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President’s Message

As the 2016-2017 OAHPERD President, it is an honor to serve you and our outstanding state organization in this position. I have spent my entire career building the health and education pathway for future generations and it is with great respect and admiration for OAHPERD that I seek to fulfill my duties as President.

As OAHPERD celebrates its 90th birthday this year, we should reflect on the outstanding accomplishments and positive impact OAHPERD has had on our profession. From the beginning in 1927 with President J.B. Miller leading the way, continuing through the present, OAHPERD has led the way in making health, physical education, recreation and dance careers relevant in this new global community. What a reward to look back over 90 years of work knowing that OAHPERD will be a leader into the future.

At the same time, we must look to the challenges the future will bring. There is no other profession that boasts the recruitment of more and more students, with fewer and fewer resources, while demanding higher results. OAHPERD should be your resource for new ideas, a place to collaborate with other professionals, and a platform to share best practices in education in our field. I call this “Expanding Forward”. We must establish a digital footprint in our profession to allow us to accomplish this where we can help each other in a way that’s efficient, effective and feasible. OAHPERD consists of professionals in Oklahoma, which means this is YOUR organization. I was taught when I was young that “you get out of it what you put into it” and that fact hasn’t changed. I encourage you to get involved in OAHPERD by sharing your obstacles and solutions, and enhancing your ideas with that of other OAHPERD members who have experienced similar successes and challenges in their professional careers. To continue to grow through another 90 years, we must rise up the next generation of leaders and pass the torch of wisdom. We have many amazing professionals in OAHPERD to draw knowledge from and we should use those resources wisely.

We must help each other to continue to “Expand Forward”. Please let myself or OAHPERD Board and Council know how we can best serve you through this year. I am excited about the upcoming year and look forward to seeing your successes.

-Terry Shannon
Editor’s Message

A big thanks goes out to the 2015-16 board and council; our past president, Susan McLemore; and our Convention Manager, Donna Cobb for our annual convention. The 2016-17 board and council along with our new President, Terry Shannon, had their retreat on November 12, 2016. They are off to a fantastic start in the planning of next year's convention.

The editorial board would like to continue our Future Professional research section and invite students, with the help of their professors, to submit original research and literature reviews for publication consideration. This section was implemented in the Spring 2016 Issue and was very successful. I would like to wish everyone Happy Holidays and A Happy New Year!

Thank you,

Kay Daigle

Kay Daigle
OAHPERD
Journal Editor
Executive Director’s Message

YOUR professional association is making great strides. I trust that you have enjoyed the increased association information that is sent your way. Our goal is to continue to keep you informed on a regular basis so that you can stay engaged with OAHPERD and your profession.

The OAHPERD Board & Council is taking the lead to provide opportunities to advocate for positive change for all Oklahomans to have the skills, knowledge and opportunities to be physically active for a lifetime. It is critical that we all play a role in this important endeavor. President Terry Shannon and the Board & Council held their retreat on November 12 to review OAHPERD’s operating codes, by-laws, strategic plan, and annual goals. The work has been set for the New Year and the 2017 OAHPERD Convention. We will keep you updated on our progress throughout the year.

As you reflect on the upcoming year, it is my hope that each of you will decided to take a role in OAHPERD no matter how big or small. We are a large organization and it takes many hands and minds to make it strong! It is YOUR organization and we need YOUR help! Please consider serving on a committee, holding a hoops or jump for heart event or presenting at the 2017 convention. Thank you.

Donna Cobb
OAHPERD
Executive Director
2016 Convention Manager’s Report

We hope the 2016 OAHPERD Convention provided meaningful, professional development and an opportunity to reconnect with colleagues and to make new acquaintances. There were sessions for all members to learn new ideas, network, and a time to Ring the Bell and to celebrate why we do what we do every day for our students!

Many thanks to all volunteers, presenters, and vendors for another successful convention. Six-hundred members participated in the conference. Twelve vendors shared their resources with our members and many provided discounts and giveaways to our participants.

We want to extend special thanks to Sherry Fisher and the Oklahoma State Department of Education for sponsoring the “Open Curriculum” workshop with US Games. Also, we want to acknowledge Holly Vonderohe and the OKC Boathouse Foundation for providing an afternoon of water activities on the Oklahoma River.

Whether this was your first convention or a returning veteran, please continue to support and give back to your OAHPERD Association. See you at the 2017 Convention!

Donna Cobb
2016 Convention Awards

Elementary “Physical Education” Teacher of the Year

For the purposes of this award, a Physical Educator is defined as a person who has major responsibility for teaching physical education in grades designated (PK-5).

The candidate must be someone who:

- Has taught a minimum of six years at the school level designated by the award.
- Serves as a positive role model epitomizing the personal health and fitness, enjoyment of activity, sportsmanship, and sensitivity to the needs of his/her students.
- Utilizes various teaching methodologies and plans innovative learning experiences.
- Conducts a balanced and sequential curriculum.
- Evidences professional commitment through membership and involvement in local, state, and national physical education organizations.

This year’s award goes to Susan Lalman of Morrison Public Schools.

Secondary “Physical Education” Teacher of the Year

For the purposes of this award, a Physical Educator is defined as a person who has major responsibility for teaching physical education in grades designated (9-12) for each award.

The candidate must be someone who:

- Has taught a minimum of six years at the school level designated by the award.
- Serves as a positive role model epitomizing the personal health and fitness, enjoyment of activity, sportsmanship, and sensitivity to the needs of his/her students.
- Utilizes various teaching methodologies and plans innovative learning experiences.
- Conducts a balanced and sequential curriculum.
- Evidences professional commitment through membership and involvement in local, state, and national physical education organizations.

This year’s award goes to Nicole Gayler of Moore Public Schools.
2016 Convention Awards

Adapted Physical Education Teacher of the Year

For the purposes of this award, an adapted physical educator is defined as a person assigned at least 50% of his/her teaching responsibility in providing direct and/or consultative services to individuals with disabilities ages birth to adult, or in providing appropriate instruction, support, and modifications to individuals with disabilities ages birth to adult.

The candidate must be some who:

- Conducts an appropriate physical education program as reflected in the students’ IEP and generally accepted standards of practice for APE.
- Utilizes various teaching methodologies and plans innovative learning experiences to meet the needs of all students.
- Serves as a positive role model epitomizing personal health and fitness, enjoyment of activity, and sensitivity to the physical and emotional needs of all students.
- Participates in professional development opportunities.
- Is a current OAHPERD member.

This year’s award goes to Amy Andrews of Oakdale Schools.
2016 Convention Awards

Health Educator of the Year

This award is given to a health educator in each of the following school levels:

- Health Education Professional of the Year Award – School (K-12)
- Health Education Professional of the Year Award – College/University

The purpose of this award is to encourage and recognize outstanding teaching and professional involvement by educators/professionals in the area of Health Education.

The candidate must be someone who:

- Has major responsibility for teaching, programming, or administering effective health education programs.
- Has at least five years of experience in the category in which they are applying.
- Serves as a positive role model epitomizing the values and desired outcomes of health education.
- Utilizes various teaching strategies and incorporates innovative learning experiences based on developmental social and psychological needs of students and/or clients.
- Shows interest in and sensitivity to the needs of students, clients and fellow professionals.
- Assumes responsibility for his/her professional growth and evidences professional commitment through membership and involvement in local, state, and national health organizations.
- Currently a member of OAHPERD, SHAPE, AAHE, and must attend the Southern District SHAPE convention.

This year’s school (K-12) award goes to Linda Luther of the OKC public school system. This year’s University award goes to Margaret Dobbs of Northeastern State University.
2016 Convention Awards

Betty Abercrombie Scholar Award

The Betty Abercrombie Scholar Award is designed to (1) promote and stimulate scholarly productivity among professionals representing health, physical education, recreation, leisure, dance and sport; and (2) recognize scholars who have made and continue to make noteworthy contributions to the scholarly enterprise.

The individual selected:

- Must be a member of OAHPERD and SHAPE.
- Should have achieved a commendable record, evidenced by creative productivity, to enhance the profession of health, physical education, recreation and dance.
- Shall be currently involved in the scholarship of promoting the fields of health, physical education, recreation and dance through various meaningful contributions.
- Must be willing to assume responsibilities so designated for a period of one year to include:
  - Making a presentation at the annual OAHPERD Convention the following year
  - Serving as chair of the selection committee for the following year.

