

THE ASHPERD JOURNAL



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Editor

Claire Mowling
University of Alabama
at Birmingham
email: [ASAHPERD.
Journal@gmail.com](mailto:ASAHPERD.Journal@gmail.com)

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Journal Layout

Claire Mowling

Policy Statement

The ASAHPERD Journal, a refereed and blind reviewed journal, is the official publication of the Alabama State Association for Health, Physical Education, Recreation, and Dance and is published two times annually in the fall/winter and spring/summer. The authors opinions are their own and do not necessarily reflect the attitude or views of ASAHPERD, its officers, or the editor(s) of the Journal.

MESSAGE FROM THE PRESIDENT OF ASAHPERD



Chris Reeves

I want to thank everyone for the opportunity to serve as President. This is such a challenging, yet exciting time for our profession. It is the right time for us to gain momentum from the challenging times we've endured. Through it all ASAHPERD has continued to provide great resources through virtual conferences and workshops, the ASAHPERD Journal, the website, social media, and more. I was ecstatic to be back in person at the Fall Conference in November.

I am beyond grateful for this opportunity to serve and will do my best to follow in the footsteps of the leaders that came before me. We have had the opportunity to "Leap Fearlessly!" because of Gina Mabrey. We were able to "Dare Greatly" because of Erin Reilly. We became "Stronger Together" because of Ginger Aaron-Brush. We became a "Game Changer" because of Penny Edwards. Last year, we became "The Equalizer" because of Derrick Lane. We are privileged to have an amazing organization with a strong foundation laid by these awesome past presidents.

Now that the gavel has been passed, I would like to introduce the theme for 2022, "Unity through Diversity". If we approach this year with humility, recognizing there is a lot we do not yet know, we will make great progress together. A closed mind and a prideful heart are barriers that will prevent meaningful change. From Friday Night Lights - Let's keep clear eyes, full hearts, and we can't lose.

We are blessed with an opportunity to make a difference in the lives of everyone we work with every day. Though our society is becoming more aware of the importance of diversity, this isn't at all a new concept. Looking around ASAHPERD as an organization, we have done a great job embracing diversity, so let's keep going, and let's continue to do life together.

Working with diverse people provides us with an opportunity for exposure to new ideas and improvements on existing ones. This interaction will help us build unity, and respect for the opinion of others. Unity through Diversity is essential for progress in the ASAHPERD organization. Unity through Diversity will be used as an expression of harmony and solidarity between us.

As President, again I'm honored to have the opportunity to lead and as Rudyard Kipling said, "For the Strength of the Pack is the Wolf, and the Strength of the Wolf is the Pack".

Please consider running for an office on the ASAHPERD Board. It is a great opportunity to get involved. We all need to take a moment and honor a deserving colleague by nominating them for an award given by ASAHPERD. Information about this and so much more is on the website.

Finally, join us at the Health & Physical Literacy Summit 2022 and then Spring Conference. Go to www.asahperd.org for more information and registration. I encourage you all to follow ASAHPERD on Facebook, Twitter, Instagram and check out the webpage. Never forget that We are here to make GOOD things happen for other people.

Facilitating Play in a Global Pandemic

Dayna M. Watson, PhD, University of Alabama at Birmingham

Still facing a health crisis here in Alabama and across the world, many young people are experiencing an increased level of anxiety during the COVID-19 pandemic (Hawes et al., 2021; Showalter Van Tongeren, 2020; Smirni, Lavanco, & Smirni, 2020). In addition to the increase in anxiety overall, emerging data suggests that individuals who contract COVID-19 may be more likely to experience psychological disorders such as depression and anxiety (Taquest et al., 2021). Existing studies suggest that children who exhibit anxious tendencies in childhood and adolescence may have a more difficult time coping with major events such as a global pandemic (Zeytinoglu et al., 2021). Thus, more than ever, it is essential that children and youth learn healthy ways to cope with anxious and distressing feelings (Smirni et al., 2020), and physical educators are well-situated to address this growing social-emotional need.

Recognizing Anxiety in Children and Adolescents

Anxiety can present with a range of emotional, cognitive, behavioral, and physical symptoms. It is important to keep in mind that while there

is a long list of signs and symptoms for anxiety, there is no one way that anxiety may present in a young person. Children and adolescents experiencing anxiety may have irritable mood, difficulty concentrating, and academic struggles (American Psychiatric Association, 2013). Caregivers and teachers might observe changes in sleep patterns, appetite, and energy level in children experiencing increased anxiety (American Psychiatric Association, 2013). Rapid development of intense fears or phobias or the development of sudden separation anxiety can also be a sign of anxiety in children (Centers for Disease Control, 2021).

In addition to expressing worry and concern about the future, children who experience anxiety may express multiple physical complaints, often without any underlying medical condition (Centers for Disease Control, 2021a). Children with anxiety may complain of frequent headaches, stomach aches, or general aches and pains. Children may worry excessively about these physical symptoms, resulting in missing school and attending multiple

doctor's appointments (Centers for Disease Control, 2021a). Physical educators will never be asked to diagnosis anxiety; however, if you observe some of these characteristics in a student and you are concerned about their mental health, reach out to the school counselor to discuss options for supporting the student and their family.

COVID Limitations on Play

Considering the ever changing restrictions on schools and classrooms, physical educators may find themselves asking - what can we do safely in a COVID-19 world? With masking, physical distancing requirements, and repeated absences due to illness of required quarantines, how can physical educators help students be physically active when experiencing higher levels of anxiety? Physical educators can acknowledge the emotional needs of our student, and we can help them to move their bodies to promote health!

According to the Centers for Disease Control (CDC), proper rest, nutrition, and physical activity can help reduce stress levels for children and adolescents (2021a).

More specifically, the CDC recommends the following: “Children and adolescents ages 6 through 17 years should do 60 minutes (1 hour) or more of moderate-to-vigorous intensity physical activity each day, including daily aerobic – and activities that strengthen bones (like running or jumping) – 3 days each week, and that build muscles (like climbing or doing push-ups) – 3 days each week” (Centers for Disease Control, 2021b). While children may not engage in this much physical activity at school, physical educators already work every day to promote movement as part of a healthy, active lifestyle. The movement and activity in physical education occurs within a social relationship setting, so pairing physical activity and social emotional learning are essential (Ciotto & Gagnon, 2018). Physical activity and physical fitness are linked with improved cognitive function in children, although more research is needed to truly understand this link (Donnelly et al, 2016). Beyond the physical and emotional benefits, healthy physical activity can support academic achievement and reduce problematic classroom behaviors (Alabama State Department of Education (ALSDE), 2018). For example, Podnar et al. (2018) found that students who participated in a 5-minute physical activity in class demonstrated more on-task behaviors during

academic lessons. Vazou et al. (2021) found that children who participated in physical activity integrated into their school day demonstrated more behavioral and cognitive control during instructional time. By incorporating a few new strategies and modifying some existing practices, physical educators can promote physical activity while concurrently supporting student emotional health during the COVID-19 pandemic and beyond.

Strategies

Social Emotional Learning, or SEL, is “the process through which all young people and adults acquire and apply the knowledge, skills, and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel and show empathy for others, establish and maintain supportive relationships, and make responsible and caring decisions” (Collaborative for Academic, Social, and Emotional Learning (CASEL), 2021). Social emotional skills include things like the ability to identify, express, and manage emotions in a healthy way, the ability to manage behavior in a way that promotes safety and social relationships, stress management, and social engagement (SHAPE, 2019). In 2019, SHAPE America introduced its Crosswalk for SHAPE America National Standards & Grade-Level Outcomes for K-12 Physical

Education and CASEL Social and Emotional Learning Core Competencies (PE/SEL Crosswalk). This guiding document aligns the SHAPE National standards for physical education with the social and emotional learning skills put forth by the Collaborative for Academic, Social, and Emotional Learning (SHAPE, 2019), providing a resource for states and districts working to incorporate more social emotional learning objectives into their standards. The crosswalk recognizes that physical educators are not only able to promote healthy physical activity in their gyms and classrooms, but also the social and emotional skills that students will need to live a healthy life long-term (SHAPE, 2019).

At the state level, the 2019 Alabama Course of Study: Physical Education includes personal and social behavior as part of their conceptual framework stating, “Personal and social behavior highlights the importance of developing behaviors that demonstrate respect for self and others. These standards focus on creating opportunities for students to exhibit personally and socially responsible attitudes and behaviors when interacting with others, participating in competitive activities, handling conflict, and showing appropriate sporting behavior both as participants, assistants enabling others, and

as spectators. These skills learned in physical education class will be valuable in personal and social situations for the rest of students' lives" (ALSDE, 2018). Standards under this category address topics such as taking personal responsibility for behavior and participation, accepting feedback, and working with others (ALSDE, 2018). While the SHAPE and ALSDE standards do include knowledge and skills under categories such as self-management, decision making, and social or relationship skills, the standards do not dictate how the standards may be addressed in the gym. The strategies listed below are a few examples of ways physical educators can promote healthy personal and social behaviors while simultaneously reducing emotional distress and anxiety and promoting play and physical activity.

