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Tradition, Transition, Transformation

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Tradition, Transition, Transformation

President's Message

Hello IAHPERD members,

It is with mixed emotion that I address all of you in this spring edition of the IAHPERD journal. On the one hand, there is an overwhelmingly positive feeling based on our co-hosting of the 2010 National AAHPERD Convention. Not only were the logistics of Indianapolis as a host city favorably received by the membership, more importantly, there was a continual stream of positive comments about all of the local volunteers to help make the convention so successful. I would like to take this opportunity to once again thank each and every one of you who volunteered to make everyone feel welcome and comfortable at the convention. I will refrain from acknowledging anyone by name for fear of missing someone; plus there were so many terrific volunteers that I would not have edit space to do that in. But please note everyone I spoke with from the CEO of AAHPERD across to the one-day visitor from out-of-state noticed and appreciated the 'Hoosier Hospitality' that we have come to know and value.

With that, my sense of pride and enthusiasm directly from the convention experience is clearly tempered by the sustained bleak news about cuts in K-12 programs that serve Indiana youth. Of particular note are those school corporations that have eliminated or significantly reduced the content areas of Physical Education, Dance, and Health. Irrespective of whether the reasons are economic or political, or some combination, all of us need to reflect and view this news with a sense of duty and purpose. Ultimately, all of us ought to wonder "What can I do to help"? And please understand, beyond silence or inactivity, there is no wrong answer.

Consequently, there is no better time than right now to serve the profession in an advocacy role…. and this does not automatically mean in a formal role. While the profession does in fact need formal advocacy efforts to occur (and the association is addressing this daily) the profession can also be well served by positive and repeated advocacy efforts at the local level. In essence, the day to day and minute to minute interactions that all of you have with the various stakeholders of your programs are the best forms of advocacy. What have you done lately to ensure the PTO/PTA fully understands your impact on the students? Are you fully confident the members of the school board have seen the best practices in action? Are the students meaningfully engaged and relevantly assessed? Is your program illustrative of best practices and offered with the best of intentions? While I understand some of us will unflinchingly say "yes; of course" we all know we can all address advocacy a bit more visibly. Yet, if you feel you cannot, then, ask yourself what you are doing to help a colleague accomplish all that you have?

I would be remiss to then not indicate what the association has recently accomplished toward advocacy. First, the association offered an Advocacy Grant Program; with the purpose of creating or sustaining advocacy efforts at the local level across the state. Second, I convened an End of Course Assessment Committee to stay ahead of the policy changes at the INDOE. Stay tuned to see how these efforts, among many others, will result in how K-12 education in IN serves its youth.

In closing, thank you for all that you have done, are doing, and will do on behalf of our profession.

Let me know how I can help,

Mark Urtel, President

Do you have friends who'd enjoy The Indiana AHPERD Journal? Send us their addresses, and we'll send them a free sample issue.

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Message from the President

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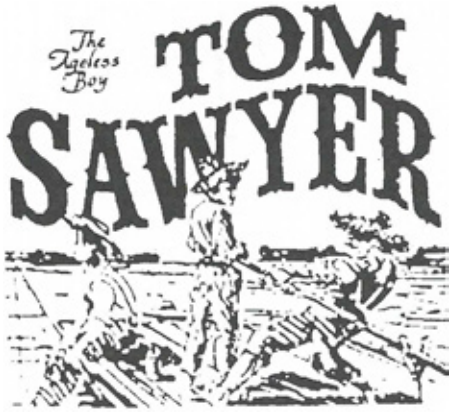

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Becoming a Better Writer

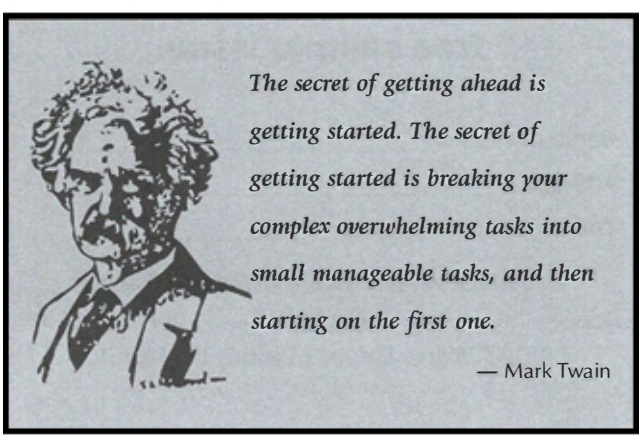
Part 1

This is a three part series providing tips to improving writing skills. The first part will concentrate on content questions that should be asked while developing the manuscript and before submitting the manuscript for publication. The next part will focus on presentation questions. The final part will describe the 10 most common reasons why manuscripts are rejected.

Content Questions

The writer should consider the following content questions prior to developing the manuscript outline and again once the manuscript is completed prior to submission:

- Does this manuscript report specific, identifiable, advance in knowledge?
- Is the subject new or old, and is the treatment new or old?
- Are conclusions justified, soundly based, and logically consistent with the support data?
- Is the content theoretically sound?
- Have there been major omissions in content?
- Are the procedures and methods employed sufficiently clear that the work could be repeated?
- Is the information to prior work pertinent, cited in the body of the paper, and complete?
- Is the paper relevant?
- Does the manuscript have any practical information or use?
- Does the manuscript adequately assess conflicting studies and data? Does it make a significant and novel contribution to the field?
- Is this manuscript characterized by original thinking?
- Is the content timely and useful to the reader?



Share Your Journal with Your Family

Mothers' Perspectives of their Daughter's Specialization in Volleyball: Appraisals of Activity Settings and Readiness for Participation

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Abstract

Specialization in a sport activity can be detrimental to a child if s/he is not ready to handle various demands associated with the activity. As gatekeepers to their child's activity opportunities, parents should consider their child's physical and mental readiness for specialized participation and consider prohibiting participation if necessary. The purpose of this study was to gain insight into mothers' appraisals of their daughter's readiness to specialize in volleyball as well as their appraisals of the participation environment. Eight mothers of daughters who competed on a club volleyball team participated in semi-structured interviews. Participants indicated their daughter's physical readiness, willingness to commit to the activity, and ability to maintain focus in other important aspects of life (e.g., school) were factors that allowed them to permit involvement. In addition, coaches' goals and nature of interaction with the participants' daughters were factors that allowed these mothers to approve their daughter's involvement.

Keywords: sport, commitment, parent, child

Parents play an important contributory role in the development of their child's sport experiences (Holt & Dunn, 2004). They often serve as "gatekeepers," meaning that they control the decision to allow or prohibit their child's engagement in an activity (Hultsman, 1993). In addition, parental appraisals can shape a child's sport experiences (Fredricks & Eccles, 2005). For instance, a positive link has been found between parents' appraisals of their child's competence and their child's continued engagement in an activity (Jacobs & Eccles, 1992). Since parents play a role in shaping their child's sport experiences, there is value in obtaining knowledge of their appraisals with regard to their child's competencies as well as the setting in which their child wishes to participate.

Estimates of American youth sport participants between the ages of 6 and 18 ranges from approximately 15 million to 46 million (Coakley, 2009). Participants in this population engage in a variety of activities and possess various skill levels. Of these participants, some specialize in a sport activity. Sport specialization is characterized by decreases in the quantity of activities a child engages in while making increased commitments (e.g., time) to the remaining activity or activities (Cote, Baker, & Abernethy, 2003). This type of engagement most frequently occurs when a child is between 13-15 years of age; however, specialization can occur at an earlier age (Cote, 1999).

Although the potential for advanced skill development as a result of a dedicated focus on an activity can occur, negative physiological consequences may result as well (Walker, 1993; Weiss & Hayashi, 1995). Therefore, a child's physical readiness to specialize in a sport should be considered by his/her parents (Rowland, 1998). Because participation may consist of several games and/or practices for several hours at a time and several days a week over an extended period of time, the child could be at risk for various injuries stemming from repetitive motions (Wiersma, 2000).

In addition to a child's physical readiness, other factors can also affect a child's potential for success in a particular sport participation setting. A child

who specializes in a sport will likely be expected to adhere to a game and practice schedule that will consume a substantial amount of time (Holt & Dunn, 2004). Therefore, s/he will need to possess the discipline and commitment needed to excel in that environment. In addition to adhering to a demanding participation schedule, a child who specializes in a sport will need to accommodate demands stemming from other life aspects (e.g., school) as well. Pressure to achieve in school when coupled with an intense participation schedule could cause a child to be overwhelmed (Wiersma, 2000). As a result, the child's readiness to balance the expectations originating from several competing sources could significantly influence whether s/he continues to participate or withdraws from participation in a sport activity.

In addition to a child's physical readiness and ability to negotiate several sets of demands acting upon him/her, the participation environment is worthy of consideration as well. A significant element in that environment is coaches. Coaches' motives, style, and interaction with their players can cause parents to allow or prohibit their child from participating. Many youth sport coaches struggle with adequately displaying patience and sensitivity when interacting with their athletes (Siegenthaler & Gonzalez, 1997). As a result, a coach can deter parents from allowing their child to pursue the opportunity. In addition, the emphasis the team and/or league places on winning versus skill development can also influence parents' decision-making processes. Even in participation environments where results are taken seriously, incorporating the importance of having fun while developing skills is recommended (Brady, 2004). Since coaches as well as team/league philosophies are significant elements of the participation experience, parents should consider those factors and the impact they can have upon their child's experience.

This study focused on mothers' appraisals with regard to their daughter's readiness to specialize in a sport. Mothers were chosen to participate in this study because they exert significant influence upon the sport experiences of their children (Howard & Madrigal, 1990; Thompson, Rehman, & Humbert, 2005). Traditionally, fathers were identified as the parent with the greatest influence upon the sport experiences of their female children; however, increased participation opportunities for females since the passage of Title IX contributed not only to their increased first-hand involvement in sport but has also resulted in increased influence upon the sport experiences of their daughters (Greendorfer & Lewko, 1978; Lewko & Ewing, 1980; Auster, 2008; Coakley, 2009). As a result of the influence mothers have upon their daughters within a sport setting, they were determined to be an appropriate group for inclusion into this study.

Previous research examined positive and negative aspects resulting from youth sport specialization (Barynina & Vaitsekhovskii, 1992; Stevenson, 1990; Wiersma, 2000; Baker, 2003). In most studies related to youth sport specialization, a retrospective examination of experiences from the viewpoint of the former youth sport participant has been conducted. This study differed in that participants were mothers of girls who were active participants at the time of data collection. Since mothers can have significant influence upon the sport endeavors their daughters eventually pursue, their perspectives regarding their daughter's readiness for specialization could be useful to other similarly situated mothers as well. If a mother is in a situation where she is contemplating whether or not to allow her daughter to specialize in a sport, she may not have considered various factors that could influence her daughter's experience. This possibility contributed to the purpose of this study, which was to gain insight into mothers' appraisals of their daughter's readiness to specialize in volleyball as well as their appraisals of the participation environment. The specific research questions were:

1. What physical competencies as well as other characteristics did these mothers perceive in their daughters that allowed them to permit their daughters to specialize in volleyball?
2. What perceptions of various external factors (e.g., coaches, team, league) did these mothers hold before allowing their daughters to specialize in volleyball?

Method

Participants

Eight mothers participated in this study. All of the participants were Caucasian. Their average age was 42 years; the youngest was 38 years old and the oldest 50 years old. Five of the participants held a Bachelor's degree. Two held a Master's degree and one was a graduate of a vocational program. The household income of each of the participants varied; however, each participant was from a household with an annual income of no less than $60,000. Five of the participants were employed outside the home in various fields. Of the five, three were employed full-time and the remaining two part-time. Three participants worked inside the home. Seven of the participants were married and resided with their husband from their first marriage. One participant was divorced and resided with her husband from a second marriage. Each of the participants had a 12 or 13 year-old daughter who was enrolled in a private volleyball club. All of the participants had other children in addition to the daughters who participated in this club. In addition, all of the participants had at least one other child who was active in other recreational sport programs at the time of data collection.

The Participation Setting

The daughters of these participants were all members of the same team that competed against similarly aged girls from other private volleyball clubs in the metropolitan area. They usually participated in out-of-town tournaments that were usually within a four-hour drive; however, they also drove longer distances to participate in some tournaments. Participation in this club required commitment to a regular practice, game, and tournament schedule. The regular season lasted from early November until late April. During this time, the team regularly practiced two or three times a week and competed in games within the metropolitan area

on weekends. This team participated in one or two out-of-town tournaments each month during the regular season. When these tournaments were held, it was common for the participants and their families to be away from home from early Friday morning until late Sunday evening. During the season in which data collection took place, the team did not qualify for postseason competition. Teams in this club that did qualify for postseason play could continue as late as mid-June.

Data Collection

The gender and age of the child, the specific sport, and the level of competition are just a few of many variables exist in youth participation settings. In order to achieve consistency among participants, a specific population was targeted for this study. Mothers whose daughters were within a specific age range, played for the same team, and participated at the same level of competition were purposefully selected.

Initial arrangements to speak with participants were made through the head coach. The coach allowed the investigator to visit practices in order to solicit potential participants. The investigator visited a practice session and distributed a letter of introduction. This letter indicated the purpose of the research, the amount of time required to participate in an interview, and the investigator's contact information. Twelve mothers each had one daughter on this team. Of the 12, four elected not to participate. Participants were given informed consent forms explaining potential risks associated with the research and methods of ensuring confidentiality.

Data was collected through demographic surveys as well as semi-structured interviews. Detail on each participant's age, education level, ethnicity, household income, and occupation was requested. Interviews were audio taped, lasted between 35-45 minutes each, and were conducted when participants brought their daughters to practice. Participants were interviewed individually and were asked a series of pre-formatted, open-ended questions. Questions focused on factors participants considered when deciding to allow their daughters to specialize in volleyball. Examples of interview questions included, "When your daughter wanted to dedicate her efforts to one sport, what about her was it that allowed you to approve her interest?" and "What impact did the coaches and the league have upon your decision to allow your daughter to specialize in this sport?"

