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The OAHPERD Journal is published three times a year (Fall, Winter, and Spring) by the Oklahoma Association for Health, Physical Education, Recreation and Dance. The purpose of the Journal is to provide a current and constant avenue of communication among members of the Association on all professional topics, association business, and news of statewide interest. Correspondence should be mailed to the Journal Editor or to a member of the Editorial Review Board.
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OAHPERD 2015-2016
Board and Council

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Editor’s Message

We tried something new for the research section of this issue. We sent out a request for student manuscripts and had a great response. The manuscripts were peer-reviewed along with the traditional submissions and we hope to continue this for the upcoming issues.

Our convention is coming up in October and I hope that everyone has made plans to attend. It proves to be an exciting event and it’s always fun to visit with everyone.

The program is printed in the journal, but it is not yet finalized. If you have any feedback or comments or would be interested in submitting a manuscript or other article for publication, please feel free to contact me at kdaigle@se.edu.

Thanks again for your continued service and support of OAHPERD and SHAPE America!

Fall Journal
Deadline for peer-reviewed manuscripts, July 1st
Deadline for all other items, August 1st

Winter Journal
Deadline for peer-reviewed manuscripts, October 1st
Deadline for all other items, November 1st

Spring Journal
Deadline for peer-reviewed manuscripts, February 1st
Deadline for all other items, March 1st

Kay Daigle
OAHPERD
Journal Editor
In Memoriam

Nicki Keele

Aix B. Harrison was born Feb. 14th, 1925 in Zearing, Iowa. He passed away at Agrace Hospice Care in Fitchburg, WI on Sunday, March 27, 2016.

Aix received his B.S. and M.A. Degrees from the University of Illinois. He received his PhD from Michigan State University in 1959. Aix served 1943-1945 in United States Air Force in the 494 Bomb Group (Kelley Kobras) as a bombardier in a B24. He flew over the Japanese occupied Island in the South Pacific and dropped bombs on Japan and China until the war was over. He taught and conducted re-search as an exercise physiologist at Oklahoma State University and was at Oklahoma State University from 1950-1986.

Dr. Harrison was OAHPERD’s President in 1967 and he received the Honor Award in 1969. The Aix B. Harrison Scholarship was established in 1981 to help graduate students with books and tuition. It is still helping students today. The School of Health, Physical Education and Leisure Science designated 120 Colvin Center as the Harrison Research Laboratory in 1994. He was a charter member of Highland Park Methodist Church. He was active in Masonic organizations for 65 years in Stillwater, OK and with the India Temple in Oklahoma City, OK.

A.B. married Gwen Adair Laufer on Jan. 7th, 1950. They have two children, George and Nancy. George has two sons, Christopher and Jonas and the boys have six children. Nancy has a daughter Jesse and a son Tobias. In 2009, he and his wife Gwen moved to Madison, Wisconsin to live with their daughter and son in law, Nancy and Dennis Harrison-Noonan. Aix attended N.E.S.C.O at Warner Park Community Center each day and exercised on the treadmill and other machines daily followed by dinner until his final days. A celebration of life was held at Warner Park Community Center on Thursday, March 31st and the funeral home service was held on Friday, April 1st in Hampshire, IL at the Hampshire Cemetery.

References:
The Stillwater News Press and The Daily Cardinal Madison, WI and OAHPERD archives
In Memoriam

Nicki Keele

Ada Van Whitley passed away April 27, 2016 in Stillwater, OK. She was born on May 8, 1929 in Council Hill, OK to Jess C. and Myrtle Whitley. Ada attended Oktaha Schools all twelve years. She graduated from high school in 1947. She earned her undergraduate degree from Northeastern State College in Tahlequah with a degree in Business Education and Health and Physical Education. She received a Masters of Science degree from Oklahoma State University in 1961. She was then hired by OSU in 1961 and served on the faculty of Health Physical Education and Recreation (HPER).

While at OSU she taught HPER classes, was women's intramural director, and later served as coordinator of non-credit classes. She was the women's basketball coach from 1961-1973. Ada retired from OSU in 1988 after 27 years. Her early teaching experience was spent teaching in Barnsdall and Muskogee, OK and in Caney and Partridge, KS. Ada Van was a member of OAHPERD, a member of the First Presbyterian Church and was the driving force behind the creation of the Companion Animal Assistance Program (CAAP).

Ada was preceded in death by her parents and her sister, Mary Cathers. She is survived by her cousins Ira Lee Boss and his wife Mable of Muskogee, Betty Jo Gregg of Ventura, CA, Sam Whitley and his wife Marilyn of Muskogee and Virginia Atkison of Wichita, KS, and numerous other cousins.

There was a celebration of Ada Van's life on June 11, 2016 in Stillwater, OK. Her internment was in Greenhill Cemetery in Muskogee, OK.

Reference: Stillwater News Press
In Memoriam

Nicki Keele

Ernestine "Ernie" (Holcomb) Wright entered this world on November 7, 1927, with a fierce determination: ready to learn, ready to experience, ready to love life, ready to teach. She passed away with that same fierce determination to do it her way on June 1, 2016. Edmond, Oklahoma, is where her parents Ernest Monar and Julia Miriam (Heald) Holcomb lived when Ernie was born. As a young girl, she was considered a "tomboy," secretly wishing she were a boy, playing basketball, exploring, and riding horses. Being out-of-doors seemed to be her favorite pastime. She played on the Sayre girls' basketball team and graduated from Sayre High School in 1945.

After attending college at Oklahoma A&M for 1 1/2 years, Glenn Wright stole her heart, and they were married on March 21, 1947. They made their home in Weatherford, and both finished college at Southwestern State College. Later, she also earned her masters at Southwestern and then began working on her doctorate at OSU. She did post graduate work not only at OSU but also at OU, Central State University, Colorado University, University of Northern Colorado, and Georgia.

While living in Weatherford, their son Glenn "Harold" and their daughter Miriam "Suzan" were born. The family then moved to Erick for Glenn to teach. Another job opportunity led the family to Anadarko for 2 years. Their third child Jake William, II, was born in Anadarko. In 1956 they moved back to Weatherford until 1964 when they moved to Houston; and then in 1967, they moved back to Weatherford for their last move.
Ernie's teaching career began at Burns Flat before accepting her Southwestern State University position, teaching in the physical education department until she retired in 1988. She was a member of the Faculty Senate for six years, and she was a women's Intramural director.

Due to her position at Southwestern, she was asked to serve on the Oklahoma Special Olympics board as area coordinator. Ernie was the founder of the Weatherford area Special Olympics which is still strong and active. She served in this capacity for nine years, but she and her classes continued to assist with local swim and track meets; and for several years, she and her classes conducted Brownie Play Day.

Ernie was a member of the Oklahoma Recreation and Parks Society; National Recreation and Parks Society; American Alliance for Health, Physical Education, Recreation and Dance; Oklahoma Association of Health, Physical Education, Recreation and Dance; Higher Education Alumni Association; Kappa Delta Pi; P.E.O.; Daughters of the American Revolution; and V.F.W. Auxiliary. She was a Water Safety Instructor Trainer and CPR Instructor Trainer. At the age of 65, Ernie made her first Hole-in-One on April 23, 1992, at the Weatherford Golf Course on the 8th hole. She was always proud of that accomplishment.

She was preceded in death by her husband Glenn, her parents, her son Jake, and a brother David. Ernie is survived by her son Harold and wife Carol of Weatherford, her daughter Suzan Gates and husband Winston, 5 grandchildren, 11 great children, and a number of nieces and nephews. Services were held Saturday, June 4, 2016 at the First United Methodist Church with Rev. Lynn Brack, officiating.

Burial was in the Greenwood Cemetery under the direction of Lockstone Funeral Home.

References: Lockstone Funeral Home Weatherford, OK
SHAPE America Southern District Conference Highlights
Charity Bryan, President

The SHAPE America Southern District is excited to co-host the 2017 conference with the Louisiana AHPERD in Baton Rouge, Louisiana. Our 2017 conference theme is “We are Family!”

If you know anything at all about Southern District, you know that we are indeed a huge family of professionals, friends and colleagues from across our 13 states. Think of the January 2017 conference as one big family reunion!

Over 200 program proposals were reviewed for the upcoming conference and several pre-conference workshops will also take place. Jim Deline, Physical Education Teacher at Highland Park Elementary in Austin, Texas will present a pre-conference workshop as well as breakout session.

Other pre-conference workshops include “Advocacy that Works”, “Social Media: What’s the Newest and Latest?”, and “Implementing a Health or Physical Education Program Effectively”.

The General Session speaker will be Dr. Robert Murray from The Ohio State University.

Dr. Murray will deliver his remarks on “Nutrition, Activity, the Brain, and Learning.”

New research has shown that the key factors that shape brain development in childhood are: quality nutrition, regular physical activity, social play, exploration, and emotional support. This session will examine what we know about the role of each in building and maintaining the brain to promote optimal learning. Dr. Murray will also speak on “The Crucial Role of Recess” in a breakout session.

Our Scholar Lecture will be delivered by Dr. Xiaofen Keating from the University of Texas. There are also sessions scheduled for our Future Professionals, including the annual SuperStars Competition.

“Louisiana Night” will feature a buffet dinner and Mardi Gras party for all conference goers. Let the good times roll with your friends and family!

I look forward to welcoming you to Southern District at the Crowne Plaza in Baton Rouge, January 9-12, 2017 for our SHAPE America Southern District/ Louisiana AHPERD conference. And, as always, remember, We are Family!
2016 OAHPERD “RING THE BELL” CONVENTION PROGRAM

October 10-11, 2016
Nigh University Conference Center
University of Central Oklahoma

Monday, October 10, 2016

Registration Opens at 8:00 A.M. in Nigh University Center (NUC) Room 326

Exhibits Open at 9:00 A.M. in NUC Ballroom A

9:00 AM-11:00 AM
You Heard Right…. Free Curriculum OPEN to ALL!
Attend this session ready to be actively engaged in activities aligned with SHAPE America’s National Standards & Grade-Level Outcomes. Discover fun and easy resources to promote high quality physical education utilizing a free curriculum resource (OPENphysed.org). OPEN lessons incorporate content language, depth of knowledge questioning, and strategies for academic rigor.
Presenter: US Games Trainer
Room: NUC Ballroom B

9:00 AM-12:00 PM
Development of Self-Efficacy through Sport-Specific Training
In an effort to reduce rising global healthcare cost this presentation looks at using sport-specific training to develop self-efficacy, which will lead to higher physical activity levels.
Presenter: Jason West, The University of Tulsa
Room: NUC 300

9:00 AM-11:00 PM
Incorporating Ability Awareness Activities Into Class
The information provided in this session will help to educate and improve the perceptions of General Physical Education teachers and students about different disabilities and eliminate some of the negative stereotypes, misconceptions and misunderstandings about people with disabilities through ABILITY awareness activities.
Presenters: Lauren Loucks, UCO, UCO Physical Education Majors and Amy Townsend, Emporia State University
Room: NUC Ballroom A
Successful Interviewing Skills For Your Toolbox: Putting Your Best Self-Forward and Getting the Job
Interviews can be nerve-wracking enough, from making sure your body language doesn’t put off the interviewer to rehearsing common questions, there’s a lot of preparation to do. Join this panel of experts and get a JUMP on the competition.
Presenters: Kevin Fink and Panelists
Room: NUC Room 301

Integrating STEM to Create a Balance of Active Learning
Moving to the alphabet will integrate the mind and body by combining movement with STEM content and questioning. Innovative ideas that can be implemented immediately!
Presenter: Sandy Slade, Skillastics, Corona CA
Room: Ballroom C

Essentials of Sport Stacking with Speed Stacks!
This session features lesson from the NEW Speed Stacks Sport Stacking Instructor Guide. Learn sport stacking basics and teaching techniques. Receive FREE instruction materials.
Presenter: TBD
Room: NUC Ballroom A

Policy and Elevated Standards for Concussion: What’s New?
Keeping up with the rapidly changing world of concussion law, school policies, and best practices for concussion management can be overwhelming. This presentation provides participants with essential information regarding legal responsibilities, professional position statements, the updated Oklahoma concussion law, and real world examples as well as general risk management techniques. Participants will be able to assist school administrators in implementing appropriate policies that comply with Oklahoma law while gaining a thorough understanding of their responsibilities to students.
Presenter: Ron Walker, The University of Tulsa
Room: NUC 301

Lunch on Your Own
Food Court and Restaurant are located in the NUC
12:30-12:45
**Opening General Session**
Join President Susan McLemore to “Ring the Bell” and kickoff a great convention!
Room: Ballroom A

1:00 PM-3:00 PM
**Sky Trails and Slides!**
Be one of the first 60 to sign up with convention registration to participate in fun activities at the Oklahoma City Riversport on the Oklahoma River!
Facilitators: Holly Vonderohe, OKC Boathouse Foundation and Jerel Cowan, UCO
Room: OKC River (Pre-registration Required)

1:00 PM-4:00 PM
**OPEN Curriculum Part 2**
**You Heard Right…. Free Curriculum OPEN to ALL!**
Attend this session ready to be actively engaged in activities aligned with SHAPE America’s National Standards & Grade-Level Outcomes. Discover fun and easy resources to promote high quality physical education utilizing a free curriculum resource (OPENphysed.org).
OPEN lessons incorporate content language, depth of knowledge questioning, and strategies for academic rigor.
Presenter: US Games OPEN Trainer
Room: NUC Ballroom B

1:00 PM-3:45 PM
**Sport Education: A Teaching Model that Never Grows Old**
Standards based activities used to show how the SE Model improves class behavior and attendance, make students responsible for their own learning and adds peer, self and teacher assessments to your curriculum.
Presenter: Charla Tedder Krahnke, National, Southern District, and North Carolina High School PE TOY and Presenter for US Games
Room: NUC Ballroom C
1:00 PM- 2:00 PM
**Creative Basketball Activities**
Roll up your sleeves- it’s time to work! Sandy Slade will guide you through a basketball handling and dribbling workout. Learning, or for that matter, teaching basketball fundamentals can be very frustrating. By breaking down the drills into small, easy-to-attack segments, Sandy makes it easy to understand. The basketball skills you will learn will be invaluable, helping you in class.
Presenter:  Sandy Slade, Skillastics
Room:  NUC Ballroom A

1:00 PM-3:00 PM
**American Heart Association and the NFL: Back to Sport Program**
The AHA and NFL are presenting programming to educate youth wellness and basic sport safety to keep kids safe, healthy, and having fun.
Presenters:  Rachel Hildebrand, ATC and Ron Walker, ATC, The University of Tulsa
Room:  NUC 301

2:15 PM-4:00 PM
**Google What?**
Come find out ways physical educators across the globe are using Google applications to Simplify their teaching.
Presenter:  Mike Smith, Colorado Department of Education and US Games OPEN Trainer
Room:  NUC Ballroom A

2:15 PM-3:30 PM
**Certified Healthy Schools & TSET Healthy School Incentive Grants**
Learn how your district and school can be Certified Healthy and become eligible for incentive grant funding.
Presenters:  Sharon Howard, Program Manager for TSET and Diane Brown, OSDH Center for the Advancement of Wellness
Room:  NUC 300

4:15 PM-6:30 PM
**OAHPERD Honors and Awards Reception**
Facilitator:  Susan McLemore, OAHPERD President
Room:  Nigh University Center 326
Tuesday, October 11

Registration Opens at 7:00 A.M. in Nigh University Center (NUC) Room 326

Exhibits Open at 8:00 A.M.