Incorporating Feeling Words

Being able to accurately label and express emotions is an essential social-emotional skill (i.e. Albon et al., 1993; SHAPE, 2019; Cron, 200; Easterling et al., 1990; Smyth, 1998). Children develop the ability to identify and accurately label their emotions over time and with experience (Zieschank et al., 2021). Studies suggest that children can learn this skill through repeated exposure to physical displays of the emotion – such as witnessing someone experience that

emotion or recognizing their own emotional state – and concurrently learning the words that describe that emotion (Zieschank et al., 2021). Children experiencing anxiety and depression may struggle more with identifying emotions in others, so the intentional modeling of healthy emotional expression and identifying of feelings may be even more important for those children (Rappaport et al., 2021). A straightforward way to incorporate feeling words into play is a commonly used skill in play therapy – reflection of feeling. To reflect feeling, the adult who is observing the child makes a simple statement out loud that reflects the emotion that the child is expressing or may be experiencing internally (Kottman, 2011). Simple statements such as, "You are proud of yourself!" or "You are worried about hitting the ball – it is okay to be worried and still try!" give children insight into their own emotional experience and give them the words to express those feelings (Kottman, 2011). Being able to express emotions in a healthy way can decrease unwanted behaviors during times of emotional upset.



In moments of disruptive behavior when a student needs to be redirected, consider using another feeling affirming play therapy technique – limit setting with choice language. The Landreth method for limit setting follows the A-C-T formula: acknowledge the feeling/emotion; communicate the limit; target appropriate alternative behaviors (Kottman, 2011). For example, you might say, "I can see you are very excited to play basketball with your friends right now, but basketballs are not for snatching or throwing at others. You can get your own ball from the bin or you can find a partner and ask them to share with you." This method not only helps the child gain insight into their emotional experience, but it also gives them quick options for behaving in a more appropriate way – hopefully limiting disruptive behaviors in a moment of emotional upset or excitement.

Verbally Affirming Safety

After months of limited activities or anxiety about exposure to COVID, some anxious children may feel concerned or confused about what is safe to do. Some may express their concerns about getting sick or catching germs, while others may try to avoid activities or contact with other students. Try using some calm, safety affirming phrases such as:

- I know you are nervous, but it is safe to play in this way!
- It is my job to keep you safe! You can trust that I am doing my best!
- I know you are worried, but it is the grown-up's job to handle this germ stuff! It is your job to learn and play!
- We can be safe together without being afraid!
- I know it is confusing with all these new rules, but I'll let you know if there is something you can't do!

While it does not seem like a big step, children look to adults for social and emotional cues (Rappaport et al., 2021), so affirming their safety through simple truths can be a powerful way to combat a child's anxious thoughts.

Adding Routines and Rituals

Children who are anxious may not automatically feel safe and calm just because they are in a safe environment. Addressing felt-sense safety is a central tenant of trauma-informed spaces – an approach to schools that recognizes that all children benefit from a learning environment that is safe and attends to their social-emotional needs (National Child Traumatic Stress Network, Schools Committee, 2017). Adults can work to provide a felt sense safety through establishing routines and rituals in the child's daily life (National Child Traumatic Stress Network, Schools Committee, 2017; Nealy-Oparah & Scruggs-Hussein,

2018; Showalter Van Tongeren, 2020). Routines create a sense of predictability for students, especially important when students are anxious or have disrupted or unpredictable routines at home (Nealy-Oparah & Scruggs-Hussein, 2018). Routines should be described to students verbally, as well as being prompted by posted visual cues. If your school is practicing physical distancing guidelines, consider marking the floor with painters' tape to give a visual cue for the boundary. For an anxious student worrying about the future, a predictable routine with clear expectations helps them feel less anxious (National Child Traumatic Stress Network, Schools Committee, 2017).

Similarly, rituals in schools help students feel connected with peers and adults, creating a sense of community in the school (National Child Traumatic Stress Network, Schools Committee, 2017). Rituals are the special, repeated ways a child is valued and acknowledge in the school environment, including welcoming activities such as songs or mottos stated together. In COVID-19 times, consider routines and rituals that encourage health safety practices and emotional well-being. For example, combine a beginning of class hand sanitizing session with eye contact with individual student and a quick check-in on their day. A class-wide stretching

and warm-up with music can include a mask check and stretching out arms to keep a healthy physical distance. When entering the room or participating in the stretching or warm-up ritual, consider adding in an emotional component, such as having students check their bodies for feelings of worry while they stretch their muscles. Guided stretches or breathing exercises are readily available via a quick Google search, or you can consider adding some regular yoga practices. The sense of community interconnectedness that develops with rituals of connection is essential in creating a healthy environment for children experience anxiety (National Child Traumatic Stress Network, Schools Committee, 2017).

Activities Adaptable for In-Person or Virtual Teaching

Although many schools have shifted back to primarily in-person instruction, students and school personnel may need to shift back to virtual teaching for short periods of time, such as when high numbers of COVID-19 positive cases hit a school or when whole classes or grades are in required quarantines. Selecting gym activities that can be done in both an in-person or virtual teaching format may help extend the sense of safety and predictability when students are moved from school to home.



Activities such as guided yoga, old school style aerobics with music, freestyle dance parties, and circuits not requiring equipment allow students to move their bodies safely in either school or home settings. Additionally, demonstrating physical activities that students can easily do at home may encourage them to move their bodies at home, regardless of access to structured fitness activities.

Implications

The strategies included in this article offer some first steps in modifying traditional physical education practices to better address student anxiety and

distress related to the COVID-19 pandemic. Additional research focusing on physical educators' role in improving mental health outcomes and trauma informed schools continues is needed to better inform teaching practices and physical educator training programs. Currently, no agreed upon curriculum exists to address these specific social-emotional objectives in physical educator training programs, so future work around training on mental health and trauma, as well as the resulting impact on student outcomes is a promising area of exploration and evaluation. While the strategies represent some small steps towards

promoting both emotional and physical health in students, it is also imperative that physical educators continue to assess and address their own physical and emotional health during the COVID-19 pandemic. Modeling a holistic approach to wellness is another strategy physical educators can use to encourage healthy personal and social behavior. As the COVID-19 pandemic continues, it is essential that children and adults learn healthy ways to cope with anxious and distressing feelings, and physical educators are on the front lines of the work to develop healthy life skills in young people.

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Ultramarathon Participants Use and Perceptions of Mobile Technology

*Christopher J. Crawford, M.S. Graduate Student, University of Louisville
James N. Maples, Ph.D, Eastern Kentucky University
Michael J. Bradley, Ph.D, Arkansas Tech University
Patrick Holladay, Ph.D, Troy University*

The use of mobile technology with cellular connectivity offers a new dynamic to the recreation experience (Martin, 2017). For example, the Appalachian Trail has several persons who video log their entire 2,000+ mile trip from Georgia to Maine on YouTube, runners put poignant mid-stride images on Facebook to share with friends and family alike, and mountain bikers share pictures of muddy tires or scraped shins on Instagram.

Smartphones and smartphone applications have provided new ways to use technology in outdoor recreation. For example, outdoor recreation users now have several mapping and support app options from which to choose. Although technology use has been studied for various sports (Janssen et al., 2017), there is much less research regarding how outdoor recreation participants use technology and applications that are specific to their interests. More research is needed to establish how and when certain kinds of outdoor recreation participants incorporate technology into their experience. One specific outdoor recreation activity is ultramarathon events, where runners spend significant

amount of time in the outdoors. Therefore, the purpose of this exploratory study is to examine the support for and use of mobile technology among ultramarathon runners.

Technological advances have altered the outdoor recreation experience. The creation of mobile technology that is connected to cellular networking (e.g., smartphone) has radically pushed technology into areas that were historically technology-free. The increase of smartphone use in recreation raises numerous questions about technology in the outdoors because such technology can dramatically alter the recreation experience. The lengthy academic debate over technology in these places has recently refocused to assess the impact of smartphones (and similar mobile technology) and applications on recreation experiences (Dustin et al., 2017). Given the ubiquitous nature of smartphones, researchers are now left to grapple with how the infusion of technology will change recreation experiences in the future.