Upon completion of the interview, participants chose a pseudonym that was used in reporting the data. At this time, participants were asked several debriefing questions and were provided with the opportunity to ask the investigator questions pertaining to the study. A brief (less than 10 minutes) follow-up interview was conducted with two participants. This was conducted in order to receive clarification of statements that were received during the initial interview.

Data Analysis

The investigator transcribed the interviews verbatim. A series of codes were established in order to sort the data into categories and to aid with the construction of themes. For instance, participants' statements in reference to their daughter's participation setting were coded as "environment." Statements in reference to their daughter's personal characteristics were coded as "determination," "work ethic," or "physical maturity."

Member checking was a triangulation measure that was utilized in order to contribute to the trustworthiness of the study. The process included "sharing interview transcripts, analytical thoughts, and/or drafts of the final report with research participants to make sure you are representing them and their ideas accurately" (Glesne, 2006, p. 38). Each participant was provided with a copy of her transcript for examination. A copy of the completed manuscript was provided as well. Participants were asked to analyze the documents in order to ensure their statements were reported accurately. Three participants responded to a request for feedback. All of them indicated their statements were recorded accurately in their transcript and manuscript.

Results and Discussion

All of the participants' daughters played a variety of sports before enrolling in the volleyball club. Participation in this club represented their daughter's first attempt at specialization. Three themes were developed from the interview data. The themes reflected these mothers' appraisals of their daughter's readiness to specialize as well as their appraisals of the participation setting. The themes were (a) physical readiness to participate; (b) work ethic and time management; and (c) positive participation environment.

Physical Readiness to Participate

Physiological consequences upon youth sport participants could result if excessive training occurs during crucial periods of a child's physical development. Increased stress upon connective tissues around the knee subsequently increases a youth's vulnerability to an injury because growth in muscles and/or tendons around the knee may not develop as the same rate as the femur, tibia, and/or fibula (Baker, 2003). The mothers in this study perceived their daughters to be physically ready to participate. Several of the mothers mentioned it was important to them to first recognize their daughters did not have "a lot of growing left to do." Since they perceived their daughters to have undergone the majority of their physical growth, they were more comfortable in allowing participation in this setting. Potential for damage to developing bones, joints, and muscles served as a deterrent for several mothers to allow participation of this intensity to take place prior to this particular season. One of the mothers, Geri, stated, "It's important that kids have a good skeletal foundation. We (her husband and herself) didn't let her do this before this year because we wanted to be sure she could handle it physically. I think she's mature enough now where she can handle all the practices and games."

Malina (1988) stated, "The effects of regular training on the growing child and adolescent need to be considered" (p. 89). Since excessive training during a child's developmental years could cause long-term health problems to joints,

connective tissues, and the skeletal system, parents may wish to seek participation opportunities that are developmentally appropriate for their child (Kozar & Lord, 1988). By allowing rigorous participation to take place prior to the conclusion of rapid changes to a child's body, the possibility of negatively impacting his/her physiological health exists (Dalton, 1992). As a result, parents should carefully assess their child's physiological development and prohibit intensive participation if the child is yet to start or is in the midst of rapid physiological changes.

Commitment and Time Management

Before these mothers allowed their daughters to participate in this setting, they needed to be certain their daughters were serious about committing themselves to this endeavor. A lengthy practice and game schedule was a characteristic of this league, which is something that not every child is willing to embrace. These mothers' perceptions of their daughter's willingness to commit to the endeavor allowed them to approve participation. Anne was comfortable with allowing her daughter to participate because she perceived her daughter to possess the commitment needed in order to perform in this environment. She said,

> They have to be self-motivated and want to do it without someone pushing them. You need a child that is willing to put the time in. She (Anne's daughter) was determined to do this. It was her own determination instead of her parents pushing her. I think the most important thing was that she had to want it. When I saw how determined she was, it was easy to say 'yes' to letting her do this.

Characteristics of practice activities that youth sport participants frequently engage in is that the activities designed for skill development are not inherently enjoyable (Ericsson, Krampe, & Tesch-Romer, 1993). The repetitive nature of drills and other exercises could become mundane and possibly quite unpleasant to a child who is not wholeheartedly committed to the endeavor. Consequently, s/he may develop a disdain for the activity and possibly withdraw from it (Wiersma, 2000). Since a significant of time could be spent on potentially mundane skill development exercises and lengthy practices, it is important that parents look for clues in their child's behavior that may indicate whether or not s/he is committed to participation. For instance, parents should be on the lookout for notice for comments and/or non-verbal cues suggesting that the child is resistant toward or less than enthused with attending a practice session. If parents detect these behaviors, they may consider prohibiting their child from participating in an environment such as the one examined for this study.

Another aspect that led to these mothers approving their daughter's specialization in volleyball was their perceptions of their daughter's ability to juggle the demands of several commitments. With practice at least twice a week and game schedules that featured several out-of-town trips, time management was a skill these participants' daughters needed to display proficiency in. When participants perceived their daughters understood the importance of time management, they indicated comfort with allowing their daughters to pursue this endeavor. Laura was one of the mothers who wouldn't have permitted her daughter to participate had she not been confident in daughter's ability to complete all of her schoolwork in a timely fashion while fulfilling all of her team-related commitments. She said, "It was important for me to see that she could handle the pressure of attending practices and going to games while keeping up on her homework. School is still the most important thing."

A child may feel overextended and subsequently stressed as a result of his/her involvement in several simultaneous endeavors. If s/he does not effectively deal with those pressures, the quality of output in his/her schoolwork as well as in the sport activity may suffer. Therefore, coping strategies such as effective time management are critical for youths who commit a substantial effort to their sport endeavors. Failure to develop those strategies may result in negative outcomes as Siegenthaler and Gonzalez (1997) stated, "Unless young athletes develop personal coping strategies… stress and burnout will eventually lead athletes to drop out of their sport" (p. 310). Consequently, parents who consider allowing their child to specialize in a sport where intensive practice and game schedules are present should not only be mindful of the demands associated with participating but also consider their child's abilities to juggle those demands with demands present in other aspects of his/her life.

State Conference Mark Your Calendar Now Nov. 10-12, 2010

Positive Participation Environment

A final aspect influencing these mothers' comfort level with their daughter's participation in this setting was the coaching staff. Jamie was concerned with letting her daughter specialize in volleyball because she heard many "horror stories" of overzealous coaches. As a result, the manner in which this team's coaches associated with their players was a key component in Jamie allowing her daughter to pursue this endeavor. She explained,

> I let my daughter do this because of the encouragement I received from the other parents who had kids on the team. They spoke highly of the coaches and the encouragement she receives from the coaches is a big part why we're still here. She has fun and feels good about herself.

Weiss and Petlichkoff (1989) identified environmental factors as a significant aspect that influences parents' decisions to enroll their child in a sport activity. The philosophy of a sport organization was a significant reason why several mothers allowed their daughters to participate. Focus upon learning and skill development as opposed to winning and securing external rewards was most important in their opinion, even in an environment where specialization takes place. Diane said,

> It was really about the attitude of the league and the people they're playing for. Are they there to have fun or are they there to win? If you start pushing them to win and start shaming them about not playing as well as you think they should, that's not good. I don't think I would have let her play and I certainly wouldn't let her stay if it was like that."

Coaches can be a tremendous source of support for an athlete or they can have detrimental effects upon a young athlete's self-esteem. Smoll and Smith (1988) stated, "The manner in which coaches structure the athletic situation, the goal priorities they establish, and the ways in which they relate to athletes are primary determinants of the outcomes of sport participation" (p. 235). A participation environment in which end results are emphasized may result in increased stress levels for young athletes. Therefore, parents should solicit perspectives from other parents with regard to the coaches their children may be working with before allowing participation.

Conclusions, Limitations, and Recommendations

Parents play a significant role in shaping their child's sport experiences. As parents, they should carefully consider whether or not their child is ready for participation in a particular setting. The child's physical readiness, his/her commitment to the activity, and his/her ability to balance demands stemming from competing endeavors are among factors parents should consider. In order to help parents who are considering the possibility of allowing their child to specialize in the future, they may wish to consider the experiences of parents whose child specializes in a sport. As a result, parents can learn from other parents who possess first-hand experience in this environment. It is hoped this research can help encourage parents to carefully consider several aspects with regard to their child's readiness to compete in such settings in order to increase the likelihood of the child having a positive and fulfilling experience.

Although the perspectives of the parents who participated in this study were not intended to be representative of the perspectives of all parents, the factors participants in this study perceived as significant may be significant to other parents as well. A possible limitation of this study is that it focused upon a small group of mothers who had similarly aged daughters who participated on a single team. Since variables surrounding youth participation settings are plentiful, future research on this topic could include perspectives of fathers, factors that influence parental appraisals of readiness in their sons, as well as sports other than volleyball. Another possible area of study is to speak with the youth participants themselves. Finally, it is recommended that researchers continue to focus their inquiry on parents who currently have children who specialize and/or children who are currently active in specializing in order to reduce "vagaries of memory" that can occur when participants are asked to recall circumstances and thought processes from several years ago (Mannell & Iwasaki, 2005).

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Little Help from My Class

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Abstract

A class project was developed attempting to utilize a positive social format. Through social interactions with peers, students were encouraged to promote physical activity. This project helped to offset negative health outcomes by establishing positive social interactions in health. Key Words: social interaction, physical fitness, and health

Introduction

The changing social roles and responsibilities consistent with college-aged (18 and 24 years old) individuals have been linked with negative health outcomes. (Baranowski, T., Cullen, K. W., Basen-Engquist, K., Wetter, D. W., Cummings, S., Martineau, D. S., Prokhorov, A. V., Chorley, J., Beech, B., Hergenroeder, A. C. ,1997). For instance it has been reported a decrease in physical activity and an increase in poor nutritional choices is common in the transition from adolescence to young adulthood. Recognizing the development is cumulative, the impact of such negative health outcomes could have a life long impact. In fact, research completed on college-aged students (Eaton, Kann, Okoro, & Collins, 2007) suggests consequences of lifestyle behavior changes may increase the risk for chronic diseases later in life. Hence, the emphasis of positive student outcomes is consistent with college experience. This experience is typically reflected through research, instruction, support services, events, and awards. In this light, it would follow the college classroom is an ideal environment to purposefully expose young adults to positive lifestyle behaviors. Such activities could emphasis positive approaches toward physical activity, weight management, and nutrition (Lowry, Galuska, Fulton, Wechsler, Kann, & Collins, 2000).

Background

The positive nature of health classes provides an encouraging avenue for adopting healthy habits. An effort to enhance positive lifestyle behaviors through classroom experiences, termed "A Little Help From My Class", resulted in a multi-class project utilizing social support on an individual's physical activity. In this project, the positive health habits were emphasized through involving three classes in a social support environment to prompt physical activity.

These classes were selected for a few reasons. The first of these was due to the ease of implementing the same program to health classes. More significantly, it was thought these students who had a keen interest in becoming healthy would also respond favorably to peers in the classroom.

Description of Class Project

Approximately 25 students were enrolled in each of three personal health classes. At the beginning of the semester, those students who had an interest in trying new ways to enhance their physical activity were identified. This amounted to approximately five students per class who volunteered to become the focus of healthy social influences during the semester. These five students (volunteer-students) were seeking new ways to become more physically fit. In an effort to enhance physical fitness through social support, the remaining 20 students served as the social support. Social support for the volunteer-students or those wanting to improve physical activity consisted of the following actions: 1) peers exercising two times with the volunteer-students, 2) peers sending the volunteer-

students two encouraging emails, and 3) regular classroom debriefing. The first social support action consisted of peers scheduling a time to exercise with each of the volunteer-students. At the beginning of the semester an exercise schedule was made by volunteer-students. Peers in the class picked times available to exercise with the volunteer-students and made arrangements to exercise at least an hour. The volunteer-students exercised with each peer in class at least two times during the semester. This amounted to approximately 40-50 peer exercise sessions during a 16 week semester. During these exercise sessions, the peer provided social support to the volunteer-students by serving as a workout buddy. In addition to the physical exercise sessions, peers also provided support through encouraging weekly emails. Each peer in the class sent two encouraging emails to the volunteer-students. A sign-up sheet was distributed for the class to pick two times in the semester to send an encouraging email to the volunteer-students. The final social engagement occurred through regular classroom debriefing of the volunteer-students progress. During this time, the class shared experiences and additional information was given on fitness and nutrition.

Outcomes

The work produced by this class project occurred in three ways. The first was through peer work out sessions. Students expressed positive feedback and enjoyed having a workout buddy and made friends in an exercise setting independent of the classroom. This was evident through the range of positive emails sent to the volunteer-students. Themes of these emails offered encouragement, suggestions for improving workout and peer rewards. Finally during classroom discussion all students displayed positive attitudes toward the interaction. The only negative feedback was related to the fact the emails were not genuine and therefore, may have lost their intended purpose.

Conclusion

This project helped to offset negative health outcomes through social change by establishing positive social interactions in physical activity. Ultimately, we believe the students positive experiences will lead to a greater participation in physical activity. We plan to verify these observed outcomes by collecting data on social interactions in health and fitness. From these results, we intend to construct sound pedagogical plans used to enhance social interactions for health and fitness. Finally, we hope to expand this social interaction through social media to enhance physical fitness and health knowledge.

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Advocating for Quality Physical Education in Indiana: An Appeal to Physical Educators, School Administrators, School Boards, State Legislators, State Superintendent Dr. Tony Bennett, and Parents

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Abstract

In this article, we sought to raise attention to several current issues related to physical education in the state of Indiana. First, the definition of quality physical education is presented to draw attention to the notion that not all physical education is of the same value to our students. Next, the need for quality physical education programs is established through a discussion of evidence cited in the literature. Finally, recommendations are made for the role of physical educators, school administrators, school boards, state legislatures, superintendent of public schools Dr. Tony Bennett, and parents in advocating for and supporting quality physical education programs in our state's schools.