8:00 AM-8:50 AM
Implementing Formative Assessments in Your Physical Education Program
Standards based activities utilizing physical literacy, fitness activities, sports and games are used to implement assessments into your daily physical education program.
Presenter: Charla Tedder Krahnke, National, Southern District, and North Carolina High School PE TOY and Presenter for US Games
Room: NUC Ballroom B

8:00 AM-8:50 AM
Get Up and Move!
The session will include cardio kick box style warm-ups.
Presenter: Sarah Headrick, Deer Creek Schools
Room: NUC Ballroom C

8:00 AM-8:50 AM
Activity Tracking Devices: Features, Usability, and Accuracy
An overview of popular activity trackers available in today’s marketplace. This presentation will cover a variety of devices, their features, their use, and their accuracy.
Presenter: Michael Smith, UCO
Room: NUC Room 301

8:00 AM-8:50 AM
Introduction to Every Student Succeeds Act (ESSA) for Physical Education and Health Educators
This session will provide participants with more information about the Every Student Succeeds Act (ESSA) and P.E./Health relationships and School Health Index.
Presenter: Sherry Fisher, Oklahoma State Department of Education
Room: NUC Room 304

8:00 AM-8:50 AM
Athletic Development from A-Z
This session will highlight the philosophy of training athletes from development to elite performance status.
Presenter: Jeff Pace, CSCS, Ultimate Performance Complex, Tulsa, OK
Room: NUC 314
8:00 AM-8:50 AM
**Fad Dieting: Fact or Fiction**
This seminar will address current trends in fad dieting. The good, the bad, and the ugly of each fad will be discussed.
Presenter: Kim Davison, UCO
Room: NUC 300

9:00 AM-10:20 AM
**“RING THE BELL” General Session**
Facilitator: Susan McLemore, OAHPERD President
Room: NUC Constitution Hall (Room 200)

10:30 AM-11:20 AM
**OAHPERD Research Poster Presentations**
Stop by and review the various research studies conducted by OAHPERD members.
The posters are located in front of the NUC Ballrooms on the 3rd floor.
Facilitator: Bill Cash, Research Council Chair
Room: NUC Ballrooms Hallway

10:30 AM-11:20 AM
**Rowing in the Elementary Schools**
This session will be an interactive session! We will explain the basics of rowing on an indoor machine (erg) and we will discuss the different programs that the Oklahoma City Boathouse has to offer and how it works. We will even do some relays on the ergs!
Presenter: Holly Vonderohe, OKC Boathouse
Room: NUC Ballroom A

10:30 AM-11:20 AM
**What Does a Technology-Integrated Lesson Look Like?**
This active session will have attendees move through a technology-infused lesson from a student’s perspective. This lesson shows what an effective lesson can look like when using technology to increase MVPA, assess students and manage your class. Come to this session to learn strategies to keep students actively engaged, innovative technology being used in the PE setting, and see the latest apps in action. Please bring your mobile device.
Presenter: Courtney Sjoerdsma, Elite Master Trainer, The SPARK Program
Room: NUC Ballroom B

10:30 AM-11:20 AM
**Badminton Bonanza (Large Groups)**
As physical educators, we all want students to be active for a lifetime. Badminton drills, fitness, assessments and activities are used to integrate large numbers into your program.
Presenter: Charla Tedder Krahnke, National, Southern District, and North Carolina High School PE TOY and Presenter for US Games
Room: NUC Ballroom C
10:30 AM-11:20 AM

**OKC Thunder Operations**
Come and learn more about the organizational structure of the Thunder! Information will be shared on how to get a job in the sports industry. There will also be an opportunity for Q & A.
Presenter: Mac Maddox, OKC Thunder
Room: NUC Room 301

10:30 AM-11:20 AM

**Whole School, Whole Community, Whole Child (WSCC)**
Health and education affect individuals, society, and the economy and, as such, must work together whenever possible. Schools are a perfect setting for this collaboration. Schools are one of the most efficient systems for reaching children and youth to provide health services and programs, as approximately 95 percent of all U.S. children and youth attend school.
Presenter: Rachelle Franz, UCO
Room: NUC Room 314

10:30 AM-11:20 AM

**Higher Education Meeting**
**Finding, Preparing, and Writing Successful Grants**
Does your program or department need additional funds? If so, join your colleagues in an informative session that will provide you with successful grant writing tips and help you sharpen your grantsmanship skills.
Presenter: Nani Pybus, Ph.D., Certified Research Administrator, OSU
Room: NUC Room 300

10:30 AM-11:20 AM

**Building a Let’s Move Active Schools (LMAS) Award Winning Program**
Let’s Move Active Schools (LMAS) National Award winner will discuss how she and her school have successfully implemented LMAS and how it transformed the culture of their school. She will discuss how to build and maintain a winning program through the Comprehensive Schools Physical Activity Program (CSPAP) framework. Participants will have opportunities to share and discuss thoughts and ideas for creating, building, and promoting LMAS.
Presenter: Sarah Headrick, Deer Creek Schools and Stephanie Canada-Phillips, UCO
Room: NUC Room 304
10:30 AM-11:20 AM
**Keys to Developing a Successful Relationship with a Faculty Mentor**
This session will address how to choose a faculty mentor and nurture that relationship, as well as how to benefit from it.
Presenter: Vanessa Fiaud, West Texas A&M University
Room: NUC Room 320B

10:30 AM-11:20 AM
**Engagement in Outdoor Activities**
Who are outdoor activities marketed to? This session will look at the marketing trends related to outdoor industry. The session will be based on James Edward Mills book *The Adventure Gap* and the current landscape of who participates in outdoor activities and who is actually being invited to participate.
Presenter: Jerel Cowan, UCO
Room: NUC Room 320C

11:30-1:20 PM
**You Heard Right…. Free Curriculum OPEN to ALL!**
Attend this session ready to be actively engaged in activities aligned with SHAPE America’s National Standards & Grade-Level Outcomes. Discover fun and easy resources to promote high quality physical education utilizing a free curriculum resource (OPENphsysed.org). OPEN lessons incorporate content language, depth of knowledge questioning, and strategies for academic rigor.
Presenter: Mike Smith, Colorado Teacher Trainer, US Games OPEN Trainer
Room: NUC Ballroom A

11:30 AM-12:20 PM
**Gone Wild for Jump Rope for Heart**
Come learn from veteran JRFH coordinators about best-practices for your Jump Rope For Heart event. We have both large and small districts represented. AHA will share some exciting new lesson plan ideas as well. Come win a door prize!!
Presenters: Suzanne Cyrus, Jenks Schools; Susan Lalman, Morrison Schools, and Aaron Harbin, AHA
Room: NUC Constitution Hall or Heritage Room
11:30 AM-12:20 PM
ACTION! Team Games with MVPA Assessment
Action packed, class oriented, teacher friendly games and activities. Along with our MVPA Assessment products. If you want to learn new activities, be active and have fun, this session is the one for you!
Presenter: Adam Gill, Gopher Sport
Room: NUC Ballroom B

11:30 AM-12:20 PM
Out of the Box and Onto the Court
The session is a strategic overview of how to implement Tactical Games Approach into your sports curriculum, promote understanding of sports or teach the basics of tactile games.
Presenters: Samantha Beams, The University of Tulsa and Trish Pruitt, Tulsa Public Schools
Room: NUC Ballroom C

11:30 AM-12:20 PM
Putnam City Action Based Learning/Kinesthetic Classroom Update…. Data Included!
This presentation will briefly explain what we are doing in Putnam City with our ABL labs. We will share our data results from year one and our plans for year two.
Presenters: Jason Hasty and Erin Frizzell, Putnam City Schools
Room: NUC Room 314

11:30 AM-12:20 PM
Grant Writing 101
Need additional funds for your Physical Education/Health programs? If so join us to go over the basics of grant writing.
Presenter: Lacey Padgett, Principal of Deer Creek Elementary Schools
Room: NUC 300

11:30 AM-12:20 PM
Tulsa Oilers and Sport Operations
The Tulsa Oilers are a professional ice hockey team based in Tulsa which plays in the ECHL.
Presenters: Ryan Christy and Shawn Watring, Tulsa Oilers
Room: NUC 301
11:30 AM-12:20 PM

**Bridging the Technology Gap between Professional and Amateur Sports**
The presenter will share a review of market research on the unique challenges of applying wearable technology and sports analytical tools in youth athletes.
Presenter: Akil Bacchus, Flexplayer Sports, LLC
Room: NUC Room 304

11:30 AM-12:20 PM

**Girls on the Run and Heart and Sole**
Girls on the Run is a physical activity-based positive youth development program designed to enhance girls’ social, psychological, and physical competencies to successfully navigate life.
Presenter: Leslie Littlejohn, Girls on the Run of Oklahoma County
Room: NUC Room 320B

11:30 AM-12:20 PM

**Best Practices for Plyometric Training with Female Athletes**
Participants will learn best practices regarding why and when plyometric training should be incorporated into training the female athlete.
Presenters: Ashley LaGasse and Tim Baghurst, OSU
Room: NUC Room 320B

11:30 AM-12:20 PM

**Let’s Move Active Schools**
Let’s Move Active Schools is a whole school solution to incorporate 60 minutes of physical activity a day for every school child. This session will provide an introduction to LMAS and an opportunity to sign up for its incredible benefits.
Presenter: Stephanie Canada Phillips, UCO
Room: NUC Room 312

12:30 PM-1:20 PM

**JRFH/HFH Luncheon (Invitation Only)**
If you hosted a JRFH or HFH event and registered for the luncheon on the registration form, join us for lunch and celebration. We will recognize top award winners, share ideas, eat, and give door prizes! This is our opportunity to Thank You for your help in saving lives!
Facilitator: Susan Lalman, OAHPERD Jump Rope For Heart Coordinator
Room: Heritage Room
12:00 PM-1:20 PM
**OAHPERD Past-Presidents’ Luncheon (Invitation Only)**
Facilitator:  Jan Drummond, OAHPERD Past-President
Room:  NUC Room 423

12:30-1:20
**You Heard Right…. Free Curriculum OPEN to ALL!**
Attend this session ready to be actively engaged in activities aligned with SHAPE America’s National Standards & Grade-Level Outcomes. Discover fun and easy resources to promote high quality physical education utilizing a free curriculum resource (OPENphsysed.org). OPEN lessons incorporate content language, depth of knowledge questioning, and strategies for academic rigor.
Presenter:  Mike Smith, Colorado Teacher Trainer, US Games OPEN Trainer
Room:  NUC Ballroom A

12:30 PM-1:20 PM
**Three T’s to Fun-based Gymnastics- Tumbling, Teamwork, & Technique**
The presenter will teach various tumbling drills, different teamwork games and diverse techniques such as basic skills needed for gymnastics.
Presenters:  Kelsey Moreshead and Vanessa Fiaud, West Texas A&M University
Room:  NUC Ballroom B

12:30 PM-1:20 PM
**Energize the Body and Brain with Speed Stacks!**
Review stacking skills and experience a variety of brain energizing and body movement activities using Speed Stacks. Receive **FREE** sport stacking instructional materials.
Presenter:  TBA, Speed Stacks
Room:  NUC Ballroom C

12:30 PM-1:20 PM
**Recreation for Special Populations**
Providing recreation opportunities for our special populations is not an easy task. Cameron University has developed a successful program for our community. Learn all about it.
Presenters:  Marki Payne and Stephanie Boss, Cameron University
Room:  NUC 314
12:30 PM-1:20 PM
**Tulsa Drillers and Sport Operations**
The Tulsa Drillers are a minor league baseball team based in Tulsa. The team plays in in the Texas League and is the Double-A affiliate of the Los Angeles Dodgers.
Presenter: Wesley Lander, Tulsa Drillers
Room: NUC 301

12:30 PM-12:0 PM
**Cocky, Confident, or Competitive: The Ego-Oriented Female Athlete**
Understanding the psychological and social determinants of the ego-oriented female athlete as it relates to casual attribution theory: developing team behavior for success.
Presenters: Charlotte Stith and Tim Baghurst, OSU
Room: NUC Room 300

12:30 PM-1:20 PM
**Labyrinth**
Join your peers for an informative and peaceful labyrinth walk.
Presenter: Melissa Powers, UCO
Room: NUC 314

1:30 PM-2:20 PM
**Time to Crush Candy with Health & Nutrition**
Join us for some fun and innovative activities that will focus on health & nutrition lessons you can take back to your students immediately.
Presenter: Erin Frizzell, 2015 OAHPERD Health Educator of the Year and Putnam City Schools
Room: NUC Ballroom A

1:30 PM-2:20 PM
**Creative Basketball Activities**
Roll up your sleeves- it’s time to work! Sandy Slade will guide you through a basketball handling and dribbling workout. Learning, or for that matter, teaching basketball fundamentals can be very frustrating. By breaking down the drills into small, easy-to-attack segments, Sandy makes it easy to understand. The basketball skills you will learn will be invaluable, helping you in class.
Presenter: Sandy Slade, Skillastics
Room: NUC Ballroom B
1:30 PM-2:20 PM
**Making the Best of a Tough Situation**
What’s tough? Addressing standards with class sixes bigger than your budget! Don’t give up and resort to large group games where only the fit and skilled stay active. Make the most of what equipment you DO have and keep all students engaged in MVPA with plenty of opportunities to participate and practice skills. This active session is perfect for teachers with large classes and limited equipment. You will leave with several new activities, instructional and management strategies as well as equipment recommendations to not only cope with large groups, but to help them thrive.
Presenter: Courtney Sjoerdsma, Elite Master Trainer, The SPARK Program
Room: NUC Ballroom C

1:30 PM-2:20 PM
**Movement and Marzano**
Learn “I CAN” statements, goals and scales and various ways teachers can incorporate activity and movement in the classroom in addition to incorporating all of the Marzano methods into a PE classroom.
Presenter: Sarah Headrick, Deer Creek Schools
Room: NUC 301

1:30 PM-2:20 PM
**Super Heroes for Health: Innovative Health Lessons for the Classroom and Beyond: The Battle Continues**
These Super Hero presenters will share unique health lessons and activities that can be used in the health classroom, physical education setting, and beyond.
Presenters: Rachelle Franz and UO Physical Education majors
Room: NUC Room 301

1:30 PM-2:20PM
**Coaching in a Third World Country: A Student Perspective**
OSU students and leader will present and answer questions about their experiences operating a sports camp in Haiti.
Presenters: Timothy Baghurst and OSU Students
Room: NUC Room 314
1:30 PM-2:20PM
**New Policy Implications and Information for USDA Local School Wellness Policy**
As of July 2016, new policy guidelines for USDA Wellness Policies were implemented. This session will provide participants with an overview of the new changes in policy.
Presenter: Sherry Fisher, OK State Department of Education
Room: NUC Room 320B

1:30 PM-2:20PM
**Moving and Learning**
This presentation will include a panel of teachers and administrators from Schools for Healthy Lifestyles schools that implemented Action Based Learning. There will be a brief overview of the Schools for Healthy Lifestyles program and how the implementation of 29 Action Based Learning labs was carried out. The panel will share success stories of how Action Based Learning, both in the lab and in the classroom, has transformed their schools in just one year. We will also give several examples of action based learning in the classroom.
Presenters: Lindsi Lemons and Dana Chambers, Schools for Healthy Lifestyles and Panel members
Room: NUC Room 304

1:30 PM-2:20PM
**Health Education for Secondary Schools**
This presentation will outline a Health and Wellness curriculum begin utilized at the middle level with tips for implementation.
Presenter: Becky Leath, OKCPS
Room: NUC Room 300

2:30 PM-3:20 PM
**Outdoor Games/Activities**
This session will focus on allowing participants to participate in a variety of activities that were originally designed for challenge courses or the outdoors but can be adapted for the classroom or afterschool program. Information will be shared on how to create some of the activities for a minimal cost.
Presenters: Jerel Cowan, UCO
Room: NUC A

