, 2008).

The drug testing agency that oversees Olympic sports in the United States is USADA (United States Anti-Doping Agency). In order for the US Olympic sports teams to be able to participate in the Olympic Games, the IOC mandates strict adherence to the WADA (World Anti-Doping Agency) Code. The different national governing bodies (NGBs) for these sports



have different protocols they use for athletes being added to USADA's out of competition testing pool. Like the NCAA, USADA/WADA do not test for stimulants in out of competition tests, and in competition they do not test for cannabis or narcotics. Out of competition, USADA/WADA tests athletes for anabolic agents, hormones, beta-2 agonists, hormone antagonists, diuretics and other masking agents, as well as some prohibited methods (blood doping, gene doping, etc) (USADA Wallet Card, 2009).

New USADA out of competition testing protocol was enacted starting January 1, 2009 for athletes in the random testing pool (RTP) (USADA, 2009). Athletes subject to random out of competition drug testing are determined by the National Governing Body (NGB) of the sport and based on an athlete's world ranking. Athletes selected as part of the RTP must fill out quarterly whereabouts forms describing their daily schedule, location of their residence, work and training venues and submit them to USADA electronically. Athletes traveling outside of their local area must submit an addendum to the whereabouts form. Whereabouts obligations for athletes in the USADA RTP include: daily accessibility for testing during the 60 minute time slot chosen by the athlete at the precise location specified on the whereabouts filing for the entire 60 minute period; and at the regular locations set forth on the athlete's whereabouts filing at the times specified (USADA, 2009). If an athlete is not available for testing during the specified time period at the location specified on the whereabouts form they are subject to a missed test. Three missed tests during a specified period constitute a 2-year ban.

USADA sanctions under the WADA code range from 2 years to life, depending on the violation. As recently as January 1 of 2009, the code was updated to provide for a 4-year ban for the first offense under special circumstances in which there was shown to be a wide-spread doping scheme, sample tampering or etc. Before this revision the only way an athlete could receive a 4-year ban for the first offense was for trafficking or the administration of a banned substance or method; otherwise the ban for the first offense was/is 2 years. The second doping violation results in a lifetime ban. It should also be noted that the WADA code assigns an anti-doping rule violation to any athlete that misses 3 out of competition tests in an 18 month period. (WADA, 2009) Also, if an athlete is charged with a rule violation at the Olympic Games, they are then prohibited from competing at another Olympic Games for life.

### Criminal Decision Making and Deterrence Theory as a Method for Understand PED Use

Deterrence theory is a theory used to understand why people comply with the law (Strelan & Boeckmann, 2003). This compliance can be attributed to individuals making a conscious and careful cost-benefit assessment of the possible consequences of a certain behavior. A person will have a strong likelihood of committing a certain act if they have a positive attitude toward it, think it will be easy to perform, and believe that others would support them in their selected action. By using deterrence theory we can assume that if people think they will be caught doing illegal behavior and that the punishment will be severe enough, they will not commit the crime.

Personal morality plays a significant role in the inhibition of criminal acts. Social sanctions are an almost as effective deterrent to criminal activities. The least deterrent mechanism is legal sanctions. This suggests that personal morality and loss of social circle or social ridicule is a stronger deterrent to

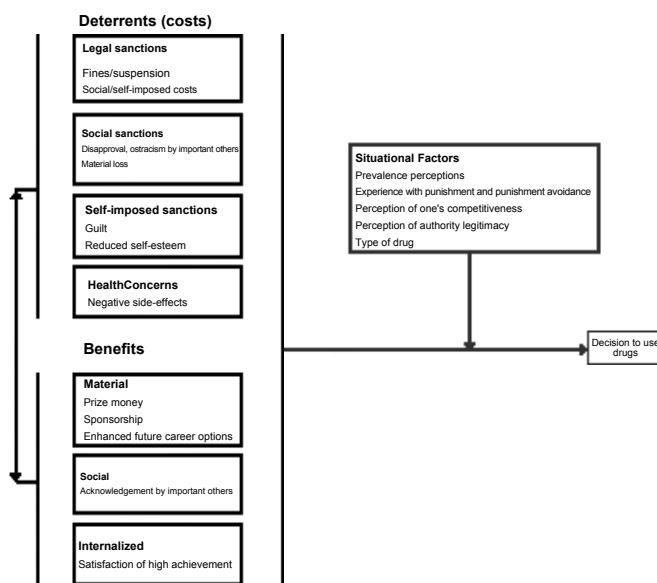
criminal acts than something like having to pay fines or jail time, which in this paper will be equated to suspensions. To relate further to the study of illegal drug use in sports, Strelan and Boeckmann (2003) added health concerns as a fourth element to the list.

The *Drugs in Sport Deterrence Model* (DSDM) by Strelan & Boeckmann, 2003, is based on deterrence theory in criminology. The psychological community has utilized the DSDM to enhance the understanding of the decision-making process that athletes use when deciding to use performance enhancing substances. The three main components of the DSDM are 1) the costs of the decision to use, 2) the benefits of using, and 3) the situational factors that could influence the cost-benefit analysis of the decision.

### Costs, Benefits and Situational Variables

As stated before, the possible sanctions of deviant actions in sports include social, legal, health and self-imposed. The possible benefits to drug use include material, social and internal. Since all people/athletes are motivated by different things, the methods to deter them from certain behaviors will vary. Situational variables have to do with the perceptions of the athlete at hand. Examples of the costs, benefits and situational variables of drug use can be seen in Figure 1 (Strelan & Boeckmann, 2003). While heavy sanctions and punishments may play a role in discouraging drug use in sport, these types of regulations are just some of many of factors that impact on an athletes' decision to use drugs (Mosher & Yanagisako, 1991).

Figure 1. The Drugs in Sports Deterrence Model (Strelan & Boeckmann, 2003)



Detection-based deterrence, where the risk of a positive test is meant to deter use (secondary prevention), is rapidly becoming obsolete with the danger of undetectable doping methods such as gene doping (Mazanov, 2006; Miah, 2004). Gene doping would add new genes or manipulate an athlete's own genes that control muscle growth and development of strength, for example. Another substance that may escape the drug testing policy is HGH; this substance is especially problematic because it is currently being used by athletes while gene doping is a looming trend. HGH detection is unreliable because of its natural occurrence in the body (Unal & Unal, 2004).

In lieu of a more deterring and rigid anti-doping policy, would our society actually entertain the idea of allowing PED use in sports (Savulecu, Foddy & Clayton, 2004)? The answer is probably not. But, on what basis could we actually justify allowing athletes to use drugs? The radical option is to legalize the use of PED's in tandem with the prerequisite of education and medical support for the management of this 'compromised choice'. However, this approach is complicated by evidence which suggests that a lack of vigilance in testing leads to more drug use (Vogel, 2004).

The alternative is to deter use by stopping it before it starts, or primary prevention; referred to by Mazanov, (2006) as prevention-based deterrence. Since modern-day doping is strongly connected to hormonal preparations, endocrinologists may play a fundamental role in supplying information, protecting athletes' health and, moreover, preserving the ethical value of sport (Duntas & Parisi, 2003). WADA has invested over \$7 million in research to develop gene-doping screening tests, but also supports an extensive education and outreach program to warn athletes and their coaches about the risks of using fledgling genetic technologies without medical supervision (WADA, 2009). Attitudes therefore become one mechanism towards explaining drug use behavior in sport. That is, it is the relationship between attitude and behavior that makes attitudes attractive to drugs in sport research.

### Using the DSDM and the Donovan et al. Model to Formulate Future Deterrence Policies

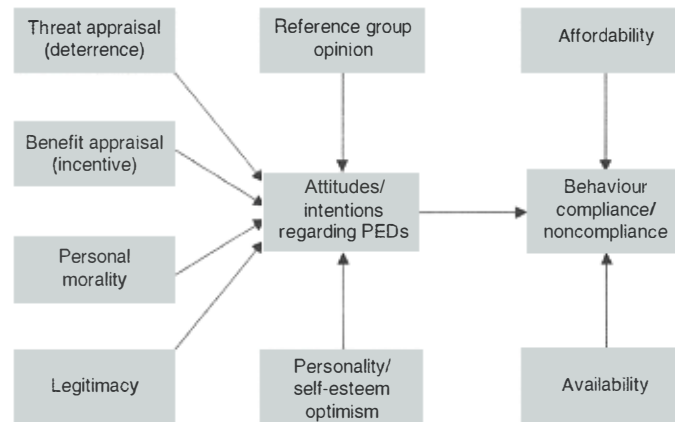
Using the DSDM, anti-doping organizations can try to learn which cost-benefit combinations have the highest deterrent effect of drug use among elite athletes. If the perceived benefits of PED use continue to outweigh the costs, it is highly likely that athletes will continue to use drugs to enhance performance. This model and the findings by Donovan et al., (2002), can be used to possibly predict individual behaviors. The Donovan model goes even further by possibly predicting drug use for various stages in an athlete's career or in specific competitive situations. Their model can also predict the propensity of drug use in specific sports and countries if they eliminate the personal dimensions from the model. Donovan et al., (2002), model gives us the DSDM as a theoretical framework from which more research on understanding the decisions that effect an athlete's decision to either use, or not use, PED's. The findings from these studies could help anti-doping agencies formulate the adequate mixture of "sanction threats" (Donovan, Egger, Kapernick & Mendoza, 2002) that would be the most likely to deter PED use among elite athletes.

### Model for Drug Compliance in Sport

Before the 2000 Sydney Olympic Games the Australian Sports Drug Agency (ASDA) commissioned a study to develop an anti-doping strategy following the amendment of the IOC's (International Olympic Committee) definition of doping in 1994. This model can be viewed in Figure 2. This model highlights six major spheres of influence in the attitudes and intentions of an athlete in regard to PED use. Currently most anti-doping protocols focus on threat appraisal, or the costs of being caught (Donovan et al., 2003). These costs include whatever sanctions anti-doping agencies might impose on an athlete that tests positive and the possible physical side effects associated with PED use. However, Donovan et al., (2002), delineate six separate enforcement variables which all have to do with the perceptions of the athletes in regard to drug testing frequency, efficacy and severity of sanctions for a positive test

or life-altering physical side effects. With so many variables effecting the enforcement of doping control, can current programs really have a deterrent effect? The possibility of ill-health in the future has little credibility in the eyes of athletes when some doctors publicly endorse PED's, along with the fact that doctors are often the ones administering the drugs to athletes (Donovan et al., 2003). Beyond these two factors, it is interesting to think about why winning today is more important to athletes than their health and quality of life in the future.

Figure 2. Australian Sports Drug Agency (ASDA) Sport Drug Control Model



In this model, punishments are only effective if the likelihood of getting caught and enduring the punishment are high, for this is how deterrence theory works. If it is the perception of the athletes that they will not get caught because of lack of testing, then increasing the seriousness of the punishments for a positive test will not be effective in deterring PED use among athletes. Programs that focus on the punishments related to non-compliance are labeled "fear appeals" or "scare tactics", depending on one's opinion of the programs (Donovan et al., 2003). Scare tactics and fear appeals have shown to be effective in helping to change the attitudes and behaviors of people, and the more fear employed, the more effective the behavior/attitude change. But as suggested previously, the glory associated with being at the top of one's sport is proving to be a more powerful incentive than the sanctions are at deterring PED use. But can we really make such blanket statements given that when there was no penalty for doping, nobody was being tested and therefore we were unaware of how polluted with PED use sport might be?

The consensus in the literature is that the main motivators for PED use are social and financial (Anshel & Russell, 1997; Donovan et al. 2003; English, 1987). Society, even outside the realm of sport, places a high value on those who are winners, and at the highest levels of professional sport this winning is directly correlated with financial reward. Along with the two previous extrinsic rewards as motivators, there is the intrinsic reward of being the best that one can be, maximizing one's abilities through PED use.

One's personal morality and perceptions of the legitimacy of bodies attempting to be moral barometers play a large role in whether athletes are anti-doping compliant or not. Generally speaking, people only obey laws that they believe are just. Outside of sport, John Doe is able to take Viagra, Cialis, and even HGH with a doctor's prescription. Perhaps, in the minds of athletes, if John Doe can enhance his sexual performance with drugs, if our social morality deems this behavior to be ok, then why can't an athlete take something to enhance their

performance on the playing field? After all, they are making a living through sport. This social contradiction, where sport is in a vacuum with its own morality, could possibly be the reason why some athletes are non-compliant to anti-doping policy. So the question is then, what causes some athletes to perceive the authority of anti-doping agencies as legitimate and others to disregard their policy? The perceived legitimacy of these organizations can be influenced by an athlete's experience with that organization. These experiences can be first hand or vicarious in nature.

A person's personal morality and the extent to which an athlete has taken ownership of the values of sport (fairness, cooperation, respect, etc) and the idea that winning is valued over participation has an effect on the propensity of an athlete to use PED's. Much of this personal morality and adherence to sporting values have to do with the way a person was brought up, thus it is hard to quantify these traits in athletes. It is believed that a person with a stronger personal morality and belief in the sporting values mentioned above is less likely to use PED's (Donovan et al., 2003). This personal morality however can be affected by whom athletes choose to associate themselves with. The desire to fit into the world of sport can sometimes be so powerful that an athlete will let "significant others" influence this morality (Coakley, 2007). These "significant others" refer to persons in the reference groups of athletes that include teammates, coaches and sporting heroes. There is the old adage of "do as I say, not as I do". Research has shown though that what a person actually does (descriptive norms) is much more powerful than what they say should be done (injunctive norms).