Key Words: Advocacy, Physical Education, Indiana

The tidal wave of changes to the structure of education in the state of Indiana in the past year has left many educators at all levels reeling with questions and concerns. It goes without saying that the educational overhauls brought about by State Superintendent Dr. Tony Bennett and recent state funding cuts have created a great deal of controversy and unrest by teachers and administrators throughout the state. While these changes to Indiana's public education have undoubtedly affected all branches of education, one may argue that school "specials," including physical education, have been hit hardest of all. For example, physical education was the only discipline called out by name in the initial memorandum that introduced waivers in the spring of 2009. Additionally, since physical education is not a component of No Child Left Behind and the ISTEP test, proposals such as end of course assessments and waivers have the potential to impact physical education more than the so-called 'core' subjects.

In the wake of various memorandums and statements issued by the Indiana Department of Education and the current budget crisis (e.g., a cut of $300 million dollars to K-12 education), many physical educators find themselves wondering whether or not they will have a job in the near future. Some districts have been forced to cut back their physical education program because of the budget cuts. For example, the Tippecanoe School Corporation faces a $7.6 million budget deficit and projected loss of 150 teaching positions. Given the current economic climate, several others are likely to follow. Furthermore, while the two credit requirement for physical education at the high school level seems to help preserve the discipline

in the state, the combination of waivers and end of course assessments is likely to reduce the number of students enrolling in physical education classes and, perhaps, the need for physical educators as well.

Intuitively, most all physical education teachers believe that their subject matter provides their clients, K-12 students, with beneficial content. If they did not, it is unlikely that they would have pursued physical education as their vocation. Several authors have commented on the importance of schools in the promotion of physically active lifestyles (e.g.,Trost, 2004) and others have commented about the life-long benefits of physical education above and beyond school-based athletic programs, which tend to cater to the needs of only the physically gifted (Shephard & Trudeau, 2005; Shephard & Trudeau, 2008).

As physical education professionals working at Purdue University, we strongly believe that physical education has the potential to lead to health enhancing outcomes in additional to several other benefits for the students in the Indiana Public School System. Furthermore, we believe that the actions of Dr. Bennett and the Indiana Board of Education as well as the consequences of budget cuts to Indiana schools have jeopardized the future of physical education in our state. Therefore, we have crafted an appeal to Dr. Bennett, state legislators, school boards, school administrators, teachers, and parents with the intent of reinforcing our strong belief in the need for physical education and the benefits that quality programs have for school-aged children in the state. Additionally, we hope to outline the responsibilities of each of these education and legislative leaders in promoting quality physical education. It is our hope that those in power reconsider the negative impacts of the Department of Education's recent policy shifts, both intended and unintended, on the future of physical education in our state.

Defining Quality Physical Education

Prior to proceeding into a discussion of the value of physical education it is important to note that this information relates to quality physical education, and not all physical education is quality physical education. As explained by NASPE (2003), quality physical education contains the follow three key elements: Opportunity to learn, meaningful content, and appropriate instruction. NASPE (2010) adds student and program assessment as a fourth key component.

Opportunity to Learn

Several factors must be in place in order for students to have adequate opportunities to learn and experience quality physical education experience to be possible. In order for students to experience quality physical education, students must spend an adequate amount of time in class. NASPE (2003) defines this as 150 minutes per week at the elementary level and 225 minutes per week in secondary physical education. Appropriate facilities and equipment are also a prerequisite to a quality physical education program. Finally, a quality program requires that physical education be taught by a trained and qualified physical education specialist as opposed to a generalist teacher (NASPE, 2003).

Meaningful Content

In order for physical education to provide students with a quality experience, the curriculum must be structured in a way which provides them with worthwhile content that will lead them toward meaningful outcomes. According to NASPE (2003), meaningful content includes a variety of learning experiences that include motor skill development, fitness education and assessment, development of cognitive concepts related to motor skills and fitness, social and emotional development, and promotion of regular participation in physical activity outside of the school setting. Additionally, these learning experiences should be aligned with the National Standards for Physical Education (NASPE, 2004) and the Indiana State Standards for Physical Education (Indiana Department of Education [IDOE], 2008).

Appropriate Instruction

NASPE (2003) distinguishes between appropriate and inappropriate instructional practices. In order for a physical education to be of a high quality, the physical educator must fully include all students, design lessons to maximize practice opportunities, and create well designed lessons that promote student learning. Additionally, out of school assignments should be used to support learning and encourage practice, and assessment should be used regularly to monitor and reinforce student learning. Finally, as is made clear in a position statement released by NASPE (2009), "administering or withholding physical activity as a form of punishment and/or behavior management is an inappropriate practice" in physical education (p. 1).

Student and Program Assessment

NASPE (2010) posits that a quality physical education program involves ongoing assessment of both student learning and program effectiveness. That is, assessment is considered a central component of the provision of physical education. Assessment should be both formative (in conjunction with instruction) and summative (given at the end of a unit) and it should be aligned with the state and national standards for physical education. Furthermore, the program itself should be continuously evaluated against the components of a quality program discussed thus far. This program assessment should be conducted by all those with investments in the quality of physical education (e.g., physical education teachers, department chairs, principals, etc.).

The Value of Physical Education

The benefits of physical education to the lives of children in our schools is well documented. In fact, the evidence is so substantial that several prominent national organizations now support the mission of physical education and hold recommendations for daily allotments of the subject. The following sections will provide an abbreviated review of the relevant literature in an effort to demonstrate the need for quality physical education and the role that it can play in the promoting health and wellness among school aged students. Special attention will be paid to elementary physical education specialists

because of a recent movement toward having generalist teachers conduct elementary physical education in order reduce costs.

The Need for Quality Physical Education

- The percentage of overweight and obese children in the United States has more than tripled since 1980 and 60% of obese children have one or more cardiovascular risk factors. There is no question that we are currently in what several scholars have referred to as an obesity epidemic in America (James, Leach, Kalamara, & Shayeghi, 2001).
- In Indiana, approximately 16.5% of all school aged children are overweight or obese (U. S. Department of Health and Human Services [USDHHS], 2005), which is impactful given research which demonstrates that obese children are more likely to become obese adults (Whitaker, Wright, Pepe, Seidel, & Deitz, 2004).
- Research indicates that habits of active living are developed early in life and are carried into adulthood (Corbin, Pangrazi, & Franks, 2003).
- In an effort to combat this colossal public health crisis, the Centers for Disease Control and Prevention (CDC) suggest, "Sixty minutes or more a day of moderate to vigorous physical activity that is developmentally appropriate, enjoyable, and involves a variety of activities" (Strong et al., 2005, p. 732). However, scholars (e.g., Shephard & Trudeau, 2005) note that without physical education the likelihood of achieving even a fraction of this is significantly reduced for close to half of our children.
- Some authors note that physical education is the most cost feasible and cost effective means of ensuring that youth begin to increase their levels of physical activity (Graber, Locke, Lambdin, & Solmon, 2008).
- Physical education has also been referred to as an important public health measure in addressing issues such as pediatric obesity and the increasing prevalence of cardiovascular disease among young people (Shephard, 2005; Berenson et al., 1998).
- Evidence shows that parents and students see the value in physical education. In a survey, 81% of adults agreed that daily physical education should be mandatory in schools and 95% of children believed that physical education should be part of their curriculum (NASPE, 2000).

Research Evidence in Support of Physical Education

- A National Institute of Health Care Management (NIHCM) Foundation report concluded that additional physical education time for young children can significantly reduce body mass index (BMI) for overweight and at-risk-for-overweight girls (NIHCM Foundation, 2004).
- Recent studies suggest a moderately strong positive correlation between children's physical activity and fitness and their academic performance (Grissom, 2005). This relationship held strong even when considering class time reallocated to physical education programs. Thus, "the academic mission of schools may be better served by providing more opportunities for physical activity" through physical education and additional opportunities to be active throughout the day (Trost & van der Mars, 2010).
- Some evidence suggests that physical education may yield short terms gains in various aspects of physical fitness (Malina, 1994).
- Bone density may increase as a result of physical education, which could result in a decrease in osteoporosis later in life (Jones & Dwyer, 1998).
- The development of motor skills and self-esteem are likely enhanced through quality physical education programs (McKenzie, LaMaster, Sallis. & Marshall, 1999).
- An investigation of a three year physical education intervention found that children experienced gains in cardiovascular performance, muscular strength, and arithmetic and writing skills. Additionally, the children exercised more outside of school which resulted in a significant increase in total physical activity (Shephard & Trudeau, 2005).
- Physical education may help to promote activity across the lifespan and may help combat childhood obesity, but at the least we can say with unequivocal confidence that it adds to the accumulation of the number of minutes of physical activity that are recommended by the CDC and NASPE (Graber, Locke, Lambdin, & Solmon, 2008).

Physical Education Specialists

- Rink and Hall (2008) explain that, if the objective of a physical education program is to encourage the adoption of lifetime fitness habits, than qualified physical educators are essential.
- Specialists (vs. non-specialist or those without professional preparation in the field) are more likely to have better content knowledge, display more effective teaching behaviors and classroom management skills, and understand the risks and benefits of participation in physical activity (Faucette & Patterson, 1990).
- Students in classes taught by physical education teachers tend to make greater achievements, have higher fitness levels, and have a more positive disposition toward physical activity (Rahim & Marriner, 1997; Sallis et al., 1997).
- Generalist teachers do not feel prepared to teach physical education (Faulkner et al., 2008) and have concerns related to their perceived lack of content knowledge and the burden of planning for several different subjects (DeCorby et al., 2005).

Recommendations for Action

As demonstrated throughout this article, there is a substantial amount of evidence in support of school based physical education programs. Yet, almost paradoxically, there has been a trend in Indiana and other states toward cutting physical education because of budgetary restrictions. In these hard economic times, we recognize the need for budget cuts. However; given the available evidence related to the importance of physical education in enhancing children's physical activity levels, overall health, and academic achievement, we would argue that physical education programs should not be the target of these

cuts. Rather, we would urge physical educators, parents, school administers, school boards, state legislators, and Dr. Tony Bennett to play an active role in not only preserving physical education in our schools, but also enhancing its visibility and viability. In the following sections we will make recommendations for the ways in which all of these individuals can enhance the quality of physical education in Indiana schools.

Recommendations for Physical Educators

While we would like to recognize and applaud the efforts of the many physical education teachers in the state of Indiana who make a concentrated effort to teach quality lessons, it would be naïve to assume that all physical education in the state is being taught at a high level. Since the information in this article applies only to quality physical education, teaching appropriate physical education is a prerequisite to advocating for any program. Therefore, we recommend that all physical educators in the state of Indiana work toward meeting NASPE's (2003, 2010) outline for quality physical education. Additionally, it is recommended that physical educators teach in accordance with the national standards for physical education (NASPE, 2004) and the Indiana State Standards for Physical Education (Indiana Department of Education, 2008) as these are intricately linked to providing quality instruction. Once the elements of a quality program are in place and instruction is based on the national and state standards for physical education, physical educators can begin a concentrated advocacy effort for what they teach.

Recommendations for School Administrators and School Boards

While all physical educators should strive toward providing quality programs, to some degree their ability to achieve NASPE's (2003, 2010) recommendations are influenced by forces out of the control of the physical educators themselves. For example, it is unlikely that teachers have the ability to influence some of the criteria under NASPE's (2003) opportunity to learn dimension, such as the provision of facilities, equipment, and time allocated to programs. Therefore, it is imperative that school administrators and school board support quality physical education in Indiana schools. The remainder of this section will outline the responsibilities of these individuals in promoting physical education at the local level within schools and districts.

School Administrators

The primary role of the principal should be that of holding physical educators accountable for teaching the best physical education possible. This can be done through a variety of means, some of which include: holding expectations for quality instruction, evaluating teachers on a regular basis, and demonstrating a commitment to professional development. To do so, it is important to have a knowledge of physical education standards and assessment tools. Additionally, administrators should be advocates of physical education and help physical education teachers feel like a valuable component of the school community. This includes avoiding actions that make physical educators feel marginalized, such all allowing teachers to punish students by taking away their physical education time and cancelling physical education to hold school events in the gymnasium. Beyond the context of the schools, district administrators such as superintendents should hold school leaders and physical educators accountable for providing quality physical education. Additionally, they should advocate for policies that promote the preservation and/or expansion of physical education in the district.

School Boards

At the district level, it is also the responsibility of the school board to hold physical educators accountable for providing quality instruction through the development of policies that promote effective teaching. More importantly, however, school boards should make a concentrated effort to make sure that physical educators have the time, facilities, and equipment to teach effectively. Although some have all seen exemplary teachers who are able to teach meaningful content with less than adequate resources, it goes without saying that physical educators can perform their jobs more efficiently when they have the proper means to do so. The NASPE (2003) recommendation for 150 minutes of physical education per week at the elementary level and 225 in middle and high schools should serve as the standard for time allocation. Additionally, teachers should be provided with the facilities and equipment necessary to deliver effective instruction given the number of students in their classes. Along these same lines, physical education classes should be kept relatively small and not exceed 30-35 students.

Recommendations for State Legislators and Dr. Tony Bennett

While there is a great deal that can be done at the local level to provide teachers with the means through which to provide effective instruction and to hold them accountable for doing so, it should be noted that policies need to be in place at the state level to encourage local officials to adhere to the recommendations stated above. Thus, it is the responsibility of state legislators and Superintendent of Indiana public schools Dr. Tony Bennett to encourage quality physical education from their respective positions in the state. This includes expanding state requirements for physical education and providing measures of accountability for physical educators. For examples of other states that have developed extemporary policies related to physical education, legislators are invited to explore those enacted in South Carolina (e.g., Rink & Mitchell, 2003). Unfortunately, in a world of budget cuts and high stakes testing physical education is typically an early target for removal from the school curriculum. Indiana state policymakers need to understand the value of the subject for the health and wellbeing of Indiana school children and support its inclusion within the school curriculum. Rather than viewing physical education time as detracting from budget and academic learning time, it is important the state leaders recognize the potential contribution that physical education makes to reducing

health costs and improving academic achievement (Trost & van der Mars, 2010).