2:30 PM-3:20 PM
**Exciting Introductory Activities for PE Teachers**
The start of a lesson is important in ensuring a successful experience for students and teachers!
Presenters: Todd Farmer and Desmond Delk, Langston University
Room: NUC Ballroom C
2:30 PM-3:20 PM  
**Put Me in Coach, I’m Ready to Play**  
This session is a strategic overview of how to utilize Restorative Justice Model to promote personal responsibility in the classroom and on the playing field. Restorative practice can create a cooperative learning environment where students are able to self-regulate their own behavior and learning on and off the playing field.  
Presenters: Samantha Beams, The University of Tulsa and Trish Pruitt, LTI Coordinator, Tulsa Public Schools  
Room: NUC Ballroom B

2:30 PM-3:20 PM  
**To Become Elite, Should Young Athletes Specialize?**  
If an Athlete desires to rise to an elite level in sport, is specializing into the sport at a young ages necessary for success?  
Presenters: Jamie Clark and Tim Baghurst, OSU  
Room: NUC Room 301

2:30 PM-3:20PM  
**Introduction to Oklahoma Academic Standards for Physical Education and Health**  
This session will provided participants and interactive introduction to the new Oklahoma Academic Standards for Physical Education and Health  
Presenter: Sherry Fisher, OK State Department of Health  
Room: NUC Room 320B

2:30 PM-3:20 PM  
**An Adapted Vision and Physical Education**  
This session will provide you with more information about Adapted Physical Education including constructing lessons for students, classroom management, and reaching individual and group goals.  
Presenter: Laney Hamilton, Georgia Public Schools  
Room: NUC Room 312

2:30 PM-3:20 PM  
**Nutrition 101**  
The session will cover the basics of proper nutrition and sport performance.  
Presenter: Jillian McCarty, EDU  
Room: NUC Room 300
OAHPERD Journal Peer-Review Guidelines for Authors

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

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. In the e-mail include a statement indicating the manuscript has not been submitted (simultaneously) or published elsewhere.
2. There should be no identifying information in the manuscript itself, as they are blind reviewed. In the e-mail include a statement indicating the manuscript has not been submitted (simultaneously) or published elsewhere.
3. Include all original (not resized) photos, artwork, and illustrations
4. 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. They may also be sent on a separate page or in a separate file as long as it is clear where they should be placed. (In some cases they may need to be moved due to publication considerations.)
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.
Exercise Adherence and the Struggle for Nogymber

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Abstract

Approximately 20% of the almost 323 million people in the United States participate in regular exercise. Of those who have attempted to initiate an exercise program, only 50% are successful in becoming regular exercisers, and most will drop out from a new year’s program well before the “ember” months. Consequently, Americans struggle not only to commence regular exercise, but maintain it. Understanding the reasoning and behaviors of those who do and do not begin and adhere to exercise becomes valuable in developing strategies and programming that will lead to higher levels of exercise adherence. Accordingly, the purpose of this article is to examine exercise adherence through the lens of the Public Health Model known as the Social Ecological Model. The Social Ecological Model acknowledges an interaction of health-related behaviors at five different levels: individual, interpersonal, organizational, community, and policy. Developing support or programming recommendations for exercise behaviors at each level in the Social Ecological Model could potentially positively influence exercise adherence. An understanding of exercise history, appropriate exercise prescription, combined with a facilitation of traditional barriers to exercise as well as an improvement in exercise self-efficacy could assist individual exercise adherence. When individual desire to exercise is combined with support in each aspect of the Social Ecological Model, exercise adherence should increase, progressing individuals to exercise well into the Nogymber months.
The Struggle for Nogymber

Introduction

Negative health consequences associated with overweight and obesity are a great financial problem in the United States; $147 million dollars were spent on obesity-related health care costs in 2008 (Centers for Disease Control and Prevention; CDC, 2016b). Trends in these statistics suggest that the numbers will continue to increase in years to come, as rates of obesity have steadily increased over the last two decades (CDC, 2016b). Exercise and physical activity control costly and detrimental conditions such as heart disease, stroke, type 2 diabetes, depression, and some cancers (CDC, 2016a). While health and exercise professionals attempt to slow the progression of such conditions and significantly alter the state of health and chronic disease in the United States, a massive cultural and systemic shift must occur in regards to exercise and physical activity in order to create widespread and impactful change.

Unfortunately, only about 20% of the almost 323 million people in the United States participate in regular exercise, and of those who attempt to initiate an exercise program, only 50% are successful in sustaining exercise after six months (Dishman, 1987). Thus, individuals who begin an exercise program as part of a New Year’s Resolution, for example, will not sustain or adhere this activity through the “ember” months (i.e., Nogymber). Therefore, developing strategies and understanding how exercise adherence can be fostered becomes important given the deleterious health and economic consequences of a lack of physical activity (CDC, 2016a).

According to Bandura (1977), “Human health is a social matter, not just an individual one. A comprehensive approach to health promotion also requires changing the practices of social systems that have widespread effects on human health” (p. 143). Accordingly, this article examines exercise adherence through the lens of the Public Health Model known as the Social Ecological Model. The Social Ecological Model takes a multilevel approach as Bandura (1977) alluded to; true widespread health change requires an interaction of individual, interpersonal, organizational, community, and policy factors that all work together to create a healthier society (Melius, 2014). A desire to exercise combined with support across the Social Ecological Model may foster greater exercise adherence and progress individuals into Nogymber months.

Social Ecological Model: Individual

A multitude of variables exist that impact exercise adherence at the individual level. Examples include previous exercise experience, motivation, exercise prescription (frequency, intensity, and mode), and other traditional barriers to exercise.

Traditional Barriers to Exercise

Cadmus-Bertram et al. (2014) identified potential barriers including lack of access to place to exercise, bad weather, lack of time, pain/discomfort with exercise, embarrassment, feeling unwell, fear of injury, lack of exercise partner, and cost associated with exercise. This study examined exercise adherence among men (n = 51) and women (n = 49) with a mean age of 55 years in a 12-month exercise program intervention where participants were asked to exercise six days per week for 60 minutes each session. Participants were encouraged to exercise at a moderate to vigorous intensity. Exercise progression, reassessment, and goal setting were utilized.

Results of this study indicated participants exercised 5.7 days per week on average throughout the 12-month intervention, with 89% of participants meeting minimum physical activity guidelines of 150 minutes per week. Additionally, only seven exercisers dropped out of the intervention within the first three-month period. Researchers broke down many barriers to exercise including behavior training with relapse-prevention strategies, social support with fellow participants, and convenient and free access to equipment. Participants also completed daily logs and had intense exercise counseling sessions early on in the intervention. It was noted that the high overall adherence levels were attributed to the facilitation of traditional barriers to exercise as well as the intense enrollment process on the front end of the study.
Exercise Intensity and Exercise Experience

Exercise adherence at the individual level goes beyond breaking down traditional barriers to exercise. Bandura (1988) discussed Social Cognitive Theory as an interaction of previous behavior, cognitive factors, and environmental events. Anton et al. (2005) utilized Social Cognitive Theory to examine predictors of adherence and variation in exercise intensity. Participants were sedentary adults ($n = 379$) with a mean age of 49.8 years who completed a six-month exercise intervention. It was noted that participants had a mean Body Mass Index (BMI) of 28.6 kg/m$^2$ and were classified as overweight with poor fitness levels at baseline. Participants were randomly assigned to a combination of moderate intensity or higher intensity and moderate frequency (3-4 days/week) or higher frequency (5-7 days/week) walking 30 minutes each session. Similar to Cadmus-Bertram et al. (2014), throughout the intervention participants received targeted support based upon Social Cognitive Theory in areas such as goal setting, self-monitoring, cognitive restructuring, problem solving and relapse prevention. A key finding of this study was that higher levels of past exercise experience showed higher levels of adherence at a higher intensity.

Exercise Mode

Cheema, Davies, Stewart, Papalia, and Atlantis (2015) further investigated the concept of exercise adherence and exercise intensity. Participants ($n = 12$) who were classified as overweight or obese were randomly assigned to either a boxing or brisk walking group. Both groups were asked to participate in exercise sessions four times per week for 50 minutes each session. The boxing group were provided a target heart rate of 75% of their age predicted maximum heart rate, while the brisk walking group was asked to walk as quickly as they could.

The boxing group had greater program structure with specific movements planned and supervised by a qualified instructor. The walking group was told that they could complete their exercise session at any time or location that was convenient to them, and intensity was self-selected based upon instructions. Conversely, the boxing group had quantifiable goals in regards to heart rate.

Exercise intensity results indicated that individuals in the boxing group participated at a consistently higher intensity (86-89%) than the walking group (64-77%) when examining percentage of age predicted maximum heart rate. Additionally, adherence to training was higher in the boxing group when compared to the walking group with 79% and 55% (inclusive of drops) average adherence respectively. However, when the two groups were compared, with or without the individuals who dropped, there was no significant difference in exercise adherence between groups.

It is important to note was the incidence of two exercise related injuries in the boxing group, but both participants were able to receive exercise modifications which allowed them to continue to participate in the intervention. This article suggested that a higher intensity boxing intervention would be more successful for exercise adherence than a walking program, but other variables seemingly unaccounted for were social support and accountability with a boxing session supervisor, the specific structure and control over the boxing intervention when compared with the walking group, and the perceived control over variables such as time and location for the walking group. Therefore, results should be interpreted with caution.

Exercise Intervention

Surakka, Alanen, Aunola, Karppi, and Lehto (2004) examined exercise adherence by exercise intervention. Participants ($n = 226$) were middle-aged, healthy, and sedentary who completed a 22-week power-type strength training program in groups of 15-20 participants. Basic physical training constituted the first 25% of the program, followed by 50% strength and power training, and 25% power training at maximal effort. Researchers reported that 55 participants discontinued (22 men and 33 women) the
program, while 40 participants attended no more than three sessions, and 12 had an attendance rate of 30%.

After the intervention, researchers contacted those 55 participants to understand their reasons for dropping out. These included lack of motivation (40%), lack of time (33%), training injuries (14%), training intensity (4%), family reasons (4%). Three participants did not return the follow up questionnaire. With lack of motivation and lack of time cited as the primary reasons for discontinued exercise, a deeper understanding of those variables may aid in future interventions.

It is interesting that of the female dropouts, 52% were smokers, and only 15% of non-smokers discontinued the program. These results along with the Centers for Disease Control and Prevention (2016c) report that in 2014 16.5% of Americans were smokers, indicate that smoking status should be examined by exercise professionals to understand how to best approach an exercise intervention among this population. A secondary intervention of smoking cessation could be addressed by a qualified professional simultaneous to the exercise intervention for increased success.

Coping and Adherence

Evers, Klusmann, Schwarzer, and Heuser (2012) examined coping plans and prior adherence in physical and mental activity interventions. This study focused on healthy older women aged between 70 and 93 years. Participants \( (n = 171) \) were randomly assigned to either a physical activity intervention \( (n = 86) \) or a mental activity intervention \( (n = 85) \). A six-month intervention program was implemented with three weekly 90-minute sessions for each treatment group. The mental intervention group worked with computers while the exercise group completed an exercise program. Self-efficacy, intentions, and coping variables were assessed at baseline, 6 weeks, 10 weeks, and 26 weeks.

At baseline, researchers reported that both groups had high intentions to complete the treatment programs and self-efficacy was high. Participants were asked to present coping plans, which were completed by presenting potential barriers to completion of the intervention and ways to overcome those barriers. At baseline the exercise group created an average of 1.3 coping strategies (range zero to four), while the computer group created significantly more (1.9) coping strategies.

Adherence was measured for each group at the six-week mark (physical = 70.6%; mental = 86.6%), 10-week check-in (physical = 66.2%; mental = 85.5%), and 26-week conclusion (physical = 60.3%; mental = 81%). In each assessment, the mental intervention group had higher adherence than the physical activity group, and participants in the exercise group missed more sessions due to illness and other types of appointments than the mental intervention group. In this study, self-efficacy was only a significant contributor to adherence in the initial six-week period when intention was controlled. Therefore, when initiating an exercise program, it could be assumed that most have the intention to complete the exercise, but maintaining that intention may not remain.

Social Ecological Model: Interpersonal

After individual barriers to exercise are addressed, the Social Ecological Model examines interpersonal support. Cadmus-Bertram et al. (2014) identified not having someone to exercise with as a traditional barrier to exercise. This lack of presence of an exercise partner can be examined in terms of interpersonal or social support. It is suggested that interpersonal support can break down barriers to exercise and have a positive impact on adherence (Darlow & Zu, 2011; Wilson & Rogers, 2004).

Social Support and Exercise

Darlow et al. (2011) examined the role of perceived social support on exercise by surveying undergraduate students \( (n = 220) \) about their own exercise habits, the exercise habits of their best friend
or significant other, as well as the perceived support received to exercise. For both sexes, if the exercise habits of the close friend were high then the participant’s exercise was also high, but the opposite was true when the close friend had low exercise habits. Therefore, individuals with close friends who participate in regular exercise are more likely to also participate in regular exercise.

Wilson et al. (2004) also examined the role of interpersonal support on exercise behaviors. Participants ($n = 232$) were female students and staff who enrolled in intramural-based physical activity. Unlike many other studies, participants were classified with a healthy BMI. The perception of support and influence from friends along with their overall attitude, outlook, and motivation in regards to exercise was impactful. It was found that in general participants viewed their friends to be supportive of their exercise behaviors and did not show signs of controlling regulations or amotivation. This suggests that positive support from friends can be a strong incentive for continued participation in exercise (Wilson et al., 2004).

Social support can be an important influence on exercise adherence. Positive exercise habits of close friends, perceived autonomous support, and social support from coworkers in worksite wellness programs can positively impact exercise adherence (Darlow et al., 2011; Linnan, Fisher, & Hood, 2013; Wilson et al., 2004).

**Social Ecological Model: Organizational Level**

Linnan et al. (2013) reported that most adults in the United States were employed and spend a great deal of time in the work environment. This makes worksite wellness a primary source for organizational-based support for health and exercise.

**Worksite Wellness Interventions**

Linnan et al. (2013) reported that individuals paired with other participants with similar health circumstances or past health circumstances could provide vital peer support for one another. Additionally, health champions can be identified within the workplace to provide support (Darlow et al., 2011; Wilson et al., 2004).

Amaya and Petosa (2011) evaluated an eight-week worksite wellness intervention which utilized principles from Social Cognitive Theory. Participants ($n = 127$; age range 20 - 47 years) were recruited from four companies, three of which had an onsite fitness facility, while the other gave employees an annual stipend to join an offsite facility. Inclusion criteria for participants was that they did not currently meet minimum physical activity guidelines based upon the American College of Sports Medicine (2015) (ACSM) and were either contemplating or preparing to exercise.

This study was unique as it was an educational wellness intervention rather than an exercise-based intervention. The educational intervention consisted of six, one-hour educational sessions which focused on concepts such as self-regulation, self-efficacy, social support, outcome expectations, exercise adherence, and physical-activity information. Exercise and physical activity were completed outside of work time by participants. Minutes of moderate exercise were self-reported at session one, following week eight, one-month post-intervention, and three-months post-intervention.

Minutes of exercise were found to increase at each check-in, but attrition rates were high following the completion of the program; 43% at intervention post-test, 65% at one-month post-intervention, and 76% three months post-intervention. While attrition rates were large, numbers were consistent with national trends in sedentary individuals. Therefore, wellness programs need to evaluate how to extend support beyond the duration of a program (Baghurst, Mwavita, Tapps, Volberding, & Jayne, 2014).
Pedometer-Based Worksite Wellness Interventions

A common worksite wellness method of assessment is the use of pedometers. Tudor-Locke and Chan (2006) examined adherence patterns of an eight-week worksite pedometer-based physical activity intervention. Participants (n = 177) of mean age of 43 (SD = 9) years and BMI of 29 (SD = 6.2) kg/m² were recruited from sedentary work duties such as clerical, administrative, or data processing jobs and wore a pedometer to measure steps taken daily.