Finally, the personality of an athlete could have an effect on their PED use. Research by Seligman, (1991), noted differences in athletes whom were identified as either optimists or pessimists. Optimists tend to not internalize the factors related to a poor performance like pessimists do, thus optimists are less affected by past poor performances than pessimists. The pessimists cite reasons for poor performances that include a lack of power/skill. This sense of powerlessness is believed to possibly lead to PED use, despite the threats of doing so, because the athletes feel they have no recourse but to use PED's if they want to improve their performances. Personalities can also be identified as being inner or outer-directed. Those whom are outer-directed are more likely to be motivated by the social prestige and monetary rewards of having a winning record than inner-directed individuals who tend to be driven by their internalized values.

## Conclusion

Most sporting activities, especially at the elite level, require athletes to perform at the outer limit of their physical capacity and therefore demand risk-taking and pain tolerance. Barring a cultural shift that would change the societal view of athletes as moral heroes, the truth is we are not likely to stop this epidemic of PED use in sport unless multiple factors that contribute to their use are addressed. The literature tells us we have a few options: 1) increase testing so that the perception of getting caught is greater, 2) remove the substantial rewards associated with a high level of success, 3) decriminalize PED use in sport and/or 4) remove dirty coaches/programs from the sport for life. However, none of these positions alone would completely eliminate doping in sports as different things motivate people, and the temptations to use are born from many angles. Until we are ready to remove the substantial rewards (prize money, recognition/fame, etc), we can improve existing doping control programs by increasing the number of people being tested, increasing the legitimacy of the selection process by testing a variety of athletes in all sports and imposing sanctions of coaches/clubs that have a legacy of doping.

Given the extent to which the deck is stacked against drug testing, we cannot rightfully lift the ban against PED use as it would subvert the very essence of athletic excellence and achievement by which sport is measured (skill, strategy, effort, and mental toughness) and replace them with new criteria like pharmacological technology and socio-economic status (Dixon, 2008). Currently, there is a paucity of social science research on the issues of drugs in sport (Mazanov, 2006). Many gaps in the literature still exist; little data concerning the attitudes of specific athletes on the topic of PED use and testing is presently available (Diacin, Parks & Allison 2003). The issue merits further investigation of the attitudes of elite athletes to see how the incentives (money, fame, etc) associated with being successful at the elite level would likely change these attitudes. Deterrence starts with understanding the probable reason or reasons why athletes might decide to use a PED. Longitudinal research to investigate the attitudes of athletes toward PED use and drug testing over the period of their athletic career would be beneficial.

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# Measuring Self-Efficacy among Secondary School Health Education Teachers

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## Abstract

The purpose of this study was to pilot test the *Health Teaching Self-Efficacy Scale (HTSES)* with a group of secondary school health education teachers. In addition, comfort levels within the ten content areas of health education were assessed. Results indicate a high level of comfort within the measured content areas. Means of responses ranged from 4.40 (Environmental Health) to 5.00 (Alcohol, Tobacco, and other drugs), and self-efficacy scores ranged from 3.27 to 5.00 (based on a scale of 1-5). Additional research needs to examine health teaching self-efficacy with larger populations so that the needs of school health majors can be better understood.

## Measuring Self-Efficacy among Secondary School Health Education Teachers

### Introduction

Teachers' beliefs, attitudes, and priorities have become an important topic in the realm of education. The National Commission on Teaching and America's Future (2003) reports that one-third of new teachers leave the profession within three years and the number of teachers entering the field is disproportionately lower than those leaving/retiring. The complexity and challenges faced by classroom teachers is often difficult to quantify. However, it is generally influenced by motivation and self-efficacy, along with the instructors' level of comfort with classroom materials. The level of experience and training has a direct effect on the success/failure of these factors. As expected, teachers report feeling more comfortable teaching topics that were covered in a health class in which they were enrolled (Fahlman, Singleton, Kliber, 2002). These authors also state secondary school health education

teachers are expected to teach a variety of health topics to their students and often score higher on measures of perceived ability to teach health than their elementary school counterparts. In some cases, they receive little training in regard to the specific content areas of health education (Everett, Price, Telljohann, & Durgin, 1996).

It is theorized that those who maintain a high degree of comfort and confidence in their abilities to complete tasks perform those tasks more effectively. This concept of situation specific or task specific confidence has been referred to as self-efficacy (Bandura 1977, 1986). The construct suggests that a teacher's belief in his or her ability influences his or her ability to teach certain topics and the degree to which he or she perseveres in the face of challenges. Teachers' self-efficacy beliefs have been linked to their classroom behavior and practices (Ashton, Webb, & Doda, 1983) and to improved academic achievement (Goddard, Hoy, & Woolfolk-Hoy, 2000; Rosenholtz, 1999; Brophy & Good, 1984). Self-efficacy and student performance are viewed as bidirectional. Teachers feel more efficacious when their students do well and students do well when their teachers feel more efficacious (Rimm-Kaufmann & Sawyer, 2004; Ross, 1998).

Bandura also suggests that efficacy beliefs are most malleable early in learning (1986). Therefore, the first years of teaching could be critical in establishing/maintaining long-term self-efficacy. A study by Hoy and Spero (2005) found significant increases in efficacy during student teaching, followed by significant declines during the first year of teaching. These changes were related to the level of support received by the teachers. In addition to supporting these findings, work by Dussalt (2006) found significant positive correlations between teachers' personal teaching efficacy and

organizational citizenship. Efficacy may also be influenced by perceived organizational politics and identification with school (Chan, Lau, Nie, Lim, & Hogan, 2008). In addition, Hardre and Sullivan (2008) found efficacy to be a predictive factor in teacher motivation and motivating strategies and that preservice teachers perceived they were more capable of altering students knowledge than at modifying their beliefs about content (Edwards, Higley, Zeruth, & Murphy, 2007).

This study sought to measure the perceived level of self-efficacy among secondary (middle and high school) health education teachers with the *Health Teaching Self-Efficacy Scale (HTSES)*. The scale has been found to be valid, reliable, and unidimensional among school health teachers (Peterson & Gabaney, 2001; Kingery, Holcomb, Jibaja-Rusth, Pruitt, & Buckner, 1994). Peterson and Gabaney reference two other health teaching self-efficacy scales: one of which was topic specific and one which was less comprehensive than the *HTSES*. Additionally, a 5-point Likert-type scale was used to assess comfort levels with the ten health education content areas.

## Methods

### Subjects

All secondary health education teachers from a selected county school corporation were recruited via email to serve as subjects for the current study. Of the 32 eligible teachers, a total of 15 completed the survey instruments. Their responses were collected via an on-line survey created with Qualtrics software. Appropriate human subjects procedures were followed concerning voluntary participation, anonymity, and confidentiality.

### Instrument

The *Health Teaching Self-Efficacy Scale (HTSES)* developed by Kingery, Ballard, and Pruitt was used for the current study (1990). The *HTSES* was originally used with professional teachers at an in-service workshop. It was shown to have high internal consistency (.96) and test-retest reliability (.82). Initial use also revealed it to be unidimensional. However, a study by Peterson and Gabaney (2001) yielded five separate factors when the scale was used with elementary education student teachers. These sub-factors were direct instruction, indirect instruction, health instruction, health content and field trips. Their factor analysis found the reliability coefficients for the sub-factors ranged from .81 to .98 for the scale. Data from the current study was grouped using these sub-factors. This 35 item instrument utilized a 5-point Likert scale with 1 = "not sure at all I can do this" and 5 = "completely sure I can do this". The instrument has been shown to be valid and reliable with school health teachers (Kingery et al., 1994). Additionally, teachers were asked to indicate their level of comfort within the ten content areas of health education. Responses to these items ranged from 1 = "very uncomfortable" to 5 = "very comfortable".

### Analysis

Qualtrics software was used to collect data and determine the mean, variance and standard deviation for each of the 35 prompts. Item prompts were grouped into three major and two minor factors that resulted from work done by Peterson and Gabaney in 2001 (see Tables 1-4). A similar analysis was done with comfort level with the ten content areas of health education (see Table 5).

**Table 1: Descriptive Statistics for Factor 1 Items, n=15**

| Factor 1 (Direct Instruction)   | Mean (SD)   | Variance |
|---|-------------|----------|
| 2. Emphasize the amount of control students have over their own health.   | 4.64 (.92)  | .85      |
| 3. Use diagrams, overheads, and other visual symbols to convey health information.  | 4.36 (1.21) | 1.45     |
| 4. Use still photographs to evoke subjective responses.   | 4.90 (.72)  | .10      |
| 5. Use film/video to support or reinforce health concepts.  | 5.00 (.00)  | .00      |
| 6. Provide statistical data on health risks.  | 4.70 (.48)  | .23      |
| 7. Encourage self-responsibility for health.  | 4.70 (.48)  | .23      |
| 8. Invite guest speakers to present information on health topics.   | 4.20 (.79)  | .62      |
| 10. Tell realistic stories about the positive or negative consequences of certain health practices.                                   | 4.10 (.91)  | .99      |
| 14. Visit health services facilities.   | 3.27 (1.32) | 1.75     |
| 16. Provide opportunities for discussion on health topics.  | 4.40 (.97)  | .93      |
| 17. Provide each student with individualized feedback about his/her performance in attempting a health task.                          | 4.70 (.48)  | .23      |
| 18. Provide role playing opportunities about resisting peer pressure.   | 4.78 (.44)  | .19      |
| 20. Encourage students to repeat positive rather than negative phrases to themselves.   | 4.89 (.73)  | .11      |
| 21. Encourage students to be persistent in their attempts to practice healthy behaviors.  | 4.44 (.53)  | .28      |
| 23. Discuss ways to overcome barriers to changing their health practices.   | 4.10 (.88)  | .77      |
| 24. Assess the health behaviors of students using self-monitoring, self-reporting, or other techniques.                               | 3.70 (1.34) | 1.79     |
| 26. Have students set realistic goals to change health behaviors.   | 3.90 (1.45) | 2.10     |
| 27. Have students sign behavior change contracts.   | 4.80 (.42)  | .18      |
| 28. Suggest health goals which are long term, flexible, and reasonable.   | 4.50 (.53)  | .28      |
| 32. Provide rewards to each student who is successful in reaching a particular health goal.   | 4.50 (.53)  | .28      |
| 33. Encourage students to praise one another for their successes, and to avoid insulting or ridiculing those who are less successful. | 4.40 (.70)  | .49      |
| 34. Encourage students to choose partners who will encourage them to reach their health goals.  | 4.50 (.71)  | .50      |

**Table 2: Descriptive statistics for Factor 2 items. (n=15)**

| Factor 2 (Indirect Instruction)   | Mean (SD)   | Variance |
|---|-------------|----------|
| 9. Bring student health model (positive health role model) into the classroom.  | 4.90 (.32)  | .10      |
| 12. Provide health information using health fair exhibits.  | 4.60 (.97)  | .93      |
| 13. Provide information using bulletin boards.  | 3.89 (1.54) | 1.36     |
| 19. Provide role playing opportunities about problem solving.   | 4.70 (.48)  | .23      |
| 22. Have students identify barriers to changing their health practices.   | 4.70 (.48)  | .23      |
| 29. Allow students to become successful at one health task before urging them to attempt a harder health task.            | 3.80 (1.32) | 1.73     |
| 35. Encourage students to tell their family members about their health goals so family members can provide encouragement. | 4.00 (1.25) | 1.56     |

**Table 3: Descriptive statistics for Factor 3 items. (n=15)**

| Factor 3 (Health Instruction)  | Mean (SD)   | Variance |
|--|-------------|----------|
| 11. Prepare exhibits showing the effects of health behaviors.  | 4.00 (1.25) | 1.56     |
| 25. Assess the health status of students using weight scales, skinfold calipers, blood pressure cuffs, or other devices. | 4.60 (0.70) | .49      |
| 30. Chart each students' progress toward a health goal.  | 4.00 (1.15) | 1.33     |
| 31. Attribute the success or failure of students to their level of effort in attempting a specific health task.          | 4.10 (1.29) | 1.66     |

**Table 4: Descriptive statistics for Factor 4 and 5 items. (n=15)**

| Factors 4 and 5 (Health Content and Field Trips)   | Mean (SD)  | Variance |
|--|------------|----------|
| 1. Provide specific information about the actual risks or benefits of particular health related behaviors. | 4.36 (.92) | .85      |
| 15. Visit food/health product outlets.   | 5.00 (.00) | .00      |

**Table 5: Comfort Levels within the Ten Content Areas of Health Education. (n=15)**

| Ten Content Areas                     | Mean (SD)  | Variance |
|---------------------------------------|------------|----------|
| Consumer and Community Health         | 4.60 (.52) | .27      |
| Environmental Health                  | 4.40 (.84) | .71      |
| Family and Social Health              | 4.70 (.48) | .23      |
| Mental and Emotional Health           | 4.90 (.32) | .10      |
| Injury Prevention and Safety          | 4.80 (.42) | .18      |
| Nutrition                             | 4.89 (.33) | .11      |
| Personal Health and Physical Activity | 4.90 (.32) | .10      |
| Alcohol, Tobacco, and Other Drugs     | 5.00 (.00) | .00      |
| Communicable and Chronic Diseases     | 4.80 (.42) | .18      |
| Growth and Development                | 4.80 (.42) | .18      |

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## Results

### Sample Demographics

All participants were employed as health education teachers at the secondary school level at the time of participation. Fifteen of the 32 teachers asked to participate completed the survey. An additional group of teachers began the survey, but did not finish. Of those completing the survey, three (20%) were males. Only data from fully completed surveys were included in the analysis.