Recommendations for Parents

While physical educators have a responsibility to advocate for their subject, parents of the students enrolled in physical education classes have a similar responsibility to make sure that quality instruction is being provided and to raise concerns if they believe their students are involved in a less than adequate physical education experience. Parents should also inquire into the state of physical education in their children's schools and ask for information such as the number of minutes of allocated to the subject per week, who teaches the physical education classes (e.g., generalists or specialists), and the types of content being taught in classes. This would help them to better understand the degree to which teachers and school administrators are committed to providing quality physical education experiences. Additionally, given the data on the ability of physical education to yield beneficial health outcomes, parents should make a concentrated effort to advocate to school administrators for the preservation and expansion of quality physical education to promote the wellbeing of their children.

Summary and Final Thoughts

In closing, it is important to understand that an investment in physical education is not only an investment in the health of our children today, but will also pay dividends in the future. The World Health Organization (WHO) recently reported that a $1.00 investment in physical education today will lead to a $3.20 saving in health care costs in the future (2003). Thus, investing money in quality physical education will lead to long term saving in the state of Indiana and on a national scale

Additionally, with the launch of Michelle Obama's "Let's Move" campaign and the Fitness Integration with Teaching (FIT) Kids Act before Congress, there is a clear emphasis on physical activity on the national stage. Both of these initiatives intend to enhance physical activity inside and out of school in an effort to reduce obesity and enhance the health of our nation's children. At the state level, Indiana governor Mitch Daniels has led the change against inactivity and overweight in his "Shape Up Indiana" campaign, and it is time that public school join the charge in making Indiana a more health conscious state.

Allen Russell, an elementary school physical educator from Grand Junction, CO, once said "Of all of the subject in school, physical education is the only subject which by the very nature of its content, has the potential to affect how a person will feel every moment of every day for the rest of his or her life." As professionals in the field of physical education and concerned Indiana residents, we believe that it is the right of every child who goes through an Indiana Public School to have access to a quality physical education program that will grant them the knowledge, skills, and values to lead healthy lives. Promoting physical activity through such programs is a realistic and effective means through which the issues of inactivity and obesity can be addressed in our state. We also value physical education as an opportunity to bring children together in a physical activity setting. As Rink and Hall (2008) commented, school based physical education is the only universally shared experience of that kind in our culture and therefore assumes a central role in shaping the place that physical activity occupies in our lives.

However, it should be noted that physical education is not the sole solution to the problem. Rather, it is the coordination of school-based programs such as physical education, health education, and healthy school lunches as well as outside of school programs such as access to health care and recreation opportunities that will make a difference in the lives of our children.

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State Conference Mark Your Calendar Now Nov. 10-12, 2010

Conference Information at www.indiana-ahperd.org

Peer Reviewed: Physical Activity vs. Physical Education

Physical Activity vs. Physical Education

There is a distinction between physical education and physical activity, yet many people use them interchangeably.

Physical Education is defined as a planned, sequential program of curricula and instruction that helps students develop the knowledge, attitudes, motor skills, self-management skills and confidence needed to adopt and maintain physically active lifestyles.

The physical education setting, whether the gym, field, or multipurpose room, is the classroom in which a certified physical education specialist teaches the curriculum of physical education. This class should be treated with the same level of professional concern as other learning environments.

A quality physical education program would include an environment in which:

- Curriculum aligns with the national standards for physical education;
- Teacher lessons have a sequential purpose over a unit of planned curriculum;
- Children are given the opportunity to learn with appropriate time and space for practice;
- Children have enough equipment;
- Children feel safe and are provided with activities which support a positive self esteem;
- Children are taught by a certified specialist;
- Children are instructed and assessed in the cognitive, affective and psychomotor domains.

Regular physical activity in childhood and adolescence improves strength and endurance, helps build healthy bones and muscles, helps control weight, reduces anxiety and stress, increases self-esteem and may improve blood pressure and cholesterol levels. Exercise is the subset of physical activity that is planned, structured and repetitive and is done to improve or maintain physical fitness. Physical activity and exercise is the application of what is learned in physical education class.

Children need time to learn and practice to master basis locomotor skills to become active adults. In order to master skills and knowledge, students benefit from time and practice with a specialist in the area of physical education.

What Do You Think?

State Conference

Mark Your Calendar Now

Nov. 10-12, 2010

2009 Indiana AHPERD Awards

Elementary School Physical Education Teacher of the Year

Kim Ward teaches physical education and wellness at Lew Wallace School #107 for Indianapolis Public Schools. She has been teaching for 17 years. Kim is the Action Based Learning specialist for her District. She is currently doing an ABL research project under the direction of Lisa Hicks from the University of Indianapolis. Kim was recognized as being one of the top 10 finalists for IPS in 2006. She also ranked in the top 100 out of 10,000 for the Disney teacher award. She has been instrumental in organizing a fitness club, and a dance/ jump rope club. She received a Lowe's grant for $5,000.00. She had a walking trail built with the money. She has attended numerous AAHPERD National Conferences and has presented at the state and national AHPERD conferences. She is also a member of the AAHPERD"s Midwest District Dance, Sport, and Physical Education council.

Recreation Professional of the Year

Kerri Zurbuch is the President and Founder of Well Strategies Inc. She earned her Masters Degree in Wellness Management and Business. She currently serves on the Wellness Advisory Board for East Allen County Schools as well as several other wellness commit-tees and boards. In her work as a Busi-ness Consultant and Wellness Coach, Kerri assists companies in the strategic development of wellness programs, developing an infrastructure that sup-ports positive long-term health outcomes. She also co-authors a monthly wellness newsletter distributed to more than 40 school systems throughout the state and is the health and wellness expert of a quarterly radio show dis-cussing wellness, fitness and nutrition. She also presents for businesses and state level conferences. She is the mother of three boys Sam (8) Charlie (6) and Peter (4.5 months). She has been married to her husband for 14 years but started dating him in the 8th grade. According to Kerri, raising boys can be an "extreme sport". Kerri and her two older sons are going to run a fresh market this summer with produce and eggs from their family garden and backyard chickens. Her husband calls the chicken coupe "The hot wing hotel". Kerri's ultimate goal is to help others "make their own good news

Middle School Physical Education Teacher of the Year

Tamara "Tammy" Brant teaches physical education at Selma Middle School in Selma. They are a STARS award winner from 2008-2013. Tammy currently serves on association committees at the state, district and national level. She is a NASPE STARS reviewer. She has presented at the state conference three times and has helped assist two national conferences.

Honor Award

Jane Davis-Brezette has taught physical education for more than 44 years. She has taught at the University of Southern Indiana for 40 of those years. Jane serves as Chair of the Physical Education Department, oversees a large department consisting of 39 full-time and part-time faculty. She has been instrumental in developing an elaborate service program consisting of fitness/wellness courses and a vast array of activity classes. She has been instrumental in developing four majors (physical education teaching, kinesiology, exercise science and sport management) and five minors at USI. She has served as a member of numerous committees at the university level including the Faculty Senate, Economic Benefit Committee, Athletic Board, Athletic Hall of Fame and is currently the Chair of the Curriculum Committee. Jane has served as President of Indiana AHPERD, a member of the Mini-Grants Committee, Chair of the Awards Committee and several other IAHPERD committees during her tenure at USI.

Legacy Award

Lana Groombridge has made a significant contribution to the profession during her 42 years as a teacher, coach, athletic director, department chair and professor. She has coached numerous sports during her career in public schools and at the collegiate level. She has published ten articles and given over 60 presentations promoting health, fitness and wellness. Lana has served the association hosting regional workshops and special work with the Grant committee.

2009 Indiana

High School Scholarship Awards

Charlotte Farrar graduated from North Posey Sr. High School, Poseyville, IN. Charlotte plans to attend University of Southern Indiana where she hopes to major in health and physical education. Charlotte was active in SADD Club, choir, Young Life, Be the Change Team and Challenge Day. Her teacher writes, "Her leadership skill has directed her in a very positive way. She has a good work ethic and the understanding of a good education and goals."

High School Scholarship Awards

Morgan Uhen graduated from Northrop High School, Fort Wayne, IN. Morgan was active in the school newspaper, Spanish Club, National Honor Society, Student Athletic Council, soccer, basketball, tennis, golf and cheerleading. Her principal writes, "Morgan is an outstanding student. She applies herself very well and always turns in the very best work possible." Her teacher writes, "She is well organized, hard working, and trustworthy in her studies. Her self-motivation is evident in her course selections and how she excelled throughout her high school years. She exemplifies the spirit and vitality of our youth today."

Holly Johnson graduated from South Dearborn High School, Aurora, IN. Holly plans to attend University of Indianapolis. Holly was active in swimming and diving, softball, track and field, spelling team, academic team and 4-H, and the STARS program. She has volunteered in many community service programs. Her swimming coach writes, "She just continues to smile and looks at each day as an opportunity to make something of herself. She is a young lady with a lot of potential and drive."

Jean Lee/Jeff Marvin Collegiate Scholarship Awards

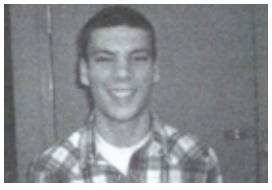
Jason Boyle attends the University of Southern Indiana where she is majoring in physical education teaching. He is a member of Alpha Lambda Delta Honor Society, National Society of Collegiate Scholars, Indiana Association for Health, Physical Education, Recreation and Dance and the president of the Exercise and Physical Education (ESPE) Club He works part time to pay his bills. His teacher writes, He is not only an excellent student but he is also a very good person. He has very strong leadership skills and is a very intelligent young man. Jason is a leader and never accepts anything but the best from himself and his peers.

Matt Razor graduated from Blue River Valley High School, Mt. Summit, IN. Matt plans to attend Ball State University where he hopes to major in physical education. Matt was active in Basketball, Golf, Tennis, SADD, National Honor Society, Big Brothers and Big Sisters, Friends Forever, French Club and Business Professionals of America. His principal writes, "He is extremely police and respectful, as well as hard working. I feel that Matt has the desire and ability to be successful in whatever he decides to pursue."

Jennifer Myers attends the University of Southern Indiana where she is majoring in physical education teaching. She is a member of the Living Learning Community, Student Government, Ultimate Frisbee Club, Intramurals, the Exercise and Physical Education (ESPE) Club treasurer and Indiana Association for Health, Physical Education, Recreation and Dance. Her teacher writes, "She volunteers for special projects unrelated to her classes even though she has little spare time to devote because she works to support herself. She is an excellent student because she is committed to being the best she can be and is willing to work and sacrifices to achieve that goal."

AHPERD Awards

Jean Lee/Jeff Marvin Collegiate Scholarship Awards



Daniel Nave attends Manchester College where he is majoring in physical education and health teaching. He works part time and is a member of the Sport, Health, and Physical Education (SHAPE) Club. He is also an athlete. His teacher writes, "Dan is a strong student who is focused and committed to doing his best. He is a capable young professional and will make the kind of teacher who accomplishes great things with his students."

Erica Terry attends Indiana State University where is majors in health and physical education. She is a member of the National Honor Society for Collegiate Scholars, Organization for Physical Education Students, 21st Century Organization Director of Freshmen Affairs, Volunteer for Boys and Girls Club, Volunteer for Catch the Stars Foundation, Athletics Minority Opportunities and Interest Committee and Volunteer for Planned Parenthood.

Outstanding Student Award

During her six years as an undergraduate, **Kalie Carlisle** attended the University of Evansville for 3 1/2 years, majoring in physical education and health and Manchester College for 2 1/2 years, majoring in adapted physical education and physical education. At the University of Evansville she was a cheerleader as well as a very active member of Zeta Tau Alpha. At Manchester College Kalie was an officer and member of SHAPE. She loves working with chil-dren with disabilities, saying, "I have a blast adapting equipment and rules so each child can be set up for success". Kalie has worked at Bradford Woods, a summer camp for children with disabilities, for a summer where she learned so much about how to assist children with disabilities in their daily lives. When she graduates in May, Kalie would like to become a physical education teacher in Indianapolis or somewhere very far down South. My ultimate goal is to become competent in working with children who are deaf-blind.

Sport Management Professional of the Year

Kimberly J. Bodey is an Associate Professor at Indiana State University. Dr. Bodey has spoken at many state and national conference which included AAHPERD and National Coaching Educator's Conference. She has served as a co-editor on a text book and contributed four chapters to one internationally used facility textbook. She has worked pub-lished articles for Indiana AHPERD Journal and Strategies. She was the lead author on the National Coaching Report: The State of Coaching Education in the US (NASPE, 2008).

Pathfinder Award

Glenna G. Bower is an Assistant Professor in the Physical Education Department at the University of Southern Indiana (USI). She holds a Ph.D. in Educational Leader-ship and Organizational Development with a concentration in Sport Administration from the University of Louisville. Bower's main research area is mentoring to advance women in leadership positions within sport. Bower co-edited the book Women as Leaders in Sport: Im-pact and Influence and written one book entitled, A Guide to Careers and Field Experiences in Sport and Physical Activity. Her other schol-arly work includes contributions to Advancing Women in Leader-ship, Mentoring and Tutoring, Women Sports and Physical Activity Jour-nal (WSPAJ), ICHPERD*SD Journal, and the Recreational Sports Jour-nal. Bower is an active member for the American Alliance for Health, Physical Education, Recreation, and Dance (AAHPERD) serving as the Vice President of Publication, a member of the Indiana Association for Physical Education, Recreation, and Dance (IAHPERD) of the Sport Management Council, and a member of the Diversity and Social Justice Committee for the Midwest District.