During the first four weeks of the program, participants were encouraged to meet for lunchtime meetings where steps were logged and information was disseminated for participants to build upon their successes and set reasonable goals. Individuals who completed the program (n = 104) completed the pre- and post-assessments in addition to eight weeks of step data recorded. The only significant difference between those who completed all aspects of the program and those who did not was the response to the initial question which asked about “worry about completing the program” (p. 213).

Individuals in the program who were classified as overweight or obese (BMI > 25 kg/m²) had over 80% completion rate compared with only 70% of participants with a BMI classified as normal weight (< 24.9 kg/m²). Pedometers are a relatively inexpensive investment for a worksite wellness program, and results did show the greatest impact on the population that was in the greatest need (inactive and overweight). The lower incidence of completion in the normal weight group may shed light on finding a more appropriate intervention or program for this group of individuals. Additionally, programs should pay attention to apprehension voiced by participants when initiating a program as initial worry about completion had an impact on the outcomes.

Another pedometer based study assessed daily steps and exercise self-efficacy of university employees (n = 121; 85% female), while conducting weekly wellness sessions over an eight-week intervention (Butler, Clark, Burlis, Castillo, & Racette, 2015). Researchers described the program as flexible and included weekly monitoring of goals, physiological measures, and consultation opportunities available to participants throughout the program.

Fourteen percent (n = 17) did not complete the program, and dropouts had a higher BMI (31.6 kg/m², p = .02) than completers (28.1 kg/m²). Results also indicated a significant daily step count increase from baseline (M = 6566) to week four (M = 8605, p < .01) and to week eight (M = 9107, p < .05). No significant increase was found in exercise self-efficacy over the duration of the program. Although only a minimal intervention was implemented, daily steps did increase suggesting that worksite wellness interventions can be effective in increasing participant physical activity levels.

Organizational Support Conclusions

Many models exist for worksite wellness and organizational support of exercise. Pedometer-based studies show an increase in physical activity, while interventions based upon Social Cognitive Theory improved self-efficacy. Organizational support combines interpersonal support and provides resources for the individual with desire to exercise. A comprehensive approach to worksite wellness programs should be taken, combining the knowledge from the organizational, interpersonal, and individual levels for the greatest effect on exercise adherence. Awareness of exercise history in regards to prescribed exercise intensity, specific program design to meet the needs of each participant, along with behavioral coaching and intentional design for ideal social support would pull principles from each level discussed. Time, however, is one barrier that was not necessarily addressed or broken down by the worksite wellness interventions. Perhaps more insight presented with policy would assist in organizational support of breaking down the barrier of time for worksite exercise programs.
Social Ecological Model: Community

Exercise adherence may be impacted by community in multiple ways. Community refers to the physical environment or the group of people in a specific area. Community culture and the built environment or layout of neighborhoods and towns has an effect on variables such as prevalence of overweight classification and levels of physical activity (Saelens, Sallis, Black, & Chen, 2003). Therefore, it is important to consider how the community can positively or negatively impact exercise adherence.

Community Culture

Worksite wellness interventions in locations involving staff who cared for children (elementary school and childcare center) are important sites for a physical activity intervention (Goslinger et al., 2010; Webber et al., 2012). Assessment of the health and physical activity levels of elementary school staff found that obesity rates were higher than the national average in conjunction with low levels of physical activity (Webber et al., 2012). This was problematic, as the school staff were often called upon to promote healthy habits including appropriate levels of physical activity among the young students. Bandura (1977; 1988) referred to modeling behavior as a method to promote the desired behavior. Based upon this concept, children modeled the physical activity behavior of their sedentary teachers, and recent discussion has highlighted the importance of role modeling within physical education and the health professions (e.g., Baghurst, Richard, & Boolani, in press; Baghurst, 2015; Baghurst, Sandlin, Holden, & Parish, 2015; Gosliner et al. (2010) examined the impact of a worksite wellness program and physical activity in childcare centers. The intervention consisted of information disseminated to workers on children’s health and wellness training which included individual health consultations, monthly newsletters, a walking program, and staff follow-up visits. Thirteen childcare sites participated in the study, with six receiving the intervention (participants, \( n = 43 \)) and seven serving (participants, \( n = 39 \)) as the control.

The intervention conducted impacted the health of workers, children, and parents, which improved the community as a whole. Workers in the intervention reported a significant decrease in consumption of sugar-sweetened beverages while the control group saw a significant increase. Ancillary to exercise adherence, the centers reported that the locations receiving the interventions showed a significant increase in serving fresh fruits and vegetables with again the opposite effects in the control group who served less fruits and vegetables. Workers also reported increased self-efficacy in engaging in discussions with the parents of children about physical activity and nutrition.

It is important to note that community engagement must involve individuals beyond simply providing information. Baghurst and Eichmann (2014) found that providing nutritional knowledge to elementary schoolchildren increased their knowledge, but had no impact at home, even when parents were provided with supporting nutritional information. They suggested a whole-environment approach to education if change is to take place, which supports the findings of Gosliner et al. (2010).

Social Ecological Model: Policy

Policy is the final level of support in the Social Ecological Model. A widely known policy in regards to physical activity and exercise in the United States is the presence of Physical Education in the public school systems (Oklahoma State Department of Education, 2005). Worksite tobacco use policies and their impact on health should also be considered (Glasgow, Cummings & Highland, 1997).

Physical Education Model

Ardoy and colleagues (2014) asked participants \( (n = 47, M \text{ age } = 12.8 \text{ years}) \) in a Physical Education program evaluation to complete a cognitive performance assessment. The cognitive assessment
examined variables such as verbal abilities, abstract reasoning, spatial ability, verbal reasoning, and numerical ability. Significant improvements were found in each of the cognitive variables measured following the physical education intervention. Therefore, it would be reasonable to consider that a policy which implemented physical education and thus physical activity among children could provide similar cognitive performance outcomes among adults in a work environment. Improvements in cognitive performance outcomes could translate into improved work performance among adults, potentially providing benefits to a participant and worksite from a cognitive standpoint.

**Physical Education Policy Limitations**

While Physical Education policy provides an excellent model for incorporating physical activity and exercise into the day of children and adults, limitations are present. For example, Oklahoma limits participant in Physical Education to 60 minutes for kindergarten through fifth grades with only a recommendation of such for middle school and high school students (Oklahoma State Department of Education, 2010). If no policy is in place to require Physical Education, the school has the freedom to not incorporate physical activity into the school day for children, despite evidence to its benefits (Ardoy et al., 2014). Additionally, these policies may not meet minimum recommendation of 60 minutes of physical activity daily (ACSM, 2015).

While a Physical Education policy can be effective in schools, variations in policies that provide below minimum recommendations can cause the policy to still fall short (Baghurst, Langley, & Bishop, 2015). To truly make a difference, physical activity policies for children and adults should allow time built into the day to meet age appropriate minimum levels physical activity. A survey conducted by Baghurst et al., (2015) found that 40% of participants who were physical educators had two hours or less of time with their students per week. These results led the authors to question how effective a physical educator can be with such limited time with students each week, further reinforcing the importance of time for students and adults to have policies which allow minimum physical activity recommendations to be met within the school or work day.

**Tobacco Policy**

Glasgow et al. (1997) disseminated surveys to working adults who were smokers \((n = 8271)\), which asked questions about their own smoking behaviors as well as the availability of smoking cessation materials and worksite tobacco policies. For worksites who prohibited smoking, a significant decrease \((p < .05)\) in individuals who smoked was found, while no difference occurred in smokers who worked in an environment with no restrictive tobacco policies. Results indicated that individuals who worked in locations with more restrictive tobacco policies were 25% more likely to quit smoking than in a worksite with no tobacco restrictions.

According to the CDC (2016c), at the time this study took place (1988 to 1993), approximately 25% (1990) of the United States smoked cigarettes. Since the early 1990s, there has been a steady decline in smoking rates with just over 16% of individuals smoking in 2014. Tobacco policies appear to have played a large role in this cultural shift. The United States Department of Health and Human Services (2016) reported dozens of tobacco restriction policies implemented over the last several decades, including smoke-free air laws, which prohibits smoking in many public places and worksites across the country.

Tobacco policy appears to have had a great impact in the decreased rates of tobacco use in the United States (CDC, 2016c; Department of Health and Human Services, 2016). The success of tobacco policy combined with the framework provided by Physical Education policy, creates a convincing argument for worksite exercise policy implementation.
Conclusion

The Social Ecological Model applied to exercise creates a broad picture of the multiple layers of exercise adherence. At the individual level, adherence can be affected by past exercise experience, exercise mode and intensity, coping strategies, exercise self-efficacy, goal setting, and smoking status (Anton et al., 2005; Cheema et al., 2015; Evers et al., 2012; Surakka et al., 2004). An exercise intervention should also be accompanied with behavioral support and goal setting techniques. If a participant is a smoker, an additional intervention addressing smoking cessation should be considered.

At the interpersonal or social support level, positive exercise habits of close friends, perceived autonomous support, and social support from coworkers in worksite wellness programs all had positive impacts on exercise adherence (Darlow et al., 2011; Linnan et al., 2013; Wilson et al., 2004). Team or group settings could also have a positive impact on adherence, although this concept was not specifically measured in the studies reported.

At the organizational level, worksite wellness was examined as a method to increase exercise adherence. Organizational support could provide resources necessary for an individual to successfully adhere to an exercise program through behavioral counseling, incentives, and potential access to facilities (Amaya et al., 2011). Social support, accountability, and exercise culture could play a large part in successful adherence (Darlow et al., 2011; Linnman et al., 2013; Wilson et al., 2004).

Overlapping each of the aforementioned levels, community also can positively impact exercise adherence through cultural community, the built environment, and accessibility (Saelens et al., 2003). Also, a wellness intervention conducted at sites where adults supervised health and physical activity of children through programming and modeling behavior had a multilevel impact on the adults and children involved (Gosliner et al., 2010). At the community level, a cultural shift through knowledge, access, and support could foster the beginning and maintenance of lifelong exercise habits.

Policy is the final and perhaps the most important level of the Social Ecological Model, with tobacco and Physical Education policies serving as inspiration for worksite exercise policy. Worksite tobacco use policies played an important role in the systemic shift away from smoking cigarettes in the United States. This information supports that worksite policy support can be pivotal in creating widespread health change (Glasgow et al., 1997).

Although the majority of public schools have policies that require physical education at a certain level for students, such policies are generally unsupportive of physical activity and provide exceptions that can limit physical activity levels and duration (Baghurst et al., 2015). Such policies are counterintuitive given the positive impact on cognitive function and physical health that can be accrued from regular physical activity school-aged children (Ardoy et al., 2014).

Adults also benefit from exercise, but few companies develop worksite wellness programs or actively support physical exercise in the workday (Baghurst et al., 2014). Although worksite wellness programs can provide resources and often meet during lunch hours, the important barrier of time remains (Brown, Volberding, Baghurst, & Sellers, 2014; 2015). A policy that incorporates physical activity and exercise into the workday could have immeasurable benefits to the health and wellbeing of the American society.

If the knowledge gained from these studies does not move to practical application, exercise adherence will remain stagnant. The collaboration of key stakeholders in business and exercise to provide organizational, interpersonal, and community support through exercise policy implementation is imperative in facilitating individuals to overcoming personal barriers to exercise. Such efforts could change the trajectory of exercise and exercise adherence in the United States and help to win the exercise battle of Nogymber.
References


The Struggle for Nogymberto


Anxiety and the Use of Coping Strategies during Penalty Kicks

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Abstract

Anxiety can have deleterious effects on sports performance, particularly in high stress situations. Penalty shootouts in soccer are one such example. Therefore, understanding how anxiety can impact the penalty taker in addition to developing coping strategies for such a situation could lead to more successful outcomes. Therefore, the purpose of this article is to provide recommendations that can help coaches teach soccer players (kickers) how to cope with the anxiety likely to be experienced during penalty shootouts. Training methods that include inducing anxiety scenarios are discussed, and a rationale for developing psychological intervention training is provided.
An athlete’s performance of any sport is influenced by a variety of factors that are both physiological and psychological. One of these factors can be anxiety (Woodman & Hardy, 2003). According to Spielberger (1971), anxiety can be divided into state and trait anxiety. State anxiety is an immediate state of emotion characterized by tension, apprehension, an increase in autonomic nervous system activity, and varies depending on the situation (Horikawa & Yagi, 2012). Conversely, trait anxiety is the tendency to perceive certain situations as threatening (Horikawa & Yagi, 2012). High trait anxiety can result in an increase in state anxiety (Cox, 2012).

The state anxiety response can be explained by the stress process. This process begins with a stimulus; in sporting situations this could be a competitive situation in which is appraised by the athlete (Cox, 2012). How an athlete will appraise or evaluate the situation will occur on two levels; during the first level the athlete will evaluated whether the outcome is considered important. Should this be the case, the second level of appraisal the athlete determined whether coping resources are sufficient to deal with the situation. Therefore, if the person is not interested in the final outcome or has good coping skills, state anxiety will not occur (Cox, 2012).

Not only can anxiety be divided into state and trait anxiety, Multidimensional Theory states that anxiety can be divided into cognitive and somatic anxiety (Martens, Burton, Vealey, Bump, & Smith, 1990). Negative expectations and concerns about ability (i.e., “I do not believe that I possess the skills necessary to be successful in this situation and will therefore likely fail”) are part of the cognitive component of anxiety. This negativity manifests itself physiologically. The individual experiences physical side effects such as an upset stomach, sweating, shaking, and vomiting to name just a few. This is also termed somatic anxiety (Cox, 2012; McNally, 2002).

Effects of Anxiety on Soccer Penalty Shootouts

It has been shown in different sports that anxiety influences athletes’ performance by diminishing it (Causer, Holmes, Smith, & Williams, 2011; Englert & Bertrams, 2012; Horikawa & Yagi, 2012). In team sports, there are situations when the player may receive more pressure than usual, as in the case of penalty shooting in soccer (Jordet, Hartman, Visscher, & Lemmink, 2007). In fact, anxiety is the most experienced emotion during penalty shooting, probably because of players’ concerns about the final outcome (Jordet & Elferink-Gemser, 2012). State anxiety is likely to occur, as players are likely unaccustomed to the pressures of performing in such a high pressure situation. Accordingly, players evaluate the outcome as important (level one) and may not perceive themselves as having the necessary resources to deal with the situation (level one). It becomes important, therefore, to understand how anxiety affects soccer players and how coping strategies might be introduced in order to decrease state anxiety. A reduction in state anxiety will reduce levels of somatic anxiety and likely lead an improved outcome.

Jordet, Elferink-Gemser, Lemmink, and Visscher (2006) found a positive relationship between perceived contingency and somatic anxiety direction and a negative relationship between perceived competence and cognitive anxiety intensity based on the contingency-competence-control (CCC) model. This, according to Weisz and Stipek (1982), states that perceived control is the result of perceived contingency and competence. In other words, believing that penalty practice increases performance during penalty shootouts (high perceived contingency) helps to have a positive physiological response to anxiety (somatic anxiety direction), and being confident about one’s ability to execute the penalty shoot out (high perceived competence) helps to decrease negative thoughts (cognitive anxiety). Not only are cognitive and somatic anxiety affected when performing penalty shootouts (Horikawa & Yagi, 2012), but high trait anxiety influences state anxiety by increasing it and ultimately decreasing the number of successful scored goals.

The goalkeeper (GK) is another factor that can influence kickers’ anxiety during penalty shootouts (Wilson, Wood, & Vine, 2009). Wilson and colleagues found that during high-threat conditions, the
Coping and Anxiety During Penalty Kicks

addition of a GK increased kicker time fixation and time to fixate on GK rather than on the goal target, as opposed to the low-threat condition. The final outcome of the previously mentioned characteristics during the high-threat condition was a significant decrease on aiming further from the GK (aiming to goal) when compared with the low-threat condition.