Running is one area where recreation and app use now

increasingly overlap (Harris, 2018). Smartphones and smart watches have revolutionized runners' app usage as the device can track heart rates and miles, map the course run, and even send music to USB earphones (Janssen et al., 2017). Janssen et al. (2017) found that running apps are most often used by younger, less experienced runners, something that indirectly confirms findings from Dustin et al. (2017) about the Pacific Crest Trail. In recent years, ultramarathon runners have been the subject of numerous studies. However, these almost universally target nutrition and physiological changes because of ultramarathon running (Martinez et al., 2018). It remains unestablished how ultramarathon runners may use technology while in an event.

Methods

This exploratory study examined technology use among ultramarathon runners during an ultramarathon event and their general perceptions of technology in outdoor recreation settings. To collect data on these two topics, the researchers sent an online survey to participants in four ultramarathon events in rural Central Appalachia in 2017.

Working in tandem with event organizers, the researchers sent online survey links to all 522 event participants. In total, 160 ultramarathon runners participated in this study, resulting in a return rate of 30.65%. In addition to reporting their demographic data, respondents were asked to identify what applications they used during their current ultramarathon event, level of support for using technology in outdoor recreation settings, and their reasons for using technology.

Results

Table 1 highlights 69.1% of the sample identified as being female and the age range was concentrated between the ages of 31-50 (67.5%). Overall, over 46% of the sample reported personal income of \$75K. Most respondents had obtained a bachelor's degree (39%) or higher degrees (45%), and nearly the entire sample self-identified as being white. Facebook was the most used app, with a mean of 48.27% persons using the app across demographic variables, this was followed by Instagram (29.15%) and map apps (25.56%).

As shown in Table 1, the means are decidedly in the neutral category for all categories with few exceptions, but their differences do offer some new insight into this recreation user group. For example, females indicated a higher mean response of using their phone



as a camera while running. Females also had a higher mean response indicating that having mobile technology in outdoor recreation settings made them feel safer, and this response was statistically different from males. Likewise, older respondents were less apt to use their phone as a camera, and this mean, too, was statistically different from persons not in this category. Persons in the 31-50 age category overall had a more neutral and statistically different response about using their phone to capture important moments and share them online. Income also came into play in the neutral response by persons in the third income category regarding using their phones to get information about the places they were visiting.

Discussion and Conclusion

Overall, the mean results indicate weak disagreement to neutral reaction to each

statement with few exceptions (Table 2).

There are, however, a few statistical findings that create new knowledge about ultramarathon runners. First, income may shape how respondents responded to the third statement regarding using mobile technology to stay more connected to work to facilitate a longer stay. For example, the first income category (who disagreed with the statement overall) had a statistically different response from persons in any other income category. This likewise held true for the second and fourth income categories. Age (specifically being in the 51 and above category) proved to have a statistically different response for the last two items. In both cases, persons in the category disagreed with the statements and their mean responses were different from respondents in other age categories. When asked about supporting mobile technology in outdoor

Table 1: Importance of Mobile Technology Use in Outdoor Recreation Settings (5= very important, 1=not at all important (Standard Deviation in Parenthesis)

Variable	To stay connected to friends and/or family	To use my phone as a camera	To capture important moments and share them online	To feel safe
Sex				
Male	3.37 (1.19)	3.56 (1.14)*	2.81 (1.17)	3.10 (1.44)*
Female	3.31 (1.31)	4.10 (.90)*	3.03 (1.375)	3.83 (1.36)*
Age Categories				
18-30	2.88 (1.36)	3.47 (1.12)	2.38 (1.25)	3.24 (1.71)
31-50	3.51 (1.14)	3.94 (.93)*	3.11 (1.12)*	3.38 (1.44)
51 and above	3.18 (1.40)	2.82 (1.47)*	2.18 (1.47)	3.09 (1.22)
Income Categories				
\$0-\$29,999	3.50 (1.51)	3.75 (1.03)	2.88 (1.24)	2.88 (1.35)
\$30,000-\$49,999	3.45 (1.43)	3.45 (1.23)	2.70 (1.21)	3.60 (1.60)
\$50,000-\$74,999	3.06 (1.02)	2.75 (1.06)	3.65 (1.05)	3.18 (1.46)
\$75,000 and up	3.44 (1.16)	3.82 (1.07)	2.95 (1.41)	3.31 (1.49)
Education Categories				
- BA/BS degree	3.36 (1.36)	3.27 (1.48)	2.64 (1.20)	3.27 (1.73)
BA/BS degree	3.46 (1.24)	3.77 (1.06)	2.77 (1.16)	3.26 (1.48)
+ BA/BS degree	3.24 (1.20)	3.78 (1.02)	3.00 (1.31)	3.36 (1.38)
	To use GPS and/or mapping apps	To get information about places I am visiting	To find local businesses I might want to visit	To find my way around the area
Sex				
Male	3.60 (1.17)^	3.54 (1.16)	3.76 (1.02)	3.73 (1.16)
Female	4.10 (1.14)^	3.52 (1.12)	3.72 (1.09)	4.03 (.82)
Age Categories				

18-30	3.65 (.93)	3.41 (1.12)	3.76 (1.03)	4.06 (1.14)
31-50	3.92 (1.15)	3.62 (1.12)	3.79 (1.05)	3.81 (1.06)
51 and above	3.18 (1.47)	3.27 (1.34)	3.45 (1.12)	3.55 (1.12)
Income Categories				
\$0-\$29,999	4.00 (1.06)	4.13 (.99)	3.88 (.99)	4.25 (.707)
\$30,000-\$49,999	3.95 (1.05)	3.60 (1.09)	3.75 (1.02)	3.70 (.97)
\$50,000-\$74,999	3.53 (1.00)	3.00 (1.00)*	3.59 (1.00)	3.82 (.88)
\$75,000 and up	3.77 (1.30)	3.59 (1.18)	3.72 (1.14)	3.82 (1.23)
Education Categories				
- BA/BS degree	3.64 (1.28)	3.91 (1.30)	3.91 (1.22)	4.00 (1.09)
BA/BS degree	3.83 (.92)	3.57 (1.06)	3.74 (1.01)	3.94 (.93)
+ BA/BS degree	3.71 (1.34)	3.38 (1.15)	3.69 (1.04)	3.67 (1.16)
t-test difference of means significant *=.05 **=.01 ***=.001 ^ .051-.06				

Table 2: Importance of Mobile Technology (MT) Use in Outdoor Recreation Activities (5= strongly agree, 1=strongly disagree (Standard Deviation in Parenthesis)

Variable	I use MT when I participate in outdoor activities	MT improve my experiences while outdoors.	MT enables me to stay more connected to work, facilitating a longer stay.	MT enhances my understanding of park's cultural & natural heritage.
Sex				
Male	3.68 (1.07)	3.25 (1.14)	2.88 (1.06)	3.34 (1.04)
Female	3.72 (1.07)	2.96 (.99)	2.64 (1.18)	3.02 (.96)
Age Categories				
18-30	3.62 (1.08)	2.88 (1.21)	2.65 (1.12)	3.12 (1.21)
31-50	3.74 (1.05)	3.19 (1.07)	2.82 (1.13)	3.19 (1.01)
51 and above	3.65 (1.26)	3.55 (1.23)	3.00 (1.07)	3.60 (.82)
Income Categories				
\$0-\$29,999	3.62 (1.26)	2.77 (1.36)	2.15 (.89)*	3.23 (1.23)
\$30,000-\$49,999	3.67 (1.06)	3.10 (1.09)	2.47 (.93)*	3.10 (.96)
\$50,000-\$74,999	3.77 (1.08)	3.16 (1.14)	2.90 (1.13)	3.23 (.88)
\$75,000 and up	3.72 (1.11)	3.35 (1.11)	3.18 (1.11)*	3.43 (1.04)
Education Categories				
- BA/BS degree	4.11 (.99)	3.53 (1.21)	2.74 (1.14)	3.37 (1.21)
BA/BS degree	3.77 (.94)	3.28 (.99)	2.70 (.97)	3.30 (.88)
+ BA/BS degree	3.55 (1.20)	3.04 (1.19)	2.92 (1.19)	3.14 (1.09)
	MT helps me connect with friends and family.	MT distracts me from immersing myself in the outdoors.	MT erodes my leisure time because it keeps me connected to work.	
Sex				
Male	3.71 (.78)	3.23 (1.17)	3.13 (1.04)	