2009 Indiana AHPERD Award Winners

Congratulations to All

Eat to Win: Proper Nutrition for Elite Strength/Power Sport Performance

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Abstract

Sports nutrition is a complex, and often times confusing, area of study with a vast amount of information and misinformation. Research has documented a deficit in the nutritional knowledge of strength/power athletes (Dunn, Turner, & Denny, 2007; Jonnalagadda, 2001). Today's athlete under-appreciates the impact a carefully configured nutrition plan can have on athletic performance. There is a desperate need for a credible resource that individuals can rely on to provide research-based information regarding basic and advanced nutritional concepts. This comprehensive review is designed for strength/power athletes and coaches striving to attain optimal performance results. Understanding the basics of nutritional planning combined with a commitment to an eating regimen can create massive changes in specific athletic performance.

Introduction

It is time athletes get back to the basics when they desire better sports performance. What has been lost in the new sport culture of performance enhancement technology is actually an age-old substance: food. A diet properly manipulated to fuel the pathways specific to the type and duration of training sessions can be an effective and healthy avenue to performance enhancement (ACSM, 2007). Achieving training goals like strength, explosive power, and speed in sports like volleyball, basketball, track and field and weight lifting can be aided by fueling significant energy systems with the right nutrients (Dunn, Turner, & Denny, 2007).

Proper nutrition consists of the ingestion of all kinds of foods, minerals, and vitamins, plus water in the proportions that the body needs to function correctly (Judge, 2008). Eating for performance means eating food from all of the food groups and maintaining the caloric and fluid level needed for the body to do the work an athlete wishes or needs to do (Judge, 2008). For every physical performance objective, a dietary strategy exists. For example, an athlete wanting to improve concentration in practice may need to introduce additional carbohydrates at proper intervals, while an athlete wanting to lose weight may also besides cutting fat, calories or carbohydrates, if they are in protein overload. An athlete wishing to build muscle must also carefully consider carbohydrate and protein intake relative to their body weight.

Sports nutrition guidance can enhance training capacity, improve exercise performance, reduce risk of injury, promote appropriate body weight and composition and strengthen the immune system of strength/power athletes such as football players (Dunford, 2008). Applying sound nutrition strategies will also facilitate recovery from strenuous exercise by refueling and rehydrating the body (ACSM, 2000). Providing proper nutrients will build and repair muscles, and also prepare athletes for their next training session or competition. This is especially important for competitive athletes who engage in tournaments, strenuous repetitive exercise, or compete multiple times per day (Berning, 1998).

An athlete's physical preparation and overall physical health can be aided by following some basic nutritional guidelines as a part of the daily routine. If judiciously chosen, a proper diet can bring about improvements in mobility, strength, power and also lead to a healthy, more productive lifestyle. Choosing a well-balanced diet can be beneficial physiologically and psychologically (Dunn, Turner, & Denny, 2007). When designing a nutritional plan it is always wise to seek the assistance of a trained professional like a dietician. The athlete that maintains the proper diet concentrates better, operates more efficiently and sustains longer than the athlete who does not change their diet. What type of dietary habits do your athletes have? The

question can be answered with some tests. Nutritional status assessments conducted can include: 3 day dietary recalls, recalls of dietary intake during training and/or competition, clinical body composition measurements, and biochemical analyses of blood samples. These types of measures are a great starting point, and should be part of the preseason testing program.

Athletes face numerous challenges in identifying reliable nutrition information sources and in the application of sports nutrition techniques. Quite often it has been difficult to discern the level of evidence used to construct the nutrition principles and recommendations. Sources of information for athletes include the media, magazines, and books. Furthermore, supplement store clerks may also complicate this dilemma by providing unreliable dietary information to athletes who do not know how to identify nutrition quackery. Intense marketing of products and an athlete's emotionally charged desire towards their sport may put them at greater risk to become susceptible to quackery (Dunford, 2008). Athletes need to be familiar with their individual nutrition needs and ability to meet those needs depending on their anthropometric data, budget, time management, availability of transportation, available food choices and food storage space. In addition, each athlete has their own dietary preference, which limit the foods and liquids they are willing to eat.

With the sports media constantly bombarding the public with stories of notable and successful athletes committing doping violations (Kraska, Bussard, & Brent, 2009), many coaches, parents and physical educators are asking for additional (research based) resources on nutrient balance, hydration and dietary supplements. However, sports nutrition is a complex, and often times confusing, area of study with a vast amount of information and misinformation. Research has documented a deficit in the nutritional knowledge of strength/power athletes, and suggests that nutrition education programs might be beneficial to help players improve nutritional intake to maintain good health, reach peak performance and recover properly (Dunn, Turner, & Denny, 2007; Jonnalagadda, 2001). Therefore, it is through education and research that we can offer healthy alternatives and help mitigate the abuse of performance enhancing drugs by athletes (Hoffman, et al., 2009). Learning the latest scientific research is a necessary step to be equipped with critical knowledge to educate athletes with the vital information required to fuel performance, improve fitness levels and maintain health. The purpose of this article is to provide research-based information regarding basic and advanced nutritional concepts for developing optimal health, fitness and success in strength/power sports.

Energy Systems Used in Strength/Power Training

When considering fuel for strength/power training, it is important to understand what metabolic processes athletes, coaches, trainers and dieticians are actually trying to fuel (Craig & Judge, 2009). For example, football players have increased dietary needs as a result of their energy expenditures during exercise. Of the three energy systems the body utilizes to fuel exercise, coaches working with strength/power athletes should be most concerned with the phosphagen system and the glycolysis system. The phosphagen system supports high-power outputs transferring bond energy from creatine phosphate molecules to ADP to produce ATP (energy) rapidly without need for oxygen. The energy produced from this system fuels high-intensity outputs for 5 to 6 seconds. Each aspect of strength/power training (aside from some longer sprints, weight-lifting sets and certain conditioning drills) occurs in less than 5 to 6 seconds with plenty of rest in between. The shot put is an example of an event that relies heavily on the phosphagen system (Figure 1). When ATP stores and creatine phosphate stores are depleted, the body relies on the glycolysis system for energy, fueling output with less intensity for up to 60 to 180 seconds. This process again operates without oxygen and relies on glucose as the only fuel. The accumulation of lactate in the blood from this system will contribute to fatigue and decreased exercise performance over time (Schoonen, 2006).

Figure 1

Figure 1: The shot put is an example of an event in the sport of track and field that relies heavily on the phosphagen system.

Understanding the Basics of Important Macronutrients and Hydration

Carbohydrates

Recent diet trends call for low carbohydrates, but it is important to not deny the use of this macronutrient.

Carbohydrates play a critical role in all types of exercise, even elite strength/power training. During exercise, the body draws on carbohydrate storage for energy. This storage, however, is limited in the form of muscle glycogen (300-400g), liver glycogen (75-100g) and blood glucose (25g) (Coleman, 2006). Maintaining carbohydrate stores at optimal levels for exercise means specific attention to sustaining sufficient carbohydrate in the diet. Timing carbohydrate intake with exercise can work to an athlete's advantage. A designated amount of carbohydrates planned before training can "top off" carbohydrate stores. Carbohydrates planned during exercise may aid in maintaining blood glucose levels and carbohydrate oxidation. Carbohydrates immediately after exercise replenish used glycogen. Carbohydrates with respect to elite strength/power training will be discussed in further detail in the recommendation section.

Protein

Contrary to popular belief, protein is not the most important energy source in exercise. Protein does, however, play very important physiological roles (Gibala, 2006). Twenty important amino acids are critical in physiological processes like "protein synthesis and breakdown, intermediary metabolism, membrane transport, acid-base regulation, and immune function" (Rennie, 1996). When considering protein's role in exercise, coaches and athletes must take a different vantage point than with carbohydrates. The question is not how does protein intake affect exercise, the question is how does exercise effect whole body and skeletal muscle protein turnover (Gibala, 2006)? Answering this question effectively is especially important to throwers wanting to gain lean muscle mass and keep lean muscle mass throughout the breakdown of exercise.

Even in sedentary individuals, the body experiences a continuous amino acid turnover (Gibala, 2006). Almost all protein is recycled, but small portions are utilized for energy or are lost (Gibala, 2006). Whether a certain type of exercise forces a larger amount of protein utilization or loss is still debatable (Gibala, 2006). The American College of Sports Medicine, American Dietetic Association and Dieticians of Canada released a position statement supporting the idea that exercise may cause a greater need for protein intake in athletes (ACSM, 2000). The other side of the debate maintains that athletes become more efficient with protein utilization and therefore do not necessarily need more protein in the diet (Gibala, 2006).

Fat

Lipids have a variety of functions in the body that either directly or indirectly relate to exercise. Fats provide energy for daily activities including rest, protect organs and maintain body temperature. Not all fats are helpful to the body; excessive consumption of saturated fats and cholesterol can increase cardiovascular disease risk and other chronic diseases. Looking at the different kinds of lipids helps decipher these roles more specifically (Johnalagadda, 2006).

Lipids can be broken down into two categories: open-chained and closed-ring lipids. Open-chained lipids include fatty acids and other types, but fatty acids are especially important; they provide the most energy in dietary fat. Fatty acids are classified into three categories: saturated fats, monounsaturated fats and polyunsaturated fats. Polyunsaturated fats include two very important essential fatty acids: linoleic and linolenic acid. These two essential fatty acids help synthesize eicosanoids, entities related to blood pressure maintenance, blood flow regulation, blood clotting, inflammation and bronchiole air flow. Obviously, these functions relate to exercise considerably. Closed-ring lipids include steroids, important to the synthesis of steroid hormones, bile acids and Vitamin D (Johnalagadda, 2006).

In direct relation, like carbohydrates, fats can be oxidized to supply energy to the exercising muscle. Whether the body utilizes carbohydrates or fats depends on the intensity of exercise. At around 70 to 80 percent VO2 max, the body shifts from fat use to carbohydrate use. Fatty acid use yields more energy, but requires more oxygen leaving carbohydrates as the main energy source in exercise (Johnalagadda, 2006).

Hydration

The body relies on fluid homeostasis for all processes, not just those involved in exercise. But for athletes, fluid maintenance is a critical issue for performance; even a slight amount of dehydration, greater than 1% of bodyweight loss, can affect the athlete in numerous ways; even performance decrement depending on the exercise and the athlete. Athletes can circumvent fluid and hydration problems by pre-hydrating, drinking during exercise and replacing what is lost in sweat and urine throughout exercise and the day. How an athlete must attack a fluid and hydration plan depends on sweat loss, practice duration, type of exercise, practices per day and environmental conditions. Water is not the only consideration; athletes, trainers and coaches must assess individual electrolyte needs as well (Murray, 2006).

Recommendations

Carbohydrates

How many carbohydrates do strength/power athletes actually need? Research shows that athletes in general may not be getting the carbohydrate necessary to sustain daily training (Van Erp-Baart, 1989). The importance of adequate carbohydrate intake is significant; strength training exercise significantly decreases muscle glycogen (Roy, 1998) and a low-carbohydrate, high-protein diet may contribute to

reduced muscular endurance (Walberg, 1989).

Carbohydrate intake to compensate daily training deficits ranges from 5 to 7 grams per kilogram bodyweight a day (Burke, Cox, Cummings & Desbrow, 2001). The official practice manual for the American Dietetics Association recommends 5 to 8 g/kg/day for strength/power athletes. (Dunford, 2006). Five grams per kg of body weight per day is adequate to support training of athletes involved in intermittent, power or sprint activities. The ideal ultimately depends on the athlete's needs. The carbohydrate requirements may be lower for some female athletes depending on their metabolism and sensitivity to carbohydrates. Some female athletes may be better served at 3-4 grams of carbohydrates per kg of body weight if they are concerned with improving their body composition and ultimately their fitness levels including power.

Since strength/power sport training requires repeated practices, some back to back, replenishing depleted muscle glycogen stores with a carbohydrate solution or sports drink post-exercise is important for recovery (Roy, 1998). For athletes engaged in exercise longer than 90 minutes, especially when athletes are practicing in heat extremes, the athlete should drink 1.5 g/kg of bodyweight in carbohydrates post-exercise (Coleman, 2006).

Protein

The body is able to recycle protein and amino acids. However, some important amino acids are irreversiblably lost (Phillips, 2004). The traditional line of thinking in strength/power sport training is a mistake; extreme high diets in protein are not effective, and are actually detrimental. The body utilizes a certain amount of protein and the rest is excess; unfortunately, this excess is stored as fat. Whether or not exercise, specifically strength training, requires more protein intake than the normal recommended intake is a topic still up for debate.

On one hand, research has shown that a training effect of strength training increases the efficiency of protein-use, suggesting reduced protein requirements (Phillips, 2004). Higher protein intakes have not been consistently effective for strength training athletes (Lemon, 1991). On top of that, higher protein diets may even be associated with some health risks (Lemon, 1991).

On the other hand, an increased requirement for protein in strength-trained athletes might arise to support muscle protein growth through elevated protein synthesis caused by intense strength training (Phillips, 2004). The increased loss of amino acids associated with strength-training activities might also require strength athletes to consume more protein in the diet (Phillips, 2004). But if more protein is needed, how much more is needed for strength athletes as opposed to the general population?

A hypoenergy diet providing twice the Recommended Dietary Intake (.8g/kg/day) for protein for the average population was more effective in retaining body protein in weight-lifters than a diet with higher carbohydrate without the RDA for protein (Walberg, 1988). In a study comparing the effectiveness of low protein diets, moderate protein diets and high protein diets for sedentary and strength-trained athletes, the moderate protein diet was most suitable for strength athletes (Tarnopolsky, 1992). The low protein diets (.86 g/kg/day) were adequate for sedentary, but not for strength athletes (Tarnopolsky, 1992). Medium protein diets (1.4 g/kg/day) created a state of adaptation for strength athletes, but overload for sedentary individuals (Tarnopolsky, 1992). High protein diets (2.4 g/kg/day) were an overload for both groups (Tarnopolsky, 1992). A review of studies that have examined the protein requirements of strength-trained athletes, using nitrogen balance methodology, has shown a modest increase in requirements in this group (Phillips, 2004).