Jordet and Hartman (2008) used penalty shootouts on the most prestigious competitions (World Cup, the European Championship, and the UEFA Champions League) and found that strikers tended to avoid looking at the GK. They suggested it is likely that the preparation prior to shooting is shorter when avoidance occurs compared with those who do not avoid looking at the GK. Moreover, they also found that avoidance behavior (quicker preparation and avoidance looking at the GK) occurred more when the consequence of a missed shot would lead to loss (negative valence), than on shots where a goal would lead to victory. Avoidance behavior and negative valence was found to diminish performance resulting in a missed goal.

Jordet et al. (2007) wanted “to estimate the relative importance of some of the major performance components that are assumed to affect the outcome of kicks from the penalty mark” (p. 123). These variables included the importance of the tournament, importance of the kick, player’s position (forward, midfielder, defender), playing time, and age. They found that the final outcome was more influenced by psychological factors such as the perceived importance of the tournament and importance of the kick. The more important the tournament, the less successful the penalty kicks were, and the probability of scoring declined progressively with each kick from the first to the fourth kicker. When combining kicks one to three and comparing them with the combined kicks four to nine, the kicks one to three had a significantly better outcome. In addition, during the sudden death stage, where the outcome is decided by one round of penalties, the probabilities of scoring decreased. No significant differences were found for position, playing time, and age.

Lastly, Jordet and Eferink-Gemser (2012) interviewed eight players to investigate stressors and emotions and how participants coped during penalty shootouts. They divided penalty shootouts by phase: 1) break after extra time, 2) mid-circle, 3) walk, and 4) at the penalty mark. They found that stressors, emotions, and coping changed during each penalty phase. Stressors were more persistent during the first two phases. Coping strategies fluctuated being present during phase one, decreasing during phase two, and increasing during phases three and four. In addition, anxiety was the emotion most reported during all phases, but the most occurred during phase to and the least during phase four.

Coping Strategies for Anxious Situations

Due to the few studies on penalty shooting in soccer, it can be useful to evaluate how coping strategies have been applied in other sporting situations. Contreras, Córdoba, and Fernández (2010) found that positive words or images helped to decrease state anxiety across athletes in multiple sports. In addition, some authors have found that negative thinking in the presence of high anxiety may diminish performance (Bakker, Oudejans, Binsch, & Kamp, 2006; Raoul RD, Oudejans, Binsch, & Bakker, 2013). Binsch, Oudejans, Bakker, Hoozemans, and Savelbergh (2010) investigated if negative words or mentioning what should be avoided was the cause of the decrease on performance; they found that mentioning the area to avoid was responsible for such a decrease on performance. Therefore, the suggestion of being anxious or the instruction for an athlete to calm down, for example, may in fact create a more anxious athlete.

Reeves, Tenenbaum, and Lidor (2007) performed an intervention with soccer players who were randomly assigned to one of three training conditions: a) single-task, b) dual-task, and c) self-consciousness. Single-task participants completed training consisting of 45 penalty shots (day one) and 45 breakaway situations (day two). Dual-task participants performed the same training with the addition of loud noises from a crowd. Self-consciousness participants did the same training as single-task with the addition of a task; they were told to focus on the part of the foot that kicked the ball and the position of their plant foot. Finally, the three groups performed the tasks (penalty shootout and breakaway situation) under low and high pressure. The low pressure situation included no additional manipulation, but in the
high pressure situation participants competed for a prize, were videotaped, and externally evaluated. Self-consciousness training was found to improve performance under high-pressure situations, while single and dual-task training groups decreased their performance under high-pressure situations. Therefore, requiring participants to focus on the process of the penalty kick, rather than the external environment may help to eliminate extraneous, uncontrollable thoughts and variables.

Mental training is an important factor that may help to diminish the effects of high anxiety. With this in mind, Wolframm and Micklewright (2011) conducted an intervention on dressage riders. Participants completed interventions including goal-setting, relaxation techniques (progressive muscle relaxation and breathing strategies), self-talk, concentration, and imagery sessions of two-hours per week for six weeks. Participants’ performance increased significantly, although somatic arousal, cognitive arousal, and self-confidence did not change significantly (nevertheless, there was a change after intervention). Benefits of mental training such as progressive muscle relaxation, self-talk, diaphragmatic breathing, and imagery to manage anxiety have been reported across multiple sports and situations (Mousavi & Meshkini, 2011; Navaneethan & Rajan, 2010; Urra Tobar, 2014).

Lawrence et al. (2014) investigated the principle of specificity for simple and complex tasks applied to anxiety, and hypothesized that practice in anxious situations would improve performance during high anxiety situations during competition. The intervention consisted of four groups: a) control group, b) anxiety group, c) anxiety-control group, and d) control-anxiety group. The anxiety group trained with anxiety continually, anxiety-control group trained with anxiety half of the time, and control-anxiety group trained like anxiety-control group but in the reverse order. Training with anxiety resulted in better performance when doing a simple task and a complex task, and only the control group showed a decrease in performance. In addition, for complex tasks the control-anxiety group had a better performance than the anxiety-control group, suggesting that anxiety should be introduced later on during the learning process. These findings are supported by Oudejans and Pijpers (2010) who found that training with mild anxiety helps to maintain the level of performance under pressure.

Some studies have investigated quiet-eye training and how it influences penalty shootout performance (Wood & Wilson, 2011, 2012). Quiet-eye training involves instruction on where and when to pay attention during the quiet-eye period (Wood & Wilson, 2012), which according to Vickers (1996), is “…that portion of the final fixation from onset to the first observable movement…” (p. 348). Both studies by Wood and Wilson (2011, 2012) yielded inconclusive results. Wood and Wilson (2012) found that quiet-eye training optimizes performance and aim. In addition, contingency, competence and control increased when compared with control group. However, in their earlier study (2011) the quiet-eye trained group improved visual control and accuracy, but when performing penalty shootouts under pressure those characteristics did not prevail.

**Recommendations for Penalty Shootouts**

Although not many studies have investigated the role that anxiety may have on outcomes during penalty kicks in soccer, application from other sports and environments allows some transfer to this situation. Therefore, presented are several recommendations that coaches and players should consider implementing into their training and penalty kicks in order to potentially improve the outcome.

**Practice Penalty Kicks in Anxious Situations**

Although not many studies have investigated the role that anxiety may have on outcomes during penalty kicks in soccer, application from other sports and environments allows some transfer to this situation. Therefore, presented are several recommendations that coaches and players should consider implementing into their training and penalty kicks in order to potentially improve the outcome.
Coping and Anxiety During Penalty Kicks

Time to Prepare

Kickers should be aware of the advantages of taking their time to kick the ball during penalty shootouts. When kickers avoid looking at the GK, the preparation time tends to be shorter and performance is diminished (Jordet & Hartman, 2008). Therefore, kickers should be willing to observe the GK, but they should not fixate their sight on the GK (Wilson et al., 2009). Rather, fixating on desired location or the ball itself may be more effective.

Learn Coping Strategies

Coping strategies may be used during penalty shootouts (Jordet & Elferink-Gemser, 2012) and should therefore be taught, learned, and practiced. Positive words can help to decrease anxiety (Contreras et al., 2010), and the use of cue words may help to focus on the task at hand rather than on external factors or the outcome. Other strategies that may help to diminish anxiety and improve performance include goal-setting, relaxation techniques, self-talk, and imagery (Wolframm & Micklewright, 2011).

Consider Quiet-Eye Training

Although inconclusive, quiet-eye training optimizes accuracy (Wood & Wilson, 2011), which is an important feature when performing penalty shootouts. The addition of mild-anxiety to quiet-eye training may help to improve performance under pressure. For instance, a way of quiet-eye training can be practiced can include watching penalty videos and analyzing the GK movements prior to each penalty. Penalty kickers can be taught to focus on a specific area of the goal that can offer the best chance of success (Wood & Wilson, 2011, 2012).

Conclusion

Athletes’ performance may be negatively influenced by anxiety, and state anxiety is influenced by their beliefs and confidence about their ability and coping strategies to deal with the situation (trait anxiety). During penalty shootouts, strikers can be affected by anxiety (Jordet & Elferink-Gemser, 2012), which may be influenced by the importance of the tournament and kick (Jordet et al., 2007). Kickers should practice penalties with mild anxiety and be given opportunity to learn coping strategies to help reduce anxiety levels during actual competition. In addition, they should practice being self-conscious of their movements prior to fixating on a target area of the goal. Finally, strikers should be aware that their beliefs about the penalty shootouts and their skills will influence the final outcome; therefore, developing strategies that enhance their confidence will lead to improved outcomes.

It is important to clarify that although these recommendations may help to improve performance during penalty shootouts, the dynamic characteristics of state anxiety, in addition to the influence of trait anxiety as noted by Horikawa and Yagi (2012), influences the final outcome. Therefore, the positive outcome of a penalty shot cannot be assured, yet the use of pre-determined practice and strategies can enhance the likelihood of success.
References


Coping and Anxiety During Penalty Kicks


A Comparison of Physical Education in Oklahoma and Chile

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Abstract

The purpose of this article is to present a comparison between the current educational systems, vocational and professional practices as they pertain to Physical Education in Oklahoma, United States and Chile. Several topics are reviewed including similarities and differences in the curriculum, standards, goals, and how assessments occur. This article serves to denote some characteristics that could inspire and educate those teaching within each system to develop and teach a better and more global physical education program that adopts the best components from each country.
Required Hours of Physical Education in Schools

In Chile, the Ministerio de Educación (2013) requires all students throughout 1st through 12th grade to complete a minimum of four hours per week of physical education (P.E.). There are few exceptions.

Oklahoma’s expectations include more leniency. All students are required to participate in P.E. programs only up to 5th grade in accordance with Statute 70-11-103.9 (most recently updated 2014) whereby school districts are expected to provide all students with physical education programs (National Association of State Boards of Education, 2014). However, a caveat is that athletics may count toward physical education. Students are expected to be provided with instruction in P.E. or an exercise program for a minimum of 60 minutes per week on average. This equates to one physical education class every four to five school days. Recess time may not be counted toward the physical education requirement.

In secondary school, Statute 70-11-103.6 strongly recommends, but does not require, high schools to encourage students to complete two units of health and P.E. (National Association of State Boards of Education, 2014). For those schools that do provide a P.E program, Senate bill 1876 directs that school districts must establish specific goals and objectives for the P.E. curriculum used in their respective districts. Further, it requires that 50% of all PE activities be performed at a moderate or vigorous level (Oklahoma Legislature, 2010).

How Academic Standards are Determined

In Chile, standards are set by the Chilean Ministry of Education (Educación Física y Salud n.d.) who create and provide detailed explanations of what should be taught, what goals should be set, and what knowledge should be learned for each grade. Teachers are permitted to add variety and be flexible to some degree, but all goals set must be achieved. In addition, teachers are expected to provide outcome reports to the Pedagogy Technical Unit (UTP; Portafolio Digital, 2008) regarding students’ progress and achievement toward the goals set forth in the Ministry’s physical education curriculum.

Oklahoma appears less specific with respect to standards. Oklahoma uses the PASS Standards (Oklahoma State Department of Education, n.d.), but unlike Chile, there is no specific content curriculum required. Thus, teachers are provided with greater leniency regarding what content can be taught, as long as the lessons are achieving PASS Standards.

General Qualifications to Become a Physical Educator

In order to become a licensed educator in Chile, a collegiate or university degree that certifies them to teach in that specific field is a core requirement. Most teachers in Oklahoma also follow a similar path by completing a state-approved teacher education program. However, there are other ways to become certified. Teachers may also become certified through an “alternative path” where the teacher has acquired at least a bachelor’s degree in a designated area, but did not complete a state-approved teacher education program. The teacher must then complete training during their first few years of teaching. School districts are also permitted to
hire using an “emergency certification” which is at the request of a school district administrator only and must be approved by the state board.

Collegiate Graduation Requirements

In Chile, students generally progress using a cohort system over a five year, ten semester degree. Students become licensed in education following their ninth semester, but are required to complete and defend an undergraduate thesis during their tenth semester in order to receive the title of Physical Education Professor. Typically, the thesis is built upon throughout the degree and the tenth semester is used to finalize and defend it. There are no state-mandated tests.

In Oklahoma, a thesis is not a state requirement of an education degree, although some students may choose or qualify to be an honors student where this might be a component. Rather, primary competency is determined through successful completion of the degree and three state-mandated tests: OGET, OSAT, and OPTE (Oklahoma State Department of Education, n.d.). The Oklahoma General Education Test (OGET) is a 100 question selected-response test completed in person. The Oklahoma Subject Area Test (OSAT) consists of 80 selected-response specific physical education questions and a constructed-response assignment. Its primary purpose is to assess subject-specific knowledge. Students are required to pass both the OGET and OSAT prior to their student-teaching experience. The Oklahoma Professional Teaching Exam (OPTE) allows the student to choose either a Pre-Kindergarten through 8th grade or a 6th through 12th grade exam. Its content and length depends on which option is selected, but a student can expect to complete approximately 75 selected-response questions in addition to up to three written performance assignments.

The Collegiate Physical Education Curriculum

Because each higher education institution may have nuances within their physical education curricula, for the purposes of this article two universities, Oklahoma State University (OSU) and Pontifical Catholic University of Valparaiso (PUCV), were chosen for comparison. To put it in context, OSU’s Physical Education degree requires 210 total hours: 44 hours are required in the major, 41 hours in general education courses, 25 hours of professional core courses, and 10 hours of college or departmental requirements.

At Chile’s PUCV, students are restricted to a designed curriculum for Physical Education consisting of 144 Credit hours for men and 141 credit hours for women. The difference in hours is attributed to the Soccer class, which is an elective for female students. However, all students must complete an additional 10 credit hours of general education courses. At first glance, Chilean students at PUCV appear to take less credit hours, and they do; however, at OSU one credit equates to 45 minutes of class time. This is in comparison to PUCV, where one credit hour is equal to 135 minutes of class time (Pontifical Catholic University of Valparaiso, n.d.).

It is not surprising that in a 10 semester degree at PUCV, more classes are taken. Not included in Table 1, for example, are the variety of physical activity classes that a student can select to include in their degree such as basketball, football (men only), gymnastics, track and field, and swimming. These courses focus on teaching sports technique but also on how to teach or coach each sport. PUCV does not have a standalone program for coaches, and majoring in PE may serve as a gateway to the coaching field. Conversely, OSU offers a coaching minor which
allows students, whose passion may be a field other than P.E., to acquire coaching qualifications without the requirement of becoming certificated as a physical educator.

It is interesting to note that each institution has different teaching experiences. Students at PUCV complete their first practicum by observing and recording their experiences. During their second practicum they are permitted to assist the teacher before becoming the teaching in their final practicum. Students at OSU only complete two practical experiences in the school, but they are permitted to assist the teacher immediately as seen fit by the supervising mentor teacher. However, the second practical experience is similar to the third experience at PUCV in that students become the teacher.

Table 1
Comparison of Similarities and Differences in Degree Requirements

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<thead>
<tr>
<th>Oklahoma State University</th>
<th>Pontifical Catholic University of Valparaiso</th>
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<tr>
<td>First Aid</td>
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Physical Education Content and Assessment in the Schools

In Chile, the Ministry of Education determines what units are taught in PE. The units selected are based on the student’s age and gender. Example units include motor skills, health, nutrition, hygiene, gymnastics, sports, folk and national dances, fitness, and outdoor techniques. Also taught within these units are social and personal values such as social behavior, ethical values, and attitudes. Depending on the school’s facilities, some schools teach swimming and weight training as part of their P.E. program. More recently other activities have been introduced such as surfing, bodyboarding, slackline, and Zumba®.