This year’s award goes to Dr. Susan Willis of Rogers State University. Dr. Willis is Dean of the School of Professional Studies and a professor in the College of Business at Rogers State University in Claremore, OK. Dr. Willis embodies the criteria set for a recipient of this prestigious award. She is a master teacher, a respected leader in her profession and community, and a kind and generous individual that has devoted more than twenty-eight years to helping students achieve professional success and improving the quality of lives for others. Dr. Willis joined the faculty at Rogers State University in 2007 to create a Bachelor of Science in Sport Management. Not only was she successful in doing so, but the program has evolved into a strong and vibrant degree with numerous internships in the Tulsa metropolitan area.

Dr. Willis has served OAHPERD in many roles including President, Convention Manager, and Vice President of the General Division in addition to her service on various committees. She received the 2006 OAHPERD Honor Award Recipient. Susan has memberships in SHAPE America, NAIA and NCAA Cross Country Coaches Associations, the North American Society for Sport Management and Phi Epsilon Kappa. She has made numerous presentations in many of these professional associations.

In addition to her professional presentations, Dr. Willis has publications in the Medicine and Science in Sports and Exercise, the OAHPERD Journal, and the Calcified Tissue International Journal. Susan has co-authored program accreditation reports for Athletic Training and Physical Education Teacher Preparation programs at East Central University.

Twenty-eight OAHPERD members have been honored with the Betty Abercrombie Scholar Award since its inception in 1986. Dr. Susan Willis is certainly most worthy of this prestigious award.
2016 Convention Awards

The Virginia Peters Higher Education Award

The applicant must be an educator who:

- Prepares Oklahoma public and private physical education teachers.
- Oversees, directs and/or advises student teachers in the field of physical education.
- Serves as positive role model epitomizing personal health and fitness enjoyment of activity, and sensitivity to the physical and emotional needs of all students.
- Utilizes various teaching methodologies and plans innovative learning experiences.
- Is a current OAHPERD member, regularly attends and/or presents at state conventions/workshops.
- Is a current member of SHAPE and NASPE and has attended and/or presented at Southern District SHAPE and/or national conventions.

This year's award goes to Stephanie Canada-Phillips of the University of Central Oklahoma. Stephanie has taught physical education in the public schools of Choctaw and Shawnee. She has taught and coached at John Brown University, the University of South Florida, Northeastern State University, East Central University and currently is teaching at the University of Central Oklahoma.

In an interview last week, Stephanie told me that teachers were always her biggest heroes but that she didn't know that she wanted to be a teacher until she actually started teaching. When she took a job teaching elementary P.E. in Shawnee, she knew that she had found her calling – and that it was teaching.

Stephanie was named Oklahoma Teacher of the Year in 2008 and was awarded a Teaching Ambassador Fellowship in Washington, D.C. for a year during which time, she helped to develop federal policies for education. After this experience and others, she realized that what she really wanted to do was to teach - and inspire - and motivate students to become teachers. Her stated teacher education goals are (1) to help students fall in love with teaching and (2) to help students become professionals.

Stephanie is a member of numerous professional associations. She attends their meetings and makes presentations; she writes and secures grants; she is a published researcher; and she is very active in service to her department, her college, her university and her profession.

Stephanie has been very active in OAHPERD, serving on the Board and Council for ten years. She has served as President; Vice President of Physical Education, Vice President of Recreation and Vice President of General; and as Chair of the College Section and Chair of the Elementary Physical Education Section. She has been a member of the Strategic Planning Committee and is currently the Communication Director for the Association.
2016 Convention Awards

The Virginia Peters Higher Education Award (Cont.)

Stephanie speaks to the value of being active in OAHPERD when she says (and I quote)

“OAHPERD has been my touchstone, my heart and soul, my inspiration.
It is the reason I have continued to grow professionally and it has given me great leadership opportunities.”

What do other people say about her? One professional colleague of Stephanie’s says, “She is a true ambassador for our profession. Her professional activities are centered on promoting our programs and celebrating our teachers – especially those in the trenches every day.” A co-worker says, “Stephanie is passionate about our discipline. She is always willing to profess and advocate the importance of physical education. She is a caring professional who is always willing to go the extra mile for our students.”

A student wrote this about Stephanie: When I see you, I see Dr. Martin Luther King. Knowing that you have judged me by the content of my character and not the color of my skin. When I see you, I see Albert Einstein. Knowing that you never teach your pupils. You only attempt to provide the conditions in which they can learn. When I see you, I see Alexandra K. Trenfor. Knowing that the best teachers are those who show you where to look, but don’t tell you what to see. Most importantly when I see you, I see you – Mrs. Stephanie Canada-Phillips. A woman that is a phenomenal educator, someone who gives hope and inspires.

Aristotle once said, “Educating the mind without educating the heart is no education at all.” With that being said, Mrs. Canada-Phillips, I never had education until I walked into your Introduction to Physical Education class. Thank you for educating my heart. You mean the world to me because you have changed my perspective of the world. Congratulations on your award. I can’t think of a more deserving person than you.

An administrator says, “Stephanie’s contributions to educator preparation extend beyond her involvement at the University of Central Oklahoma. She gives freely of her time and expertise to school districts, professional associations and to her students at UCO. She has left her fingerprints on numerous initiatives in Oklahoma to enhance quality physical education in P-12 schools. She has truly impacted Physical Education educator preparation.”
2016 Convention Awards

OAHPERD Honor Award

The OAHPERD Honor Award is given to those members that demonstrate ethical practices and show prominence in one of the following areas:

- Excellence in teaching
- Outstanding administrative achievement
- Contribution to research and professional publications
- Leadership in state, district, and national associations
- Meritorious service within the profession.

The recipient of the OAHPERD Honor Award is Trey Cone, a professor in the department of Kinesiology and Health Studies at the University of Central Oklahoma. Trey received his bachelor's degree from Quachita Baptist University and his master's and doctorate from Texas A&M University-Commerce.

He holds professional memberships in OAHPERD and SHAPE America. Trey has served as Vice-President and President of this organization. He has also chaired numerous committees in our association. Trey even chaired the AAHPERD Fitness & Leisure Council.

Trey has taught everything from Fitness Applications in Physical Education to Measurement and Evaluation in HPE to Facility Management and more. On top of his teaching he directs student learning through supervised research projects.

Trey received the Vanderford Distinguished Teacher Award from the College of Education & Professional Studies at UCO in 2015. He has given numerous presentations at AAHPERD (now SHAPE America) and ACSM (American College of Sports Management) conventions as well as Southern District. He even does some research in his spare time.

Over the years, Trey has served on various department and university committees. He has been on promotion/tenure committees, search committees and even serves as the University of Central Oklahoma's Faculty Athletic Representative to the NCAA.

Wow, he is a busy guy. Here’s what a few of his colleagues had to say: Trey is the ultimate professional. He is a role model for our students. He is a master teacher and sets high expectations for his students. He is a passionate educator with his students, who does not ask for their best, but requires their best. He mentors and models the actions that we expect a quality educator to demonstrate. The common thread is “students”. He wants them to excel.
2016 Convention Awards

Presidential Citation Award
This award goes to Susan Lalman of Morrison Public School, Katie Barton of OKC Public Schools, Sherry Fisher of Oklahoma State Department of Education, and Stephanie Canada-Phillips and Donna Cobb of the University of Central Oklahoma.

OAHPERD President’s Award
This award is presented to Dr. Jan Drummond of the University of Tulsa.

OAHPERD Future Professional Poster Presentation Award
This year’s recipients are Hannah Clark of West Texas A&M and Michael Smith of the University of Central Oklahoma.

Upper Extremity Range of Motion of Track and Field Athletes
Hanna Clark, Department of Sports and Exercise Sciences, West Texas A&M University

Research has highlighted that numerous upper limb injuries are the results of throwing action, especially throwing athletes, (Cain et al., 2002; Atwater, 1979). The shoulder is the most commonly injured body part in throwers (70%) (Edouard et al., 2010). Few studies have investigated the range of motion (ROM) in upper limb of multi athletes (decathlon and heptathlon). The purpose of this study was to investigate the differences in ROM between the throwers and the multis. The upper extremity ROM of collegiate track and field athlete’s (n=20) was evaluated on both dominant and non-dominant sides. Using a CI of 95%, male throwers had significantly less shoulder flexion ROM and more elbow extension ROM than the decathletes; female throwers had significantly less elbow flexion than the heptathletes. There are a number of reasons for differences in ROM among throwing athletes from training protocols to genetic differences. As the demands of the decathletes/heptathletes are different (i.e. a more balanced training protocol as they will compete in other events than just throwing events), it would be expected that differences in ROM could be present. These differences could also be considered as part of the explanation for the differences in performance between the two groups.
2016 Convention Awards

OAHPERD Future Professional Poster Presentation Award (Cont.)