Female	3.91 (.62)	3.09 (1.13)	3.13 (1.11)	
Age Categories				
18-30	3.65 (.97)	3.58 (1.17)	3.19 (1.05)	
31-50	3.81 (.70)	3.24 (1.14)	3.27 (1.06)	
51 and above	3.80 (.69)	2.65 (1.08)*	2.65 (1.04)*	
Income Categories				
\$0-\$29,999	3.62 (.87)	3.85 (1.14)^	3.15 (1.34)	
\$30,000-\$49,999	3.63 (.80)	3.23 (1.22)	3.27 (1.11)	
\$50,000-\$74,999	3.94 (.72)	3.35 (1.17)	3.26 (1.03)	
\$75,000 and up	3.85 (.71)	3.11 (1.12)	3.20(1.00)	
Education Categories				
- BA/BS degree	3.37 (.89)*	2.74 (1.14)	2.95 (1.22)	
BA/BS degree	3.88 (.66)	3.35 (1.19)	3.32 (1.00)	
+ BA/BS degree	3.82 (.75)	3.22 (1.10)	3.14 (1.08)	
t-test difference of means significant *=.05 **=.01 ***=.001 ^ .051-.06				

recreation areas, such as campgrounds, parks, and designated locations, no means proved statistically different by groups. The responses largely indicate neutral or weak support overall, falling in the neutral range. The highest support areas were in having cellular service in state and national parks and in having cellular service in front-country recreation areas, although recall that these means were not statistically different from persons outside the category. Again, low response rates make these results difficult to extrapolate on all recreation users.

The paper analysis reveals several interesting discussion points going forward. First, this exploratory study provides support for the idea that mobile technology use can vary by demographic variables. When examined by sex, age, and income categories, means were statistically different on several measures. While most were not seemingly affected by demographics, sex and age particularly appear relevant to the kinds of apps used and how or why apps are used. This opens a pathway for looking at these relationships in other areas and other kinds of recreation while also digging deeper into exactly why a particular demographic behaves in a certain way.

Second, the results of this study suggest that the debate

over use of technology in recreation remains divided in at least the ultramarathon community. For example, in Table 4, the authors find that nearly all the mean responses were either neutral or negative, and that few means statistically varied by demographic categories. This posits that there is no singular perspective among ultramarathon runners about technology use while running.

Third, the evidence from this study suggest ultramarathon runners are engaging in social media while engaging in ultramarathon events. Again, over half of respondents in nearly every demographic category were using Facebook. Instagram similarly proved popular among some of the categories where Facebook use was lower. Although it is conjecture and not fully explored in this paper, the use of social media could indicate that event participants were sharing pictures from the event with friends and family. This could prove a useful starting point for rethinking how advertisers and event organizers might target recreation users.

Fourth, the results create an early framework for local, state, regional, and national organizations looking to develop technology for recreation users and markets. While the results of this study in no way gives a particular

demographic that should be targeted, it does give early examples of how particular groups respond to ideas about using technology (such as Tables 3-5) and even the preferred apps they used (Table 2) during the event. The study also provides some preliminary evidence that apps and technology are being engaged during events for various (albeit not fully explored) reasons.

This exploratory study forms a jumping board for future research in recreation technology use. One idea unexamined in this study is how two or more demographics might interact to shape use patterns. For example, how might being a female in the 18-30 age group shape use of camera phones or a particular application? Second, this study also supports conducting future research on other forms of recreation to better understand if the findings are indicative of other recreation users. As these findings are specific to ultramarathon runners (and potentially even ultramarathon runners from a specific region), they cannot be extrapolated to other kinds of recreation just yet. However, future research would help ascertain if the findings are more generalizable. Third, additional studies could also identify other kinds of applications that might be used in recreation.

Another potential study would be to examine exactly how participants are using social media to better understand how recreation and events like those studied in this paper could be advertised and shared with others. Still further options include examining types of recreation that might be more or less inclined to use different kinds of technology while recreating.

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Differences in Diabetes Health-Care Activities & Health Related Quality of Life by Race/Ethnicity among Alabamians: Findings from the 2016 Behavioral Risk Factor Surveillance System (BRFSS)

Larrell L. Wilkinson, PhD. University of Alabama at Birmingham

According to the Centers for Disease Control and Prevention (CDC), more than 30 million people in the United States (U.S.) suffer from diabetes, which is the seventh leading cause of death (Centers for Disease Control and Prevention, 2017). Within the top ten causes of death in the U.S., the cost of diagnosed diabetes in the U.S. in 2017 was \$327 billion. Additionally, the excess medical cost per person associated with diabetes in 2017 was \$9,601 (American Diabetes Association, 2018), but still many adults are undiagnosed. Among U.S. adults, approximately 7.3 million who met laboratory criteria for diabetes were not aware of or did not report having diabetes. Laboratory criteria for diabetes includes testing that measures an individual's average blood sugar for the past two to three months, known as an A1C test. An individual is diagnosed with diabetes if their A1C measure is 6.5% or greater. A fasting plasma glucose test examines a person's fasting blood sugar levels. Normally performed in the morning, after having not consumed beverages outside of water and no food for at least 8 hours before the test, one may be diagnosed with

diabetes if their fasting blood sugar is greater than or equal to 126 mg/dl. Finally, an oral glucose tolerance test can be performed to check blood sugar levels before and two hours after a person drinks a special sweet drink to inform medical professionals how one's body processes sugar. Diabetes is diagnosed if at two hours, blood sugar is greater than or equal to 200 mg/dl (American Diabetes Association, 2021b).

The prevalence of diabetes increases with age, whereas approximately 27% of persons aged 65 years or older, are living with diabetes (Centers for Disease Control and Prevention, 2017). Type II Diabetes Mellitus (T2DM) is the most common form of diabetes. T2DM occurs when blood glucose (sugar) is too high and one's body is unable to produce enough or utilize insulin effectively to facilitate use of sugar as energy for the body's cells (National Institute of Diabetes and Digestive and Kidney Diseases, 2021). Each year, 1.5 million new cases of diabetes are diagnosed, with highest rates of diagnosis among adults aged 45 to 64 years and those aged 65 years and older (Centers for Disease

Control and Prevention, 2017). In addition to increasing age, other risk factors for T2DM include (Centers for Disease Control and Prevention, 2021):

- Being overweight or obese
- Having a parent, brother, or sister with type 2 diabetes
- Being physically active less than 3 times a week
- Having ever had gestational diabetes (diabetes during pregnancy) or given birth to a baby who weighed more than 9 pounds
- Identify as African American (AA), Hispanic/Latino American, American Indian, or Alaska Native (some Pacific Islanders and Asian Americans are also at higher risk).

When exploring racial disparities, AAs were twice as likely as persons who identify as European American (EA) to die from diabetes in 2018 (Office of Minority Health, 2021). Experiencing a 60 percent greater risk for being diagnosed with diabetes by a physician nationally, AAs are also 3.2 times more likely to be diagnosed with end stage renal disease and 2.3 times more likely to be hospitalized for lower limb amputations than EAs.

Within the State of Alabama, diabetes is identified as the ninth greatest current health concern (Alabama Department of Public Health, 2019). In 2012, Alabama had the third highest prevalence of diabetes in the U.S., with more than 12 percent of Alabama's adults diagnosed with diabetes. In 2013, 1,346 Alabamians died of the disease. Yet, many Alabamians remain undiagnosed (Alabama Department of Public Health, 2019). Within Alabama, diabetes risk is associated with race/ethnicity. Among adults, 2012 estimates from the Behavioral Risk Factor Surveillance System (BRFSS) reported 16.1 percent of AAs self-reporting being told they have diabetes by a doctor compared to 11.4 percent of EAs. Similarly, the Alabama Department of Public Health (ADPH) Center for Health Statistics details that 107.3 per 100,000 AAs died due to diabetes compared to 58.7 per 100,000 EAs (Alabama Department of Public Health, 2019).

When living with a chronic disease like diabetes, a person's health related quality of life (HRQoL) may be associated with their condition (Bonsaksen et al., 2014). Studies from the U.S. assessing HRQoL among people with diabetes show lower HRQoL than people without diabetes (Edelman et al., 2002). It is important for persons with T2DM to frequently engage

with the healthcare system. People living with diabetes are more likely than people not living with the condition to develop eye problems that can lead to blindness. Thus, it is important to receive retinal eye exams annually. Similarly, health providers should check T2DM patients' feet at least once a year. Other important disease management strategies include taking insulin as prescribed, monitoring glucose levels, and taking a course/class to learn how to control T2DM (American Diabetes Association, 2021a). Clinical recommendations from the American Diabetes Association (ADA) for the management of diabetes, specifically T2DM not only includes proper diet and nutrition, physical activity, regular doctors' visits, adherence to medication regimens, diabetes self-management education, self-monitoring of blood glucose levels, but also assessment of psychosocial conditions. Healthy People 2030 objectives providing guidance on reaching important health education and care benchmarks include: Increase the proportion of people with diabetes who get formal diabetes education (D-06); reduce the proportion of adults with diabetes who have an A1c value above 9 percent (D-09); and reduce the rate of foot and leg amputations in adults with diabetes (D-08). A comprehensive listing of

objectives for diabetes is listed under the goal of: "Reduce the burden of diabetes and improve quality of life for all people who have, or are at risk for, diabetes" (Department of Health and Human Services, 2021).