### Means and Standard Deviations

Means, standard deviations, and variances were calculated for each of the survey items. Health teaching self-efficacy was highest for "use film/video to support or reinforce health topics" (mean = 5.00), and "visit food/health product outlets" (mean = 5.00). Health teaching self-efficacy was lowest for "visit health services facilities" (mean = 3.27). Teachers indicated they were most comfortable with the "Alcohol, Tobacco, and other Drugs" content area (mean = 5.00).

### Discussion

The purpose of this study was to pilot test the Health Teaching Self-Efficacy Scale with a group of secondary school health education teachers. Comfort levels within the ten content areas of health education were also assessed.

The current investigation found no patterns in self-efficacy levels in relation to the five factors mentioned previously. This investigation did yield some discrepancies in reported self-efficacy levels in relation to specific items when compared to work done by Peterson and Gabaney (2001). However, the results of this investigation were comparable to the work done in 2001. In addition, comfort levels with the ten content areas were lowest for consumer and community health (mean = 4.60) and environmental health (mean = 4.40). This data suggest more attention should be given to educating school health students in these content areas. It would also be suggested that future research efforts expand the ten content areas portion to include various components of each content area. In other words, a more full description of the topics each of the ten content areas address could be included.

Confirming suggestions from previous studies, additional research is needed to determine the variables that are specific to teaching health at the secondary school level. Some items with this instrument may need revision, other instruments may need to be added, and qualitative research efforts may need to be conducted. Suggestions include adding a descriptive that would detail topics covered within each content area and possibly incorporating the 14 areas of health as reported by Fahlman, Singleton, and Kliber (2002).

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# Using Graduate Students to Assess the Coherency of a Pete Program

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Coherency is a common attribute of high quality teacher education programs (e.g., Darling-Hammond, 2006; Howey & Zimpher, 1989; Zeichner & Conklin, 2005), including those in physical education teacher education (PETE; Graber, 1996). Coherence is defined as “sticking together” or “logical consistency” (Webster’s dictionary, 1992, p. 196). In teacher education programs, coherency is consistency among program goals, curricular design and sequence, and faculty beliefs and actions. Since high coherence seems important to PETE program quality, teacher educators should assess their program’s coherency level and strive to enhance it if low. But what does one look for to determine coherence level? How does one actually assess those elements? In their study of six distinctive teacher education programs, Howey and Zimpher (1989) developed 14 common program attributes they believe contribute to and indicate program coherence (see Table 1). Mitchell (2000b) developed a way to assess PETE program coherence by supplementing the 14 indicators with suggestions regarding: (a) desired evidence that suggests the presence or absence of each indicator; (b) data sources or means of collecting data to support the presence or absence of evidence; and (c) benchmarks to determine the program’s coherency level for each indicator (see Table 2 for an example of one indicator and the associated evidence, data sources, and benchmarks suggested by Mitchell for that indicator).

**Table 1. Indicators of teacher education program coherency (Howey & Zimpher, 1989).**

- 1) Clear conceptions of schooling/teaching
- 2) Faculty coalesce around experimental programs, planned variations, and programs with distinctive qualities and specific symbolic titles
- 3) Sense of reasonableness and clarity associated with the program’s major goals
- 4) Program is rigorous and academically challenging; students have to work hard to achieve
- 5) Themes run throughout the curriculum; key concepts are tied together in a variety of courses, practicum, and school experiences
- 6) Appropriate balance and relationship between general knowledge, pedagogical knowledge, and experience designed to promote pedagogical development
- 7) Student cohort groups exist
- 8) Cohorts encounter a milestone or shared ordeal

- 9) Organizational and structural features of the program enable an interdisciplinary or integrative approach to curriculum
- 10) Adequate “life space” is found within the curriculum
- 11) Adequate curriculum materials, instructional resources, and technologies, and a well-conceived laboratory component in the program
- 12) Numerous curriculum articulations between the activities which occur on campus and activities which occur in school
- 13) Some direct linkage with research and development in teacher education, as well as the content that informs teacher education
- 14) A plan for systematic program evaluation exists

**Table 2. An example indicator and suggested evidence, data sources, and benchmarks. (Mitchell, 2000b, p. 122)**

**Indicator #7 – Student cohort groups exist**

**Evidence**

- 1) Groups of students should be identifiable in major courses across quarters, semester, and years.
- 2) Faculty should be able to describe selected major courses as a “junior course”, a “senior course”, etc.
- 3) Students should be able to identify other students with whom they have shared experiences as they have progressed together through the program.

**Data Sources**

- 1) Collect rosters for major courses in the PETE program for 3 or more semesters/quarters. Determine the extent to which the same names appear on courses sequenced across time.
- 2) In interviews with faculty, ask: At what point in the curriculum would students typically take [insert the name of a major course here]? Repeat this question several times until several different faculty members confirm courses and levels.
- 3) In interviews with students, ask: Are there other students with whom you typically take courses within the PETE program? If so, name some of those students and the courses.

**Benchmarks**

- 1) *High:* It is possible to identify groups of students that appear to form cohorts across three or more semesters/quarters within the program.  
*Low:* It is not possible to identify more than the occasional consistent groups of students across semesters/quarters within the program.

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- 2) *High*: The majority of faculty are able to identify the typical placement of majors courses within the program.  
*Low*: Few faculty demonstrate consistency in describing the timing of more than 1 or 2 major courses within the program.
- 3) *High*: Students are aware of other students who form their cohort within the program.  
*Low*: Students are not aware of more than 1 or 2 other students who are moving through the program at a comparable pace to themselves.

So who performs an assessment of a program's coherency? A program's own faculty are likely to be biased about their own coherency, so they should not do the assessment. One could ask teacher educators from other programs to perform the assessment, as Mitchell (2000a) did for the faculty at Georgia State University. But a thorough coherency assessment is time- and labor-intensive, so it is unlikely that any teacher educators from other institutions would be willing to do that. But one set of individuals who might be utilized are department graduate students; students could benefit from the experience of collecting and analyzing data, while concurrently providing valuable information to a PETE program. In this paper, we will describe how Purdue University graduate students (GSs) conducted a coherency analysis of our PETE program. After describing the GSs, we will present the following: (a) the data collection and analysis processes; (b) selected results of the coherency analysis, along with suggestions for improving our program (to illustrate the helpful information derived from a coherency assessment); (c) the GSs' perceptions of conducting the analysis; and (d) lessons learned about using graduate students to assess program coherency. We believe our work can be used as an example for how other PETE programs with GSs can assess their coherency level.

### The Graduate Students

Twelve graduate students in a Research in Physical Education course that the first author was teaching were the researchers. The coherency analysis project was the major assignment for the course; the assignment's purpose in the course was to help the GSs understand and gain an appreciation for physical education research, including in PETE. The GSs were 9 masters and 3 doctoral students from a variety of specialty areas: physical education, athletic training, sport coaching, and strength and conditioning coaching. The doctoral students and 3 masters students were at the start of their academic programs, while the remaining 6 masters students were nearing the end of their programs. Only 3 of the GSs were moderately familiar with physical education in the United States or with this PETE program (beyond the role of school-aged pupils), and only 1 of those had taught physical education in the schools. Nine of the 12 were taking their first research methods course concurrently with this course.

### The Data Collection and Coherency Analysis Process

The course met one evening for 2.5 hours each night for 16 weeks. During the first 10 class periods, topics related to research in physical education were read and discussed (i.e., curriculum models, instructional effectiveness, PETE programs, teacher knowledge construction). The GSs received information about conducting the coherency analysis project in the 8<sup>th</sup> week, after which they began working on their assigned duties.

Following Mitchell's guidelines (2000b), the primary data sources were semi-structured interviews, documents, and

observations. The course instructor (the first author) created 12 different data collection duties, attempting to create duties with equivalent work loads. The GSs chose their duty from the following:

- Conduct, audiotape, and transcribe an interview with 1 of 5 PETE faculty (5 GSs);
- Conduct, audiotape, and transcribe interviews with 6 current PETE students (2 GSs for a total of 12 current students);
- Conduct, audiotape, and transcribe interviews with 3 non-PETE faculty in the department, and 4 cooperating teachers (CTs) (1 GS);
- Conduct, audiotape, and transcribe interviews with 4 former PETE students of the program (1 GS);
- Collect all of the documents (course syllabi; assignments completed by students – lesson plans, unit plans videotaped lessons, assessments, curriculum plans, reflection tasks; suggested plan of study; program catalog; student teacher handbook; NASPE beginning teacher standards, printouts from department website; 1 GS);
- Conduct all of the key course observations (in 3 methods courses, a fitness course, seminar course, and student teaching; 1 GS);
- Oversee all data collection (e.g., ensure timely data collection; organize and make copies of all interview transcripts, observation field notes, and documents collected; assist other researchers in contacting participants to set up and conduct interviews if the assigned researcher and the participant cannot agree on a day/time; etc.; 1 GS).

The course instructor developed the interview guides for all of the interviews, based on procedures outlined by Mitchell (2000b). During the 8<sup>th</sup> class period, interviewing and transcribing procedures were reviewed with the GSs conducting interviews; the need to ask all questions on the interview guide and to probe responses with follow-up questions were emphasized. Examples of probes and when to probe were given. The course instructor also worked with the GS performing the observations (2 observations per course), emphasizing the need to record aspects related to the 14 indicators of cohesiveness.

Once all data were collected, the GSs were divided into 3 groups of 4 GSs per group, with each group containing 1 of the 3 GSs deemed to have some knowledge about physical education or this PETE program. Each group was assigned 4-5 indicators to assess. Each GS first independently determined the coherency level on each benchmark for each indicator assigned to his/her group, using all data sources relevant to that benchmark. Since we collected data on more participants than suggested in Mitchell's (2000b) protocol, the GSs decided upon the following guidelines for determining coherency on benchmarks: High = 4-5 PETE faculty, > 10 current and former students, 3 non-PETE faculty, and 3-4 CTs; Medium = 3 PETE faculty, 6-9 current and former students, 2 non-PETE faculty, and 2 CTs; and Low = anything less than the numbers for medium coherency. Data from documents and observations provided support for or negative cases for relevant benchmarks. Then the GSs met with their other group members to reveal their decisions about each benchmark, sharing the evidence on which their decisions were made. When group members disagreed about coherency level on a benchmark, they discussed the evidence until agreement was reached. Each group wrote up their decisions and evidence supporting those

decisions on the level of coherency on each indicator, and reported their results in the final class period for the course.

Two data sources – course evaluations and an e-mail survey – were used to obtain the GSs' perspectives on conducting the coherency project. During the last week of the course, all GSs were invited to complete a course evaluation, which included a space for open-ended comments about the instructor or course. GSs were asked to comment specifically on the coherency analysis project. An e-mail survey was sent to all of the GSs following the final class meeting, which asked them to respond to the following items: (1) what (if anything) did you learn about conducting research from this project? (2) what were some positive aspects/strengths of doing this research project? (3) how could the process of having GSs assess a PETE program's coherency be improved?

### **Selected Results of our Program's Coherency**

Of the 14 indicators, our program was determined to have low coherency on 2 indicators, medium coherency on 8 indicators, and high coherency on 4 indicators. In order to illustrate the helpful information derived from this assessment, we will briefly describe findings related to the 2 low, 3 of the medium, and the 4 high coherency indicators, along with suggested means for enhancing coherency on low or medium indicators.

*Low coherency indicators.* There was little evidence that the PETE program was rigorous and academically challenging (Indicator #4). The policies for continuation in and graduation from the program were only at the institutional minimum level, grading guidelines in syllabi varied in specificity, most grades awarded in methods courses were A's and B's, and current and former students described the heavy workload but not the content as challenging. Clearly, PETE faculty should enhance the program's academic challenge. Specifically, more discriminating grading policies could be employed; we need to define the most important goals within each course, and then weigh those elements more heavily in grading. Students should not be able to offset poor performance in vital areas with higher performance in less important or challenging elements. We could also require more in-depth reflection about assignments such as lesson planning and lessons taught in schools.

Similarly, there was little evidence themes were consistent throughout the program (Indicator #5). Although syllabi and field observations indicated several concepts were emphasized across courses, the PETE faculty did not consistently identify these concepts. While most students could name concepts revisited at least twice over the program, there was little agreement among each other or with PETE faculty as to these concepts. Likewise, concepts named by CTs were not consistent with those named by faculty. Few data sources suggested concepts were treated differently in different parts of the program. The low coherency on this indicator is clearly related to the medium coherency found for Indicator #3; while 3 PETE faculty named the beginning physical education teacher standards as the program goals, they could not consistently name more specific goals from those standards. Our PETE faculty should establish main concepts to emphasize in the program (e.g., assessment, reflection, planning, inclusion), and focus on those concepts within each course under their control. Students and CTs should find it easy to state, with consistency, a program's focus.