Physical Activity and Depression Among College Students
Michael A. Smith, University of Central Oklahoma, Edmond, Oklahoma

Research shows that physical activity was as effective as medication in the treatment of Major Depression Disorder. The purpose of this study was to determine if students who have been diagnosed or treated for depression in the past 12 months also report being physically active. Data were collected from the American College Health Assessment Survey administered in the spring of 2014 to students enrolled in General Health. The sample size consisted of 1050 students of which 816 completed the survey. Respondents were asked if they had been diagnosed with depression in the past 30 days and about physical activity levels over the past 7 days. A crosstabulation report was run to determine how many students had been physically active both with and without depression. American College of Sports Medicine (ACSM) recommendations were used to determine how many respondents were completing an adequate amount of physical activity (≥ 5 days/week of at least 30 min). Of students reporting depression, 18 (20.22%) meet ACSM guidelines and 71 (79.7%) do not. Of students reporting no depression, 144 (22.3%) meet ACSM guidelines and 503 (77.7%) do not. There are a greater percentage of students who are depressed that do not meet ACSM guidelines than not depressed and not meeting ACSM guidelines. The purpose of this study is to use this information to help counseling staff with possible activities that can be recommended to students suffering from depression.
OAPHERD Scholarship Awards

Emma W. Plunkett Undergraduate Scholarship Award
This award is presented to Callie Morgan of the University of Central Oklahoma.

Helen Corrubia Undergraduate Scholarship Award
This award is presented to True Tu Yang of the University of Central Oklahoma.

Karen J. Dowd Undergraduate Scholarship Award
This award is presented to Tayna Ellis of Cameron University and to Katy Davis of the University of Central Oklahoma.
Manuscripts involving practical applications for the HPERD readership are priority. Manuscripts that are informational and that involve scholarly research are also encouraged, but must address practical application.

You may also submit manuscript materials pertaining to OAHPERD news, statewide news, national news and other items which are not peer-reviewed. The author guidelines in this document apply only to peer-reviewed manuscripts.

Submission Deadlines:

Spring Journal (mid-April):
Deadline for peer-reviewed manuscripts February 1st, all other items March 1st

Fall Journal (mid-September):
Deadline for peer-reviewed manuscripts July 1st, all other items August 1st.

Winter Journal (mid-December):
Deadline for peer-reviewed manuscripts October 1st, all other items November 1st.

Basis for Acceptance of a Manuscript for Publication:

1. Significance to the HPERD profession

2. Accuracy of the material

3. Originality of material

4. Clarity of material

5. Validity of material

6. Compliance with OAHPERD guidelines for submission
OAHPERD Journal Peer-Review Guidelines for Authors

Preparation of the Manuscript:

1. Manuscripts must be submitted using Microsoft Office Word
2. Preferred length of manuscripts submitted, including tables, graphs, references, etc., is 5-12 double-spaced, typed pages using 12 point font. Longer manuscripts will be returned to the author without review. Shorter manuscripts of interest to the readership are appropriate to submit and will be reviewed.
3. Manuscripts should be written in third person.
4. American Psychological Association (APA) format should be used throughout the manuscript.
5. Keep direct quotations, especially lengthy ones, to a minimum (see APA style for formatting)
6. Insert line numbering in the manuscript as it is helpful in communicating location if there are questions or corrections to be made. (Microsoft Word = File, Page Setup, Layout, Line Numbering, Check Line Numbering Box, Continuous, Apply)
7. Include a 500 words or less abstract.

Submitting the Manuscript:

1. E-mail manuscript and author(s) information in separate files as attachments to the OAHPERD journal editor, Dr. Kay Daigle (kdaigle@se.edu). There should be no identifying information in the manuscript itself, as they are blind reviewed.
2. Author information should include name and university or school affiliation. Please include a short biography for each author (3-5 sentences in length).
3. In the e-mail include a statement indicating the manuscript has not been submitted (simultaneously) or published elsewhere.
4. Include all original (not resized) photos, artwork, and illustrations
5. Photos, artwork, tables, illustrations, and other additions to text should be captioned and placed in the document file where they should be located in the published article.
OAHPERD Journal Peer-Review Guidelines for Authors

Review of the Manuscript:

1. OAHPERD’s journal advisory board is made up of five members appointed by the journal editor, with the journal editor serving as chair.

2. Each manuscript submitted for peer review will be sent by the editor to advisory board members. Each manuscript will be reviewed by at least three advisory board members.

3. If the editor determines that the manuscript topic falls outside the expertise of board members, an outside reviewer from the field may be solicited.

4. All peer reviews will be blind. The editor will not send the authors’ names or personal information with the manuscript to the journal advisory board.

5. The journal advisory board may provide corrections with regard to grammar or spelling without notifying the author as long as it does not change the meaning of the content. However, the lead author will be notified and asked to make corrections, if the errors are numerous or there are significant revisions required in order for the manuscript to be published. If the manuscript is considered of great or vital interest to the readership and the changes/corrections needed are not deemed to be overwhelming, members of the journal advisory board are encouraged to assist the authors in developing the manuscript. The lead author will be notified regarding status of their manuscript.

6. If a manuscript is selected for the journal, it will be published in the earliest available issue. (Manuscripts may be pushed to a later journal due to space and printing constraints. The lead author will be notified.)

7. If a manuscript is found to be partially or completely plagiarized: 1) it will not be published, 2) the author(s) will receive a formal letter, 3) the author(s) place of employment will receive a copy of the letter, and 4) the authors) will be ineligible for OAHPERD publication for a minimum of 3 years.

8. Authors should contact the journal editor (Kay Daigle) with concerns or questions regarding issues dealing with the manuscript they have submitted. Members of the journal advisory board should not be contacted regarding manuscript submission.
When will Baseball Start Using Their Heads on Helmet Safety?

Joe Swanson, M.S.
Graduate Student
North Dakota State University
Fargo, ND

Joe Duetsch, Ph.D.
Associate Professor
Physical Education Pedagogy
North Dakota State University
Fargo, ND

Abstract

The need for head protection in all sports has become a frontline issue with concussion studies showing brain damage issues in many sports, but in baseball the traditionalist views have kept the concerns at bay. Only until traumatic brain damage or death occurs is it discussed on a national level. This article discusses the subject of helmet protection in high school baseball and the need for helmets on defensive players in the field. With other sports like football, hockey, cricket, skiing and snowboarding, and lacrosse all mandating helmet use, the number of documented cases of head injuries in baseball continues to rise despite technology getting more advanced every day. This article puts forth the argument for defensive players and base coaches to have mandatory helmet use while in the field. It documents examples of injuries in baseball, as well as the arguments and rule differences from organizations such as the National Collegiate Athletic Association (NCAA), the National Federation of High Schools (NFHS), the American Legion Baseball program and Major League Baseball (MLB) regarding safety and helmet use. It also discusses changes made at all the different levels to promote safety, but also points out how there is no consistency between groups and the different levels of the sport of baseball.
Introduction

Since the late 1800’s, spring has been a season ushered in by the sounds of balls being snapped around an infield and the crack of the bat echoing into the March air. Young boys talking about their favorite players and the smell of popcorn and cracker jacks battling with the aroma of hot dogs and hot pretzels fills the air as we wait for our home town team to take the field.

Many summer days are spent with those expectations in mind, but there is another side of baseball we are not aware of; the deadly side. Since the early documentation of deaths in game related fatalities including on-field players, spectators, employees, umpires and fans outside of the stadium, over 800 documented cases have been found. Causes of death include being hit by a pitch, heart attacks, getting hit with bats and falling from the upper deck trying to catch a foul ball. The two main causes are being hit by a batted ball and lightning (Jefferson & Weeks 2009). Now obviously we cannot control lightning much beyond stopping games and having lightning meters on hand, but batted balls have become a major concern. Much of the focus has been put on the bat industry and the balls. Bat testing has jumped to the forefront of the equipment world. But what about taking precautions with our players not only batting and catching, but in the field?

History of Helmets

Historically in baseball, specifically in Major League Baseball (MLB), helmets were not utilized on a regular basis. It wasn’t until 1971 that MLB made it mandatory that all hitters wear helmets. Even at that time, there were no earflaps on them. It wasn’t until 1983 that batting helmets were by rule required to have at least one earlap on it, and it had to be the ear facing the
pitcher (Street, 2006). Coaches were never considered to be a player on the field, so no regulations were ever cited for them. It wasn’t until the death of Coach Mike Coolbaugh on July 24, 2007 in a minor league game that things changed. Coach Coolbaugh was struck with a line drive while coaching 3rd base and killed (ESPN news services, 2007). Major league baseball instigated a mandatory helmet requirement for all on field coaches in 2008.