At present, there is no evidence to suggest that supplements are required for optimal muscle growth or strength gain (Phillips, 2004). Strength athletes should consume approximately 12-15% of their daily total energy/calorie intake as protein, 188-250% of the U.S. recommended dietary allowance (Lemon, 1991, Phillips, 2004). The strength/power sport athlete should consume from 1.2 g/kg/day to 1.7 g/kg/day depending on the needs of the athlete (Dunford, 2006). A strength/power athlete may feel more comfortable ingesting as much as 2 grams of protein per kilogram of body weight, but it is not recommended to go any higher.

Post-resistance exercise consumption of a protein drink compared with a carbohydrate-electrolyte drink (without protein) caused similar adaptations to resistance training, but the milk drink tended to increase bodyweight and fat-free soft tissue compared to a pure carbohydrate solution over a ten week period (Rankin, 2004). In a post-workout recover drink the suggested ratio of carbohydrate to protein is approximately 2:1. But it should be noted that these recommendations are for strength/power athletes. For endurance athletes, the recommended ratio of carbohydrates to protein is generally higher, up to 4:1. An easy/cost effective suggestion for athletes is to include 20 grams of whey protein powder along with 16 ounce Gatorade or other carbohydrate drink post-workout (Judge, 2008). The recovery drink should be consumed within 30 minutes of the completion of an athlete's workout (Rankin, 2004). Athletes should then eat a balanced meal within 90 minutes post-activity.

Fat

Fat recommendations for collegiate strength/power sport training should be purely individual with appropriate attention to specific guidelines issued by credible organizations. In general, throwers will have a tendency towards high-fat and even worse, high-saturated-fat diets (Dunford, 2006). But, like in all sports, dieticians will encounter both ends of the spectrum; certain throwing athletes perhaps seeking a specific body composition may also fall victim to dangerous fat restriction. In general, strength/power sport athletes should fill the remainder of calories needed in the diet with fats after protein and carbohydrate intakes are considered (Dunford, 2006).

In response to athletes cutting fat, the American Dietetic Association has recommended an acceptable intake for athletes. An athlete should consume no less than

20-25% fat of the total calorie diet, what the ADA names a moderate fat diet (ADA, 2000). Negative consequences and no performance benefits arise from lower fat diets (ADA, 2000).

More commonly, however, strength/power sport athletes will adopt high-fat diets (Dunford, 2006). Cardiovascular health is an issue when considering diets high in saturated fat; saturated fatty acids contribute to atherogenesis and coronary artery heart disease (Noseda, 2005) Responsible dieticians, coaches, trainers and athletes should not just advise against high-saturated-fat diets, but should take a proactive approach to circumvent and reduce the issue.

Because heart health is of particular concern, many research studies have investigated how to replace saturated fats in the diet (Appel et. al., 2005). Noseda, 2005, proclaims that if the monounsaturated fat like in olive oil replaces saturated fats, and omega-3-fatty acids like those in fish oils are introduced into the diet, sudden cardiac death and myocardial infarctions will be reduced. In another study, total cholesterol decreased by 4.7% and low-density lipoprotein cholesterol decreased 5.8% replacing the typical American diet with the use of NuSun sunflower oil to replace saturated fats (Binkoski, Kris-Etherton, Wilson, Mountain, & Nicolosi, 2005).

Changing a diet high in saturated fat does not mean a strict one-way solution (Miller, 2006). A diet high in carbohydrate with dietary selections like fruits, vegetables and low-fat dairy products with low fat (low in saturated fat and cholesterol as well) will significantly reduce blood pressure and low-density lipoprotein cholesterol (Miller, 2006). Replacing a portion of the carbohydrate intake instead with protein from both plant and animal sources or monounsaturated fats will have a positive effect on blood pressure and lipoprotein cholesterol (Miller, 2006). There are many ways to get on track with a heart healthy diet. Table 1 illustrates a sample diet for a volleyball player.

Table 1

Reference Athlete

Included in this section are the recommendations applied to a reference athlete. A female strength/power sport athlete (volleyball player) is 22 years old, 6'2" and 100 kilograms (220 pounds).

Carbohydrates:	300 grams – 800 grams per day
Protein:	120 -170 grams per day, 15-20% of total calorie intake
Fats:	20-25% or more of total calorie intake with an emphasis on heart healthy fats
Vitamins and Minerals:	Recommended Dietary Intakes and no more than upper limits taking into consideration special situations.
Fluid and Hydration:	Replace 150% of what is lost in bodyweight for each practice. In hot and humid conditions, assess the need for electrolyte balance.

Hydration

Hypohydration, a body water and electrolyte deficit, can occur when the amount of sweat exceeds water intake. The problem complicates for strength/power sport athletes as they move outdoors in the spring season and conduct multiple practices in heat; the warmer the climate, the greater potential for performance decrement (Sawka & Montain, 2000). Hypohydration may inhibit an athlete's ability to regulate cooler body temperatures and therefore making the athlete susceptible to heat strain (Sawka & Montain, 2000). Heavy sweating with heat exposure may result in 1-8% loss in bodyweight. The body relies on fluid homeostasis for all processes, not just those involved in exercise. But for athletes, fluid maintenance is a critical issue for performance; even a slight amount of dehydration, greater than 1% of bodyweight loss, can affect the athlete in numerous ways. Even performance decrement depends on the exercise and the athlete. Athletes can circumvent fluid and hydration problems by pre-hydrating, drinking during exercise and replacing what is lost in sweat and urine throughout exercise and the day. How an athlete must attack a fluid and hydration plan is dependent on factors like: sweat loss, practice duration, type of exercise, number of practices per day and environmental conditions. Water is not the only consideration; athletes, trainers and coaches must assess individual electrolyte needs as well. Greater than 1% loss can contribute to some kind of performance decrement (Murray, 2006). It is important to emphasize drinking during exercise as well as at meals (Sawka & Montain, 2000). At the end of a practice, the athlete should replace what is lost (Maughan, Leiper & Shireffs, 1997).

How important is electrolyte content in the replenishment drinks of strength/power sport training post-exercise to maintain fluid balance? Research support for inclusion of sodium and other electrolytes in recovery beverages certainly exists (Sharp, 2006; Maughan, Leiper & Shirrefs, 1997). The inclusion of sodium chloride reduces urinary water loss, leading to a more rapid recovery from exercise and heat-induced sweat and urine losses (Sharp, 2006). This is important for throwers maintaining double practices in hot climates for outdoor track and field. Another researched opinion calls for the addition of potassium along with 50-60 mmol/L of sodium for effective re-hydration (Maughan, Leiper & Shirrefs, 1997). Ingesting a carbohydrate-electrolyte drink post-exercise is more effective than just plain water, and even ingesting large volumes of plain water will inhibit thirst and promote a diuretic response (Maughan, Leiper & Shirrefs, 1997).

Fluid recommendations should be individual; fluid volume and the content of electrolytes should be tailored to each athlete (American College of Sports Medicine, 2007). Because of varying sweat rates, electrolyte losses and varying climates, one should assess individual sweat loss in a practice by measuring bodyweight before and after exercise (American College of Sports Medicine, 2007). In general, prehydrating with beverages in addition to fluids at regular meals should begin several hours before a workout

(American College of Sports Medicine, 2007). Drinking at scheduled breaks prevents excessive water loss (American College of Sports Medicine, 2007; Sawka & Montain, 2000). The volume of liquid ingested after a workout should exceed the water lost (American College of Sports Medicine, 2007; Maughan, Leiper & Shirrefs, 1997; Sharp, 2006) How much fluid? A guideline is to ingest 150% of what is lost (Sharp, 2006).

In conclusion, the effects of dehydration and fluid imbalance have a strong effect on performance and health in the case of avoiding complications with heat strain (Maughan, Leiper & Shirrefs, 1997). Athletes should maintain hydration using a system of re-hydration that utilizes sufficient electrolytes (Maughan, Leiper & Shirrefs, 1997).

Other Considerations

Vitamins and Minerals

Vitamins and minerals are involved in the complete regime of metabolic processes in the body and many of the reactions necessary in exercise. Vitamins play a role in carbohydrate, fat and protein metabolism as well as oxygen transfer and delivery and even tissue repair. Do athletes need more vitamins and minerals, and if so, how much more? The answer depends on the type and length of exercise, and even the exercise environment will be a factor. (Wardlaw, 1999)

Vitamins are categorized by their solubility. Water-soluble vitamins include B-6, B-12, folate, thiamin, riboflavin, niacin, pantothenic acid, biotin, vitamin C and choline. Fat-soluble vitamins include A, D, E and K. Minerals are separated into major or trace minerals. Major minerals include calcium, phosphorus, magnesium, sulfur, potassium and chloride. Iron, zinc, copper, selenium, iodide, fluoride, chromium, manganese, molybdenum, boron and vanadium fill the trace mineral category. (Volpe, 2006)

Over the broad spectrum of vitamins and minerals, most athletes require the same amount as the general population (Volpe, 2006). Coaches, trainers and dieticians should simply ensure that the strength/power sport athlete is receiving at least 70% of the Recommended Dietary Intake (RDA), and no more than the tolerable upper limit (UL). Special cases and concerns for athletes do, however, exist; following is a discussion of some important issues to consider for one of the most important minerals, calcium.

Calcium is categorized as a mineral and receives lots of attention in athletics, especially in female athletics. Athletes in training may experience a loss of menstrual cycles; this is accompanied by a loss in bone mass (to maintain serum calcium) (Snow-Harter, 1994)). Osteoporosis is a disease characterized by this low bone mass; the result is fragile bones and an increased fracture risk (American College of Sports Medicine, 1995). Training decrease combined with an increase in calcium intake (adding three glasses of skim milk per day) may help the condition. Throwers are at an advantage, however; resistance training, increased muscle strength and body mass can improve the "skeletal profile" and protect against injury (Snow-Harter, 1994). Regardless, athletes should maintain record of their menstrual cycles (Snow-Harter, 1994).

Special conditions are not the only reason to increase dietary calcium. High-protein diets, typical of both male and female strength/power sport athletes, can increase urinary calcium (Kerstetter, O'Brien, Insogna, 2003) and exercising for 90 minutes or more in the heat can also contribute to calcium loss (Bergeron, Volpe & Gelinas, 2006).

Conclusion

The convenience of the supplement trend is no replacement for a solid nutritional plan that meets exercise needs. When designing an eating routine, it is always prudent to seek the advice of a medical professional or dietician; since no two athletes are alike, no two nutritional plans will be the same. If judiciously chosen, a proper diet can bring about improvements in mobility, strength and power, and also lead to a healthier, more productive lifestyle. Choosing a well-balanced diet can be beneficial physiologically and psychologically. When considering all the macronutrient, fluid, vitamin and mineral recommendations, it is important to keep an eye on the big picture: total calorie intake. If an athlete experiences a lack of energy, it may be due to the ingestion of too few calories. Counting calories, carbohydrates and other elements of food may seem like a daunting task in the first few weeks, but once habit is formed, the athlete's understanding of the proper diet becomes automatic. This type of commitment in place of non-committed eating can bring massive athletic changes. It is also an understanding that lasts a lifetime; ensuring athletes understand how food can impact their lives is critical to a healthy adulthood.

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A 14-week team-based faculty and staff walking program: Can it impact health?

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Abstract

Background

The positive health benefits of regular physical activity have been well documented (CDC, 2008) and 10,000 steps-per-day often is equated with the amount of daily activity necessary for health gains (Tudor-Locke, Hatano, Pangrazi, & Kang, 2008). The purpose of the described program was to increase the physical activity and health of faculty and staff on the campus of a mid-size private university in the Midwest. This study investigated program impact on physical activity and select health measures. Methods: University faculty and staff were invited to participate in a 14-week team-based walking program utilizing incentives and social support to help participants meet a 10,000 steps-per-day goal. Twenty-six of the 168 program members completed a research project consisting of the following measurements assessed pre- and post-program: body weight, blood pressure, height, and completion of Rockport 1-mile walk to measure VO2. Results: Participants were able to complete the Rockport test 49.8 seconds faster at post-test ($p<.01$) and VO2 increased 3.19 O2 /kg/min ($p<.01$). No significant changes to weight or blood pressure were documented. Conclusions: Fitness gains demonstrate the trend toward improved health for participants. The lack of significant change to weight or blood pressure may be a result of the program's sole emphasis on walking or the short time frame.

Key Words: wellness, 10,000 steps, employee health promotion

Over the last few decades many employers, including colleges and universities, have implemented worksite wellness programs in hopes of controlling quickly increasing health care costs. Employers deciding whether or not to allot the needed resources for such programs often want some type of guarantee that the money spent will be returned in the form of reduced health care costs (Haynes, Dunnagan, & Smith, 1999). Therefore, the question arises as to whether worksite wellness programs have any impact on physiological measures of health or cost/frequency of health care claims. Data from past research has typically demonstrated a link between comprehensive worksite wellness programming and participants' targeted health-related behaviors (Haynes et al., 1999). Researchers also have confirmed a link between walking for exercise and the health benefits of improved weight and blood pressure (Albright & Thompson, 2006), along with reduced risk of heart disease and Type II diabetes (Johnson, 2005).