Given the importance of HRQoL and chronic care management to improving the circumstances of all diabetics, with an increase focus on higher risk AAs, the purpose of this study is to examine racial differences in HRQoL among Alabamians with T2DM. Additionally, the investigation also explores if differences exist in health care received among Alabamians with T2DM by race/ethnicity.

Methods

This investigation used data collected during the 2016 administration of the BRFSS. The BRFSS is a collaborative project of the CDC and U.S. states and territories. The BRFSS, administered and supported by CDC's Behavioral Risk Factor Surveillance Branch, is an ongoing data collection program designed to measure behavioral risk factors for the adult population (18 years of age or older) living in households. The BRFSS is a powerful tool for targeting and building health promotion activities in the United States, surveying more than 400,000 adult interviews each year. The survey is conducted using Random Digit Dialing (RDD)

Techniques on both landlines and cell phones. The data is weighted to approximate U.S. population representativeness. More about the BRFSS can be found at <https://www.cdc.gov/brfss/index.html>.

Using data from Alabama adults aged 18 or older who participated in the 2016 BRFSS (approximately 7,011); the independent association between T2DM and four measures of HRQoL are examined. Analysis was conducted to obtain measures accounting for T2DM and race, EA and AA only due to small sample sizes among other race/ethnic groups. Persons self-reporting a diabetes diagnosis prior to 18 years of age were excluded from analysis (< 2%). Self-reported measures for medical treatment are examined, including taking insulin, frequency in seeing a health professional in the past year, checking A1C, health professional checking individual's feet, undergoing an eye exam, and taking a course/class for diabetes management.

The main outcome variables for the study featured questions from the Healthy Days – Health Related Quality of Life core section of the 2016 BRFSS. The questions ask: "Would you say that in general your health is..." with answer choices Excellent, Very Good,

Good, Fair, or Poor. Following, questions focused on physical and mental health and inability to perform normal activities asks the following with participants listing the number of days up to 30:

- Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?
- Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?
- During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation?

Demographic variables include sex (male/female), race/ethnicity (EA, AA), age (18 – 34, 35 – 64, 65+), education (less than high school, high school graduate, and greater than high school), household income (less than \$25,000, \$25,000 - \$49,999, \$50,000 - \$74,999, & \$75,000+) and marital status (Married/Cohabiting, Divorced/Widowed/Separated, and Never Married). This study is a secondary analysis of the 2016 BRFSS. The data was

initially processed in SAS version 9.3 (SAS, 2017). The estimates produced in this study were weighted to represent the Alabama population and to adjust for potential survey response bias. The independent association between T2DM and four measures of HRQoL are examined for bivariate associations. For all analyses, statistical significance was set at $P < 0.05$.

Results

The study population was almost 56 percent female. 63 percent were EA. Approximately 44 percent of the study population was between the ages of 45 – 64 years. Almost 16 percent of participants studied reported less than a high school education. Approximately 45 percent of the study population reported less than \$25,000 in household income and about 52 percent were married or cohabiting (Table 1).

Among the study population of Alabamians living with T2DM, there was a significant difference in EAs reporting 9.74 days on average of poorer physical health compared to 7.28 days among AAs within the previous 30 days. Similarly, EAs reported 10.23 days on average with inability to perform usual activities compared to 7.34 days among AAs within the previous 30 days. No significant differences

were reported for days of not good mental health. Finally, AAs reported visiting a health professional more frequently on average than EAs during the past 12 months (Table 2.).

Within the study population, there were similar proportions of AAs and EAs reporting excellent and very good/good general health while living with diabetes. However, differences in reporting fair and poor health were significant ($p < 0.0001$). Significant differences were reported for taking insulin ($p < 0.001$) with AAs reporting 29 percent greater odds of taking insulin. AAs also reported greater proportions of visiting a health professional due to diabetes ($p < 0.0001$), reporting 67 percent greater odds than EAs. EAs reported greater proportions of having their A1C checked ($p < 0.0001$), while AAs reported more uncertainty in having their feet examined ($p < 0.0001$) and greater proportions of having their eyes examined within one year ($p < 0.0001$). AAs also reported greater proportions of having taken a course/class to manage diabetes ($p < 0.0001$), reporting 38 percent greater odds of having taken a course (Table 3).

Conclusion

National data and research studies indicate that morbidity and mortality due to T2DM is more prevalent among AAs (Centers for Disease Control and Prevention, 2017; Office of

Minority Health, 2021). Using the 2016 administration of the BRFSS for the state of Alabama, we find AAs and EAs living with T2DM self-reported similar proportions of overall health at the excellent and very good/good levels, however proportional differences were observed among fair and poorer health levels. This finding correlates with EAs reporting a greater number of physical health days not good and inability to perform usual activities on average when compared AAs. Examining the processes of health care measures among Alabama adults living with T2DM, AAs self-reported greater odds of visiting a health professional due to T2DM and taking insulin. Similar in scope to prior national and state level research (Alabama Department of Public Health, 2019; American Diabetes Association, 2021b; Centers for Disease Control and Prevention, 2017, 2021; Office of Minority Health, 2021), our findings underscore the need for improved efforts in diabetes care management (Department of Health and Human Services, 2021). This is particularly concerning as AAs reported more interactions with health care professionals, but differences were observed in health care service provision between AAs and EAs. In addressing this concern, patient and health provider education utilizing resources

from the ADPH Diabetes website may be beneficial through the offering of different marketing and material resources for distribution, links for pre-diabetes screening, a chronic disease resource directory, state diabetes information, and education for medical professionals (Alabama Department of Public Health, 2019). Furthermore, patient education focused on increasing knowledge and patients' psychosocial needs may lead to a rise in patients' HRQoL (Danielsen & Rosenberg, 2014).

The World Health Organization (WHO) highlights that comprehensive strategies are needed to improve the quality of life (QOL) of chronic disease patients (World Health Organization, 2005). Thus, it is important to consider that methods may differ by race/ethnicity for specific chronic diseases. In this sample, EAs self-reported worse HRQoL when compared to AAs and AAs reported more health care interactions. More research is needed to identify key influencers of self-reported HRQoL measures among persons with T2DM. Qualitative research is needed to explore perceived need for use of healthcare services and perceived severity of disease among persons with T2DM. Study findings should be considered given some limitations.

First, the BRFSS measures are self-reported and may not reflect clinical measures using validated or clinical instruments. In any survey, there is potential for recall and social desirability bias. As a telephone survey, one must be acutely aware that this form of surveying is subject to increased social desirability and influences from the contextual environment (Rockwood et al., 1997). Limited to EAs and AAs due to sample size limitations, this study may not represent all Alabama adults living with T2DM. Still, a strength of the study is the weighted sample offers a description of the two most prevalent population subgroups in the state and the BRFSS is a valid and reliable data set. The findings of the present study warrant more involvement of health education within health care, particularly in support of targeting efforts at linking health practices to improved HRQoL among adults living with diabetes.