Legion baseball across the United States has required all coaches on field to wear a helmet since 2013. Rule 1 – Section K – Part 3 states “Base coaches are required to wear a standard batting helmet, with or without earflaps (safety rule: ejection for non-compliance after one warning). Batters are required to wear a standard batting helmet with earflaps.” (American Legion Americanism Commission, 2014).

The National Federation of High Schools has not acted on this. “We talked about it and gathered feedback,” said Elliot Hopkins, the Baseball Rules Editor for the National Federation of State High School Associations. “We looked at the injury that prompted Major League Baseball to enact their rule and it was to an area of the body that a helmet doesn’t protect. We think coaches are far enough back (from the hitters). If a coach thinks it is necessary, then they are welcome to wear a helmet” (Nokes, 2008). There have been some rule changes at the individual state level requiring helmets for coaches. For example, Maryland has made it mandatory for all adult coaches to wear helmets when on the baseball playing field, but not at the national level.

With all of the discussion and rules on helmet safety, one thing has not been addressed at any level. What about the players? Defensive players such as third basemen, first basemen and pitchers are constantly exposed to hard line drives and short hops, but no one addresses the issue if a defensive player should wear head protection. From 1867 – 2007, 15 pitchers, 17 catchers, 35 position players, and four base runners were killed by batted balls (Jefferson & Weeks 2009).
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Since baseball began, only one MLB defensive player ever wore a helmet in the field. Jon Olerud, who played 17 seasons in the majors, wore a helmet offensively and defensively in the field due to a brain aneurysm he suffered in 1989 while attending Washington State University.

Catchers are required to wear standard helmets at the college and professional level, while at the high school level, the full face, hockey goalie style helmet, is mandatory. No defensive position player besides the catcher has helmet and or head wear required for any safety reason. Helmet safety has been overseen greatly over the last 20 years. The National Standards for Athletic Coaches (NSAC) includes a standard addressing the need for protective equipment that is “in good condition, fits properly, and is worn as prescribed by the manufacturer and to ensure that equipment and facilities meet required standards.” The National Operating Committee on Standards for Athletic Equipment (NOCSAE) also is in place to ensure that equipment meets safety guidelines for that particular sport (Shimon, 2002). NOCSAE is also endorsed by the National Federation of High Schools and all helmets – football, hockey, lacrosse, baseball – are required to have a “Meets NOCSAE Standards” sticker on the back showing the helmet has passed inspection and is certified to be considered legal equipment.

As we look to ensure that the equipment we use is up to standards and ruled safe for use, the one issue that remains unresolved is deciding WHO wears the helmet, not how well it works. With the National Federation of High Schools (NFHS), there is a long process of suggested changes which involves collecting and presenting information that justifies the rule change (usually at the National Convention) and then finally a vote needed to pass the rule change or
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adaptation. To change a rule of this magnitude, the largest battle is not the common sense safety aspect of the rule change, but in the breaking of the traditionalists who feel the game is “good as is”. They feel that rules should stay the same as when they were players, and that there is no need for rule adaptations or changes, even when technology calls for them. In the MLB, it took the death of a coach to bring the topic to the limelight, even though hundreds of cases have been documented (Jefferson & Weeks 2009). Will it take a high school player to be killed on television or during a state or national tournament to start the conversation?

Types of Injuries Sustained

When looking at the documented cases that involve the head, there are three main types of injuries that are cited on the baseball playing field: (1) batted balls that strike a player in the head; (2) bats that strike players in the head either on the back swing, a bat that slips out of a players hand, or a broken wood bat that enters the playing field; or (3) thrown balls either from a team mate or a pitched ball (Jefferson & Weeks 2009). With the simple task of players wearing helmets in the field, many of these cases may not have been fatalities.

As technology changes, so does the game. Bats can now generate so much power that bat companies are under a new standard or Bat-Ball Coefficient of Restitution (BBCORE) rating that was tested by the NCAA (NCAA, 2009). This new BBCOR rating was instituted on January 1, 2011. But as the equipment technology changes for higher performance, the changes we see on the field of play within the athlete are not. The human body has limits, unlike technology. Just like hockey was originally played without helmets or masks, including the goalies, they now have mandatory helmet rules. USA Hockey and the NFHS instigated a mandatory helmet for all coaches at practice rule. The USA Hockey coaching guidelines state, “All ice hockey coaches and instructors of registered USA Hockey Youth 18 & Under and below, high school,
girls’/women’s 19 & under and below, and disabled programs must properly wear an approved ice hockey helmet during all on-ice sessions, including practices, controlled scrimmages and all Coaching Education Program clinics and/or workshops” (USA Hockey, 2013). In other sports, such as cricket, helmets of the same style enforced by MLB are worn.

**Causes of Brain Injury**

In the introduction to a study on cricket helmet safety (Stretch, 2000), it is shown that baseball and cricket are very similar in distance thrown from the “pitching” area to the area of the “hitter”, as well as the size and speed of the ball thrown. The distance is 59 feet in cricket compared to 60 1/2 feet in baseball with top speeds of 99 miles per hour thrown. In addition, Cricket has a 5.5 ounce ball as compared to a 5 ounce ball in baseball. The risk of brain injury deals with the impact speed and weight of the ball. The American National Standards Institute and the Snell Memorial Foundation standards for cycling helmets are based on the theory that the brain can be safely exposed to a single deceleration force of 300 g (Beneke, Beneke, Noakes, & Reynolds 1989). Single impacts of 150 g or less cause little or no injury, whereas single impacts of 150-250 g may cause light concussions and temporary amnesia, carrying little risk of long-term brain injury. However, single impacts of 250-300 g cause more severe concussions and prolonged amnesia, but with a low risk of long-term brain injury from single impacts (Stretch, 2000). With Exit Speed Ratio’s of batted balls exceeding 120 miles per hour when using aluminum bats, perhaps the focus should be on the safety of defensive players.

**Dealing with Safety Issues**

Some issues have caused states to look into reducing the chance of injury. The City of New York passed a law outlawing aluminum bats at the high school level, and thus requiring players to use wood. Maryland has made it mandatory that coaches must wear helmets while on
the field and also have gone to wood bats only (Pittman 2008). North Dakota switched to wood bats at the high school level in 2006, after multiple injuries during the season, including three injuries during in the Eastern Dakota Conference Region tournament from batted balls, 2 which required trips to the emergency room.

**Conclusion**

Since the 1800’s, sports have provided us with the pleasure of competition, the thrill of victory, the overcoming of odds and feel good stories of comebacks and underdogs such as the ‘Miracle on Ice’ experience with the 1980 Olympic hockey team. In all sports, rules have been set in place to keep players safe and the integrity of the game intact while promoting sportsmanship. When technology changes, rules are modified to include the advancements in technology and equipment, but also work to keep the integrity of the game, and maintain the sport at a high level with all of the game’s history intact. So often, as explained, a situation presents itself that causes a reactive change rather than a proactive change, or something else is changed instead of the cause or issue. If the bat hits the ball too hard, we change the ball not the bat. Multiple times different ball changes were made to try and soften the contact, and in the case with metal bats, the BBCOR standard has to finally be created after a player was killed. When football deals with helmet-to-helmet contact they make the helmets more protective, and it is not until concussion studies come out and neck injuries occur and are documented that rules are finally changed outlawing the tackling technique of leading with the head.

There are numerous studies that have been published indicating the effectiveness of present day safety equipment being highly successful in the prevention of injury and death in a wide range of sports including skiing (Haider, Salem, Bilaniuk, & Barraco, 2012), equestrian (Nelson, Rivara, Condie, & Smith 1994), ice hockey (Pelletier, Montelpare, & Stark 1993) and
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youth football (Daniel, Rowson, & Duma 2012). Baseball is by no means an exception. The use of this equipment in baseball has shown that it does not hinder speed, strength, or vision to the athlete and that athletes previously discussed (Jon Olerud) have already used it successfully at the highest levels of play. Therefore, the addition of safety equipment for all defensive players in baseball would not hurt the history, integrity, performance or tradition of the sport.