*Medium coherency indicators.* About half of the students could identify a milestone experience or shared ordeal (Indicator #8), and with the exception of heavy workload,

the milestone named varied among the students. Half of the students cited the high number of teaching experiences as a unique and positive aspect of this program, and syllabi confirmed these numerous practicum experiences. Students may not see those teaching experiences as milestones since the experiences are spread out over the course of their 4-year program, and the level of performance in those experiences seems to be minimal (according to high levels of A's and B's earned by students in those courses; see results for Indicator #4). Our attempts to enhance our program's rigor, especially regarding grade discrimination in methods courses, might help students perceive the methods courses as program milestones.

While numerous opportunities for applying concepts learned on campus to teaching experiences (Indicator #12) were found in syllabi and named by students, there was only moderate agreement among PETE faculty, CTs, and students regarding what knowledge students should enter practicum experiences with or what students should or did learn in schools. The most common topic mentioned was discipline. Interestingly, several PETE faculty but no CTs or students said CTs should help students with planning. We (PETE faculty) need to decide how CTs should help students teaching in their schools, and clearly convey that information to the CTs, whether in the CT handbook or in one-on-one discussions.

Some connections between research on teaching in physical education and PETE with the conduct of the program were found (Indicator #13), but this indicator's coherency could be increased in several ways. The two PETE faculty who actually engage in research could explain specific studies to other faculty to help them understand how research contributes to their course content, so that all faculty can describe such connections to students. Doing so should increase students' knowledge of researchers in physical education. We could also invite students to participate in research projects, either as subjects or as data collection assistants; in the latter case, the project's purpose and later the results should be clearly explained to students, so they understand what can be learned from the study.

*High coherency indicators.* The PETE faculty strongly identified themselves as the "PETE faculty", had a strong sense of program ownership, and believed they were making progress toward improving the program (Indicator #2). The findings indicated student cohort groups were clearly identifiable by faculty and students and on course rosters, although some faculty had trouble indicating during which semester and year specific courses were taken (Indicator #7). Current and former students were clearly enthusiastic about curriculum materials, instructional resources, and technology available to them, as well as the program's numerous teaching experiences (Indicator #11). Most PETE faculty could identify elements of a plan for systematic assessment of the program, as well as specific revisions that had been made due to program assessments (Indicator #14).

### **Graduate Student Perceptions of the Coherency Analysis Project**

Five GSs included written comments about the project on their course evaluations, while 8 responded to the e-mail survey. On course evaluations, 2 GSs indicated the project was "too much busy work", "not very beneficial", and the projects "should have been done as an additional project for interested students outside of class time". Comments from all other GSs were positive and suggested they learned a variety of aspects about qualitative research: amount of work, detail, and time

it takes; difficulties transcribing and conducting interviews; difficulties analyzing several data sources; importance of collaboration in this type of project; and how multiple data sources can be used in research. Besides learning about qualitative research, other benefits named by the GSs were learning more about teacher education in general and collaborating with others.

The main suggestion for improving the coherency analysis project was to spend more time going over the entire process with the GSs. The process of reading multiple interviews and reviewing documents and field notes from observations led the GSs to realize that some interviewers asked different questions and used different probes than other interviewers, and some interviewers did not understand the questions they were asking the participants. So some GSs suggested that more time be spent: reviewing interview questions, so interviewers understand questions; teaching interviewers to ask consistent probes; and reviewing each data source and what it can reveal. Other ideas for changing the research process emerged: starting the project sooner to have more time to collect and analyze data; have more GSs collecting data; have fewer GSs conducting interviews (to keep interviews consistent); and have only GSs familiar with physical education conduct interviews. One GS also suggested more be done to improve faculty response to and cooperation with GSs collecting data.

### Lessons Learned

Using GSs to assess program coherency was primarily successful, and most GS that replied to the course evaluations and e-mail survey believed they learned something in the process. Such lessons cannot be learned by reading about research or the research process. Yet, the process was not without problems, some of which might be attributed to the use of non-PETE GSs as researchers. The GSs did not start on this project until the 8<sup>th</sup> week of the semester, so that all GSs could get familiar with teaching physical education prior to investigating a PETE program. But that delay decreased the time available to the GSs to collect and analyze data. One possible change to make is to have only GSs specializing in physical education do the coherency analysis as their course project. Then the project could be started earlier in the semester, because they would already be familiar with physical education, which would give them more time to gather and analyze data. Because this class included only 3 such GSs, the data they gather and analyze could be limited to the two primary data sources (interviews with PETE faculty and current students); the remaining data could be collected and analyzed as an independent research project by interested GSs. The non-PETE students in this course could have a different project assignment, more fitting to their educational focus or interests.

More time needed to be spent on reviewing the research process. This was especially important since some GSs were new to conducting research. Starting the project earlier in the semester would provide more time for: explaining the purpose of data sources and interview questions; giving information about and practicing interviews; and assisting with data analysis. Another way to clarify the interview questions for the GSs would be to revise and simplify those questions. The interview scripts were prepared verbatim from questions included in Mitchell's (2000b) protocol; in some cases, the questions need to be modified to be more easily understood. For instance, for Indicator #5 (themes run throughout the program), Mitchell suggests, as one data source, CTs be asked "...what kinds of knowledge and skills they find their student

teachers have mastered" (p. 120). Another way to ask that might be: "What do the student teachers already know or what can they do well at the start of student teaching, before you help them?" That simple change might clarify, for GSs and CTs, what are relevant responses.

Analyzing a PETE's program coherency could be conducted in ways other than by a cadre of GSs as a course project. As suggested above, it could be an independent project done by a masters or doctoral student. Another possible avenue at Purdue is as a masters' final project, which is completed by masters students in pedagogy and administration who opt to take the project route to graduation rather than the thesis; analyzing PETE program coherency would be an excellent such project.

### Starting the Process of Improvement

Knowing the coherency of our PETE program on various indicators has provided us with valuable information about our program strengths and weaknesses. Without such information, it would be hard for us (or any other PETE program) to get started on program improvements in an informed manner. To start the process of program improvement, we have started to meet as a PETE faculty group at least once each month. Prior to this time, we did not have regular meetings. It is unlikely that coherency could increase without such meetings; electronic messages about proposed program changes and issues can (and have been) easily ignored or misunderstood. In such meetings, we have started to discuss: the vision and primary emphases of our program; strategies for enhancing elements of lower coherency (e.g., how to improve program rigor); and program issues that regularly arise.

### Conclusions

In 2-3 years, the Purdue University PETE faculty plan to again have one or more GSs again use Mitchell's (2000b) protocol, with some of the adjustments described above, to study our program's coherency. This should let us know if our efforts at improving coherency have paid off. Any PETE program could take Mitchell's protocol and, with adjustments for their program, have GSs examine their program's coherency level. As shown in our efforts, it can benefit both GSs and the program.

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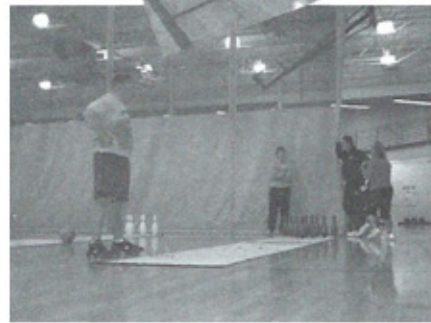
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# Benefits, Barriers and Overall Impact of Attending/Presenting at an IAHPERD Conference for Undergraduate Physical Education Majors

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## Biography-Jane Davis-Brezette

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## Abstract

The purpose of this study is to provide information to a Board of Directors of a state association to aid in planning conferences to meet the needs and interests of undergraduate physical education majors. The objectives of this study were to:

Identify the primary reason(s) majors attended and presented in a 2008 Indiana Association for Health, Physical Education, Recreation and Dance (IAHPERD) Conference.

Identify specific institutional factors which influenced major's decision to attend and present.

Identify the benefits, barriers and overall impact of the conference experience as perceived by majors.

Provide information to conference planners, faculty and universities to assist in designing experiences that motivate undergraduate student participation in similar initiatives.

Participants were sixty-one (N=61) undergraduate physical education majors from five Midwest universities. Majors responded to pre- and post-conference surveys about their motives for attending and presenting at a state conference, the role faculty and their respective university played in their decision to attend, and the benefits, barriers and overall impact of the conference experience.

This paper is the second of two reports and provides results related to benefits, barriers and overall impact of the conference experience as perceived by undergraduate physical education majors.

## Introduction

Results from the IAHPERD Pre-Conference Survey, Undergraduate Physical Education Major's Motives for Attending/Presenting at an IAHPERD Conference,

suggest that undergraduate majors attended and presented at a 2008 IAHPERD Conference because they aspire to be well prepared for their future career, are interested in expanding their knowledge and skills in their discipline and are willing to step out of their comfort zone, invest the time and money necessary to be well prepared. Major's decisions to be professionally active are influenced by faculty and the professional development initiatives they experience at their university.

## Literature Review

As documented in the first report, *Undergraduate Major's Motives for Attending and Presenting at an IAHPERD Conference*, the results of this study affirm the benefits of attending conferences cited by Jurkowski, Antrium and Robins (2005), "Besides learning gains, presentation make contributions to students resume and provide students with the opportunity represent their university and involve students in activities they can continue through their career." (p. 201) The results also affirm benefits to students cited on the Indiana Student Education Association website (ISEA, 2009), "Networking and sharing ideas with other pre-professionals, developing leadership skills, and staying current and up to date in their discipline." (p. 1) For a more complete review of the literature see the first report. The review of literature for this study failed to provide insight from the personal experience of the undergraduate student. Studies outlined benefits, do' and don'ts and procedures, but failed to provide feedback from undergraduate majors about their experiences and the value of that experiences.

## Methodology

Sixty-one (N=61) undergraduate physical education majors participated in this study. Majors came from five Midwest universities. One university was public, large with an enrollment of approximately 39,000 students. Two were public, medium size with an enrollment of approximately 10,000 and two were private, small with an enrollment of 1,000-2,800 students. Of the 61 majors, 10% were Freshmen, 13% were Sophmores, 16% were Juniors and 61% were Seniors. Forty-six percent of the participants were female and 54% were male. Participants ranged in ages from 18 and under (5%), ages 19-20 (21%), ages 21-22 (32%), ages 23-24 (11%) and 25 and over (2%).

## Procedures

Faculty from the five universities were asked to identify majors who planned to attend the 2008 IAHPERD Conference. Majors completed IAHPERD Pre- and Post-Conference Surveys. A total of sixty-one (N=61) majors completed both surveys used for this study.

## Instrumentation

The IAHPERD Conference Surveys were developed by the researcher. Questions for the surveys were developed from studies relative to benefits (Jurkowski, Antrim and Robins, 2005), motives (Kamla, Bennett, Marcum, 2008) and barriers (Brodey, 2008) were used to enhance consistency and reliability. The IAHPERD Post-Conference Survey consisted of 32 items broken into three categories: benefits and barriers of attending a state conference and benefits of presenting at a state conference. There was one open-ended question about the overall impact of the conference experience. Using a Likert scale of Strongly Disagree = 1 to Strongly Agree = 5, majors were asked to indicate their level of agreement with statements addressing benefits and barriers of attending a state conference and the benefits of presenting at a state conference.

A panel of experts, all of whom have written on this topic, examined the survey for content validity, biased items, and terms before being piloted. The pilot student consisted of majors not attending the conference completing the post-conference instrument for readability, face validity and time needed to complete the instrument.

## Data Analysis Procedures

Frequencies, means and standard deviations were calculated for quantitative data. A three step analytic procedure was used to analyze the qualitative data derived from the open ended question. The researcher used a categorical strategy of analysis to break comments into content areas and identified similarities and difference among data, coding and sorting into appropriate categories. (Ross & Rallis, 2003) The research used phrases and words rather than sentences as the unit of analysis. A single versus multiple classification system was assigned to each category. (Weber, 1990) Once all comments were categorized, "themes" were provided a name to capture the meaning of the major's comments.

## IAHPERD Post-Conference Survey Results

Using the Likert scale of Strongly Disagree = 1 to Strongly Agree = 5, majors (N=61) responded to eleven questions about the benefits of attending a state conference. Frequencies, means and standard deviations are reported in Table 1. Results suggest that majors feel the more students are exposed to conference type activities, the more they will stay professionally involved in a state association (4.16). Majors who attended the 2008 IAHPERD conference enjoyed their experience (4.16), felt that attending the conference was worthwhile (4.15), and had a greater appreciation about what it means to be professional involved (4.11). Majors felt sessions were relevant for undergraduate students (3.67), relevant to their studies (3.84), and relevant to their career as a teacher (3.97). Majors did not meet students from other institutions with whom they would maintain contact (2.48) but felt they would increase their involvement in leadership type initiatives (3.7).

Majors who attended sessions at the 2008 IAHPERD Conference responded to five questions about the barriers they encountered. Frequencies, means and standard deviations are reported in Table 2. Results suggest faculty (1.64) and

employers (2.10) were supportive of majors missing class and work to attend a state conference. Majors were confident money used to attend the conference was well spent (2.54) and felt the sessions and activities were worthwhile (2.03).

Majors (N=23) who presented a session at the conference alone, with peers and faculty, responded to six questions about their experience. Frequencies, means and standard deviations are reported in Table 3. Majors found the experience more beneficial than imagined (4.57), felt the experience gave them confidence to speak to an audience of professional (4.52) and would present at another conference if given the opportunity (4.61). Some majors experienced anxiety (3.61) but most enjoyed the experience (4.48).