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Table 1. Study participant characteristics of 2016 BRFSS: Alabama diabetes mellitus subset, N = 99,475		
Variables	Sample Size, n*	%
Sex		
Male	506	44.11
Female	726	55.89
Race/Ethnicity		
EA	750	63.34
AA	412	36.66
Age		
18 – 44	104	11.30
45 - 64	526	44.07
65+	602	44.63
Education		
< High School	196	15.52
= High School	430	32.57
> High School	602	51.91
Household Income		
< \$25,000	459	45.27
\$25,000 - \$49,999	227	24.53
\$50,000 - \$74,999	138	13.41
\$75,000+	144	16.79
Marital Status		
Married/Cohabiting	617	51.96
Divorced/Widowed/Separated	508	39.45
Never Married	104	8.59

Table 2. Mean Values for Self-reported Number of Days out of 30 for ‘Not Good Physical Health’, ‘Not Good Mental Health’, and ‘Inability to Perform Usual Activities’ among Alabama Residents by Race and T2DM, BRFSS 2016.			
Variable	EA T2DM	AA T2DM	F-value (p-value)
Mean Number of Days			
Physical Health	9.74	7.28	11.75 (0.0006)
Mental Health	5.31	4.45	2.18 (0.1404)
Inability to Perform Usual Activities	10.23	7.34	11.96 (0.0006)
Visit to Health Professional during last 12 months	2.96	3.46	8.17 (0.0043)

Table 3. Bivariate Measures for Self-reported ‘Health and Health-care’ among Alabama Residents with T2DM by race, BRFSS 2016.					
Variable	EA T2DM %	AA T2DM %	Chi-Square Measure	p-value	Relative Risk Estimate (CI, 95%)
General Health			941.77	< 0.0001	-
Excellent	2.28	1.67			
Very Good/Good	50.83	49.08			
Fair	28.85	36.94			
Poor	18.04	12.30			
Taking Insulin			286.17	< 0.0001	1.29 (1.25 – 1.32)
Yes	27.95	33.29			
No	72.05	66.71			
Visit Health Professional due to Diabetes			456.95	< 0.0001	1.67 (1.59 – 1.74)

Yes	87.25	91.94			
No	12.75	8.06			
HgA1C checked in last 12 months			327.09	< 0.0001	-
Yes	89.06	85.64			
Uncertain	5.47	8.53			
No	5.47	5.82			
Feet Examined by Health Professional			885.35	< 0.0001	-
Yes	68.43	67.98			
Uncertain	1.35	4.55			
No	30.22	27.47			
When Received Last Eye Exam			520.90	< 0.0001	-
Within 1 Year	65.49	72.79			
Within 2 Years	17.84	13.08			
2 or More Years	16.66	14.13			
Ever Taken a Course/Class to Manage Diabetes			509.53	< 0.0001	1.38 (1.34 – 1.41)
Yes	54.77	62.47			
No	45.23	37.53			

The Performance of Health Promoting Behaviors to Control Hypertension among African American Men in Alabama: Assessing BRFSS Data to Inform Health Coaching Practices

Larrell L. Wilkinson PhD, University of Alabama at Birmingham



According to the Centers for Disease Control and Prevention (CDC), an estimated 47 percent of American adults (116 million) are living with Hypertension (HTN), also known as high blood pressure (HBP) (Centers for Disease Control and Prevention, 2021c). HTN occurs when blood pressure, the pressure pushing against arterial walls, is higher than normal (Centers for Disease Control and Prevention, 2021a). In review of current research, the American College of Cardiology (ACC) and the American Heart Association (AHA) published new guidelines for HTN management and defined HTN as a blood pressure at or above 130/80 mmHg (Stage 1). Stage 2

HTN is defined as a blood pressure at or above 140/90 mmHg (Centers for Disease Control and Prevention, 2021c). The most current version of Healthy People (HP), HP2030, has an objective to “reduce the proportion of adults with high blood pressure” documented as HDS-04. HDS-04 is a component of a broader goal to: “Improve cardiovascular health and reduce deaths from heart disease and stroke” (U.S. Department of Health and Human Services, 2021).

HBP is often referred to as a “silent killer” because it usually has no symptoms and is a major risk factor for heart disease (Centers for Disease Control and Prevention, 2021e) and stroke (Centers for Disease

Control and Prevention, 2021a). Each year, HBP expenditures cost the United States (U.S.) an estimated \$48.6 billion in health care services, treatment medications, and loss productivity due to premature death. HTN contributes to the deaths of 400,000 people in the U.S. annually (Centers for Disease Control and Prevention, 2021b). According to the Alabama Department of Public Health (ADPH), slightly more than 41% of Alabamians reported having high blood pressure in 2017 (Alabama Department of Public Health, 2021). Using 2013 data, ADPH reports primary HTN as the twelfth greatest cause of death in Alabama (AL), with 587 deaths due to HTN that year.

The 2013 cause specific mortality rate of 12.1 per 100,000 for HTN in Alabama was 2.4 individuals greater than the national average of 9.7 per 100,000. Given the “silent” nature of HTN, it is important to understand the risk factors proliferating HBP, particularly within AL, where the state is reporting greater mortality risk due to HTN.

Some risk factors for HBP can be modified, while others cannot. For example, blood pressure tends to increase as people age. Additionally, one cannot control the family they are born into, whereas family history with HBP increase one’s risk for the condition. Furthermore, men are more likely to report HBP than women. Persons living with chronic kidney disease (CKD) may also have increased risk for HBP, further complicating their CKD health condition. Finally, African Americans (AAs) tend to report HBP more often than any other racial/ethnic group in the U.S. (American Heart Association, 2021). Modifiable risk factors include physical inactivity, consuming an unhealthy diet, consuming a diet with high amounts of sodium, being overweight or obese, living with diabetes, and living with high cholesterol in the blood. Other modifiable risk factors include drinking too much alcohol, smoking and/or tobacco use, living with high amounts of stress, and reporting sleep apnea

(American Heart Association, 2021). Thusly, improving risk factors such as eating habits, reduced salt intake, reduced alcohol use, and increased exercising with other lifestyle modifications can lower blood pressure (American Heart Association, 2021).

Health coaching is a behavior change modality that can improve the performance of health promoting behaviors (HPBs) known to prevent or manage chronic conditions such as HTN (Adams et al., 2013). Indeed, improvements in physical and mental health were observed after employing motivational interviewing in a 3-month intervention to address multiple health risk behaviors among employees at a medical center (Butterworth et al., 2006). Another study demonstrated similar results among individuals who were enrolled in the California Public Employee Retirement System (Holland et al., 2005). In a study among Latino women in California, 30 community members called Promoters were trained using a “train the trainer” model to increase physical activity through classes among 387 adults in a community. The efforts of the promoters led to improvements in systolic blood pressure, waist circumference, and aerobic fitness among the female participants after 6 and 12 months, but no results were provided for the men who participated in the program

(Ayala, 2011). Among low income patients with poorly controlled HTN, weekly telephone coaching on blood pressure monitoring and medication adherence was used to improve blood pressure control. The study found at home telephonic health coaching performed by non-medical health workers reduced blood pressure. As identified above, a limitation of this investigation was that the study population were mostly women (63.8%) and only 10.8% AA (Margolis et al., 2012).

Although health coaching has demonstrated efficacy in assisting individuals to overcome barriers for improving their health, more research is needed to determine the feasibility of using health coaching as a technique to improve HPBs among AA men, particularly through community-based approaches in the Southeast. In addition, the use of health coaching to change HPBs throughout the life course and among AA men of low, middle, or upper socioeconomic status (SES) requires greater exploration. In preparation for a grant-based intervention to support the lowering of blood pressure among AA men living with HTN through health coaching, the proposed study will examine self-reported “actions to control high blood pressure” among AA men residing in the state of Alabama.

Methods

This investigation used data collected during the 2009 administration of the Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS, administered and supported by CDC's Behavioral Risk Factor Surveillance Branch, is an ongoing data collection program designed to measure behavioral risk factors for the adult population (18 years of age or older) living in U.S. households. The BRFSS is a powerful tool for targeting and building health promotion activities in the United States, surveying more than 400,000 adult interviews each year. The survey is conducted using Random Digit Dialing (RDD) techniques on both landlines and cell phones. The data is weighted to approximate U.S. population representativeness. More about the BRFSS can be found at <https://www.cdc.gov/brfss/index.html>.

Using data from AA adult men, aged 18 or older who live in AL and participated in the 2009 BRFSS Actions to Control High Blood Pressure module (approximately 489); the frequency of actions to control high blood pressure and smoking are examined. Analysis also describes participants sociodemographic characteristics and health measures.

The main outcome variables for the study featured

questions from the Actions to Control High Blood Pressure optional module section of the 2009 BRFSS, offered to survey respondents of participating states who also indicated "Yes" to having "ever been told by a doctor, nurse, or other health professional that you have high blood pressure" previously in the BRFSS. The 2009 BRFSS was the most recent year in which the state of Alabama employed the Actions to Control High Blood Pressure optional module. The section asks: "Are you now doing any of the following to help lower or control your high blood pressure?" with questions asking (Centers for Disease Control and Prevention, 2009):

- a) (Are you) changing your eating habits (to help lower or control your high blood pressure)?
- b) (Are you) cutting down on salt (to help lower or control your high blood pressure)?
- c) (Are you) reducing alcohol use (to help lower or control your high blood pressure)?
- d) (Are you) exercising (to help lower or control your high blood pressure)?

Answer choices for the questions "a" and "d" above were "Yes", "No", "Don't know / Not sure", and "Refused."

Answer choices for questions "b" and "c" were similar, but included a non-participatory option related to the behavior (i.e. "Do not drink", "Do not use salt").