There are studies published showing deaths of baseball players (Jefferson, McFarland and Company, 2009), helmet protection studies (Stretch, 2000), and helmet impact studies (Johnson, 2000). But still with this information in hand, the question is at what point will baseball look at the safety of defensive players rather than just the hitters and catchers, and some base coaches. Are the governing bodies of the game, including MLB, the NCAA, the NFHS and American Legion, really taking a proactive approach to the safety of defensive players or are they waiting for a reactive situation such as the death of a ball player? The safety of the competing athletes should always be the priority in sports, and safety issues that are proven to be effective should be implemented. Hopefully, it will not take the death of another student-athlete to create the need for helmet use in the field.
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References


Helmet Safety


Pay Now or Pay Later

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Abstract

This paper will describe leadership styles and present a review of the pertinent literature to document and examine how the social institution of the school and transformational leadership style may shape beliefs about health, physical education, and fitness. In the 1970’s a FRAM oil-filter commercial showed a mechanic holding an inexpensive oil filter and then pointing to an expensive engine repair job, with a tag line “Pay Me Now or Pay Me Later” (Cone, 2004). This slogan reflects the attitude of the health and physical education profession today. Opportunities are offered in school physical education programs that lead to good health to promote each student’s optimum physical, mental, emotional and social development, but the “society seems more interested in pursuing the expensive engine repair” (Cone, 2004). The health and physical education profession can make the difference regarding their potential impact, but their potential impact must be acknowledged. Even though some reports and findings have warned about of the imminent costs of inactivity, American society is slow to change, and Americans are slow to learn this lesson (Cone, 2004). America’s schools and society have failed to benefit fully from systems of health and physical education that are already in place. Strong, effective leadership, transformational leadership, in the 21st century is necessary to keep physical education in schools at all levels for the health and development of young people, the American adults of tomorrow (Dundon & Pattakos, 2001; Kim, 2002).
This literature review will describe leadership styles and present a review of the pertinent literature to document and examine how the social institution of the school and transformational leadership style may shape beliefs about health, physical education, and fitness. Improving health through physical activity is a public health challenge, the importance of which must be conveyed to future physical education teachers.

Quality PE programs should follow national physical education standards, be developmentally appropriate, teach motor skill development, practice management skills, be inclusive, and emphasize lifetime participation (Darst, Pangrazi, Brusseau, & Erwin, 2015). The Office of the Surgeon General's Report (2005) encouraged the public to remain physically active, consider their nutritional needs, and address their health. Effective leadership in the health and physical education area may help to address the discrepancy between the lack of public awareness about the importance of regular physical activity and goals of physical education programs. The health and physical education profession has the potential to make a significant contribution to the health of Americans to remain physically active, consider their nutritional needs, and address their health.

The social institution of the school, teachers, physical education programs, and sports experiences may shape beliefs about physical education (Ryan, Bridges, & Yerg, 2000). Leadership in school settings has unique attributes and contributes to specific educational results for all leaders within the school. "Effective leadership = Attributes x Results" (Intagliata, Ulrich,
& Smallwood, 2000), which may imply that effective leadership is a combination of attributes of the leader and the results are what the leader accomplishes.

Without effective leadership on the university level, physical education programs may diminish, resulting in continuing public health problems, obesity, and a sustained increase in the public cost of medical care. University physical education administrators must become more effective leaders and greater advocates to facilitate the training of future K – 12 physical education teachers to improve the health and well-being of young people. More effective leadership among university physical education administrators may improve efforts to regain adequate funding to bring physical education back into the school to emphasize the importance of health to the public (Booth & Chakravarthy, 2002).

The goal of university physical education is not limited to conducting and providing research opportunities and training teachers for their careers. The goal of university physical education is also to educate every student in the values of physical activity and the benefits of good health and well-being (Naylor, 1997). Physical education administrators at the university level will need to defend and substantiate their programs. “As the beneficiaries of those who fought the battle years ago to bring physical education and its associated programs to the university, there must be a fight to keep it there” (Naylor, 1997).

“The individual who graduates with physical education teacher certification should be prepared to succeed in a community with an increasing varied population . . .” (Cone, 2004). The graduate should be able to design curriculum and programs, manage classrooms, communicate effectively with other teachers, perform classroom research, make decisions, solve problems, use the latest technology, teach and facilitate classes effectively, and advocate tirelessly for the physical education program (Cone, 2004).
To promote these qualities in K-12, physical educator’s attention to the training of health and physical education professionals begins at the university level. Physical educators must believe in the significance of their program, express their beliefs through actions, implement a quality program, and make administrators, parents, and others aware of correct information regarding physical education and its benefits (Johnson, 2005). The leadership role of these physical education teachers begins with their university preparation.

In the 1970s a FRAM oil-filter commercial showed a mechanic holding an inexpensive oil filter and then pointing to an expensive engine repair job, with a tag line “Pay Me Now or Pay Me Later” (Cone, 2004). This slogan reflects the attitude of the health and physical education profession today. Opportunities are offered in school physical education programs that lead to good health to promote each student’s optimum physical, mental, emotional and social development, but the “society seems more interested in pursuing the expensive engine repair” (Cone, 2004). America’s schools and society have failed to benefit fully from systems of health and physical education that are already in place. The following quote and studies describe the kind of systems that are in place:

Recognizing quality health and physical education programs, as a valuable resource that contributes to a proactive prevention plan to address this issue is imperative—ignores them and the costs of medical care will continue to rise, while life expectancy and the quality of life will fall. (Cone, 2004)

In simplest terms, the Office of the Surgeon General’s Report of 1996 stated that the general public needs to be aware of the risks taken by not remaining physically active, considering nutritional needs, and addressing health issues (Cone, 2004). The Office of the Surgeon General’s Report (2005) stated that health problems from overweight and obesity could
reverse many of the health gains achieved in the United States in recent decades. This momentum from raising public awareness is positive because it sustains public attention on the topic. The momentum from raising public awareness about the problem and importance of physical activity and healthy behavior provides an opportunity to influence the availability and quality of physical education programs in the schools. The momentum also provides an opportunity to educate the public and inform public policy about the benefits of exercise and physical activity (Cone, 2004).

“The role of physical education should be to promote each student’s optimum physical, mental, emotional, and social development” (Cone, 2004). The priorities in education remain to develop each student physically, mentally, emotionally, and socially (Cone, 2004). The focus on the development of the mind is often to the detriment of the development of the body. Despite evidence of the need for children to increase their levels of physical activity, many parents, teachers, and administrators still believe that development of the mind should take precedence over the body (Maeda & Murata, 2004). Physical education and physical activity can stimulate various parts of the brain, have favorable effects on academic achievement and guide individuals towards a healthier active lifestyle (Maeda & Murata, 2004).

“An education in this sense is balanced because all three domains — cognitive, affective, and psychomotor — are promoted, and one domain does not take precedence at the expense of another” (Maeda & Murata, 2004). According to Cone (2004), future physical and health educators should focus on lifetime activities and those activities that reach the personal level. Part of this preparation should address obesity-related diseases, which cost the United States countless lives and billions of dollars a year, programming that will help change an inactive lifestyle to one where the risk of coronary heart disease can be cut in half should be offered.
The school environment and the family are responsible for the rising incidence of childhood obesity, as children attend school for nine months a year, five days a week, and for approximately seven hours per day (Van Staveren & Dale, 2004). “Approximately 53 million children, or 95% of children ages 5 to 17 years old, attend the 117,500 elementary and secondary schools in the United States” (Burgeson, Wechsler, Brener, Young, & Spain, 2003). The school cafeteria provides food choices; the physical education program has allotted time for activity, "and the school curriculum controls the opportunities to learn about the relationship between personal behaviors and health" (Van Staveren & Dale, 2004). The schools exert an important influence on the children’s diet selection. According to the Centers for Disease Control and Prevention’s, School Health Policies and Programs Study of 2000, one in five schools offered brand-name fast food such as McDonalds, Taco Bell, and Pizza Hut at lunch and for snacks (Van Staveren & Dale, 2004). Hundreds of under-funded school districts have contracted pouring rights contracts to sell brands of soft drinks and allow easy access to vending machines during recess. "Soda consumption among adolescents has nearly tripled between 1977-78 –1994 . . . and this consumption undoubtedly substitutes for more nutritious drinks such as juices and milk" (Van Staveren & Dale, 2004). Schools have a financial interest in promoting soft drinks because many receive a percentage of the sales, and money generated from the sale of junk food helps pay for sports equipment, after-school activities, field trips, and computers. Some teachers prefer nutrition education that is integrated into the math, science, and/or English curriculum and that also includes a school cafeteria component and parent participation (Perera, Frei, Frei, Wong, & Bobe, 2015).

Another area of concern is limited physical activity in schools. Physical education offers the most structured outlet for children, but it has also been one of the first subjects to suffer
budget cuts (Burgeson et al., 2003). “To maintain a healthy body weight and good health depends on opportunities provided by physical education” (Van Staveren & Dale, 2004). This opportunity should include 60 minutes, and up to several hours, of age-appropriate exercise on all or most days of the week, including vigorous physical activity for 10-15 minute sessions each day (Burgeson et al., 2003). “Today’s children and adolescents live in a social and physical environment that makes it easy to over-eat, easy to be sedentary, and inconvenient to be active” (Van Staveren & Dale, 2004). Americans need to address the environmental issues that underlie these tendencies to implement effective solutions to the increase in obesity in the United States. The prevention of childhood obesity has to be a combined effort and responsibility of the levels of the government, the community, the media, schools and teachers, health professionals, and parents to be effective. "Schools have a unique opportunity to develop and maintain healthy behaviors and support the academic achievement of our nation's young people" (Burgeson et al., 2003; Perera et al., 2015).