In Oklahoma, teachers must adhere to the Oklahoma State Department of Education’s (n.d.) “Academic Standards.” These five standards outline what must be achieved by the student at each grade level, but how these standards are acquired is largely left to the discretion of the teacher. This allows some flexibility for the teacher to determine what should be taught to best meet these standards. However, most of the teachings are based on motor skills and movement patterns, which include the personal and social behavior.

It is important to emphasize, most of the P.E. classes in Chile are separated by gender and are usually taught by a teacher of the same sex, which does not typically occur in Oklahoma. There are exceptions, however, when a class such as folk dances and expression might be taught to both sexes.

Assessment in Physical Education

Fitness levels are assessed in both Oklahoma and Chile, although how they are assessed differs slightly. Chile uses the System for Measuring the Quality of Education or SIMCE which consists of six tests that evaluate general fitness levels, VO₂ Max, muscular strength, muscular endurance, flexibility, BMI (Body Mass Index), and skinfold measures. The SIMCE was validated by the National Institute of Sports (IND acronym in Spanish; Agencia Educación, 2011). It is important to note that this test is used on eight grade students and it is not offered or required nationwide. Although it was used to assess 13,585 students throughout 335 schools in 2010, it was cancelled on 2013 when one student unfortunately died as a result of testing. Therefore, there is no current method for evaluating the fitness of students nationwide.

In grades where P.E. is a requirement in Oklahoma, the FITNESSGRAM® is a common tool for evaluating fitness, although not currently a state requirement. It contains five areas that assess physical health including the PACER (Progressive Aerobic Cardiovascular Endurance Run), muscular strength, muscular endurance, flexibility, and body composition (BMI). These assessments determine whether students are in a “healthy fitness zone” for their age and gender (Meredith & Welk, 2013).

Beyond fitness, other areas are assessed, but the requirements in both Chile and Oklahoma for reporting these outcomes are limited. Chile’s Ministerio de Educación (Educação Física y Salud, n.d.) requires teachers to identify the learning objectives, develop evaluation criteria, set standards based on previous work, and adjust these standards for the class. Teachers must prepare and present their lesson plans and assessments to the Pedagogy Technical Unit (UTP), and any assessments of students must provide feedback on their strengths and weaknesses and gather data on student progress. Teachers are permitted to choose the most suitable evaluation

form to accomplish this (e.g., rubric, self-review, peer-review, written exams, physical development, portfolios, group presentations).

In Oklahoma, assessments are based on SHAPE America standards (2015). There are no or very limited regulatory control points to check if teachers are evaluating or assessing state standards. Teachers are given more flexibility and it is the responsibility of the school rather than state to evaluate the teacher’s effectiveness. Indeed, Baghurst and colleagues (2015) recently reported that NASPE (National Association for Sport and Physical Education) standards, now SHAPE America standards, were infrequently adhered to in the P.E. classroom.

It is interesting to note that attendance, as well as bringing an appropriate uniform and toiletries, are mandatory for P.E. students in Chile, which is a part of their assessment. This is often the case in Oklahoma and other states in the United States, where attendance, dressing out, and participation is formally assessed (Baghurst, 2013). Therefore, those decision makers in the profession in both countries need to consider whether such assessment methods are most effective in establishing P.E. as a rigorous and respected discipline (Baghurst, 2014).

**Conclusion**

According to César Bona, one of the 50 best teachers in the world according to the Global Teacher Prize:

Los educadores deben adaptarse a los niños y no al revés. Hay que motivarles y estimular su creatividad para que hagan que este mundo sea mejor. Los niños no son solo los adultos del mañana: son habitantes del presente. / Educators must adapt to kids and not the opposite. We must motivate and stimulate their creativity to make this world a better place. Children not only are adults of tomorrow; they are the inhabitants of the present. (as cited by Azumendi, 2015, p.1)

Teachers and those that influence decision making in education have a responsibility to consider how to best educate students. Comparisons across geographical and cultural areas provide an opportunity to consider similarities and differences of each educational system, which stimulates the potential for improvements.

In the present article, P.E. as a profession was compared between Chile and Oklahoma. This comparison would suggest that, in general, the Chilean Ministry of Education set higher requirements to become a P.E. teacher and are also more rigorous with respect to assessments, when compared to Oklahoma. However, decision making within each school is limited and a top down approach may limit creativity and opportunities for each teacher, and the Oklahoma teaching system may be more flexible, and therefore more practical. Future comparisons could be made across P.E. programs worldwide to solicit and model best-practices.

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Coaching the Ego-Oriented Athlete

Best Practices for Coaching the Ego-Oriented Athlete

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Abstract

One of the many challenges faced by coaches is being able to understand and support each athlete as an individual while simultaneously developing collective efficacy within the team. Individual athlete behaviors are typically categorized as ego-oriented or task-oriented. Although the motivational characteristic of an ego-oriented athlete is measured by their comparison to others, the task-oriented athlete is measured by skill improvement. Therefore, the development of collective efficacy requires the coach to observe ego-oriented and task-oriented behavior and apply strong leadership to foster task over ego. The purpose of this article is to identify the different characteristics of ego-oriented versus task-oriented motivation, how an ego-oriented athlete is developed, and how a coach can influence athletes toward task-oriented behavior by being a positive role model, creating a mastery environment, and developing a cohesive team setting.
Introduction

Consideration of athletes as individuals rather than categorizing them into groups of ego-oriented or task-oriented is the first step in developing a plan for the collective team (Chow & Feltz, 2008). Coaching athletes as individuals can result in a better understanding of the feelings, beliefs, and intentions of the athletes’ behavior (Roberts & Treasure, 2001). This article explores how a coach can influence ego-oriented athletes by being a positive role model, creating a mastery environment, and developing a cohesive team setting.

Overview

One of the criteria for team success is for coaches to understand each individual athlete’s requirements for motivation and achievement (Nicholls, 1984). Achievement goals are objectives that athletes target by estimation of specific targets or skill. There are two achievement goals identified based on personal competence: task and ego goals (Nicholls, 1984). An athlete that is task-oriented toward achievement goals base their success or failure on their ability to master a specific task (Roberts & Treasure, 1995). These athletes have a strong work ethic, believe that practice is required to develop their skill, and also believe effort causes success (Roberts & Treasure, 2001). Conversely, an athlete that is ego-oriented toward achievement goals base their success or failure on their ability compared to others (Roberts & Treasure, 1995). These athletes may appear bored in practice because they prefer to compete. Their primary objective is to be the best athlete at competition, and they believe ability causes success (Roberts & Treasure, 2001).

Because an ego-oriented athlete is self-absorbed with their own success, creating team cohesion is difficult (Copper & Mullen, 1994). Coaching an ego-oriented athlete can be a challenge because team cohesiveness is not part of the athlete’s goals or objectives. Therefore, in order to best motivate an athlete, the coach must understand their achievement orientation and how that orientation is developed.

The foundation of an ego-oriented athlete can be defined by both modeling and expectations (Baghurst, 2015; Horn, Lox, & Labrador, 2001). Modeling is based upon Bandura’s social learning theory that individuals learn by observing other’s behavior (Bandura, 1997). Athletes observe someone they hold in high regard and will model that same behavior. In addition to modeling, internal and external expectations play a role in the development of an ego-oriented athlete (Horn et al., 2001). External expectations create a drive for success based on another’s expectations while internal expectations create perfectionism based on the individual athlete’s own expectations (Horn et al., 2001). Coaches can affect an athlete’s behavior with the use of modeling and understanding expectations of the athlete (Baghurst, 2015; Horn et al., 2001).

Causes of the Ego-Oriented Athlete

Individuals may be predisposed to ego-orientation (Duda & Frye, 1997), but it is believed that social norms, learning, and other situations can foster or develop ego-orientation (Roberts, 1993). An ego-oriented athlete can be created by modeling (Bandura, 1997) and through comparison of ability against another to determine their own level of skill. This in turn affects the perception of their ability and thereby their motivation to reach a goal (Roberts, 1993).
Coaching the Ego-Oriented Athlete

athletes do not believe they have the ability to reach a specific goal they either must change the
goal or improve their ability. This may in turn create situations in which the athlete reduces
effort, sometimes called tanking, in order to avoid direct comparison of ability (Murphy, 2005).

Bandura (1977) distinguished four components related to social learning theory, which
are used to identify the difference between imitation and modeling. The third of the four
components is the premise of this difference. During this component the learner, athlete,
itimates the information received from the observer, coach, and has the opportunity to improve
an observed behavior through feedback (Bandura 1986); Bandura refers to this as cognitive
rehearsal. Athletes develop ego-oriented behavior by modeling the behavior of an ego-oriented
athlete, coach, parent or other source.

Expectations should be considered as playing an integral role in the development of ego-
oriented athletes (Horn et al., 2001). The four-step expectancy cycle (Horn et al., 2001)
explained how expectations influence athletes. First, the expectations about the athlete are
adopted by the perceiver. Second, the perceiver behaves toward the athlete in a manner which
reflects the expectations are true. Third, the target interprets the perceiver’s behavior and
behaves in a manner congruent with the interpretation. Fourth, the perceiver sees the athlete’s
behavior as evidence of the exactitude of the initial impression. It can be a vicious cycle that
continues to be fortified by society and those who have an influence on athletes such as the
coach, peers, parents, and adults (Horn et al., 2001). Merton (1948) referred to this phenomenon
as “the self-fulling prophecy” to explain “a false definition of the situation evoking a new
behavior which makes the originally false conception comes true” (p. 194).

Just as external expectations lead to the perception that an athlete displays ego-oriented
attributes, internal expectations can also influence the attributes of an athlete (Roberts, 1993).
Specifically, an athlete that excels has higher personal expectations as well as from others, which
leads to the likelihood these winners will make ego-oriented internal attributions (Roberts &
Treasure, 1995). Perfectionism has been identified as a key characteristic required in elite
athletes (Gould, Dieffenbach, & Moffett, 2002), but this motivation toward perfection is driven
by either pride or shame. The athlete recognizes there is an expectation to excel which means
they will either fail or succeed. Success results in a sense of pride and failure results in shame.
Regardless of the motivation the outcome remains the aspiration toward perfection. This
aspiration manifests in ego-oriented attributes as a protection of self-esteem (Gould et al., 2002).

Practical Suggestions for Coaches to Alter Ego-Orientation

Understanding that an athlete might be ego-oriented provides a coach with opportunity to
preemptively address negative consequences that might be manifest by such an athlete. Although
there are no simple answers to transitioning an ego-first athlete into a task-oriented one,
presented are several practical suggestions which may prove beneficial.

Coaches Use of Modeling

First, it is important to recognize that the coach serves as a role model, and behaviors of
the coach may be adopted by the athlete (Baghurst, 2015; Baghurst, & Diehl, in press).
Bandura’s social learning theory emphasizes the significance of learning by observation or
modeling (Bandura, 1977). The athlete intimates information received from the coach, and has
the opportunity to improve an observed behavior through feedback; this is referred to as cognitive rehearsal or modeling (Bandura, 1973). Therefore, the coach, through modeling, can be the athlete’s most influential presence in the development of their behavior, thoughts, and feelings. Studies have shown that athletes are more influenced by their coach than any other individual (Bredemeier & Stephens, 1996; Duda & Guiverneau, 2002). For example, it has been shown that athletes typically aggress because they observe their coach aggress (Bredemeier & Stephens, 1996).

Coaches should be aware of the degree of influence they have with their athletes. Coaches can maintain fair play, reduce aggression during competition, and develop strong moral reasoning with the use of modeling (Roberts & Treasure, 2001). However, simply knowing how to behave does not result in the athlete demonstrating that behavior. Athletes want to know the coach is willing to employ what they are being asked to achieve (Baghurst, 2015). Practically, coaches can model task-orientation by focusing on the processes needed for success over win-loss outcomes.

Asking the coach to assume the responsibility of being a role model may be asking some coaches to do more than they are capable or willing to offer. There are coaches that believe winning is more important than the development of an athlete (Brawley, 1984). These are the same coaches that are more concerned with their own personal success than the success of the individual athlete or even the team. Just as an athlete will model positive behavior of coaches they will also model the negative behavior. An athlete will become aware of the fact their coach considers winning and/or personal success more important than the team or individual athletes (Bredemeier, 1985).

Create a Task-Oriented Climate

The climate created by the coach engenders task-oriented or ego-oriented attributes in athletes (Roberts & Treasure, 1995). Coaches can influence the behavior of an ego-oriented athlete by creating a mastery-oriented climate versus an ego-oriented climate (Roberts & Treasure, 1995). Behaviors of the coach, such as a focus on their personal success and winning at all costs, are most salient in an ego-oriented climate (Roberts & Treasure, 2001). An ego-oriented environment is one in which the athlete expects punishment for failure, and that an athlete with a better skill level will receive preferential treatment (Chow & Feltz, 2008). A mastery climate is one in which the coach promotes success as determined by improvement and effort (Chow & Feltz, 2008).

Creating a mastery environment requires the coach to offer the athlete positive reinforcement based on the athlete’s work, improvement, and contribution to the team (Roberts & Treasure, 2001). An ego-oriented environment is one in which the coach rewards athletes based on skill and encourages the team to win at all costs (Roberts & Treasure, 2001). Therefore, a coach must design specific situations in which task success and improvement is fostered and rewarded. The use of individual goal setting, for example, may help an athlete to set personal targets that demonstrate improvement rather than making ego-based comparisons to the accomplishments or improvements of other athletes. Individual goal setting has been shown as a reliable method for improving performance (e.g., Baghurst, Bradford, & Mulekar, 2012; Baghurst, Tapps, & Kensinger, 2015).
Use the Team and Others

If the ego-oriented athlete is part of a team, the coach can and should consider encouraging collective efficacy within the team. One of the most important variables linked to team performance is cohesion (Copper & Mullen, 1994). Collective efficacy refers to a group that shares beliefs in themselves, their abilities, and are capable of executing the necessary actions to achieve the team’s goals (Bandura, 1977). When a team has shared beliefs it influences collective behaviors such as effort and persistence (Chow & Feltz, 2008). The team then becomes collective in their results, expectations, and goals.

Practically, if the coach can deliberately foster a collective efficacy focused on task outcomes, the ego-oriented athlete may transition from thinking as an individual to thinking as part of the collective (Chow & Feltz, 2008). Thus, the ego-oriented attribute of comparing self as an individual against others will shift to comparison the team against others. This may lead to each individual athlete investing in the group which, in turn, decreases ego-oriented attributes (Bird, Foster, & Maruyama, 1980). Even in failure teams with a high collective efficacy have a positive outlook regarding the future (Eys et al., 2015). When an ego-oriented athlete begins to believe and behave as part of a collective they display less ego-oriented attributes and the team benefits with a higher level of production (Chow & Feltz, 2008).

Coaches can use small wins – here referring to improvements not necessarily directly associated with outcomes – to help the team learn success. By creating wins, big or small, at the beginning of the season will enhance the team’s development of collective efficacy (Chow & Feltz, 2008). Wins can be defined as winning games, measuring improvement and effort, or achieving pre-determined goals; each of these are examples of ways the coach can help develop collective efficacy.

Socializing as a team outside of the sports arena may also improve collective efficacy (Copper & Mullen, 1994), which may explain why coaches have social events at their homes or at venues outside the environment in which the athletes would typically spend time together. Knowing that coaches can influence beliefs and affect ego-orientation gives them an abundance of power with the athlete. Coaches who are able to discern positive influence versus control of an athlete differentiates them as good versus bad leaders, and a strong collective efficacy is present through good leadership (Horn et al., 2001).