Majors responded to an open-ended question about the overall impact of their conference experience. Six themes were identified using the categorical strategy of analysis. Themes, number of responses and sample comments are reported in Table 4. Overwhelmingly individual sessions had the greatest impact on major's conference experience. Preparing for the future, presenting sessions, enjoyment, networking, and professionalism were additional themes which surfaced in response to the open ended question.

## Discussion and Implications

Sixty-one undergraduate physical education majors attended the 2008 IAHPERD Conference. Over 50% of those who attended felt all majors should have a similar experience. Twenty-three majors presented or co-presented with peers and faculty. Sixty-five percent reported they would present again if given the opportunity.

Results from the open-ended question, "What part of attending the IAHPERD conference had the biggest impact on you? Why?" suggest physical education majors are eager to learn new activities they can use in their future career so much so, they referenced many sessions by name. Majors are concerned about their future and are willing spend money and use personal time to attend events they believe will expand their knowledge of their discipline and help prepare them for their future. The conference experience and attending sessions with other professionals raised major's level of awareness about what it means to be a professional and professionally involved and felt the experience will increase their level of participation in initiatives that help develop leadership skills. Even though majors who presented were anxious, they enjoyed the experience and would do it again if given the opportunity.

## Conclusion

The American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD) provides undergraduate student members with the opportunity to develop leadership skills through leadership conferences. Each state can send two student representatives to these conferences. IAHPERD also provides similar opportunities through membership on the Council for Future Professionals (CFP). The CFP organizes and presents sessions at the IAHPERD Conference. The results of this study suggest IAHPERD should expand opportunities for students to attend and present at the IAHPERD annual conference.

IAHPERD sponsors an annual leadership conference devoted to planning the annual conference. Although members of the CFP Board are represented at this meeting, perhaps IAHPERD should consider expanding student representation at this meeting to encourage more participation in conference and association initiatives by undergraduate students. IAHPERD

should encourage professional members to encourage students in present sessions at this annual conference.

IAHPERD should consider giving incentives for those undergraduate students who maintain their membership the first, second year after graduation.

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**Table 1: Benefits of Attending an IAHPERD Conference**

|   | Frequency              |    |    |    |                     | MN   | SD   |
|---|------------------------|----|----|----|---------------------|------|------|
|   | 1<br>Strongly disagree | 2  | 3  | 4  | 5<br>Strongly agree |      |      |
| The sessions I attended were relevant to me as an undergraduate.                            | 6                      | 2  | 6  | 23 | 24                  | 3.93 | 1.23 |
| The issues presented in the conference were relevant to my career as a teacher.             | 6                      | 3  | 5  | 20 | 27                  | 3.97 | 1.27 |
| The conference contributes a lot to my studies.   | 4                      | 4  | 7  | 29 | 32                  | 3.84 | 1.03 |
| Student need to experience professional Development initiatives, IAHPERD conf.              | 2                      | 2  | 9  | 16 | 32                  | 4.21 | 1.02 |
| The more students are exposed to these type activities, the more likely they stay involved. | 2                      | 4  | 4  | 23 | 28                  | 4.16 | 1.03 |
| I met students from other institutions who I will stay in contact with.                     | 19                     | 13 | 15 | 9  | 5                   | 2.48 | 1.29 |
| I had a good time at the conference.  | 3                      | 3  | 5  | 20 | 30                  | 4.16 | 1.09 |
| I had a good time in Indianapolis.  | 2                      | 6  | 9  | 16 | 28                  | 4.02 | 1.14 |
| Attending the IAHPERD conference was worthwhile.  | 2                      | 4  | 5  | 22 | 28                  | 4.15 | 1.05 |
| I have a greater appreciation about what it means to be professionally involved.            | 3                      | 3  | 6  | 21 | 28                  | 4.11 | 1.09 |
| As a result of attending the IAHPERD Confer. I plan to increase my involvement.             | 4                      | 1  | 14 | 29 | 12                  | 3.70 | 1.03 |

**Table 2: Barriers**

|  | Frequency              |    |    |   |                     | MN   | SD   |
|--|------------------------|----|----|---|---------------------|------|------|
|  | 1<br>Strongly disagree | 2  | 3  | 4 | 5<br>Strongly agree |      |      |
| The money I spent attending the conference could have been used better.        | 13                     | 18 | 20 | 4 | 6                   | 2.54 | 1.19 |
| My employer was reluctant to let me off work.                                  | 30                     | 10 | 12 | 3 | 6                   | 2.10 | 1.33 |
| My teachers were not supportive of my missing class.                           | 34                     | 18 | 6  | 3 | 0                   | 1.64 | 0.85 |
| I have a lot of missed homework.   | 21                     | 18 | 14 | 6 | 2                   | 2.18 | 1.12 |
| There were not enough sessions or activities to make my attendance worthwhile. | 22                     | 26 | 7  | 1 | 5                   | 2.03 | 0.95 |

**Table 3: Benefits of Presenting**

|  | Frequency              |   |   |    |                     | MN   | SD  |
|--|------------------------|---|---|----|---------------------|------|-----|
|  | 1<br>Strongly disagree | 2 | 3 | 4  | 5<br>Strongly agree |      |     |
| My experience presenting was more beneficial than I imagined.                            | 0                      | 0 | 0 | 10 | 13                  | 4.57 | .50 |
| Because of my experience presenting, I feel more confident speaking in front of a group. | 0                      | 0 | 2 | 7  | 14                  | 4.52 | .66 |
| Once my presentation was underway, I relaxed and enjoyed myself.                         | 0                      | 1 | 1 | 7  | 14                  | 4.48 | .79 |
| If given the opportunity, I would present at the conference again.                       | 0                      | 0 | 1 | 7  | 15                  | 4.61 | .58 |
| I was frightened before my session began.  | 0                      | 3 | 8 | 7  | 5                   | 3.61 | .98 |

**Table 4: Overall Impact of IAHPERD Conference**  
Sample Comments

| Themes             | Number of Comments | Sample Comments  |
|--------------------|--------------------|--|
| Sessions           | 37                 | I learned many new games and activities I can use in the future.   |
| Prepare for future | 15                 | It was awesome to see people involved with what I am going to do. It felt good to be a part of what I will be doing in my future.          |
| Presenting         | 11                 | Giving the presentation helped me see how to teach and how other teachers were interested in what I had to say.                            |
| Fun                | 11                 | I really enjoyed the different sessions. Each was very beneficial.   |
| Networking         | 6                  | I gained lots of networking with others that will benefit me.  |
| Professionalism    | 3                  | The professional development experience I gained was amazing. Seeing how enthusiastic professionals were about their career was inspiring. |

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# Managing Risk Associated with Teaching or Supervising Bicycling

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Eastman v. Yutzy, et al.  
Superior Court of Massachusetts  
13 Mass. L. Rep. 73  
2001 Mass. Super LEXIS 157  
Decided March 30, 2001

## Facts of the Case

In the summer of 1993, the plaintiff, a 15-year-old girl, was enrolled in a residential summer camp for children with diabetes. The camp offered many activities including bicycle riding. While at the camp, the plaintiff participated in daily bike rides with another camper, Stacey, and two camp counselors, Yutzy and Hermans. Every day, this group would cycle a different route. On the day she was injured, the counselors chose to ride on Clara Barton Road; a windy, steep, narrow, and unevenly paved road. Both the plaintiff and Stacey told the counselors that they did not want to ride on Clara Barton Road. The counselors, however, decided they would all ride on the road anyway, a road that the plaintiff had never been on before.

Camp rules specified that bikers always ride in single file, to the right side of the road, and to be alert for road hazards. The rules also advised that prior to beginning a bicycle ride, the lead counselor wait for the other counselor(s) and campers at the barn, check the equipment, ascertain each campers' readiness, and that camp counselors emphasize control on the downhill. The camp's safety rules for bicycling also warn that "These are dangerous and uneven roads. Be constantly on alert for potholes, loose gravel and sand, sharp turns and blind sections along the routes" (p. 3).

On the day of the plaintiff's injury, Hermans and Stacey began riding several minutes ahead of Yutzy (the counselor) and the plaintiff, who were delayed while Yutzy adjusted the plaintiff's helmet. In an attempt to catch up with the others, Yutzy told the plaintiff to shift to a higher gear and pedal. Yutzy then passed the plaintiff and left her behind. Due to Yutzy's directions, the plaintiff was cycling at a speed faster than she preferred. Eventually, she caught the others and while passing Stacey, made contact with Stacey's handlebars, and then with the rear tire of Herman's bicycle. Contact

with the other bikes caused the plaintiff to lose control of her bicycle, which flipped over several times. The fall left the plaintiff comatose for several days, with a dislocated shoulder and partial paralysis.

As part of the plaintiff's camp application, the plaintiff's mother signed a release which stated: "..... The undersigned, as parents or legal guardians of the above named minor child, hereby acknowledge that the activities, environs, and camping at Clara Barton Camp for Girls with Diabetes, Inc. are potentially dangerous and there is risk of physical injury and, in consideration of acceptance by Lara Barton Camp, Inc. to use its premises and participate in its programs, hereby release and forever discharges covenants not to sue, indemnifies and agrees to hold harmless Clara Barton Camp, Inc. and the Unitarian Universalist Women's Federation, its agents, officers and employees and all other persons liable or claimed to be liable, from any and all claims, demands, damages, suits or injuries whatsoever arising from or related to Clara Barton Camp, Inc. and the Unitarian Universalist Women's Federation attendance or participation in any of its programs" (p. 13-14).

## The Complaint

Seeking damages for the injuries sustained in the bicycle crash, the plaintiff brought a negligence lawsuit against the camp counselors, Yutzy and Hermans, the camp program director, the camp director, and the camp's executive director. First, the plaintiffs claimed that Yutzy and Hermans disregarded several camp safety rules, "such as riding in single file, obeying speed limits, and emphasizing bikers' control when proceeding downhill" (p. 7). Additionally, Yutzy told the plaintiff to shift into a higher gear and pedal so she could catch up with the rest of the group, possibly causing the plaintiff to pedal faster than she would have preferred and too fast to brake safely. Second, the plaintiffs claimed that the program director was negligent in failing to adequately supervise the plaintiff's activities, and by failing to adequately train and/or supervise the counselors, Yutzy and Hermans. The camp program director was directly responsible for training and supervising these counselors, assigning them to the bicycle riding activities, and overseeing this activity.

The plaintiffs also claimed that the camp director was negligent as a responsible party in the training and supervision of Yutzy and Hermans. The camp director is responsible for providing guidance and supervision, and providing oversight of all camp programs, including bicycling. Examples include providing bicycling regulation manuals to staff, and reviewing the regulations during pre-camp season training sessions, and directing staff for each program activity to read the rules and regulations. However, "while it was her responsibility to "participate in all camp programs for the purpose of guidance and supervision," she did not directly participate in or monitor any particular camp bicycling activity following the pre-camp training" (p. 10-11).

The plaintiffs also allege the camp's executive director was negligent in the implementation and evaluation of the bicycling program. The executive director was responsible for the camp's administration, fiscal management, management of permanent staff, and implementing and evaluating camp programs; including the bicycling program.

All defendants moved for summary judgment claiming there were no material issues of fact in dispute, and the plaintiff could not prove, as a matter of law, the essential elements of the alleged negligence claims. Additionally, the defendants claimed that the waiver signed by the plaintiff's mother released them from liability. The plaintiff's mother countered that the waiver was not valid and therefore should not protect the camp from liability.

### Verdict

The court denied the motions for summary judgment for all defendants. The court concluded that there were many triable issues of disputed fact that required decision before a final judgment. For example, the court concluded that further evidence was needed to determine the following:

- Whether Yutzy's and Hermans' conduct amounted to negligence, gross negligence or reckless conduct.
- Whether the program director was negligent in the training and/or supervision of Yutzy and Hermans.
- Whether the camp director was negligent in the training and/or supervision of Yutzy and Hermans, and her role in providing guidance and supervision by participating in all camp programs, and
- Whether the executive director was sufficiently removed from participation and supervision in her job responsibilities as to avoid liability.

The court also denied summary judgment for the defendants on the issue of the waiver. The court held that there were material issues of fact in dispute as to whether the camp provided the appropriate level of safety training required by Mass. Regs. Code tit. 105, § 430.102. For example, testimony at trial revealed that "the only training given to counselors leading the bicycling activities was a review of rules in the staff manual for approximately 15 or 20 minutes. The only bike safety training that Yutzy recalled receiving was in about 1978, when he was in the second grade. The other bike activity leader, Hermans, testified in her deposition that she did not recall ever having received specific instruction from the camp about how to lead a bicycle ride, nor did she recall whether the camp posted any rules for bicycle riding" (p. 20). Summary judgment was denied given that genuine issues of material fact existed as to the adequacy of the counselors' training, certification and experience in bike riding.

### Definition of Terms


**Negligence** – The failure to exercise the standard of care that a reasonably prudent person would have exercised in a similar situation; any conduct that falls below the legal standard established to protect others against unreasonable risk of harm, except for conduct that is unintentionally, wantonly, or willfully disregarding of others' rights (Garner, 2000, p. 846).