Schools have access to serve, provide instruction to, and reach the majority of children in the United States for a large number of days. Schools are the ones that have the opportunities (time), and capacities (trained educators) to be successful (Van Staveren & Dale, 2004). Schools control food choices, time spent in physical activity, and chances to educate and inform. Teachers and administrators should strive to make school a place that supports healthy eating, regulates physical activity and limits engagement in sedentary pursuits (Van Staveren & Dale, 2004; Perera et al., 2015).

The health and physical education profession can make the difference regarding their potential impact, but their potential impact must be acknowledged. Even though some reports and findings have warned about of the imminent costs of inactivity, American society is slow to
change, and Americans are slow to learn this lesson (Cone, 2004). The health and physical
education profession must continue to inform and educate, examine and advocate, and above all,
believe that the healthy, active lifestyle is a great principle for life (Cone, 2004). According to
Cone, Americans can pay now or pay later for their poor choices related to healthy eating and
physical activity.

The following discussion is focused on alternative viewpoints of leadership styles by
Cawthon (1996). Cawthon wanted to create a teaching method to rouse his students’ interest in
leadership. He called basketball coach, Bobby Knight, to engage Coach Knight as a guest
speaker for Cawthon's class. As Coach Knight came to Cawthon's class and took the podium, he
told the students what they needed to know about leadership was most of them simply do not
have what it takes to be a good leader (Cawthon, 1996). This statement contradicted what the
students had read in their textbooks. The students are taught that "leadership is not a trait; it is
learned behavior and has little to do with innate personal qualities" (Cawthon, 1996). Bobby
Knight was referring to the Great Man Theory, which claims leaders are born, not made.

“Leaders do not have to be great men or women by being intellectual geniuses or
omniscient prophets to succeed, but they do need to have the right stuff, and this matter is not
equally present in all people" (Cawthon, 1996). Leadership is essential to support cultural
fluency, and being culturally fluent may be essential for effective leadership (James-Hassan,
2016). Leadership is a demanding, unrelenting job with enormous pressures and grave
responsibilities. Cawthon related that it would be a profound disservice to leaders to suggest they
are ordinary people who happened to be in the right place at the right time, in the realm of
leadership, and that the individual does matter.
The following discussion focuses on more alternative viewpoints. Transformational leaders are those who achieve success by being magnetic, charming, and visionary (Einstein & Humphreys, 2001; McCaslin, 2001). Charisma is an essential ingredient. Defining charisma seems even more difficult than defining leadership. Charisma is a talent, a gift—even a supernatural gift, according to some (Cawthon, 1996). The Great Man Theory is the belief that leaders are born, not made (Cawthon, 1996). According to the Great Man Theory of Leadership, leaders are born and not taught. According to Cawthon, in the middle of the 20th century, the Great Man Theory has fallen out of favor; since the 1940s, behavioral theories and contingent theories have dominated the literature. “The only ingredient necessary for one to become an effective leader is to have a desire to learn” (Cawthon, 1996).

“Many in life sciences have concluded that leadership talents might be intimately connected to one’s biological characteristics, that there is a special brain chemistry between leaders and followers” (Cawthon, 1996). Researchers in life sciences suggested that high levels of the brain chemical serotonin appear to promote leadership (Cawthon, 1996). Others argued against this position, noting that the chemical may be the effect of leadership rather than its cause (Cawthon, 1996). If this is true that leaders possess a talent that can be nurtured, then leaders are born and are innately different from followers. Researchers who support the Great Man Theory assert that a person who has the traits of a leader will eventually become a great leader. In the United States, the Great Man Theory seems un-American to suggest that some people are born to lead while others are born to follow (Cawthon, 1996).

Since the middle of the 20th century, transactional leadership styles were the classical approach; in this classical approach, a manager retained as much decision-making authority as possible (Pagewise, 2002). Quality effective leadership required being open to other people's
viewpoints; effective quality leadership is not transactional, but rather transformational (Kezar, 2002). Effective leadership entails being willing to take time to discuss issues and to answer questions or give feedback (Kezar, 2002). Transformational leadership is a process of influencing in which leaders change their associates' awareness of what is important and moves the associates to see themselves and the opportunities and challenges of their environment in a new way. According to Avolio and Bass (2004), transformational leaders seek to optimize individual, group, and organizational development. Transformational leaders convince their associates to strive for higher levels of potential as well as higher levels of moral, ethical standards (Avolio & Bass, 2004).

Examples of transformational leadership in the physical education administration area were athletic directors who were capable of motivating and inspiring followers (Friedman, 2000). When transformational leaders were successful, they were able to move followers, in this example, coaches, from external control to internal control by changing the mental model of the coaches. Linking desired outcomes to values held by the coaches, creating the coaches ownership, and building strong employee identification with the group (McCaslin, 2001). Transformational leaders who lead by example, use encouragement and praise effectively, and they respect athletes as capable individuals who can make a positive contribution. Friedman and Langbert (2000) defined transformational leadership as “leadership that motivates followers to ignore self-interests and work for the larger good of the organization to achieve significant accomplishments”. Understanding the qualities that make one a transformational leader can be very helpful to leaders concerned with improving their effectiveness. The trait of self-confidence has an impact on leadership performance through the mediating mechanism of leadership self-efficacy, a person's confidence in his or her ability to lead (McCormick, 2001).
Some managers will only see employees as a number and not a person first (Schiro, 1999). According to Schiro, organizations would benefit from transformational concepts when the leaders learn to care about people. If leaders care about people, their employees will work harder for the company and have a greater satisfaction in what they are doing. Companies can train employees to reach higher goals and to be looking for input from employees (Schiro). Idealized influence is based on four items: instills pride in others for being associated with him/her, goes beyond self-interest for the good of the group, acts in ways that build associate respect for the leader, and displays a sense of power and confidence (Avolio & Bass, 2004).

Transformational Leadership has many definitions. According to Weiskittel (1999), “Transformational leadership is described as involvement in coordinating and integrating activities versus controlling and directing the work of groups”. Harrison (1999) wrote that transformational leadership is “when one or more persons engage with others in such a way that leaders and followers raise one another to higher levels of motivation and morality”. According to Friedman (2000), transformational leaders are individuals capable of motivating and inspiring followers by appealing to higher goals and the common good rather than individual needs of self-interest. Transformational leadership significantly predicted student state motivation, learning indicators and affective learning. The study ends with an analysis of the transformational leadership model in the “instructional context, and directions for future research” extending the application of the transformational leadership model in the classroom (Noland, 2014).

Transformational leadership behaviors have been correlated positively with leader effectiveness ratings, follower satisfaction and effort, and overall organizational performance.

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(Einstein & Humphreys, 2001). Other findings suggested that transformational leader behavior is associated with employee commitment; trust in the leader, and positive organizational citizenship (Einstein & Humphreys, 2001). Effective leaders should focus consciously on the analysis of power relationships. Transformational leaders analyze these relationships by diagnosing leader-follower relations, understanding the job demands, and then matching the maturity level (readiness) of followers to the situation (Bass, 1990).

Fiedler (1996), Gill, Niall, and Pitt (1998), and Yusof (1998) named six historical examples of successful leaders who have made a difference in the course of United States history. George Washington won a battle against the British, despite a less, well-equipped military. “Abraham Lincoln, who never let his ego get in the way of his ambition to create an enduring great nation, was called a quiet, shy man. But those who thought Lincoln’s understated manner signaled weaknesses were wrong” (Collins, 2001). Lee Iacocca succeeded in turning around the Chrysler Corporation before it was to enter bankruptcy (Fiedler, 1996). Iacocca’s first acts of directive leadership were effective in the short-term, especially since he had the ability and knowledge to make good decisions and had sufficient personal power or charisma to get his ideas implemented (Einstein & Humphreys, 2001).

John F. Kennedy said in 1961, "Ask not what your country can do for you, but what you can do for your country" (Gill et al., 1998). Transformational leaders Winston Churchill and Martin Luther King had a vision, and they took full responsibility for their actions. Because of racial tension in the United States, Martin Luther King did not remain an obscure minister in the South (Cawthon, 1996), but declared in 1963, “I have a dream.” In 1940 Winston Churchill said, “We will fight them on our beaches . . .” Just before his death Winston Churchill reflected, “a man's contribution to his life story is continually dominated by a superior external power”

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(Cawthon, 1996). "Such inspirational oratory leads to a willingness to exert extra effort to go the extra mile" (Gill et al., 1998). Transformational leaders are like road builders because they build their roads to life (Schiro, 1999, p. 69).