Related to interaction from a health professional, another set of questions within the optional module ask participants "Has a doctor or other health professional ever advised you to do any of the following to help lower or control your high blood pressure?" through the following listing (Centers for Disease Control and Prevention, 2009):

- a) (Ever advised you to) change your eating habits (to help lower or control your high blood pressure)?
- b) (Ever advised you to) cut down on salt (to help lower or control your high blood pressure)?
- c) (Ever advised you to) reduce alcohol use (to help lower or control your high blood pressure)?
- d) (Ever advised you to) exercise (to help lower or control your high blood pressure)?
- e) (Ever advised you to) take medication (to help lower or control your high blood pressure)?

Answer choices for the questions "e", "h", and "i" were "Yes", "No", "Don't know / Not sure", and "Refused." Answer choices for questions "f" and "g" were similar, but included a non-participatory option related to the behavior (i.e. "Do not drink", "Do not use salt").

Sociodemographic variables include sex (male/female), age (18 – 34, 35 – 54, 55 – 64, 65+),

education (less than high school, high school graduate, and greater than high school), household income (less than \$25,000, \$25,000 - \$49,999, \$50,000+), Employment (Employed, Unemployed, Other), marital status (Married/Cohabiting, Divorced/Widowed/Separated/ Never Married), and residence (Urban, Suburban, Rural). Health measures included body mass index (BMI) (Normal, Overweight, Obese) and general health status (Excellent/Very Good, Good, Fair/Poor). This study is a secondary analysis of the 2009 BRFSS. The data was initially processed in SAS version 9.3 (SAS, 2017). The estimates produced in this study were weighted to represent the Alabama population and to adjust for potential survey response bias. Frequencies of “actions to control high blood pressure” are provided to determine the proportions of AA men with HTN engaged in HPBs to reduce or control blood pressure.

Results

The study population was majority middle-aged, with approximately 36 percent of AA men ages 35 – 54. Almost 84 percent of participants earned a high school diploma or reported greater education. Although approximately 46 percent of AA men reported employment, the same percentage reported a

household income below \$25,000. Over half of respondents reported not currently being married or cohabitating, with half of the sample also reporting living in an urban environment. Many of the respondents reported good or better general health. Most men had a calculated BMI that was categorized as overweight or obese for their height (Table 1).

Among the study population, 41 percent reported currently changing their eating habits to lower or control HBP. Similar proportions reported currently working to lower salt intake and exercise. Approximately 20 percent reported reducing alcohol intake. Similarly, approximately 35 percent of the study population reported advisement to change eating habits and cut down on salt. 40 percent of the respondents reported being advised to exercise and 51 percent were advised to take medication. Although a strong proportion of respondents had never smoked, a little more than 27 percent reported current smoking. A high proportion of the study population either refused to answer or were unsure of how to answer each of the reported blood pressure control action questions (Table 2).

Conclusion

The impact of HTN on the nation’s health and well-being is well documented (Centers

for Disease Control and Prevention, 2021a, 2021b, 2021c, 2021e; U.S. Department of Health and Human Services, 2021). Additionally, as a state, Alabamians are a greater risk of mortality due to HTN, greater than the U.S. average (Alabama Department of Public Health, 2021). Given the loss of human potential and economic costs due to HBP, it is a national imperative to reduce the prevalence of HBP within the U.S. (Centers for Disease Control and Prevention, 2021b; U.S. Department of Health and Human Services, 2021). Health coaching and other micro-based lifestyle modification approaches have the potential to support individuals in lowering their risk of HTN (Adams et al., 2013; Butterworth et al., 2006; Holland et al., 2005; Margolis et al., 2012).

Findings from this investigation of AA men’s actions to control high blood pressure in AL, supports the need to increase the proportion of AA men working to improve their HBP. Although a strong minority of AA men self-reported performing key HPBs to reduce HTN risk (i.e. change eating habits, reduce salt and alcohol intake, and exercise), an overwhelming majority of respondents reported not performing HPBs or refused to answer survey questions. Furthermore, approximately 27

Table 1. Characteristics of AA men residing in AL and living with HTN participating in the 2009 BRFSS Actions to Control High Blood Pressure module, N = 23,856

Variables	Sample Size, n*	Weighted %
Age		
18 – 34	92	17.80
35 - 54	165	35.91
55 - 64	117	24.04
65+	115	22.25
Education		
< High School	94	16.55
= High School	213	41.99
> High School	182	41.46
Household Income		
< \$25,000	205	47.56
\$25,000 - \$49,999	97	21.72
\$50,000+	110	30.72
Employment		
Employed	206	45.74
Unemployed	55	9.72
Other (i.e. Homemaker/ Student/Retired/Unable to Work)	228	44.54
Marital Status		
Married/Cohabiting	212	44.16
Never Married/ Divorced/Widowed/Separated	275	55.84
Residence		
Urban	223	55.89
Suburban	95	20.49
Rural	171	23.62
Body Mass Index (BMI)		
Normal	118	25.45

Overweight	192	38.79
Obese	179	35.76
General Health		
Excellent/Very Good	167	35.02
Good	166	35.03
Fair/Poor	154	29.95
* = un-weighted sample size		

Table 2. Performance of actions to control high blood pressure among AA men residing in AL participating in the 2009 BRFSS Actions to Control High Blood Pressure module, N = 23,856.

Variables	Sample Size, n*	Weighted %
Changing Eating Habits		
Yes	210	41.42
No	50	10.44
Refused/Unsure	229	48.14
Cutting Down on Salt		
Yes	209	40.80
No	16	3.50
Do Not Use Salt	38	8.25
Refused/Unsure	226	47.45
Reducing Alcohol Use		
Yes	97	19.72
No	20	3.39
Do Not Drink	146	29.44
Refused/Unsure	226	47.45
Exercising		
Yes	198	39.46
No	65	13.09
Refused/Unsure	226	47.45
Advised to Change Eating Habits		

Yes	179	35.01
No	81	16.96
Refused/Unsure	229	48.02
Advised to Cut Down on Salt		
Yes	180	35.25
No	58	12.43
Do Not Use Salt	23	4.42
Refused/Unsure	228	47.90
Advised to Reduce Alcohol Use		
Yes	78	15.37
No	56	10.77
Do Not Drink	129	26.41
Refused/Unsure	226	47.45
Advised to Exercise		
Yes	197	39.77
No	65	12.70
Refused/Unsure	227	47.53
Advised to Take Medication		
Yes	243	50.67
No	-	-
Refused/Unsure	227	49.33
Smoking Status		
Current Smoker / Everyday	91	18.41
Current Smoker / Some Days	52	9.35
Former Smoker	120	25.87
Never Smoked	220	44.80
Refused/Unsure	6	1.57

percent of the study population reported current smoking. These are discouraging findings, as AA men are among the subgroups at highest risk for HTN and subsequently heart disease and stroke (American Heart Association, 2021). Qualitative research should be conducted with AA men to ascertain willingness to perform HPBs and participate in survey studies.

Several resources are available are identified by ADPH to address HTN in AL (Alabama Department of Public Health, 2021). Campaigns like the Million Hearts initiative and the Power to End Stroke campaign are social marketing strategies health educators can employ to promote heart health (Alabama Department of Public Health, 2021; American Heart Association, 2021). In addition, health educators and health coaches should consider the following recommendations in supporting AA men with HTN:

- Promote eating plans that help create a heart-healthy eating style for life, like the DASH (diet) eating plan (National Heart Lung and Blood Institute, 2021).
- Encourage people with HTN to engage in 150 or more minutes of moderate-intensity aerobic activity each week or vigorous-intensity equivalency, plus 2 days of more of muscle strengthening that work all

major muscle groups (Centers for Disease Control and Prevention, 2021d).

Led by health coaches/educators, the above strategies in combination with stress management, refraining from tobacco use, and medication adherence will support the national goal of reducing the prevalence of HTN and improve AA men's health.