**Summary Judgment** – A judgment granted on a claim about which there is no genuine issue of material fact and upon which the movant is entitled to prevail as a matter of law (Garner, 2000, p. 1166).

### Risk Management Tips

In an effort to promote bicycling safety and decrease the number of bicycling injuries, fatalities, lawsuits, and potential liability, the following risk management recommendations are provided for those teaching and/or supervising bicyclists (Allen, 2001; Bicyclinginfo.org, 2009; Connaughton, 2006; League of American Bicyclists, 2009; National Highway Traffic Safety Administration, 1998):

Those teaching and/or supervising other bicyclists should have the proper background, training, and experience. Bicycle skills need to be taught, practiced, and supervised correctly. It is important to teach skills in a reasonable



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progression. The emotional, mental, and physical readiness of a student must be considered before attempting more advanced or higher risk activities.

It should be stressed that bicycles are considered vehicles and operators are required to follow the same rules of the road as other vehicle operators. This includes but is not limited to obeying traffic signs, signals, and lane markings. All bicyclists should be knowledgeable of and obey local and state bicycling laws.

Bicyclists should always wear a properly fitted bicycle helmet every time they bicycle. Helmets reduce the severity of head and brain injuries in bicycle crashes by up to 88% (Thompson, Rivara, & Thompson, 1989). Information regarding how to properly fit a bicycle helmet can be obtained from the Bicycle Helmet Safety Institute (2009) and National Highway Traffic Safety Administration (1998). Many states require minors (age requirements vary from state to state), by law, to wear a helmet while bicycling.

Teachers and supervisors should select reasonably safe roads, areas, and times to ride. They should plan and inspect a route in advance. When on the road, bicyclists should ride in the same direction as traffic does. Typically, the more a bicyclist follows the normal traffic pattern, the safer and more predictable they become. Comparatively speaking, a bicycle is a small inconspicuous vehicle. Extra caution must be used when bicycling in busy areas.

Bicyclists should increase their visibility by wearing brightly colored clothing. To be more conspicuous when

riding at dawn, dusk, or night, a bicyclist should use reflective markings on their clothing and bicycle, as well as have proper front and rear lighting. Lighting is typically required by law while riding at night in many jurisdictions. Teachers and supervisors should also instruct bicyclists about group riding, off-road riding, touring, and racing before participating in such activities.

When teaching and supervising bicyclists, it should be stressed that bicyclists ride predictably and under control at all times. They should stay alert, focused, and scan the scene ahead being wary of traffic, blind spots, road hazards, pedestrians, and other potentially dangerous obstacles.

Bicyclists should not wear headphones, or listening devices, of any type (expect for hearing assistive devices) when riding a bicycle. In many jurisdictions it is illegal to do so. Bicyclists should carry personal identification, emergency contact information, and a cell phone or coins to use a pay phone if necessary. Teachers and supervisors should have a written and practiced, bicycle-specific emergency action plan.

Teachers and supervisors should also ensure that bicycles have regular maintenance and inspection. The handlebars, brakes, tires, quick releases, and drive train (crank, chain, and cassette) should be checked prior to every ride. A more detailed inspection should also be regularly performed.

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# An Examination of Direct Spending Patterns and Economic Impact Figures Associated with the 2007 XTERRA World Championship

By Serena Reese, Ph.D., Virginia State University  
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Each year thousands of sporting events are hosted by cities located throughout the United States. The benefits for cities and surrounding communities that host sporting events can be significant (Turco and Navarro, 1993; Li & Eschenfelder, 2007). Determining the economic impact of sporting events for sponsoring cities can help to justify the hosting of future sporting events (Wang and Irwin, 1993).

Over the years, a number of economic impact and direct spending studies have examined "spectator oriented" sporting events (Ayers, 1997). These studies have primarily focused on surveying out-of-town spectators who attend sporting events. Money that is spent in the community by out-of-town sport spectators is considered to be "new" money that has a ripple or multiplier effect in the community. Very few economic impact studies have examined "participant oriented" sporting events. A growing number of "participant oriented" sporting events are being recruited to communities in order to generate tourism dollars. With the increase in the number of "participant oriented" sporting events where hundreds and sometimes thousands of participants travel great distances to compete, a need exists to study the potential economic impact of these sporting events on local communities.

Norfolk, Richmond, Roanoke, Virginia Beach and other cities in Virginia have realized the potential that sporting events provide in generating an economic impact. Cities and communities throughout the State of Virginia continue to host national and regional sporting events with the hopes of attracting tourism dollars. In Virginia Beach, for example, a large number of the sporting events are hosted by the Virginia Beach Convention and Visitor Bureau's Sport Marketing Division. It is felt that sporting events and tournaments in activities such as basketball, field hockey, track and field, volleyball, and youth soccer will attract not only young participants but also parents of the participants. Money spent by parents and other members of the travel party on food, lodging, transportation and entertainment contribute to the direct spending and economic impact that takes place during sporting events.

## **Purpose of Study**

The purpose of this study was to examine

selected demographic, direct spending and economic impact data associated with the 2007 Xterra World Championship that was held in Maui (Hawaii). As a "participant oriented" sporting event, the Xterra World Championship is the sister event to the Ironman triathlon that is held a week earlier in October. The Xterra event is an "off-road" triathlon where participants compete in mountain biking, running on volcano trails and hills, and an ocean swimming segment.

The Xterra event is considered to be the world's foremost "off-road" triathlon. Participants who compete in the event travel from countries located throughout the world. The World Championship is the culminating event in a series of qualifying events that are part of the Xterra triathlon circuit. Although most of the participants come from the United States, it is truly an international sporting event.

## **Methodology**

A web based direct spending survey instrument was created for use in this study. The survey instrument was divided into a series of demographic, direct spending, and economic impact questions. The instrument has been used in other economic impact studies and it has been proven to be comprehensive and accurate. Organizers of the Xterra World Championship sent an e-mail invitation to event participants seven days after the conclusion of the event and requested their participation in the web survey.

A total of 255 out-of-town event participants responded to the survey for a 34% response rate. The total potential sample for the Xterra World Championship events totaled 760 participants. This included the trail run events as well as the World Championship triathlon.

The survey instrument used in this study was a thirty question survey. The heart of the survey contained questions pertaining to direct spending patterns. For example, questions about spending on lodging, food and beverage, transportation, retail shopping, tourist attractions, entertainment, and recreation were included on the survey. Questions related to demographic information such as age, gender, race, education, income level and state or country of residence were also included.



## Results

Demographic data revealed that the respondents were primarily Caucasian males in their late 30s or early 40s. Participants traveled from many foreign countries including Australia, Austria, Brazil, Canada, Costa Rica, Czech Republic, England, France, Germany, Italy, Japan, Mexico, New Zealand, South Africa, and Spain. Most of the participants came from the United States mainland. They were well-educated with a majority of the respondents reporting that their household income level was above \$75,000. On average, the respondents stayed seven nights in Maui with a travel party of approximately three people. They reported using two hotel rooms per night. They also traveled over 7,000 round-trip miles to compete in the Xterra event. Event participants indicated that the highest level of spending was directed toward lodging. A total of \$345,432 was spent on lodging by the respondents which equates to an average of \$1,355 per respondent. Food and beverage was the second highest category listed at \$161,068 followed by retail shopping at \$100,730. The total direct spending for the 255 respondents as identified on the survey was \$773,014. If these figures are projected to the total number of participants (N=760) in the Xterra World Championship events (including the Xterra Championship race and the trail runs), then an overall direct spending for the event was estimated at \$2,303,560. If a local Maui multiplier is calculated for the total direct spending figures, then the final economic impact for this event was estimated at \$5,758,900.

## Conclusion

The results of this study clearly show that “participant oriented” sporting events do have a tremendous potential to generate direct spending dollars and economic impact for local communities. It has long been known that “spectator oriented” sporting events create a huge economic impact for host communities. But, it is now clear from the figures reported in this study that “participant oriented” sporting events do create a significant amount of direct spending and economic impact for host communities.

Although the Xterra World Championship was held in Hawaii, figures from the Hawaii event suggest that “participant oriented” sporting events hosted in Virginia communities do have the potential to produce tourist spending. The Shamrock Marathon (12,000 participants) and the Rock-and-Roll Half-Marathon (20,000 participants) in Virginia Beach are good examples of “participant oriented” sporting events. Richmond and the Richmond Sports Backers have hosted a number of “participant oriented” sporting events including several Xterra East Coast Championship events. The City of Norfolk in conjunction with the Hampton Roads Sports Commission recently hosted the Amateur Athletic Union’s Junior Olympic Games that attracted over 15,000 participants. In the past, Roanoke has hosted a number of participant oriented sporting events including the hosting of multiple Bike Virginia events.

As this Xterra study shows, hosting a “participant oriented” sporting event is an excellent way to stimulate tourism and create economic impact for host communities. Several Virginia communities are building new sport facilities with the hopes of bringing future “participant oriented” sporting events and tournaments to Virginia. Eventually, these new sport facilities will pay dividends through increased sport tourism dollars and positive economic impact for Virginia communities.

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# Integrating the Family into the Camp Experience: Exploring the Impact of Residential Diabetes Family Camp

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## Abstract

Organized camping programs serving families with an adolescent living with diabetes are uniquely positioned to enhance management of the disease. Autonomy support has been found to be an essential nutriment for internalization of self-management skills necessary to limit severe complications of poor diabetes control. Therefore, the purpose of this study was to two fold: to explore adolescent and parent satisfaction with a family diabetes camp and to assess perceptions of autonomy support while in camp. Using a mixed methods approach, the findings suggest adolescents and parents were pleased with the camp experience, and researchers found congruence in adolescents' and parents' perceptions of autonomy support. These findings aid recreation and camp professionals in better meeting the needs of families in camp.

## Background and Significance

Diabetes is considered to be one of the most psychologically and behavioral demanding chronic illnesses facing adolescents (Cox & Gonder-Frederick, 1992). With no cure for diabetes on the forefront, self-management has become the cornerstone of type 1 diabetes treatment (Mensing, et al., 2000; Ruggiero, et al., 1997). The ultimate goal for an adolescent diagnosed with type 1 diabetes is effective self-management or interdependent management. Yet, with nonadherence to appropriate regimens approaching 90% (Coates & Boore, 1998), effective diabetes management necessitates a team effort or support network. In the most global sense of the word, support for diabetes management with adolescents makes it a family disease (Anderson, Miller, Auslander, & Santiago, 1981) where the responsibility of day-to-day control involves many different people or significant stakeholders (e.g.

family, health care team, recreation professionals, educators). This family approach (Solowiejczyk, 2004) to diabetes management is emerging as a critical model as the number of adolescents diagnosed with diabetes increases.

The implications of poor metabolic control are severe. Adolescents who lack diligent and continuous self-management skills, support, or motivation for diabetes control risk developing significant complications (American Diabetes Association, 2002; Brown, 1999) that may impact overall quality of life (Hoey, et al., 2001). Control of blood-glucose to near-normal levels has been shown to slow the onset and progression of complications such as eye, kidney, and nerve disease (American Diabetes Association, 2002; Brown, 1999; National Diabetes Information Clearinghouse, 2001; National Institute of Health, 2003). Moreover, research has shown that family structure may increase adherence to diabetes management due to the need for near-constant management of type 1 diabetes (Lerner & Lerner, 2001). Similarly, research has shown that better metabolic control is seen when youth evaluated their mothers as collaborating with, as opposed to controlling, their child when dealing with the problems associated with diabetes management (Wiebe et al., 2005). While adolescents assume more responsibility for the self-management of their diabetes as they grow older, parents continue to make contributions which may lead to family conflict (Schilling, Knafel, & Grey, 2006). Yet, Anderson (2004) found that family conflict can have a debilitating effect on metabolic control and therefore is a cause for concern for positive youth development. Furthermore, strained family dynamics that yield less effective diabetes management can also lead to immediate problems at school and other social setting (e.g. recreation programs).

In addition to family dynamics influencing diabetes management, adolescent behavioral problems such as aggression and antisocial conduct have been highly correlated with poor metabolic

control during adolescence and young adulthood (Bryden, et al., 2001). These behavioral challenges sometimes require special services in school and possible psychotherapeutic services outside of school. In addition, adolescents with diabetes are diagnosed with more psychiatric disorders than their non-diabetic peers (Blanz, Rensch-Riemann, Fritz-Sigmund, & Schmidt, 1993; Mayou, Peveler, Davies, Mann, & Fairburn, 1991). Recent evidence also indicates an increase in emotional problems such as anxiety and depression with poor glycemic control (Bryden, et al., 2001; Diabetes Forecast, 2008). Thus, the psychological and social ramifications of poor diabetes management are just as important to address as the physiological.

#### *Autonomy Support*

Practitioners have successfully applied self-determination theory as a way to significantly influence individual motivation for diabetes self-management, resulting in increased metabolic control (Williams, Freedman, & Deci, 1996, 1998; Williams, McGregor, Zeldman, Freedman, & Deci, 2004). Self-determination theory postulates that individuals whose behaviors originate from volition or choice as compared to control or pressure are more prone to long-term adherence to particular goal-oriented behaviors (Williams, Freedman, & Deci, 1998). Autonomous support appears to be a critical element in achieving self-determination. Autonomy support is identified as the environments needed for individuals to take ownership of their behavior (Deci & Flaste, 1995; Deci & Ryan, 2000). When autonomy support is provided by significant others or stakeholders such as health-care personnel, parents, or adult role models, self-initiation is often increased, leading to more autonomous regulation (Deci, Eghrari, Patrick, & Leone, 1994). Autonomy support, when viewed as a prerequisite for fostering particular behavioral outcomes, has been shown to increase the effectiveness of the intervention such as for glycemic control (Williams, Freedman, & Deci, 1998); weight loss (Williams, Grow, Freedman, Ryan, & Deci, 1996); smoking cessation (Williams, Cox, Kouides, & Deci, 1999); or diabetes management (Pelletier, Fortier, Vallerand, & Briere, 2001).