Bennis and Goldsmith (1997) identified three keys to being a great leader: a great leader must have trust, confidence, and effective communication, so employees know what is required of them at their jobs each day. Bennis and Goldsmith identified the five phrases a great leader should use frequently: you did a good job, what is your opinion? Please, thank you, and we. Transformational leaders are leaders that bring subordinates to higher levels of motivation and morality. Transformational leadership is not viewed as necessarily a strict top to a bottom hierarchy; the transformation occurs in both directions (Armstrong, 2001). Transformational leadership is the one style of leadership that results in unparalleled performance as well as the edification of leaders (Armstrong, 2001). The goal is to transform followers toward a relationship that shifts the 'dependent ‘responsibility for' into a relationship that is interdependent, and people are ‘responsible to' each other" (Einstein & Humphreys, 2001). A transformational leader's primary goal is to bring followers up to the level where they can succeed in accomplishing organizational tasks without direct leader intervention (Einstein & Humphreys, 2001).

A leader can make effective changes in the organization by acting transformationally (Einstein & Humphreys, 2001). Transformational leadership is not more leadership; it is better leadership. The mark of a truly transformational leader is the extent to which the leader shifts or transforms followers to the point where people in the organization are strong enough to stand on their own without the leader (Einstein & Humphreys, 2001). Although the examples provided
have dealt with leaders at high levels, transformational leadership has a place at all levels of management (Einstein & Humphreys, 2001).

**Conclusion**

Strong, effective leadership, transformational leadership, in the 21st century is necessary to keep physical education in schools at all levels for the health and development of young people, the American adults of tomorrow (Dundon & Pattakos, 2001; Kim, 2002). The findings of this study would be useful for academic leaders. It is mainly aimed to “increase the effectiveness of a higher learning institution; therefore, they adopt leadership style that refines abilities of academic leaders and assists them to attain profit performance” (Mahdinezhad, Suandi, bin Silong, & Omar, 2013).

The literature review discussion identified several major points about how the beliefs about physical education and fitness may be shaped through the social institution of the school. Improving health through physical activity is a critical public health challenge that must be met. The Office of the Surgeon General’s Report (2005) encouraged the public to remain physically active, consider their nutritional needs and address their health. Professionals in the health and physical education profession have also played an increasingly important role in public policy and research agendas to increase physical activity among young people in the United States.
Pay Now or Pay Later

References


Considering Kinesio® Tape for the Treatment of Forward Shoulder Posture

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Abstract

The purpose of this research was to evaluate the effects of three Kinesio® Tape applications to correct Forward Shoulder Posture (FSP), a common postural alteration. A randomized pre-/post-test study included thirty, (f= 15, m= 15) recreationally active individuals or current competitive athletes (age: 23.5 ±5.036) diagnosed with FSP. Musculoskeletal diagnostic ultrasound was used as the objective tool to quantify FSP: measurement from the anterior humerus to coracoid process. Based on randomized group assignment, participants were taped following Kinesio® Tape guidelines (5 males and 5 females per group): (1) inhibition of the pectoralis minor; (2) facilitation of the lower trapezius; and (3) combination of both techniques resulting in the inhibition of the pectoralis minor and facilitation of the lower trapezius. Participants wore the respective taping technique for 24 hours and were re-measured after the tape had been removed, each participant serving as his/her control. Neither the interaction nor the overall effect between each taping technique was statistically significant (p>.05). Participants who met the inclusion criteria of FSP did not have a statistically significant effect after wearing the respective Kinesio® Tape application. Therefore, the results of this research do not support Kinesio® Tape as a mechanism for treating Forward Shoulder Posture.
Kinesio® Tape Treatment

Introduction

Individuals who participate in overhead activities, including overhead athletes, typically perform motions which cause muscles in the front of the shoulder to contract. Frontal, overhead activities, such as throwing, cause muscles on the anterior aspect of the shoulder complex to pull on the scapula causing humeral head rotation and ultimately a postural condition known as Forward Shoulder Posture (FSP) (Magee, 2002). FSP is a common postural adaptation which can alter shoulder movements and can produce shoulder and back muscle imbalances (Borstad & Ludewig, 2005; Magee, 2002). Past research confirms that FSP is associated with a tight pectoralis minor (chest) and weakness of the lower trapezius (back) (Laudner et al., 2010; Ludewig & Cook, 2000; Page, Frank, & Lardner, 2009). The associated pathomechanics of the muscle imbalance can lead to alterations in throwing, swimming, spiking, running, or even activities of daily living (Magee, 2002). Individuals who suffer from chronic shoulder injuries are at risk for pain and decreased performance potentially removing an athlete from competition. In addition, FSP has been linked to secondary shoulder injuries such as subacromial impingement, bicep tendonitis, rotator cuff pathology, and glenohumeral joint instability (Wilk et al., 2009).

There are various treatment interventions for rehabilitating FSP including stretching tight muscles and strengthening weak musculature to correct the modified shoulder position (Lee et al., 2015). Although exercises that promote scapular retraction have been shown to aid in the correction of FSP, positive outcomes of rehabilitation are typically slow to achieve (Lee et al., 2015). Clinicians have attempted to assist rehabilitation efforts through bracing (Cole et al., 2013). However, wearing a brace is not practical for those individuals who perform overhead
movements. Therefore, conducting research on an alternative measure which allows for complete motion during activity is critical to the development of evidence-based treatment options for FSP.

Kinesio® Tape, unlike traditional white tape, allows joints to perform full range of motion (Kase, Wallis, & Kase, 2003). Kinesio® Taping methods have increased in popularity because individuals have reported pain reduction for various musculoskeletal conditions (Donec & Kristiunas, 2014; Kaya, Zinnuroglu, & Tugcu, 2011). Claims made by the manufacturer that the tape can inhibit or facilitate skeletal muscle based on the direction of tape application have been largely uncorroborated. While there is some research which supports inhibition of muscles (Simsek, Balki, Keklik, Ozturk, & Elden, 2013; Subasi, et al., 2014; Thelen, Dauber, & Stoneman, 2008) and facilitation weak muscles (Hsu, Chen, Lin, Wang, & Shih, 2009; Slupik, Dwornik, Bialoszewski, & Zych, 2007), no research has been conducted studying the effects of the tape on individuals suffering from FSP.

The primary purpose of this project was to investigate the physiological effects of Kinesio® Tape on Forward Shoulder Posture (FSP). This study is one of the few existing pieces of original research using Kinesio® Tape which required an inclusion criteria of unhealthy tissue, i.e., FSP, as determined by two allied health care practitioners.

Methods

Subjects

Volunteer participants were recruited from a large United States university whose Institutional Review Board approved the research protocol. The sample consisted of 30 participants (15 males, 15 females) who ranged in age from 18 to 50 (M=23.5 ± 5.036). Inclusion criteria for this study were participants had FSP as determined by two certified athletic
trainers (ATC) with more than 10 years of clinical experience. In addition, participants were screened for past and current activity levels, which are reported in Table 1. Participants were excluded from the study if they had past shoulder surgery on their non-dominant arm, a non-surgical shoulder injury within the last year, contraindication to Kinesio Tape®, or lack of recreationally active status as determined by the American College of Sports Medicine Health History Questionnaire (Premier Performance, Inc.).

Table 1
Demographic Characteristics of Activity Level of Participants

<table>
<thead>
<tr>
<th></th>
<th>Females</th>
<th>Males</th>
</tr>
</thead>
<tbody>
<tr>
<td>DI Cheerleader</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>DI Football</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>DIII Hockey</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>DI Soccer (retired)</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>DI Volleyball</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>DI Volleyball (retired)</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>DI Volleyball (Club)</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>DI Wrestling (retired)</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Recreational Golf</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Recreational Runner</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>ACSM Recreationally Active</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>n=15</td>
<td>n=15</td>
<td></td>
</tr>
</tbody>
</table>

Procedures

Forward Shoulder Posture (FSP) was diagnosed if participants had a postero-lateral acromion process of greater than or equal to 2.54 cm measured by a tape measure (Sahrmann, 2002). Once FSP was confirmed by two certified athletic trainers using the Sahrmann Technique, an image of the internal shoulder anatomy was obtained via musculoskeletal diagnostic ultrasound (Teratech Corporation, Burlington, MA). Diagnostic ultrasound was chosen as the imaging tool in order to observe the real-time physiological effects of Kinesio® Tape. The ultrasound transducer was placed in a sagittal position over the anterior shoulder of the self-
reported dominant arm. Once the humeral head and coracoid process were observed, the screen was frozen and the distance between the anatomical landmarks was measured with the caliper function (Bdaïwi, Harrington, Almangoush, Mackenzie, & Porter, 2014).