Discussion

The ego-oriented athlete determines success as measured by their ability compared to others (Roberts & Treasure, 1995). Bandura (1977) postulated that ego-oriented versus task-oriented behaviors are learned based on the belief that all interactions between individuals can lead to changes to beliefs and behaviors through modeling. Understanding the importance of a role model, the external and internal forces of motivation, and how to create a mastery environment can assist the coach in finding the appropriate methods to guide these athletes.

As a coach, knowing if the athlete had a peer, parent, or coach that modeled ego-oriented behavior affords the opportunity to use influence and expertise to alter the ego-oriented attribution (Roberts & Treasure, 1995). It is also important to recognize that expectations from society, coaches, peers, parents, and adults all play a role in developing or influencing behavior, and the coach should learn the ego-oriented athlete’s responses to these expectations (Horn et al.,
Coaching the Ego-Oriented Athlete

2001). If the athlete is affected by external expectations such as socio-culture norms, parents, or other variables, then the coach should use their power of persuasion to alter those expectations (Horn et al., 2001). If the athlete is affected by internal expectations such as a drive toward perfectionism, then the coach should foster cohesion and a collective efficacy if within a team in order to change those expectations (Gould et al., 2002). The coach should also use their leadership qualities to develop a mastery oriented and cohesive environment (Roberts & Treasure, 2001). When ego-oriented athletes begin to believe and behave as part of a collective they display less ego-oriented attributes and the team benefits with a higher level of production (Chow & Feltz, 2008).

References


Coaching the Ego-Oriented Athlete


Competitive Physical Activity Participation: Effect on Motivation of International College Students

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Abstract

During the past decade, there has been a dramatic increase in the number of international students enrolled in colleges across the United States. Many of these students are challenged by various constraints to participate in physical activities. This study was conducted to determine the rate of international students’ participation in competitive physical activities. Additionally, this study analyzed the differences in international students’ motivation between students that participate in competitive physical activity and students that do not participate in competitive physical activity. A total of 44 surveys were utilized that were collected from international students attending a university located in the southwest region. Participants completed the Exercise Motivation Inventory – 2 (EMI-2) with activity participation questions. The results indicated about 70 percent of international college students never or rarely participated in competitive physical activity. In addition, there were statistical differences in motivation of affiliation, challenge, and competition between non-competitive and competitive physical activity among international students. Campus recreation and international student program administrators may be able to encourage international students’ participation in competitive physical activity by incorporating strategies to stimulate their motivation.
Introduction

During the past two decades, the number of students enrolled in colleges in the United States (U.S.) has increased dramatically. College enrollment was 21 million in the fall of 2011, which was an increase of 5 million students compared to the fall of 2000. Enrollment in higher education institutions is expected to increase to 24 million by 2021 (Snyder & Dillow, 2013).

As the population of college students has been changing so has the distribution of race and ethnicity of the student population. Between the years 1990 to 2012 the percentage of white students declined from 79.9% to 60.3% of the student body (Snyder, 2014). Furthermore, the number of international students rose by 35.4% between the 2003-2004 and the 2013-2014 academic years. This brings the total number of international students attending college in the U.S. to 886,052 during the 2013-2014 academic year (Institute of International Education, 2014).

Previous research has supported the positive physical and mental health benefits of exercise and physical activities among college students. These benefits include physiological health, healthy weight management, higher self-esteem and happiness, and positive body image (Buckworth & Nigg, 2004; Furia, Lee, Strother, & Huang, 2009; Penedo & Dahn, 2005; Rivers & Dilger, 2015). However, 36.9% of college students indicated that they did not participate in at least 20 minutes of vigorous aerobic exercise within the week and over 30% of students were categorized as either overweight or obese (“American College Health Association-National College Health Assessment Spring 2008 Reference Group Data Report (Abridged): The American College Health Association," 2009).

Further compounding physical activity participation, rates for exercise and physical activity of international students (29%) were much lower than non-international students (46.5%) (Cho & Velasco, 2015). Many international students are challenged by various constraints to participate in physical activities such as lack of time due to work and study obligations, lack of motivation, and no personal affiliations (Shifman, Moss, D’Andrade, Eichel, & Forrester, 2012). Additionally, a study by Guo and Ross (2014) showed that many Asian students were not interested in traditional college intramural sports but preferred informal sport participation. This lack of participation in physical activity has led many researchers to focus on students’ motivation to exercise (Markland & Hardy, 1993; Teixeira, Carraça, Markland, Silva, & Ryan, 2012).

To be motivated means to be moved to take action. There are basically two different types of motivation and are referred to as intrinsic and extrinsic motivation. Intrinsic motivation occurs when an individual participates in an activity to simply experience the pleasure that is inherent in the activity and is purely an autonomous event (R. M. Ryan & Deci, 2000; Vallerand, 1997). For example, a person may choose to spend an afternoon playing basketball simply for enjoyment of the game. Extrinsic motivation lacks autonomy and is done in order to gain some type of reward or to avoid punishment (R. M. Ryan & Deci, 2000). For example, a child may play basketball because it is a required part of the school curriculum or he or she may feel pressured by their parents. Studies have shown that people who participate in activities for intrinsic reasons are more likely to enjoy and persist in the activity (Richard M. Ryan, Frederick, Lepes, Rubio, & Sheldon, 1997).

Most colleges provide recreational programs for students with the goal of helping students become active and healthy (Sturts & Ross, 2013). However, there has been limited research into differences in motivation among international students. Additionally, there has been limited research into the differences in motivation between students that participate in competitive physical activity and students that do not participate in competitive physical activity.
The purpose of this study was to determine the percentage of international students that participate in competitive physical activities and to determine if differences occur in international students’ motivation to participate in competitive physical activity compared to international students that do not participate in competitive physical activity.

Methods

Participants and Procedures

Convenience sampling was utilized to determine the level of participation in physical activities of international college students and their motivation to participate in exercise. Students were recruited from a regional public four-year university located in the southwestern U.S. The university where the study was conducted had approximately 1,900 international students from 97 countries. International students were recruited to participate in the survey through their respective campus’ office of International Students Scholar that allocated the survey in a corresponding e-mail with a link to the survey. All participants were informed of the anonymity of the study and proper approval was obtained from the Institutional Review Board of the higher education institution of the researchers. Consent to participate was indicated by clicking on the entry link of the survey in the e-mail. A total 63 college students completed the survey but due to incomplete survey responses, only 44 of the surveys were useable (23 male and 21 female students).

Instrument and Data Analysis

The survey template consisted of competitive physical activities participation, the EMI-2 and gender. Participation level of competitive physical activities was determined by asking respondents to mark the box that best represented their level of participation in competitive activities. They were provided four options consisting of never, rarely (one or less times a month), occasionally (2~3 time a month to once a week), and frequently (2~3 times a week to daily).

To examine the international students’ motivation to participate, the Exercise Motivations Inventory – 2 (EMI-2) was utilized to survey students’ exercise motivations (Markland & Ingledew, 1997). The EMI-2 is composed of 51 items with a five-point Likert-scale ranging from zero (not at all true for me) to five (very true for me). These items are comprised 14 subscales which are calculated by taking the mean of 3 to 4 appropriate items based on the scoring key by creators of the EMI-2 (Ingledew, Markland, & Medley, 1998; Markland & Ingledew, 1997). These subscales include affiliation (e.g., “To spend time with friends;” n = 4), appearance (e.g., “To help me look younger;” n = 4), challenge (e.g., “To give me goals to work towards;” n = 4), competition (e.g., “Because I like trying to win in physical activities;” n = 4), enjoyment (e.g., “Because I enjoy the feeling of exerting myself;” n = 4), health pressures (e.g., “Because my doctor advised me to exercise;” n = 3), ill-health avoidance (e.g., “To avoid ill-health;” n = 3), nimbleness (e.g., “To stay/become more agile;” n = 3), positive health (e.g., “Because I want to maintain good health;” n = 3), revitalization (e.g., “Because it makes me feel good;” n = 3), social recognition (e.g., “To show my worth to others;” n = 4), strength and endurance (e.g., “To build up my strength;” n = 4), stress management (e.g., “To give me space to think;” n = 4), and weight management (e.g., “To stay slim;” n = 4).
Distinctive Physical Activity Participation

The Statistical Package for the Social Science 21 (IBM Corp., 2012) for Windows was utilized to analyze data reliability, descriptive statistic, demographics, and the EMI-2. Reliability of the EMI-2 of 51 items in this study was confirmed by the Cronbach alpha coefficient measurement of 0.965. A Cronbach’s alpha coefficient of 0.70 higher is considered an acceptable value of alpha for studies in the social sciences (Nunnally & Bernstein, 1994). Due to convenience sampling, this study used the Mann-Whitney $U$ nonparametric test for the relationship between non-competitive/competitive physical activity and the mean scores of the 14 subscales.

Results

Data were analyzed to determine the frequency of participation in competitive physical activity among international students. The results indicated that about 68.28 percent of international students never or rarely participate in competitive physical activity.

However, approximately 27.38 percent of respondents participated in competitive physical activity occasionally, and less than 4.58 percent of them participated in competitive activity frequently (Table 1).

Table 1

Frequency of Competitive and Physical Activity Participation

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Competitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Percent (%)</td>
</tr>
<tr>
<td>Never</td>
<td>19</td>
</tr>
<tr>
<td>Rarely (one or less than a month)</td>
<td>11</td>
</tr>
<tr>
<td>Occasionally (2~3 times a month to once a week)</td>
<td>12</td>
</tr>
<tr>
<td>Frequently (2~3 times a week to daily)</td>
<td>2</td>
</tr>
</tbody>
</table>

In an attempt to better understand the motivation to exercise of international students that participate in physical activity, the means of 14 subscales were ranked in Table 2. The subscale that received the highest motivation was positive health. Ill-health avoidance, revitalization, strength and endurance, and weight management were among the top five motives to participate in physical activity among international students. In contrast, health pressure was the lowest mean rating of motivation among international students followed by social recognition, competition, affiliation and appearance (Table 2).

Table 2

Descriptive Statistics and Ranking of Exercise Motivations Inventory-2 (EMI-2)

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affiliation</td>
<td>2.02</td>
<td>1.64</td>
<td>11</td>
</tr>
<tr>
<td>Appearance</td>
<td>3.33</td>
<td>1.26</td>
<td>8</td>
</tr>
<tr>
<td>Challenge</td>
<td>2.44</td>
<td>1.55</td>
<td>10</td>
</tr>
</tbody>
</table>
Competitive Physical Activity Participation

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Competitive Physical Activity</th>
<th>EMI-2</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affiliation</td>
<td>120.50</td>
<td>.023*</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>191.50</td>
<td>.639</td>
<td></td>
</tr>
<tr>
<td>Challenge</td>
<td>117.50</td>
<td>.019*</td>
<td></td>
</tr>
<tr>
<td>Competition</td>
<td>100.00</td>
<td>.005**</td>
<td></td>
</tr>
<tr>
<td>Enjoyment</td>
<td>135.00</td>
<td>.058</td>
<td></td>
</tr>
<tr>
<td>Health pressures</td>
<td>196.00</td>
<td>.720</td>
<td></td>
</tr>
<tr>
<td>Ill-health avoidance</td>
<td>179.50</td>
<td>.433</td>
<td></td>
</tr>
<tr>
<td>Nimbleness</td>
<td>181.00</td>
<td>.461</td>
<td></td>
</tr>
<tr>
<td>Positive health</td>
<td>174.00</td>
<td>.349</td>
<td></td>
</tr>
<tr>
<td>Revitalization</td>
<td>154.50</td>
<td>.158</td>
<td></td>
</tr>
<tr>
<td>Social recognition</td>
<td>139.50</td>
<td>.073</td>
<td></td>
</tr>
<tr>
<td>Strength and endurance</td>
<td>152.00</td>
<td>.141</td>
<td></td>
</tr>
<tr>
<td>Stress management</td>
<td>162.00</td>
<td>.223</td>
<td></td>
</tr>
<tr>
<td>Weight management</td>
<td>185.00</td>
<td>.520</td>
<td></td>
</tr>
</tbody>
</table>

Note: *p<.05, **p<.01

In order to compare differences in motivations between students that participated in competitive physical activity and those that did not or rarely participated in physical activity, students were divided into two groups. Group 1 (non-competitive) was composed of students that indicated they did not or rarely participated in competitive physical activity. Group 2 (competitive) consisted of students that indicated they participated in competitive physical activity either occasionally or frequently. Differences in motivation of the two groups were analyzed using a Mann Whitney U test as shown in Table 3. Statistical differences in motivation were indicated for affiliation, challenge, and competition between non-competitive and competitive physical activity among international students.

Table 3

Mann-Whitney U Test Results Table

Note: Mean of Exercise Motivation Range=0 (Not at all true for me) to 5 (Very true for me)
Discussion

The purpose of this study was to examine the relationship between participation in competitive physical activity and motivation among international college students. Based on the results, this study found that approximately 43 percent of international students did not participate in competitive physical activity. Furthermore, almost 70 percent of international students participated in competitive physical activity less than once a month. These results are supported by previous research indicating that 46.5 percent of international college students did not participate in competitive sports activity (Cho & Velasco, 2015). In further support of these findings, international college students had significantly lower participation in competitive physical activity or recreational sport programs than non-international students because of cultural differences (Li & Stodolska, 2006; Walker, Jackson, & Deng, 2007), and intrapersonal, interpersonal and structural constraints such as lack of emotion, friends, or time to participate in competitive physical activity programs (Guo & Ross, 2014; Shifman et al., 2012).

The result of the EMI-2 test indicated that international college students were more likely to participate in physical activity for maintaining positive health and ill-health avoidance. Supporting these findings is research by Ebben and Brudzynski (2008) in which the most common responses that college students gave for participating in physical activity was general health followed by maintaining fitness and stress reduction. Another study, for international college students, reported that keeping good health and physical condition were one of the most important motivations for students to become involved in physical activity (Yoh, 2009).

Examining the differences between frequency of participation in competitive physical activity and student motivation, the current study found that affiliation, challenge, and competition are likely to affect international students’ participation in competitive physical activity. This results is mirrored in a previous study indicating that college students were more likely to be motivated by challenge for engaging in sport activities (Kilpatrick, Hebert, & Bartholomew, 2005). It is interesting to note that even though international students rank positive health and ill-health avoidance as their primary reason for participating in physical activity, students that participate in competitive physical activity are more likely to be motivated by affiliation, challenge or competition. The researchers believe international students might regard their general physical activity and competitive physical activity separately.

Limitations/Future Directions

This study was conducted using convenience sampling from a southwestern regional public four-year university via the international student’s e-mail which limits the generalizability of these findings. Future studies from different regions and populations are needed to further generalize the results. Additionally, low response rates were one of main limitations of this study and additional respondents may strengthen the statistical power of future studies. Lastly, this study did not provide any specific results based on sex, age, length of time in the U.S., and nationalities that might affect the outcomes of international students’ motivations.
Conclusions

As international students travel to the U.S. to focus on their studies, the researchers believe that they may have higher constraints/standards to participate in physical activity than non-international students’. Therefore, it may be important that campus wellness and recreational professionals implement different strategies to help international students engage in competitive physical activity. University programs that focus on competitive physical activity programs should seek ways to promote the positive health and ill-health avoidance aspects of their programs to international students.

It is important to note that frequency of competitive physical activity participation among international college students was much lower than non-competitive physical activity participation. Campus recreation or international student program administrators may be able to encourage international students’ participation of competitive physical activity by stimulating their motivation based on the results of this study such as encouraging affiliation, challenge or competition. For instance, intramural sports program, recreational sports club or international student sport Olympics might be beneficial for international students to participate in competitive physical activity.