Autonomy support may be perceived as providing choice, perspective taking, and rationale provision (Sheldon, Williams, & Joiner, 2003). A few selected choices about behavior (at the practitioners' discretion) offer some ownership to the individual making the decision. Practitioners, physicians, recreation professionals, or educators can offer perspective taking through a paradigm shift. Taking a step back and thinking about tasks from the participants' viewpoint offers a sense of understanding and empathy for individuals with diabetes. Providing a rationale for suggestions or requests is important to limit real or perceived of control; an important nutriment for internalization (Deci & Flaste, 1995). Providing a rationale also helps the individual make a well thought-out decision based on the information provided. Autonomy supportive teams, where practitioners, parents, and adolescents collaborate on diabetes education, appear to be promising for adolescents' improvement in diabetes self-management. Furthermore, such a collaborative approach is essential to ensure a successful transition from adolescence to young adulthood where diabetes self-

management is the primary treatment in conjunction with a more supportive pediatric environment for younger patients (Wolpert & Anderson, 2001).

#### *Benefits of Recreation*

Although various interventions have been shown to be promising in addressing the psychological challenges of adolescents with diabetes (e.g., Hill & Sibthorp, 2006), they are still "a forgotten group, whose special needs seem to fall outside the primary focus of both pediatric and adult medicine" (Sawyer, et al., 1997 p. 36). Organized recreation programs appear to be uniquely positioned to fill the chasm for youth. The benefits of recreation programs have long been assumed, and in many cases documented, a paradigm shift has occurred resulting in increased accountability for particular outcomes. The benefits of organized camps serving adolescents with diabetes are not the exception. The benefits movement, spearheaded by Driver and colleagues, has charged the recreation professionals to not only evaluate, but intentionally program for specific needs (e.g., youth with diabetes) (Driver, Brown, & Peterson, 1991). In the 1990s, the National Parks and Recreation Association (NRPA) initiated the "Benefits are Endless" campaign to address the benefits received by recreation participation (e.g., increase in self-esteem). Moore and Driver (2005) further identified the criteria for recreation benefits: 1) change in condition or state viewed as more desirable than previous; 2) maintenance of a desired condition and thereby prevention of an unwanted condition; and 3) realization of a satisfying recreation experience. These criteria can assist recreation professionals while working among youth with diabetes, whether it be in organized camping or during an after school recreation program.

#### *Organized Family Recreation Camps*

Organized camping has been around for more than 150 years, and the benefits of participating in camps seem to be promising (McAuliffe-Fogarty, Ramsing, & Hill, 2007). Organized camping provides opportunities for skill acquisition (e.g. diabetes self-management) and overall development (e.g. autonomy, sense of self) (Caldwell, et al., 2001; Hill & Sibthorp, 2006; Hill, Ramsing, Hill, 2007; Marsh, 1999). A subset of organized camping, family recreation camps, also have a long history. Recent studies have explored this type of camp through a family systems framework (Taylor, Covey, & Covey, 2006). This approach was grounded in the idea that the family is a dynamic and complex unit where family members influence and are influenced by one another, within particular environments (Whitchurch & Constatine, 1993). Organized camping is a unique approach to strengthening family relationships where learning occurs informally and formally through participation in healthful activities as a unit. For this reason, family diabetes camp is an excellent forum to explore and embrace diabetes management in a supportive family oriented setting.

Although the research on diabetes camps is growing (e.g., Hill & Sibthorp, 2006; Hill, Ramsing & Hill, 2007; Sibthorp, Paisley & Hill, 2003; Ramsing & Hill, 2007; Ramsing & Sibthorp, in press), there has been a limited focus on family diabetes camps and the impact programs may have on families and youths' diabetes management. Yet, it is

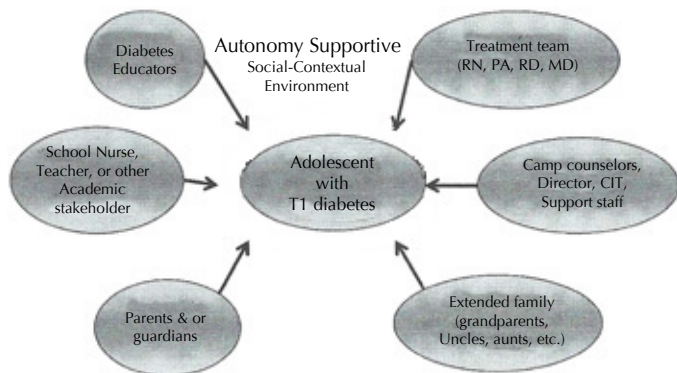
hypothesized that family diabetes camp, through intentional programming, can enhance communication and trust among family members. In addition, a traditional weekend family camp can provide many teachable moments under the guidance of recreation and healthcare professionals that enhance skills necessary for effective diabetes management. The family camp setting also allows for “practice” of positive parenting (e.g., autonomy supportive environments). Family camp provides an opportunity to learn about “new or more effective” ways to parent and support an adolescent with diabetes, and then apply that newly learned skills while at camp. A model for success in organized family camping may be viewed from a holistic perspective that embraces a seamless approach of support unites for the benefit of diabetes management among youth (Ramsing & Hill, 2006). See Figure 1. This model is typically well-represented at family diabetes camp and is proposed to be an effective approach. Therefore, within the Holistic Model for Diabetes Family Camp, the purpose of this study was to explore adolescent and parent satisfaction for camp and to assess perception of autonomy support while at camp.

### Methods

#### Camp Experience

The Triple R Ranch, established just over 50 years ago, is a multipurpose camp located in Chesapeake, VA. Family Diabetes Camp has been held at the Triple R Ranch for 13 years and was co-sponsored by Chesapeake General Hospital and Lion’s Club. This is a special retreat for young people with diabetes between the ages of 6-18 and their families (e.g., siblings, parents, grandparents). Because of the nature of the family camp, each adolescent had to be accompanied by at least one family member. The goals of the weekend were to learn more about diabetes self-management and to share experiences with other families, and to have fun. The weekend was full of diabetes education workshops, family-oriented recreation, and endless teachable moments.

**Figure 1. Holistic Model For Diabetes Management Among Adolescents at Family Camp (Ramsing & Hill, 2006)**



Camp activities were pre-planned based on the ages and developmental needs of campers. For example, teens could participate in more age appropriate High Challenge Course activities whereas the younger campers would start with rock climbing. All adolescents had the opportunity to participate in traditional camp activities such as horseback riding, canoeing, and archery. The more traditional camp

components were programmed to create teachable moments for adolescents with diabetes. For example, mealtime was structured as family style dining, and had carbohydrates posted on a flip chart--for the purpose of determining insulin dosage. This allowed campers to eat, count carbohydrates, and adjust insulin, as necessary, under adult supervision. Other components of the camp included diabetes education sessions, vendor displays, and open discussions related to living with diabetes.

One unique aspect of the family diabetes camp was the parent support groups. The “Parents only” discussion was facilitated for all parents by diabetes experts (e.g., Endocrinologist, Diabetes Educators, Register Dieticians, Researchers) in an effort to address questions and provide different perspectives to working with their children. The approach to the training was theoretically driven (Sheldon, Williams, & Joiner, 2003) and modeled the necessary components to foster autonomy support. The components used during the training included: providing choice, perspective taking, and rationale provision. The support group time was also valuable for sharing, with other parents, the challenges, difficulties, and successes they encounter on a daily basis.

#### Data Collection

During the summer of 2006, data were collected at the family residential diabetes camp. Counselors, parents, and campers completed qualitative and quantitative questionnaires to determine the impact of diabetes camp, both on the management of their diabetes and the satisfaction of the camp experience. This was completed through two measures. The camp was assessed through the Diabetes Camp Effectiveness Scale (DCES); and the level of autonomy support was assessed through the Health Care Climate Questionnaire (HCCQ-M).

#### Diabetes Camp Effectiveness Scale

The DOES, created specifically for the Triple-R Diabetes Camps, targeted three different constructs: diabetes competence, social/relatedness, and camp satisfaction. The three constructs were operationalized as: Diabetes Competence, the degree of camp information that will lead to better diabetes management; Social/Relatedness, the connectedness fostered by camp staff and other campers; Camp Satisfaction, how much they enjoyed and would like to return to camp.

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The campers and parents completed the 10-item, six-point Likert type scale, camp evaluation (DCES) followed by several qualitative items. Each questionnaire targeted the same outcome, but from different perspectives (i.e., parent and camper perspective). See Table 1 for an example questions. The second component of the camp evaluation was the qualitative portion. This allowed campers and parents to provide written feedback about what they enjoyed most and least while at camp. A camper and parent version were administered.

*Health Care Climate Questionnaire-Modified*

The Health-Care Climate Questionnaire-Modified (HCCQ-M) measured campers' perceptions of the degree of autonomy support offered by parents. The measure of autonomy support, conducted through the six-item, six-point Likert type scale HCCQM, was exploratory in nature suggesting that no formal training was provided for parents to foster autonomy supportive contexts. Autonomy support was examined to determine the amount and differences, if any, that existed among campers and parents. This was conducted on two levels: the amount of autonomy support of parents as perceived by youth and the amount of autonomy support offered by parents from the parents' perspective. Table 2 provides an example of the questions asked of each group.

**Table 1. Example statement from the Diabetes Camp Effectiveness Scale [DCES] (camper version)**

| Camper Version   | Not True |   | Somewhat True |   |   | Very True |
|--|----------|---|---------------|---|---|-----------|
| 1. I learned something at camp to help manage my diabetes. | 1        | 2 | 3             | 4 | 5 | 6         |

**Table 2. Example statement from the Health Care Climate Questionnaire-Modified (youth, parent version, and camp staff)**

| These questions are about your parents' influence on your diabetes management.    | Not True |   |   |   |   | Very True |
|---|----------|---|---|---|---|-----------|
| 1. I feel that my parents provide choices and options about managing my diabetes. | 1        | 2 | 3 | 4 | 5 | 6         |

| These questions are about your influence on your child's diabetes management.                  | Not True |   |   |   |   | Very True |
|--|----------|---|---|---|---|-----------|
| 1. I feel that I provide my child with choices and options about managing his or her diabetes. | 1        | 2 | 3 | 4 | 5 | 6         |

| These questions are about your influence on campers' diabetes management at diabetes camp. | Not True |   |   |   |   | Very True |
|--|----------|---|---|---|---|-----------|
| 1. I feel that I provide campers with choices and options about managing their diabetes.   | 1        | 2 | 3 | 4 | 5 | 6         |

**Results**

The data were analyzed using SPSS 14.0. Due to this data set only being at post-test, descriptive statistics were explored. T-tests were used to determine, if any, a significant difference between campers and parents with the level of autonomy support. The average age of a camper was 11 years. The average duration of diabetes diagnosis was 5.5 years. The average HbA1c level, a marker of diabetes management achieved by providing a snapshot of average glucose levels over a previous 2- to 3- month period of time, (self-report) was 8.7. Female campers made up 64% (n=18) of the camper population. Mothers at camp made up 70% (n=19) of the "parental component."

The camp evaluation (DCES) was comprised of ten quantitative items, followed by a qualitative portion that was completed by the campers and parents. A total of 28 questionnaires were collected from campers and 27 from parents. Each questionnaire (i.e., DCES and HCCQ-M) targeted the same outcome, but from different perspectives (i.e., parent and camper perspective). A total of 10 questionnaires (HCCQ-M only) were collected from camp staff/healthcare providers.

*Diabetes Camp Effectiveness Scale*

The DCES targeted three different constructs: Diabetes Competence (four items), Social/Relatedness (three items), and Camp Satisfaction (four items). Reliability coefficients for the three constructs were between medium to high (.53 - .73). The items were summed to calculate the construct score. The following are the basic statistics for the constructs from the campers and the parents. See Table 3.

**Table 3. Descriptive Statistics of the DCES among Campers and Parents.**

|                             | N  | Minimum | Maximum | Mean | SD   |
|-----------------------------|----|---------|---------|------|------|
| Diabetes Competence Camper  | 28 | 1.50    | 6.00    | 4.38 | 1.27 |
| Diabetes Competence Parent  | 27 | 2.25    | 6.00    | 4.64 | 0.94 |
| Social-Relatedness Camper   | 28 | 2.67    | 6.00    | 5.32 | 0.85 |
| Social-Relatedness Parents  | 27 | 3.67    | 6.00    | 5.35 | 0.73 |
| Satisfaction of Camp Camper | 28 | 2.33    | 6.00    | 5.54 | 0.80 |
| Satisfaction of Camp Parent | 27 | 4.00    | 6.00    | 5.60 | 0.60 |

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*Qualitative Data*

Qualitative methods were utilized to target additional perceptions of camp effectiveness. Campers’ response to the question regarding “likes and dislikes” allowed campers and parents to give written feedback about what they enjoyed most and least at camp. The top three “likes” included horseback riding, rock climbing, and archery, respectively. The least enjoyed components of camp included bathroom conditions, rock climbing, and raffle, respectively. Having rock climbing as an “enjoyed” and least enjoyed was produced to the equal number of camper responses. It was observed that many of the smaller campers struggled on the rock wall, resulting in a less enjoyable experience. Similarly, parents were asked what activities they perceived their child to enjoy the most and least. Parents indicated horseback riding, meeting and rejoining friends, and being among other youth with diabetes, as being most important to their child, respectively. Parents perceptions of their child’s least important components of camper were the bathroom conditions, education lectures, and canoeing, respectively.