Though the positive health benefits of walking for physical activity are well-documented, equally documented is the fact that it is not easy to get sedentary individuals to become active or newly active individuals to maintain the active lifestyle (Lorentzen, Ommundsen, & Holme, 2007). One key determinant in maintaining physical activity behaviors is thought to be social support from exercise. Social support typically includes "aid or assistance exchanged by individuals, groups, or organizations (social networks) through one of four methods: emotional, instrumental, informational, or appraisal support" (Vrazel, Saunders, & Wilcox, 2008, p. 3) A person or group may provide emotional support through encouragement or acceptance. Instrumental support involves the provision of more tangible factors such as material aid, direct help, or rendering of a particular service. Offering advice, information, or recommendations would be informational support, while appraisal support

includes constructive feedback and an affirmation of beliefs and values (Vrazel et al., 2008). These forms of support may arise from many individuals, but often are provided by family members, friends, or co-workers. Regardless of the origin of support, social support has been identified as a key correlate in physical activity adherence and may greatly influence whether individuals consistently maintain the levels of activity necessary to positively impact health outcomes.

Past participants of university-based wellness programs have experienced many positive health outcomes such as weight loss and body mass index (BMI) improvements, along with decreased hypertension, cholesterol, and fasting glucose levels (Haines et al., 2008). Because employees who participate in worksite wellness programs show improved health and productivity (United States Department of Health and Human Services, 2003), employers often receive significant returns on investment for funds allotted to employee wellness programming. These benefits potentially could include reduced employee absenteeism, greater employee productivity, higher employee morale, and/or slowed health care cost increases (Bloom, 2008; Eaton, Marx, & Bowie, 2007).

These incentives may not be the only benefits to collegiate employers though. It has been argued that faculty who are healthy make better instructors (Hubbard & Atkins, 1995) and that employee wellness programs should be offered to faculty as an ongoing component of faculty development. Hubbard & Atkins (1995) argue that it is impossible to tease apart the personal and professional concerns of faculty members and that institutions need to address both in order to improve faculty morale and teaching. Whether institutions of higher education are considering implementing employee wellness programs to save on health care costs, or possibly to improve faculty morale and teaching, they may be able to glean some useful information from the following program.

Current Program

Taking the above into consideration, researchers developed a team-based 14-week faculty and staff walking program that utilized social support and incentives to help participants reach the daily goal of 10,000 steps. The goal of 10,000 steps-per-day was selected due to the fact that this total often is equated with the amount of daily activity necessary for health gains (Tudor-Locke, Hatano, Pangrazi, & Kang, 2008). In wellness programs seeking to increase physical activity among adult populations, this goal frequently is selected for its ease of use and approximate equivalency to the recommended 30 minutes of moderate physical activity on most days/all of the week (Bohannon, 2007). These are the same reasons the 10,000 steps-per-day goal was selected for the current faculty and staff walking program.

The program ran throughout the second semester at a mid-sized private university in the Midwest. In order to increase social support provided to participants, while also alleviating some of the workload for program administrators, participants were organized on self-selected teams containing 8-12 coworkers. Each team included a team captain who was responsible for acting as a liaison between program administrators and team members and reminding members to enter their weekly step totals into a program database. Each member was responsible for reporting his/her weekly step totals through an on-line program created and maintained through the University's Information Services, but team captains also had the capability of entering a team member's steps, if necessary. E-mail was the main form of communication between program administrators and participants.

Toward the end of the fall semester, program administrators began promoting program sign-up through a university wide e-mail system. They also contacted department chairs and school administrators to encourage the development of teams in their respective departments. All participants were charge a $20 program fee to help pay for pedometers and incentives. Prior to program start, a Digiwalker SW 200 pedometer was purchased for each participant and instructional packets were created. This pedometer was selected due to ease of use and reliability in step tracking. The packets included information on how to correctly use the pedometer, access the program website to enter weekly step totals, and convert activities such as biking and swimming into step equivalents. Each participant was given a pedometer, a program packet, and completed a PAR-Q at a program kick-off party held one week before the program began.

Step tracking began on the second Monday of spring semester classes and participants entered their steps once a week for Monday - Sunday on Monday afternoon. Weekly reminders to enter steps were sent to participants on Monday mornings, while lists of milestone-reaching participants from the previous week were e-mailed to the entire campus on Tuesdays. Both team and individual recognition occurred, based on achievements of 10,000 steps-per-day and step totals, assessed by participants entering ≥ 70,000 steps for a week. Teams were rewarded based on the percentage of members achieving 10,000 steps-per-day and those with the highest percentages each month received a free Subway lunch. The top scoring teams also received prizes at the program finale at the conclusion of the semester. Individuals received t-shirts, stress balls, and other donated prizes when they reached the milestones of 200,000 steps, 500,000 steps, and 1,000,000 steps. They also were recognized in weekly e-mails sent to the entire campus. Participants who achieved 10,000 steps each day of the program, equivalent to ≥ 70,000 steps each week, received a $50 gift certificate to a local business specializing in fitness gear and apparel. All winners were recognized at a large celebration held at program conclusion which included a free meal, team photos, and a small finishing gift for each participant.

The only health information provided during the program consisted of a hard copy page document called a "Weekly Motivator" that was sent to each participant's campus mailbox once per week. The emphasis of these motivators typically coincided with the National Health

Observances Calendar and provided information about preventing diabetes or cancer, dealing with stress, healthy nutrition, calculating a healthy weight, tips for fitting in exercise, getting enough sleep, and other important health information. No information was provided concerning walking speed or VO2.

The purpose of this study was to investigate the impact of the described university sponsored 10,000 steps walking program on selected participant health measures including: weight, blood pressure, and cardiorespiratory fitness. Specifically, researchers addressed the following questions:

1. Does participation in a 14-week worksite wellness program emphasizing walking have an impact on blood pressure or weight?
2. What effect does participation in a worksite wellness walking program have on cardiorespiratory endurance as assessed by the Rockport Fitness Walking Test?

Methods

Sample

Participants were recruited at the opening gathering for the R UIndy Fit program, a 14-week competitive, team-based, 10,000 steps walking initiative open to all university faculty and staff at a small, private university. A brief written and oral description of the research project was provided during the opening gathering and interested participants were asked to complete an informed consent. All research procedures were approved by the University's Institutional Review Board. Of the 168 program participants, 32 agreed to participate in the research study and 26 completed both the pre- and post-tests. Participants consisted of 19 females and 7 males, with a mean age of 49.8 years.

Procedure

Only participants in the university sponsored walking program were permitted to participate in the research.

Research participants agreed to complete pre-and post-program questionnaires, along with assessment of height, weight, blood pressure, and Rockport 1-Mile Walk Test at each of the three data collection points. Questionnaires contained queries on exercise behavior, motivation for exercise, perceptions of the walking program, and demographic information. The pre-test was completed one week prior to the start of the faculty and staff walking program. The post-test was conducted at the conclusion of the last week of the program.

Participants took approximately 5-10 minutes to complete the questionnaires and all questionnaire information was completed prior to collection of physiological measures. Participants selected from 2-3 designated times offered over a 2-day period to complete physiological measures. At the time of scheduled physiological data collection, participants arrived with completed questionnaires. Staff members then recorded height, weight, resting heart rate, and blood pressure readings of participants in the University's Exercise Physiology Lab. Instrumentation for height consisted of a scale attached to the wall. Weight was measured on a calibrated SCALE-TRONIX BARI-SCALE. Blood pressure was assessed using the Omron HEM-711AC Blood Pressure Monitor with IntelliSense, an automatic cuff and monitor with reported accuracy of +/- 3 mmHg or 2% of reading (Quick Medical, n.d.) and validation by the Association for the Advancement of Medical Instruments (OMRON, n.d.). Once all participants had completed lab measurements, they proceeded to an indoor track to complete the Rockport Fitness Walking Test. Trained staff members explained the walking test and had all participants practice taking heart rate readings at the carotid artery. After a brief warm-up was conducted, participants were instructed to begin walking the mile as quickly as possible. Staff members kept track of participant progress, recorded walking times, and were responsible for helping participants measure and record 1-minute post-exercise heart rates. Length of time for physiological measures was determined by participants' speed on the Rockport Fitness Walking Test, but all data collection was concluded within a 1-hour period.

Data Analysis

T-tests were utilized to compare blood pressure, weight, amount of self-reported exercise, and fitness levels at times of pre- and post-tests. Survey data and physical measures were entered into a Microsoft Excel database and the SPSS 15.0 program was utilized to run statistics. The criterion of $p<.05$ was established to determine statistical significance.

Results

Thirty-two faculty and staff agreed to participate in the research study. Twenty-six completed both the pre-test and post-test. Data from participants who did not complete the post-test were not included. Therefore, scores from only the 26 who participated in the post-test were utilized in the pre-test calculations of means for physiological data. To be included in the mean assessment for exercise minutes per day, participants must have provided data concerning their exercise minutes at both data collection points. For this reason, only 19 were included in this aspect of the analysis. Paired samples t-tests were utilized to compare means at pre- and post-tests and the criterion of $p<.05$ was established (see Table 1).

Results from pre-test to post-test (n=26) demonstrated improvement of 49.8 seconds on walking time for the Rockport from a mean of 15.94 minutes to 15.1 minutes ($t = 3.168$, $p<.01$). Mean VO_2 also increased from 40.03 ml O_2/kg/min to 43.22 ml O_2/kg/min ($t = -3.204$, $p<.01$), an improvement of over 3 ml O_2 /kg/min. Mean weight at pre-test was 162.65 pounds and 161.14 at post-test, demonstrating a trend but not statistically significant ($p>.05$). A similar occurrence was demonstrated in relation to blood pressure. The mean systolic blood pressure at pre-test was 124.92 mm/hg, while the mean at post-test was 123.08 mm/hg ($p>.05$). This decrease shows a trend, but was not statistically significant. Diastolic blood pressures averaged 80 mm/hg at both pre-test and post-test. A trend also was demonstrated toward an increase in exercise time during the 14 weeks of the program, with a dip again after the program conclusion. However, this trend was not statistically significant. Sixty-four percent of respondents stated that their exercise levels increased during the 14

weeks of the program, while 88% replied that exercise levels either increased or stayed the same. Eighty percent of the participants also stated they planned to continue exercising at the same level following the program as they had during the program.

Discussion

The improvements in walking time and VO2 from pre-test to post-test demonstrate exercise related improvements over the course of the 14-week walking program. The decrease of almost one-minute for walking time and increase over 3 ml O2 /kg/min for VO2 are rather impressive, considering the brief 14-week time frame of the program. A trend for decreasing weight and blood pressure was noted, but the strength was not such that it reached statistical significance. The lack of significant changes in weight or blood pressure from pre-test to post-test may be due to the brevity of the program or the fact that the focus of the program was strictly exercise, not lowering blood pressure or losing weight. Though not statistically significant, there was a trend toward increased self-reported exercise minutes during the program. This coincides with the survey responses of participants, with 64% stating that their exercise levels increased during the 14 weeks of the program. Of these 64% claiming increases, 75% believed they would continue the increased activity following program conclusion.

Limitations

One limitation of this study was the small sample size. A sample size of 26 makes the achievement of statistical significance difficult and increases the likelihood of error. A larger sample size would benefit future research. This may be achieved through greater incentives for completion and better attention paid to how data collection may be impacted by faculty schedules.

A second limitation was the fact that research participants were self-selected. To increase validity, it may be necessary to randomly select research participants from those enrolled in an employee wellness program. This would help control for any differences that may be inherent to those who volunteer to participate in this type of research. However, this was not possible due to the small number of study participants.

A third limitation was the lack of a control group. Future researchers may want to select a control group consisting of university faculty and staff who are not enrolled in the wellness program. The addition of a control group would help researchers better establish whether any health improvements achieved during the program might be due to other environmental influences.

Conclusions

A faculty and staff wellness program such as the one presented here can be successful in increasing physical fitness measures and may be administered with the help of only a couple staff members dedicating a few hours per week and a budget of $3,000-$6,000 dollars, depending on the expense of incentives. The walking times and cardiorespiratory endurance improvements especially were surprising when considering no emphasis was placed on walking speeds or VO2 during the program, but only achieving 10,000 steps each day.

If interested in developing such a program, here are a few tips that may be helpful.

1. Use existing programming. Examine the literature to locate information concerning what has worked for other programs. There are many suggestions and insights available for providing a high quality program without a substantial budget. Once established, the program can be tailored to meet the needs of specific universities or participants.
2. Establish a theme and logo around which motivational items and prizes are centered. Examples may include an Olympic theme, "Walking to London", "Walking Around the World", or a "Pay it Forward" theme, or one linked to the title of your organization. If this is an ongoing program, change the theme yearly to keep it new and interesting to participants.
3. Provide participant recognition. Even small tokens were well received and sought with vigor. An example might include small plastic tokens for each week participants achieve the 10k-a-day goal. These tokens can be collected and kept on inexpensive chains to hang in offices or other locations. Another form of recognition could be sending out weekly company-wide e-mails listing award winners.
4. Determine a prize structure that rewards milestones, both small and large. For example, award participants when they reach 200,000 steps, 500,000 steps and 1,000,000 steps. Prizes for these achievements can range from small to large and often may be donated from local community organizations, who view this as an advertising opportunity. Local hospitals, health departments, or fitness clubs are a good place to begin when requesting donated promotional items.
5. Utilize a team structure. Participants are more likely to remain motivated and involved when they feel a need to not "let down" the group. This accountability to others and social support can assist in maintaining motivation for some who may otherwise drop out.

These tips have worked well in the current setting. The faculty and staff wellness program has been highly successful and well received on this campus. Many program participants expressed repeated interest in programs such as this being available to them on an ongoing basis. Regardless of the amount of funding available in a setting, the scope and success of a program may only be limited by the creativity of those administering.

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Table 1.