Participants (n=30) were given random-number allocations into one of three groups for the application of the Kinesio® Tape: (1) inhibition of the pectoralis minor; (2) facilitation of the lower trapezius; or (3) application of both the inhibition of the pectoralis minor and the facilitation of the lower trapezius. Each group had the same number of males and females.

The application of Kinesio® Tape was conducted by a Certified Kinesio Taping Faculty (CKTF) member with over 10 years of formal training and experience. The Kinesio® Tape paper was torn back from the tape to create an anchor and was applied without tension. For the application of the inhibition of the pectoralis minor, the tape was anchored in a Y-strip without tension on the insertion site of the anterior surface of the coracoid process of the scapula (Kendall, McCreary, Provance, Rodgers, & Romani, 2005). The patient was positioned in 90º shoulder flexion, horizontal abduction and external rotation with slight elbow flexion for the application of the superior tail. For the inferior tail, the patient was repositioned with 110-135º shoulder flexion with external rotation and full horizontal abduction. Kinesio® Tape was pulled with a tension of 15-25% (Kase et al., 2003) and ending without tension on the origin of pectoralis minor: superior margins of the outer surfaces of the third, fourth, and fifth ribs near the cartilage (Figure 1) (Kendall et al., 2005).
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Figure 1. Application of Kinesio Tape® inhibiting pectoralis minor.

For the facilitation of the lower trapezius, the tape was in a Y-strip with the tails splayed with no tension on the origin of the muscle, spinous processes of the T6 to T12 vertebrae (Kendall et al., 2005). The participants were positioned into scapular decompression, external rotation and trunk lateral flexion by having the participant hug themselves and then bend forward to the side to place the tissue on a stretch. Kinesio® Tape was pulled with a 15-35% tension (Kase et al., 2003), and the tails were anchored to tubercles of the apex of the scapular spine where the lower fibers of the trapezius insert (Figure 2).

Figure 2. Application of Kinesio Tape® facilitating lower trapezius.
All participants were asked to wear the Kinesio® Tape application assigned to them for 24 hours as they performed normal activity levels. Participants were asked to refrain from vigorous activity (e.g. maximal weight lifting); however, participants were encouraged to perform all activities of daily living (ADL). All participants (n=30) returned to the laboratory 24 hours later to have the tape application removed. Following tape removal, participants waited two minutes and then were re-measured by the primary investigator of the project again using musculoskeletal diagnostic ultrasound.

Results

Descriptive statistics appear in Table 2. The results indicate that the greatest decrease occurred when both taping techniques were applied. The inhibition taping technique resulted in the smallest average difference between the pre- and post-taping measurements. In all cases, the standard deviation was substantially larger than the average, and the average change did not differ from zero at a statistically significant level. Descriptive statistics indicate the greatest decrease in FSP occurred when both taping techniques were employed, with a mean difference of 0.180 cm (SD=0.493). The decrease for the facilitating and inhibiting tape applications were 0.101 cm (SD=0.401) and 0.054 cm (SD=0.530), respectively.

Table 2
Descriptive Statistics

<table>
<thead>
<tr>
<th>Taping technique</th>
<th>Mean difference</th>
<th>Standard deviation</th>
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</thead>
<tbody>
<tr>
<td>Combination</td>
<td>0.180</td>
<td>0.493</td>
</tr>
<tr>
<td>Facilitation</td>
<td>0.101</td>
<td>0.401</td>
</tr>
<tr>
<td>Inhibition</td>
<td>0.054</td>
<td>0.530</td>
</tr>
</tbody>
</table>
The data were analyzed using a repeated measures ANOVA with taping technique as the between-subjects factor. Results of this analysis appear in Table 3. The interaction effect was not statistically significant, allowing interpretation to focus on the main effects. The overall effect due to the application of tape (in other words, the effect of time in the repeated measures model) was not statistically significant. Furthermore, the main effect due to taping technique was also not statistically significant. There is not enough evidence in the data to conclude that the application of tape resulted in substantial decrease in FSP nor that the choice of taping technique is a significant factor in changing FSP.

Table 3

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tape</td>
<td>2</td>
<td>0.0910</td>
<td>0.0456</td>
<td>0.18</td>
<td>.84</td>
</tr>
<tr>
<td>Time</td>
<td>1</td>
<td>0.1870</td>
<td>0.1870</td>
<td>0.74</td>
<td>.39</td>
</tr>
<tr>
<td>Interaction</td>
<td>2</td>
<td>0.0410</td>
<td>0.0203</td>
<td>0.08</td>
<td>.92</td>
</tr>
<tr>
<td>Residual</td>
<td>53</td>
<td>13.4120</td>
<td>0.2531</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Discussion

Forward Shoulder Posture (FSP) predisposes individuals to secondary shoulder pathomechanics and potential injury due to unique musculoskeletal contraction to execute sport-specific demands and activities of daily living (Sahrmann, 2002; Wilk et al., 2009). Though quantitative research is limited regarding the use of Kinesio® Tape, specifically with the facilitation and inhibition application methods, the findings of this study do not support the use of Kinesio® Tape to decrease FSP. While the differences between the three taping techniques do not result in a statistically significant difference in the decrease in FSP, the summary statistics are suggestive of the general direction of the influence. Inhibiting the pectoralis minor has the
least impact, while facilitating the lower trapezius changes the mean measurement nearly twice as much. Therefore, this pilot study might be useful and suggestive for future studies.

Although the anatomical area differs, similar results by Fu, Wong and Pei (2008) indicate that facilitation of the quadriceps muscles do not change immediate or delayed muscle strength. Fourteen healthy athletes were recruited and assessed by an isokinetic dynamometer under three conditions: (1) without taping; (2) immediately after taping; and (3) 12 hours after taping. The results of the comparison of peak torque and total work revealed no significant interaction effect between conditions and assessments ($p>0.05$). Correspondingly, Vercelli, Francesco, and Calogero (2012) investigated isokinetic quadriceps strength and functional performance with facilitation and inhibition with Kinesio® Tape applications in 36 healthy adults. The researchers’ incorporated three different taping conditions: (1) facilitation; (2) inhibition; and (3) no-tension sham application on the anterior thigh. Researchers concluded Kinesio® Tape had short-term effects on maximal muscle strength, but the results revealed there were no significant differences ($p>.05$) related to the type of Kinesio® Tape application (Vercelli et al., 2012). Thus, the concept of direction of tape application, i.e., facilitation and inhibition, remains controversial and may not produce a clinical or performance effect.

One issue to consider when reading Kinesio® Tape research is poor methodology incorporated in studies. The previously mentioned studies both report findings that kinesiotaping facilitation and inhibition applications did not positively affect performance (Fu, Wong, & Pei, 2008; Vercelli, Francesco, & Caogero, 2012). However, there were discrepancies in the tape application. The previously mentioned studies did not follow the Kinesio Tape Association International (KTAI) taping guidelines (Kase et al., 2003). For example, Fu et al. (2008) applied the tape application with 120% stretch rather than the correct tension of 15-35% for facilitation.
(Kase et al., 2003). Similarly, Vercelli et al. (2012) reported a facilitation with 25-50% tension. Too often lay public rely on internet searches as the source for medical advice. Approved Kinesio Tape Methods® require an appropriate, individualized assessment followed by specific application procedures such as tension and direction of pull.

Although the results of this project suggest Kinesio® Tape does not significantly decrease FSP, every individual’s musculoskeletal system is different and responds differently to treatment interventions. The inclusion criteria for the current study involved participants who clinically suffered from FSP; however, none of the participants reported pain due to the postural alteration. The skin’s sensory input from the application of tape alters the motor-neuron output which innervates the skeletal muscle’s activation allowing an alteration of pain receptors (Alexander, Stynes, Thomas, Lewis, & Harrison, 2003). Therefore, future research should be conducted on athletes who suffer from FSP and also have corresponding shoulder or back pain.

Conclusions

One goal of health and wellness associations is to present evidence-based material to coaches, physical educators, and recreational enthusiasts regarding interventions which could provide treatment strategies for musculoskeletal conditions. Forward Shoulder Posture (FSP) is a common postural condition which can alter the mechanics of overhead activities. The findings of the current research should be viewed as a pilot study and can guide other researchers to investigate taping options for FSP. Specific to the competitive athletic population, coaches may want to consider having conversations with allied health care professionals who have training and certification in Kinesio® Tape to ensure athletes are receiving optimal treatment for shoulder pathomechanics and postural alterations.

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References


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