The camp effectiveness questionnaire also gave insight as to how parents heard about camp. Although this question needs further clarity (as it did not ask what was the first time you heard about camp), the responses were still insightful. Most parents responded that they heard about camp from the school nurse. The second most recorded response was that parents were informed of camp through Children’s Hospital of the Kings’ Daughters, The Lifestyle of Chesapeake General Hospital, or they were previously involved in camp.

*Health Care Climate Questionnaire-M*

The construct of Autonomy Support (AS) from the HCCQ-M was measured by summing the responses of the 6-point Likert type scale. Higher scores indicated the degree the statement applied to the individual. This was conducted on three levels: the amount of AS of parents as perceived by youth; the amount of AS offered by parents from the parents’ perspective; and the amount of AS offered by camp staff from the camp staffs’ perspective. Table 4 provides the mean of the perceptions from each group were very close (Camper = 4.8; Parent = 5.1, and Counselor = 4.8). None of the groups were statistically significant from one another.

**Table 4. Descriptive Statistics from the HCCQ for campers, parents, and camp counselors.**

|  | N  | Minimum | Maximum | Mean | SD   |
|--|----|---------|---------|------|------|
| Camper’s Perception of Autonomy Support from Parents                 | 28 | 3.50    | 6.00    | 4.83 | 0.78 |
| Parents’ Perception of Autonomy Support provided to their child      | 27 | 2.67    | 6.00    | 5.06 | 0.77 |
| Counselors’ Perception of Autonomy Support provided to their campers | 10 | 2.50    | 6.00    | 4.82 | 0.99 |

**Discussion**

The purpose of this study was to explore adolescent and parent satisfaction for camp and to assess perceptions of autonomy support, an essential nutriment to enhance self-determined behavior for diabetes self-management.

Examination of adolescent and parent satisfaction was important for the foundation of family camp is based on the ability to engage and meet the needs of all participants. Organized camping is uniquely positioned to foster a sense of belonging and comfort for adolescents living with a chronic illness such as diabetes. By better understanding adolescent and parent satisfaction, recreation professionals will be better suited to assist in the development of healthful living skills (e.g. diabetes self-management) and lasting relationships with others (Kaufman, Schatz & Silverstein, 2007). Exploring participant satisfaction in camp is also essential to substantiate educational programming, both informally and formally.

Autonomy support was investigated in an effort to better understand and gauge a baseline of skills that parents and staff use while interacting and supporting adolescents with type 1 diabetes. Autonomy support has been shown to be a critical element necessary to promote internalized and healthful behaviors (e.g., McAuliffe-Fogarty, Ramsing, & Hill, 2007; Sheldon, Williams, & Joiner, 2003).

The Diabetes Camp Effectiveness scale was utilized to assess knowledge or competence of diabetes while at camp. While diabetes competence increased while at camp, there were differences between campers and parents. The difference between campers and parents could be explained in a multitude of ways. Historically, the family camp is intended to be recreational and fun, thus, campers may not have realized that diabetes education was an underlying theme throughout the program. The realization that diabetes education occurred at camp may not have dawned on the adolescents until well after the completion of the camp. In addition, the level (e.g., age specific) at which information was presented at camp could have been above that of the comprehension of the average camper. This may have resulted in adults understanding and internalizing the information, but not the campers.

Social-relatedness within camp was examined to better understand the role of relationships in the camping environment. The slightly higher score of Social-Relatedness from parents is difficult to explain. One would speculate that campers would score higher because for one weekend the norm all adolescents participating in camp were diagnosed with diabetes. Therefore, it is reasonable “to assume that

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they [campers] have benefited not only from the camp experience but also from the friendships that have developed from being in an environment where the norm is to have diabetes." (American Diabetes Association, 2007, p. 76).

Finally, the high scores of Camp Satisfaction could be interpreted as excellent customer service. Although each of the three quantitative constructs is important, nothing can be accomplished in camp if the campers and parents dislike or did not want to return. In addition to a specific question regarding participants' intention to return, the findings from this particular outcome reinforces the notion that nearly all campers and parents will return.

The Health Care Climate Questionnaire (Modified) was utilized to ascertain perceptions of autonomy support that occurred in camp. The results, although not statistically significant from one another, supports the need for further exploration of autonomy support in camps, specifically, family camp programs. The findings indicate that perceptions of autonomy support from the parent of the child and perception from the parent of autonomy support provided by the parent are close to the same. This is helpful because it eliminates discontinuity in perceptions. In other words, the camper is accurately interpreting what the parent is attempting to communicate with regard to diabetes management. The camp counselors' perception was not compared to the campers' perception to logistics; an attempt was made to limit the possible overwhelming number of questions on the instruments. However, as the results indicate, the camp counselors perceive the level of autonomy support they provide is close to the level provided by that of the parents. The future direction should be the development and implementation of ways to increase levels of AS from all groups (e.g., parent training on autonomy support).

A possible limitation and explanation to these findings on perceptions of autonomy support could be attributed to some parents and campers completing the questionnaires together. Some of the terminology used on the instrument was too advanced for younger campers. Thus, some parents were asked to assist their child in interpreting the statement which may have influenced the camper's response. In addition to adjusting instrument questions for age related readability, it would be advised to separate the adolescents and parents for the completion of this questionnaire and utilize camp staff to help explain questions to campers that may be deemed as being unclear or overly complex. Future research should continue with the exploration of autonomy support in camps with particular focus on how to enhance or increase levels of autonomy support.

### Conclusion

In general, the Triple R Ranch/Lion's Club/Lifestyle Center's Family Diabetes Camp was a great success suggesting that campers and parents were pleased with camp content and intend to return to the program. Participants also learned about diabetes to include expanding their management strategies. These findings support the notion that "using the active camping environment as a teaching opportunity is an invaluable way for children with diabetes to gain skills in managing their disease within the supportive

camp community" (American Diabetes Association, 2007, p. 76). The findings also support the rich social environment of a camp. The campers and parents felt a sense of community and connectedness through participation in the program. This point was articulated as being very important to parents for the development of their child(ren). In regard to satisfaction, overall, the campers and parents were pleased with the content of the camp. The findings suggest that camp can be fun as well as educational when working with adolescents living with diabetes. Finally, autonomy support, a critical factor for enhancing diabetes management (Weibe, et al, 2005), was perceived to be present by both the adolescents and parents. These findings are critical for the antithesis of autonomy support is control. Adolescents' perception of high control by parents has been shown to be a disservice for long-term management (Sheldon, Williams, & Joiner, 2003). Further research should focus not only on the degree on autonomy support, but on the impact or helpfulness of this motivational approach. The findings from this study, although exploratory in nature, provide support for the benefit of family oriented camp programs to adolescents, parents, and staff alike.

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- By Eddie Hill, Ph. D., Assistant Professor, Old Dominion University; Ron Ramsing, Ph.D., Assistant Professor, Western Kentucky University; Laura C. Hill, Ph. D., Assistant Professor, Norfolk State University

Mark Your Calendar

# AAHPERD Convention

March 16th-20th, 2010

Indianapolis, Indiana



# Making the Most of Your AAHPERD Membership

The American Alliance of Health, Physical Education, Recreation and Dance provides you with a wealth of opportunities to maximize your professional success.

## Five National Associations, One Strong Voice

Because many of our members work across disciplines, membership includes the opportunity to join any two of AAHPERD's five national associations (students can join only one). You can customize your membership to fit your needs. A portion of your dues goes to support the programs, products, and services of the associations that you select. If your interests lie only in one area of specialization, you may request that the full amount of your dues go directly to that association. However, we recommend that members join two of the national associations to enhance the overall value of membership in the Alliance.

To review programs and services of each association visit [www.aahperd.org](http://www.aahperd.org).

- Use AAHPERD's website for the most up-to-date information.
- Update your membership account information as needed.
- Change your affiliations or your journal selection.

AAHPERD leadership was on Capitol Hill promoting health and PE during Advocacy Day June 2010

Go to the Legislative Action Center at [www.aahperd.org](http://www.aahperd.org) for updates on current activities.

AAHPERD provides strong representation on legislative issues at all levels of government and with other national agencies. The national associations of AAHPERD play an important role in the passage—and on-going enforcement—of Title IX; the Amateur Sport Act; Healthy People 2010; Carol M. White Physical Education for Progress (PEP) Bill, appropriating funds to support and improve physical education programs in our schools and communities; and advocating for the inclusion of health education and physical education in No Child Left Behind.

## Strong Presence on Capitol Hill

## Professional Development Opportunities

### AAHPERD Annual National Convention and Exposition

Bringing together more than 6,000 health, physical education, recreation, dance, and sport professionals from across the country, AAHPERD hosts the largest professional development and networking event of its kind. The event features 400+ sessions about the latest topics in our fields. See you March 16th-20th, in Indianapolis, IN, for AAHPERD's 125th National Convention and Exposition

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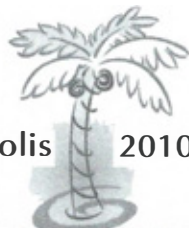
AAHPERD's six district associations hold conventions and workshops that provide networking with colleagues in your region. This year's array of conferences includes meetings in Hawaii and Alaska. Watch for news from your district!

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# Guidelines for Authors

This journal is published in May, September, and February by the Indiana Association for Health, Physical Education, Recreation, and Dance. Articles that share opinions and ideas, as well as those based on serious scholarly inquiry are welcomed and encouraged. Each article scholarly article is reviewed by the editor and at least two reviewers who are selected on the basis of areas of interest and qualifications in relation to the content of the article.

## Preparing Manuscript

Manuscripts are to conform to the Publication Manual of the American Psychological Association (APA; 6th ed.) style. To facilitate the review process, the author(s) should use double-spaced type and include line numbers as well as page numbers. Papers must not exceed a total of 28 pages including references, charts, tables, figures, and photographs. There should be an abstract not to exceed 500 words. Further, all charts, tables, figures, and photographs will be after the references. Papers deviating from the recommended format will not be considered until they are revised.

## Electronic Submission

Electronic submission of manuscripts is required at thomas.sawyer@indstate.edu . The manuscript order is: (1) blind title page, (2) abstract, (3) key words, (4) text, (5) references, (6) author notes, (7) footnotes, (8) charts, (9) tables, (10) figure captions, and (11) figures. The cover letter will be a separate file. Including author(s) name and affiliation and contact information of corresponding author.

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The cover letter must include all contact information for the corresponding author, and employers of the remaining authors. The following statements must be included in the cover letter:

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List multiple authors in the order of proportionate work completed. Also indicate research reports supported by grants and contracts. Include biographical information on all authors (title, department, institution or company, and full address).

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## Deadlines Journal

- Spring Issue - March 1
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## Newsletter

- Spring Issue - Feb. 15
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## Send it in ...to the Editor

A new idea that you have penned,  
Share it with a Indiana AHPERD friend.  
On the Journal pages, let it end.  
We sure do want it... send it in!  
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In sheer frustration one weary night.  
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Is it a cartoon that you have drawn?  
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Won't you share with us your thought  
That we all just may be taught?  
My, what changes could be wrought  
If you'd just send it in.

Tom Sawyer  
Indiana AHPERD Journal Editor

# Leadership Opportunities on Councils

**FUNCTION.** The duties and responsibilities of the Program and Regional Councils are to:

1. Work closely with the Program Director or Regional Coordinator to promote the special program area.
2. Attend annual IAHPERD Leadership Conference. (Hotel and meals paid for by the Association.)
3. Solicit programming for the State Conference or Regional Workshops.
4. Serve as host to greet and direct presenters during the

conference.

5. Serve as presider for the various programs in your special area. Support includes introducing presenter, assisting during the presentation (distribute handouts), and providing presenter with the special gift from the Association.
6. Make nominations to the Awards Committee chair for Teacher of the Year and Association awards.

**PROGRAM AREAS.** The various program areas include:

1. Adapted Physical Education

2. Aquatics
3. Council for Future Professionals
4. Dance
5. Fitness
6. Health
7. Higher Education/ Research
8. Jump Rope and Hoops for Heart
9. Physical Education: Elementary
10. Physical Education: Middle School
11. Physical Education: Secondary
12. Recreation

13. Sport
  14. Sport Management
  15. Technology
- INTERESTED?** To apply for a leadership position on a council, send an email of interest to Dr. Mark Urtel, Nominating Committee Chair, at [murtel1@iupui.edu](mailto:murtel1@iupui.edu). For additional information, go to the IAHPERD website at [www.Indiana-ahperd.org](http://www.Indiana-ahperd.org), click on About, Constitution, Operating Codes, and scroll down to the leadership position of interest.

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### HELP NEEDED:

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