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The Role of Parks and Recreation in Tornado Response: A Qualitative Exploration

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Abstract

The purpose of this study is to explore the stories of parks and recreation employees during times of great natural disaster. Joplin, MO and Moore, OK have experienced devastating tornadoes. This study describes before, during and after the events that changed the landscape of these communities through the lens of the parks and recreation directors and their employees. The Moore and Joplin parks and recreation departments were major players in planning, immediate response, and community rebuilding for natural disasters. This study considers communities after the event; what changes within the department have been made, and what suggestions they have for other communities were discussed. Qualitative methods were utilized. Semi-structured interviews were conducted. Responses were recorded and transcribed. Ancillary, first-hand materials such as photographs, videos and personal journals were also provided by the study participants in order to provide depth and richness to the data. The final step of the study consisted of placing the data into salient themes using open-coding methodology. Trustworthiness was ensured through the following qualitative devices: data triangulation, persistent engagement, prolonged engagement, confirmability, and the use of a researcher’s journal. Eight overall themes were discovered. Three themes revealed the human experience of surviving a tornado: “Family”, “Pride in Resiliency”, and “Lasting Pain”. Three themes described the experience of being a Park and Recreation Practitioner during a natural disaster: “Power of Volunteers”, “Practitioner as First Responder”, and “Post-Disaster Facility Improvement”. One theme bridged the Human Experience and being a Parks and Recreation Practitioner: “Return to Normalcy”.

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Introduction

Parks and recreation professionals are tasked with a wide variety of duties that often go beyond the day-to-day operations of recreation departments. While the need for quality parks facilities and enriching programs is great, parks and recreation professionals are often tasked with greater and more immediate needs when there is a disaster. Across the United States, communities are faced with a wide variety of natural disasters; foreseen and unforeseen, minimal and catastrophic, and heartbreaking and empowering. Tornadoes can occur in any state, in any country, on any continent in the world. That being said, there are certain locations that are more predisposed to tornadic activity. According to meteorologists, the mid and southern sections of the United States of America produce the most tornadoes annually in the world. With a predisposition for tornado damage, it is widely known that communities in the mid and southern U.S. must prepare for these events in terms of safety and disaster relief should a tornado hit. What is not widely known, however, is the crucial role that parks and recreation agencies play in times of tornado relief. The purpose of this study is to examine the role of parks and recreation agencies in times of natural disaster and to make recommendations for future academic and practical applications.

Literature Review

Often overlooked as front-line disaster relief agencies, parks and recreation departments are in prime position to offer needed community aide following a natural disaster. In other words, “out of necessity, parks and recreation agencies at all levels may be expected to provide support to communities and or higher levels or government during disasters” (Whitworth, 2006, p. 43). The relief comes from both organizational capacity as well as the individual qualifications of the park and recreation professionals. According to Pannell (2013), the parks and recreation professional is uniquely prepared to address natural disasters due to a combination of hard skills that most assuredly include first-responder training, paired with deep community knowledge of infrastructure, facilities, and social networks. Drabczyk & Schaumleffel (2006) reinforce this idea of the power of parks and recreation duality by describing that practitioners are critically important during emergencies and natural disasters because of their roles as first responders and volunteer managers. This crossroads of hard and soft skills make the parks and recreation professional truly invaluable to a community following a natural disaster.

A study produced by Grimm, Hulse, & Schmidt (2012) gave an even stronger reason to support the power of parks and recreation professionals in disaster relief. Grimm and friends looked at stress among employees during emergencies. Their study involved the creation of a scale measuring stress during emergency response. Unsurprisingly, the emergency response scale found less stress among emergency workers than non-emergency workers during times of disaster. In other words, employees trained in emergency response (such as parks and recreation professionals) tend to have less stress during times of emergency than those without such training.

Beyond the skill-set of the park and recreation employee, is the opportunity for the parks and recreation professional to be a key component in the holistic response to a natural disaster. According to Estes & McChesney (2002) parks and recreation professionals are accustomed to raising funds and awareness for community issues, and a natural disaster is a worthy cause for which to raise needed funds. Estes & McChesney go on to describe the need for communities to once again regain a sense of identity and pride. An easy way to achieve this is through swift opening of parks and recreation facilities and programs. Once pools and parks are open again, a community can truly begin to heal. This return to normalcy was studied in post-hurricane Katrina New Orleans in which parks were examined for their capacity for social capital. “Beyond their potentially direct role in improving post-disaster mental health, parks also may promote social interaction and strengthen neighborhood social ties” (Rung, Broyles, Mowen, Gustat, & Sothern, 2011, p. 385). This can be described as a return to normalcy, at least in one aspect of the community. These two acts round out the response to a disaster beyond the immediate needs of the community.
The last piece of literature explored considered the importance of community during disasters. Nolte, Martin, & Boenigk (2012) explored the effectiveness of community relationships during the Haiti earthquake effort. Although not specific to tornadoes, the study is easily transferable to natural disasters in general. While providing earthquake relief in Haiti, collaborations between large and small organizations was found to be more effective when leadership and equity were highly valued during the overall relief effort. In other words, organizational qualities of strong leadership and the perception of equality among the many relief agencies and volunteers were found to be strong predictors of disaster relief effectiveness.

Herzog (2007) describes a theoretical framework for public agencies in disaster administration. The framework outlines a sequential series of ordered steps that should be taken by public agencies. The steps are: planning, mitigation, management, response, and recovery. Herzog describes this series of steps as a framework for public administrators. Planning involves the forecasting of potential disasters and possible methods of reduction or elimination, migration deals with the ebb and flow of residents during the actual disaster, mitigation describes the process of reducing harm and loss, management deals with the many moving parts that go into a coordinated relief effort, response is actually implementing them, and finally, the recovery stage involves the aftermath of the disaster.

This study will use two case studies to examine the role recreation plays in the actual response to tornado natural disasters that occurred in Missouri and Oklahoma.

**Methodology**

In order to explore the role that parks and recreation departments/professionals play during and after natural disaster, qualitative methodology was implemented. In this case, a tornado was the independent variable and parks and recreation department’s/individual’s response or experience to it was the dependent variable. Rather than look to a quantifiable survey instrument, qualitative exploration provides a more appropriate and visceral approach to the study. With that in mind, research questions were developed:

R1: What themes were found regarding parks and recreation professionals responding to tornadoes?
R2: What can a parks and recreation department do to better prepare for a natural disaster?
R3: What roles do parks and recreation play in community response to natural disaster?

**Participants**

Moore, Oklahoma and Joplin, Missouri were selected for the study. Both cities had experienced a level 5 tornado (Enhanced Fujita Scale of tornados (EF Scale: low 1-5 high) within three years of gathering data. Using purposive sampling techniques, participants were selected by the Parks and Recreation Directors, both had consented to participate in the study. They were asked to select five to ten employees who worked for them at the time of the tornados. IRB approval was obtained prior to data collection.

**Data collection**

Using a semi-structured interview technique, at least five members of the parks and recreation staff from the two departments were given the same ten questions with the opportunity for the interviewers to elaborate and explore as was needed. All responses were digitally recorded for the purpose of later transcription verbatim. Questions were selected based on the overall research questions and included such items as: personal story of the tornado, role as a parks and recreation employee, what was successful, what could have been done better, advice for other professionals, etc.)
In addition to the interviews, tours of tornado zones, specifically parks and recreation facilities, were given. Photos, videos, and journals were shared with the researchers in order to provide depth and richness to the data.

Data analysis and Findings

At the conclusion of the data gathering, grounded theory (Yin 2011) methodology was utilized in the data analysis. Grounded theory describes the process of ‘coding’ qualitative data. By hand, the researchers analyzed key terms, common phrases, and consistent words to create salient themes, or “open codes”. These codes would eventually be used as the larger themes of the study. Once saturation of open codes was achieved, through the analysis of all data, subthemes would need to be identified. These subthemes would take all responses under a larger theme and begin to further break down the meaning of the data. With the themes and subthemes in place, meaning could begin to be derived and explored.

Unlike quantitative research that uses reliability and validity in its instrument, qualitative research calls for trustworthiness. In fact, qualitative research does not truly use an instrument, rather a qualitative protocol of interviews and data collection is administered (Yin 2011). In the case of this study five elements of trustworthiness were utilized: data triangulation, persistent engagement, prolonged engagement, confirmability, and the researcher’s journal.

- Data triangulation: data triangulation refers to multiple sources of varied data while exploring a study. In the case of tornadoes and parks and recreation, interviews with staff were triangulated with photos, employee journals, videos. All ancillary data were provided by study participants.
- Persistent engagement: while quantitative research calls for large samples of participants, qualitative research does not always need the large sample sizes. That being said, using two separate departments and interviewing at least five employees, each provided a large sample size for this type of research.
- Prolonged engagement: prolonged engagement refers to the actual time spent with each participant. The semi-structured interviews lasted between 20 minutes – 3 hours in length; much longer than a typical survey-type instrument. This prolonged interview technique allows for deep and rich data responses.
- Confirmability: Although each interview was recorded and transcribed, in order to insure consistency, two researchers reviewed each interview transcription for accuracy.
- Researchers’ Journal: Due to the sensitive nature of qualitative research, some data could not be captured on microphone. Rather, the researchers took notes during the duration of the study. Factors such as participants openly crying were observed and noted, as well as visual data that could only be captured during facility tours.

The data revealed interesting findings between the two different parks and recreation departments. In all, seven themes were identified. But interestingly, the researchers initially expected to find much more in the way of practical and professional insight, what emerged was a profound and visceral description of the human experience of surviving a tornado. These are the findings that emerged:

Theme: Parks and recreation professional experience of tornado response

Participants described the actual process of addressing the community response to a tornado. Such items as: logistics, organizational roles, and strategic planning were discussed.

Sub-theme: The power of volunteers

Each community relied heavily on volunteers in the rebuilding process, which is vital to any parks and recreation professional to consider. But more interestingly, volunteerism and community groups borne out of tornado relief continue to meet and serve the community one and two years after the
tornadoes. The group SERVE MOORE, a faith-based volunteer outreach was established out of the tornado response.

“We helped ‘SERVE MOORE’, took the lead on volunteer efforts...we had thousands of people come out”. “W” Moore, OK

“We had volunteers calling us: nurses, doctors from all over Tulsa, Springfield, down in Arkansas calling us because they wanted to know where to go”. “P” Joplin, MO

**Sub-theme: Improved facilities post tornado**

Participants described that although park and facilities were destroyed during tornadoes, the rebuilt facilities were almost always of better quality than the previous iterations. Furthermore, both Moore and Joplin were the recipients of large donations in terms of grant money as well as reality television outreach programs. Joplin completely renovated a destroyed park complete with a poignant memorial to the lives lost in the tornado. The one aspect that could not be replaced however was mature trees in the parks. Figure 1 (provided by participant) shows before and after aerial pictures of an especially hard-hit park in Joplin. The renovations include: new playground equipment, improves aquatic facilities, and a memorial to victims of the tornado.

“Park Hill has benefited more than Cunningham Park has in the tornado because it had nothing and now it’s huge, so yeah I think they (the parks) definitely did benefit from it (the tornado)”. “P” Joplin, MO

“The pool there is better than ever” “P” Joplin, MO

**Sub-theme: Parks and recreation professional as a first responder**
Immediately following the storms, the parks and recreation departments in both locations were mobilized to respond to the disasters. Moore and Joplin both converted parks and recreation facilities into emergency response centers. The centers were predominantly staffed by the American Red Cross. Facilities were complete with triage, supplies, and even makeshift morgues. Figure 2 (provided by participant) shows not only a destroyed park, but also a badly damaged hospital. This damage resulted in a critical need for the Joplin Civic Center to become the hub for emergency response. Many employees served as first responders immediately following the tornado under the direct supervision and direction of the American Red Cross. Employees would attend to injured residents as well as go house-to-house looking for victims.

“We did search and rescue, we went from house to house, apartment to apartment, trying to find survivors for a while...It was very strange because I’ve never been a first responder or has any training for that either”. (“S” Joplin, MO)
“I drove a dump truck that day for the first time in my life which was a little scary.” (“W” Moore, OK)

Sub-theme: A return to normalcy

Departmentally, parks and recreation agencies made a strong effort to offer programming as soon as possible in order to provide residents with a sense of normalcy following the tornado. The departments strived to offer programs to aid in the healing of the communities. Through programs, community members were able to remove themselves from the traumatic experiences of the storms. Such programs as Independence Day fireworks, youth sports, and opening pools were critical to this effort.
Theme: Human experience of tornado survival

When asked to describe their individual experience of the tornado, all participants first described their personal story before telling their professional story. They explained where they were when the sirens went off, how they took shelter, and how they were called to help in the immediate relief effort. In Moore, the staff was already at the community center but in Joplin it hit on a Sunday afternoon. The staff went into immediate action some before they were called and others as soon as they were called. In Joplin, staff knew that they were the ones that were needed to open the center as it was the first place people would come.

Sub-theme: Pride in resiliency

A subtheme emerged from both locations in the form of a pride in resiliency. Both communities took strong pride in the idea that they made it through a tornado (or many tornadoes) and continue to survive and rebuild.

“Joplin is phenomenal. People did not just sit around and complain and ‘woe is me’, they pulled together and just started cleaning up and getting things back in order”. (“P” Joplin, MO)

In Moore, volunteers continued to show up without calling and families would just start cleaning up the debris.

Sub-theme: Lasting pain

This subtheme was much more present in Joplin, MO as opposed to Moore, OK. While both communities faced tremendous loss, Joplin has a profound loss of life totaling over 144. Most Joplin participants cried during their stories, while most in Moore did not. Joplin respondents also faced lasting pain in terms of emotional trauma for themselves and their families. One respondent faced difficulty with a teenage child after the tornado: lack of communication, broken trust, truancy, and suffering grades. While another lost sleep and had recurring nightmares about the storm and the aftermath.

“Don’t want to go through it ever again, that was brutal...I did not think I was going to cry again, but obviously it’s still there”. (“P” Joplin, MO)

“I am still haunted by the memory of a mother calling out for her son”. (“C” Joplin, MO)

Sub-theme: Importance of family

Unsurprisingly, participants would describe the immediate worry about family members following the storms. Each community lost power, communication, as well as viable transportation routes. Some participants did not hear from family members until several hours following the tornado.
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“I was just worried about my wife and child” (“W” Moore, OK)
“I started checking to make sure my family was okay, but the phone lines weren’t working, so I ran across town to check on my grandparents. (“S” Joplin, MO)

Sub-theme: A return to normalcy

Like the subtheme under the professional realm, individuals identified the need to return to a place of mental normalcy. While pain still lasts, the return to normalcy quite often took participants an entire year or more to achieve.

All themes are represented visually in figure 3. The figure shows the experiences from both the practitioner and the human viewpoint, with one theme bridging the two.

Figure 3

Discussion

Although the findings of a professional and a human experience of a tornado were not predicted, they are not surprising. The initial focus of the study was to evaluate disaster response and preparedness from the administrative viewpoint; primarily focusing on management, polices, and procedure. However, as the stories unfolded, a much more personal picture was painted. In other words, while the researcher’s initial focus was to explore tornadoes in a practical parks and recreation sense, it is truly impossible to remove the human element from a qualitative study in which participants have faced disaster first-hand. In addition to capturing the human experience, the responses provided highlighted strong insight into the role of a parks and recreation professional. This critical insight can and should be shared to other professionals in the field in order to better prepare and equip departments for future disasters.
Limitations and future research

The study featured insight from two departments which had faced a catastrophic tornado. While much of the information for disaster preparation can be generalized, one should consider that each type of natural disaster is unique and has specific and appropriate preparations. Furthermore, the experiences of the relatively small group of individuals are not necessarily the same as others who may face similar situations. Future research could explore parks and recreation agencies that have faced other types of disasters and compare/contrast disaster relief. Future research should also consider the importance of the emotional toll taken to individuals serving as first-responders to natural disasters. While many parks and recreation professionals are trained in first-aid, little-to-no training or counseling is given to those same people regarding how a disaster may affect their mental health.

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