Mean Measurements at Three Data Collection Points (n=26)

Physiological Measure	Pre-Test Mean (n=26)[a]	Post-Test Mean (n=26)[a]
Weight	163.65	161.14
Systolic BP	124.92	123.08
Diastolic BP	80	80
Rockport Time	15.94 minutes	15.11 minutes [b]
VO_2	40.03 O_2 /kg/min	43.22 O_2 /kg/min [b]
Exercise minutes/day	33.61 (n=19)[c]	40.26 (n=19)[c]

[a] 19 females, 7 males
[b] denotes significant ($p<.01$) change from pre-test
[c] not equal to total number due to missing data

Applying the Games Approach in Football

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Applying the Games Approach in Football

In an era when extracurricular sport programs are called to justify their existence, coaches would do well to explain the value of sport programs as a means to develop reflective, self-directed learners. Further, a positive sport experience may contribute to athletes developing healthy, active life style habits which may impact life-long fitness. The Games Approach is a method for coaches to creatively design modified games to create meaningful challenges for athletes in the sport setting. Coaches implement modified games in order to refine performance skills as well as develop reflective thinking skills in athletes. This manuscript provides a brief overview of the Teaching Games for Understanding approach and shares how this method may be applied in football.

Teaching Games for Understanding Approach

Teaching Games for Understanding (TGfU) has been the subject of study and debate since the early 1980s. Designed as an alternative teaching method, TGfU aimed to overcome known weaknesses of traditional teaching methods which focused primarily on technical skill development. Scholars argued the emphasis on objective skill performance resulted in student's limited success (a) developing and refining skills, (b) developing context specific decision-making skills, (c) applying independent decision-making abilities, and (d) acquiring knowledge, skills, and dispositions associated with sport (Bunker &Thorpe, 1986).

When applied in the sport setting, the TGfU approach (Thorpe, Bunker, & Almond, 1986; Mauldron & Redfern, 1981) focuses on teaching young athletes **why** a skill is needed before teaching the athlete **how** to perform the skill. Put simply, this approach requires the coach to develop practice plans which progress from tactics to skills rather than emphasize tactics or skills. The goal for the coach is to seamlessly weave a technical perspective with a tactical perspective to achieve specific sport performance outcomes consistent with the physical, cognitive, and social development of the athlete. The goal for the athlete is to develop sport performance skills while simultaneously developing context specific decision-making skills and the willingness to make game decisions independent of the coach.

It is believed that by understanding "why to do" and the "how to do", the athlete will choose to practice the technical skills because he/she understands the need for these skills. Refined skills and improved decision-making capacity may then lead to competitive advantage in the sport environment. With the guidance from the coach, the athlete can reflect and evaluate performance in order to evolve to adult level play (Hopper, 2002). Hence, performance skills, decision-making, and sport knowledge, skills, and dispositions are advanced through this approach.

The key is to develop technical and tactical progressions appropriate to the developmental level and experience of the athlete (Hopper, 2002). A "meaningful" challenge (i.e., modified game) may be created by adapting equipment, sports, and rules of the sport. Creativity is essential to organize playable games to engage athletes in refining their performance skills as well as thinking about the why and how of playing the game. Flexibility is required because athletes will differ in their readiness to play the game. Ultimately, the coach should strive to help his or her athletes discover, test, and evaluate play options as part of the athlete's own performance self assessment.

Applying the Games Approach in Football

It is important to understand this approach should only be carried out after all athletes understand the basic proper technique for their position. In football, common drills used to teach offensive linemen techniques include the fit and drive drill and pin, pull, & trap drill. These drills are frequently used during a regular season practice for varsity players.

The Games Approach framework includes (a) establishing the game, (b) playing the initial game, (c) question and answer session, and (d) playing a live scrimmage.

Step 1: Establishing the game.

The Games Approach begins dividing the offensive lineman into two groups. One of the groups plays offensive positions while the other group serves as a scout defensive opposition group. Athletes will rotate to play both positions during the session.

The offensive lineman will execute blocking progression techniques typically used in a game setting. It is essential to ensure safety and so each defensive player will be equipped with a standard hand shield. The offensive lineman will be placed in a position relative to their actual position on the football field. The defensive players will line up in opposition in a structure similar to what the offensive team would expect to face in a given week.

The two coaches would be positioned behind the offensive lineman at a distance of five yards. Each coach would align behind their respective guard player so as to gain the best vantage point to review the game situation. A scorecard would be used to document player performance as a basis for constructive criticism during the question and answer portion of the practice. A third coach will be in a tower above the practice area to record activities for later review. During the initial game, the coach would stop the game only if there is an inherently incorrect action taking place that may cause an injury.

Step 2: Play the initial game.

The fit and drive drill involves the offensive lineman placing their helmet in the correct position and driving an opposing defensive lineman out of a specific area. To ensure safety, the coach will check for head placement and leg drive angles.

After the coach checks positioning, the pin, pull, and trap drill is played. The coach will look for three things: (a) down block by Lineman A, (b) pin block by Lineman B, and (c) trap block by Lineman C (i.e., the pulling offensive lineman). The coach will evaluate the angle and height of each block and assess the overall success of the block. The drill is not stopped unless there is a major error that might lead to serious injury.

Consistent with the Garnes Approach, play is not stopped to provide feedback. Rather, feedback is provided during natural breaks in activity. Athletes should be instructed that "winning" the drill is achieved by executing blocks using ~ correct form. The key to remember is athletes are competing against other athletes rather than practicing techniques with stationary objects.

Step 3: Question and answer (Q & A) session.

The coach allows athletes, in position groups, to express their observations about the quality and effectiveness of the blocking. It is critical for the coach not point out his thoughts first. The goal of this segment is to create an athlete centered environment where the players feel free to make judgments and discover alternative options. The coach is attempts to educate about and condition athletes to make context specific decisions that will be critical in a game.

The coach may open the discussion by asking each athlete to report on their performance. This takes time to perfect, but overtime the athletes will begin to develop a more coach friendly vocabulary and point out the technical aspects of the game. Athletes may mention a defensive player used a rush or rip technique. Similarly, athletes may report they felt their pull angle was not steep enough or their head placement was too high.

No matter what information athletes are willing to offer, the coach should record and reflect on what the athletes reported about their own performance. Athlete comments will be used for further reflection at the end of the practice session. Following athlete assessments, the coach will provide an assessment of the offensive unit as a whole. There will then be an opportunity for athletes to ask questions.

A common question may be, "What am I supposed to do if the Defensive End squeezes when I pull to trap him?" This question reflects the athlete has observed the reaction of a defensive player and faces problem about how best to handle the situation. The coach's response should be to explore the problem with the athlete. The coach may ask the athlete why the defensive player would take this action. The offensive player will often provide an assessment which likely will be very close to an accurate response. The coach will then guide the athlete and the teammates to why the opponent took the action and how best to combat this technique. Another approach to an athlete's question is for the coach to ask the entire position group to respond.

The Games Approach method not only builds trust and camaraderie but it makes the athletes better critical thinkers. They develop the ability to recognize, analyze, and respond to problems faced in the sport environment. The coach can assist athletes to transfer these skills to non-sport settings.

Step 4: Playing a live scrimmage.

The techniques learned in the initial game are now applied in a full team scrimmage. The techniques of the down block, pin block, and pull block are the basis for many "run first" offensive teams in interscholastic football today. When the linemen are able to block the pin, pull, and trap drill effectively then they are able to block a variety of defenses.

The game will be played with the same rules that a sanctioned football game. Plays would be called from the sideline and athletes would execute the ,scrimmage with same passion and intensity that they would show during a game. There would be a game clock, scores noted, and fouls called to simulate an actual game environment.

The two offensive line coaches would be behind the offensive linemen, similar to the initial game, but now they would be moved to a safer distance (e.g., 15 yards). The two coaches would document plays, down and distance, and continue evaluating player blocking performance.

This game would not be stopped unless there was a timeout, penalty, or injury. The athletes would be fully immersed in a game setting and allowed to use the techniques that they had practices throughout the session.

If the practice structure and time frame allowed, the coach could share performance results with the individual players. Alternatively, the coach could save the data for discussion during the next day's question and answer session.

Conclusion

Learning through games helps athletes develop an appreciation of the tactical, technical, and mental aspects of their sport. The Games Approach allows athletes to learn within the authentic context of game-like activities. This will enable athletes to develop understanding, decision-making, and performance skills relevant to the game. Today's athletes want to play their sport and not be bogged down in meaningless drills. The Games Approach allows coaches to creatively implement activities to competitively engage athletes as well as develop performance skills and decision-making abilities they need to build a successful program.

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2008-09 American Heart Association Results

Hoops for Heart $98,449.30
Jump Rope for Heart $204,261.74
Combined $110,934.60

HFH 2008-2009

Account	City	Gross Raised
Noblesville Intermediate School	Noblesville	$12,235.70
Bibich Elementary School	Dyer	$8,575.92
Liberty Intermediate School	Chesterton	$7,874.75
Kankakee Valley Intermediate School	Wheatfield	$7,052.00
Albion Elementary School	Albion	$6,223.83
Westfield Intermediate School	Westfield	$5,648.00
Cedar Canyon Elementary School	Fort Wayne	$5,513.61
Indian Creek Intermediate Sch	Trafalgar	$4,498.34
Highland Hills Middle School	Georgetown	$4,291.95
Heritage Intermediate School	Middlebury	$4,073.27
Fairview Elementary School	Logansport	$3,787.82
Loogootee Elem. School East	Loogootee	$3,636.25
Bremen Elementary - Middle School	Bremen	$3,542.48
Merkley Elementary School	Highland	$3,506.00
Wolf Lake Elementary School	Wolf Lake	$3,303.02
St John The Baptist School	Whiting	$3,300.00
Wea Ridge Middle School	Lafayette	$2,886.01
Kyle Elementary School	Portage	$2,852.16
Madison Junior High School	Madison	$2,825.05
Warren Elementary School	Highland	$2,823.14
		$98,449.30

JRFH 2008-2009

Account	City	Gross Raised
Watson Elementary School	Schererville	$14,101.91
Indian Creek Elementary School	Indianapolis	$13,810.86
Floyds Knobs Elementary School	Floyds Knobs	$13,339.52
Harrison Parkway Elementary School	Fishers	$13,282.07
Kennedy Primary School	South Bend	$12,948.97
Hazel Dell Elementary School	Noblesville	$12,907.87
Grant Line Elementary School	New Albany	$11,802.10
Fall Creek Elementary School	Fishers	$9,507.69
Mentone Elementary School	Mentone	$9,480.60
Bright Elementary School	Lawrenceburg	$9,413.89
Thorpe Creek Elementary	Fishers	$9,319.50
Center Grove Elementary School	Greenwood	$9,155.25
Maple Grove Elementary School	Bargersville	$8,854.55
Cedar Elementary	Avon	$8,632.14
Rockville Elementary School	Rockville	$8,479.65
Sunman Elementary School	Sunman	$8,100.98
Eastern Pulaski Elementary School	Winamac	$7,936.50
Bradie M Shrum Upper Elementary School	Salem	$7,905.60
Pioneer Elementary School	Royal Center	$7,719.56
Wilson Primary Center	South Bend	$7,562.53
		$204,261.74

JRFH/HFH 2008-2009

Account	City	Gross Raised
Geist Elementary School	Fortville	$15,053.91
St Patrick School	Chesterton	$8,000.00
Southport Presbyterian School	Indianapolis	$6,549.00
Emery O Muncie Elem. School	Madison	$6,451.13
Wea Ridge Elementary School	Lafayette	$5,962.19
Pittsboro Elementary School	Pittsboro	$5,911.91
Christ The King School	Indianapolis	$5,404.00
International School of Indiana	Indianapolis	$5,390.50
Moorhead Elementary School	Indianapolis	$4,859.75
Bittersweet Elementary School	Mishawaka	$4,826.90
Aurora Elementary School	Aurora	$4,642.35
Reagan Elementary School	Brownsburg	$4,465.79
Manchester Elementary School	Aurora	$4,419.10
Hickory Elementary School	Avon	$4,403.00
Jeremiah Gray-Edison Elementary School	Indianapolis	$4,400.42
Eisenhower Elementary School	Warsaw	$4,397.76
St Simon The Apostle School	Indianapolis	$4,298.25
Cardinal Elementary School	Brownsburg	$4,242.95
Robey Elementary School	Indianapolis	$4,192.20
Ossian Elementary School	Ossian	$4,063.50
		$111,934.61

FUTURE AAHPERD NATIONAL CONVENTIONS

2011

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How do I choose? This is the question you will ask yourself when you arrive in sunny San Diego. Balboa Park, the world famous San Diego Zoo, Coronado, Point Loma, Mission Valley, Mission Bay, and beautiful La Jolla are all within a short drive of downtown San Diego. And all with a climate that is as close to perfect as you can get.

2012

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Boston, Massachusetts

Boston is a city rich in history and culture and offers something for everyone. Eat clam chowder at historic Faneuiel Hall, stroll through one of the many bookstores in Harvard Square, shop the chic boutiques on Newbury St., cheer on the Red Sox at Fenway Park, or simply stroll along the Charles River. Don't miss a walk along the two-and-a-half-mile Freedom Trail which is one of the best ways to get acquainted with Boston and to efficiently visit the city's bounty of historic landmarks.

2013

April 21-27
Charlotte, North Carolina

Truly a dynamic city, the changing face of Charlotte will surprise you. Walk along the bustling streets of Center City, step aboard the Historic Charlotte Trolley in South End, or stroll along the tree-lined streets of Dilworth to experience the warmth and Southern hospitality that visitors to the Queen City have come to know.

2014

April 21-27
St. Louis

Meet me in St. Louis, the gateway to the west. Here you can take in the view from the top of the Arch, America's tallest manmade monument, observe nature's power at the confluence of the Missouri and Mississippi rivers. You can get up close and personal with the Clydesdales and tour the historic Anheuser-Busch brewery, or cheer for one of the home teams, including baseball's Cardinals, the Rams football or the Blues hockey team. In the evening enjoy some authentic blues and jazz at one of many St. Louis night spots.

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.

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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

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But, you know we must depend on YOU
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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

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❑ Spring Issue – Feb. 15
❑ Fall Issue – Sept. 15

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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.
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