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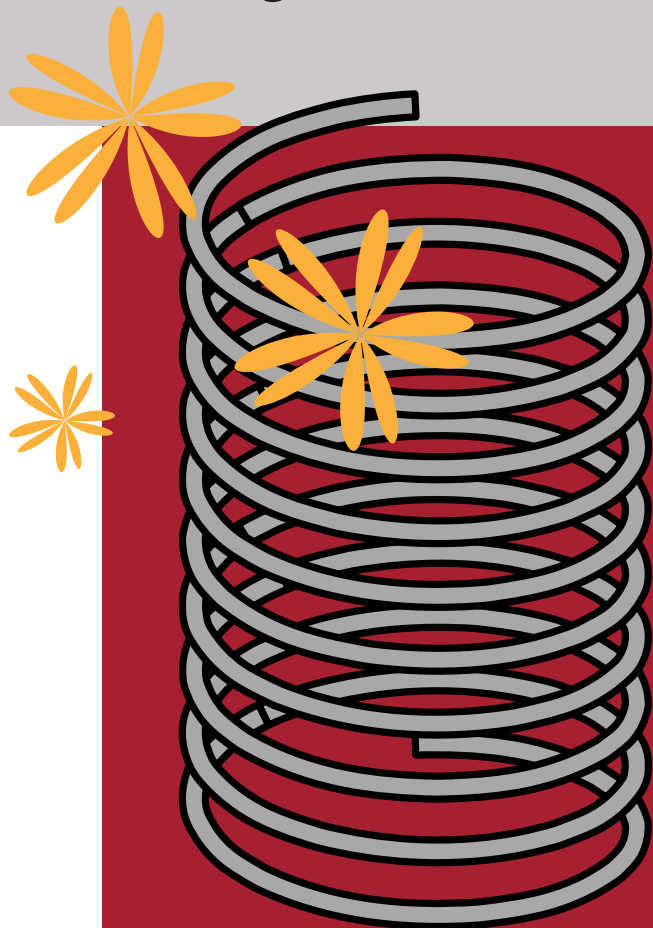
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Teaching Tinkling to High School Students Using Mosston's Spectrum of Teaching Styles.

*Ellen Martin, PhD
Columbus State University GA*

There are a myriad of instructional strategies that physical education teachers use to present information to students. The most prominently used and accepted strategies (styles) are drawn from Mosston's Spectrum of Teaching (Cothran & Kulinna, 2006) where learners are afforded a full range of educational opportunities to explore. When the style used by the teacher connects to the needs and interests of the students, there is enhanced learning. Thus, teachers use the Spectrum of teaching styles to incorporate the individual attributes of different teaching methods in clear, unambiguous terms and accentuate the relationship between the styles rather than their differences.

The framework of the Spectrum incorporates different teaching styles based on the degree to which the teacher or the student assumes responsibility for what happens in a lesson. This describes a continuum, where at one extreme is the direct, teacher-led approach and at the other end is the more creative student-centered style where the learner takes most responsibility for their learning.

The fundamental principle of the Spectrum of Teaching Styles is that teaching is a chain of decision making (Mosston & Ashworth, 2002). The extent to which the teacher and learner make decisions will vary based on the objectives for the lesson. Mosston established a framework to describe that decision-making process in terms of who makes the decisions and when they are made and what purpose is served.

He grouped the decision-making process into three phases governing teaching that he labeled pre-impact, impact and post-impact. The pre-impact phase involves decisions made during planning the lesson to include objectives, instruction and assessment. The impact phase includes the actual implementation and execution of the lesson plan while the post-impact phase assesses the effectiveness of the lesson as well as student performance. Teachers use the various styles in making decisions about what is in the best interest of the student for a particular lesson. The premise being that no one style is better than another but each style simply serves different purposes in creating a dynamic, effective classroom.

Effective teaching involves the teacher clearly communicating to the student the objectives of the lesson so that expectations are evident. Each style creates different learning. One prominent strategy used in this cluster of styles is the use of task sheets and/or tasks. Therefore, the purpose of this article is twofold: (1) to provide physical education teachers with a rationale and background for tinkling, and (2) to provide practical examples of the various styles using the content of tinkling (see task sheets).




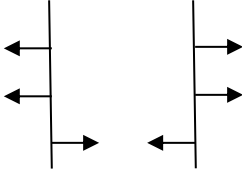
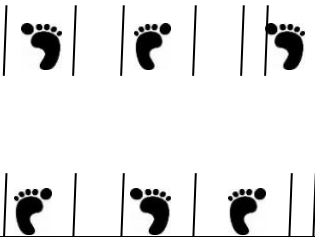
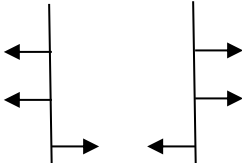
Style B- Practice

Tinikling

	Rhythm	Steps	Sticks
3-Count	Out, Out, In	Run, Run, Hold	Pinch the poles
4-Count	In, In, Out, Out	Over, Over, In, In	Everybody watch Keep them low

Remember the cues we learned for Tinikling. They are listed above to help. Today, you will have eight stations to complete. I will assign you a partner and a starting station. When I say, “go,” you will complete the station on your own, practicing the skills we have learned in class. When I say “freeze,” record your results for that station, return the pencil to the holder, and hold one hand in front like a stop sign to signal you are done. I will tell you when to move to the next station and when to begin. I will walk around while you are doing the stations to provide feedback and to answer any questions.

Station	Accomplishment	Organization	Feedback
1. Practice the 4-count dance steps over the Tinikling poles. Begin with your feet on the outside of the poles and use the cues “over, over, in, in.”	How many times did you hit the poles?		
2. Practice the 4-count rhythm with the Tinikling poles using the cues “in, in, out, out.” Keep the poles low.	Did you keep the rhythm?		
3. Perform 4-count dance steps over poles using the cues “over, over, in, in” while other classmates move Tinikling poles in rhythm.	Could you do the steps with the poles in motion?		
4. Perform 4-count rhythm with Tinikling poles (low) using the cues “in, in, out, out” while other classmates perform dance steps over the poles.	Did you keep the poles low?		

<p>5. Practice the 3-count dance steps. Begin by standing on your left foot and using the cues "run, run, hold" over the Tinikling poles.</p>	<p>How many times did you hit the poles?</p>		
<p>6. Practice the 3-count rhythm with the Tinikling poles using the cues out, out, in.</p>	<p>Could you hear "We Will Rock You?"</p>		
<p>7. Perform the 3-count dance steps over the poles using the cues run, run, hold while other classmates move the Tinikling poles.</p>	<p>Could you do the steps with the poles in motion?</p>		
<p>8. Perform 3-count rhythm with Tinikling poles (low) using the cues out, out, in while other classmates perform dance steps over the poles.</p>	<p>Did you keep the poles low?</p>		

Style C

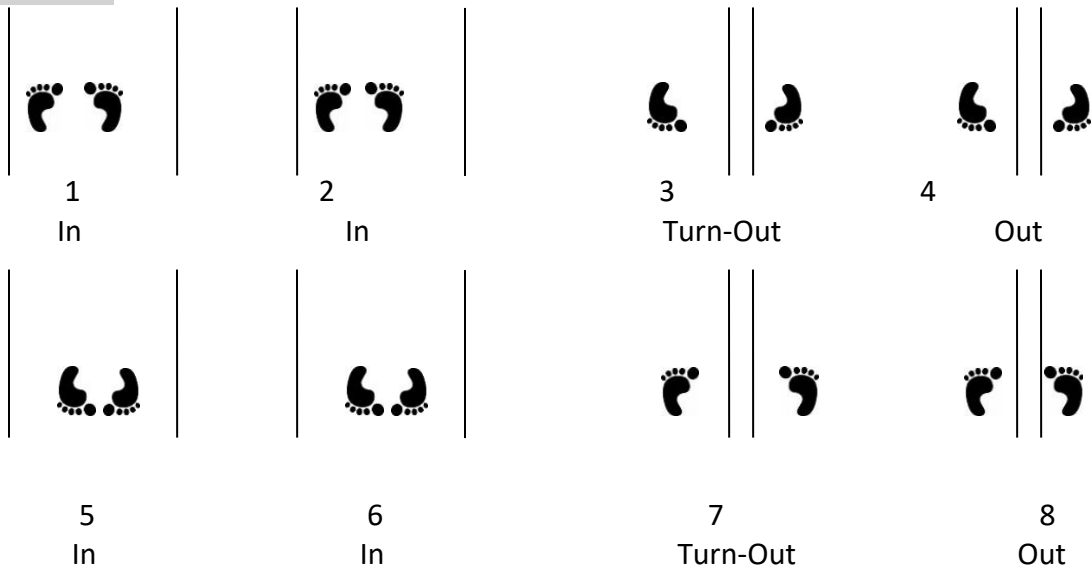
Tinikling

Dancer: Choose the step you will perform. Practice a few times before performing for your instructor. Ask your instructor if you have any questions. Perform your chosen step 3 times. You will get to perform three different steps of your choice as part of class today.

Instructor: Observe your dancer as he/she practices his/her chosen steps. Give your dancer pointers if he/she needs help. Record your dancer's performance on three attempts on the sheet provided. After each attempt, give your dancer a constructive comment. Ask the teacher if you have any questions.

Teacher: I will walk around the room and observe you in your different roles today. I will only communicate with the instructor at the time I come by.

About-Face



Possible Comments:

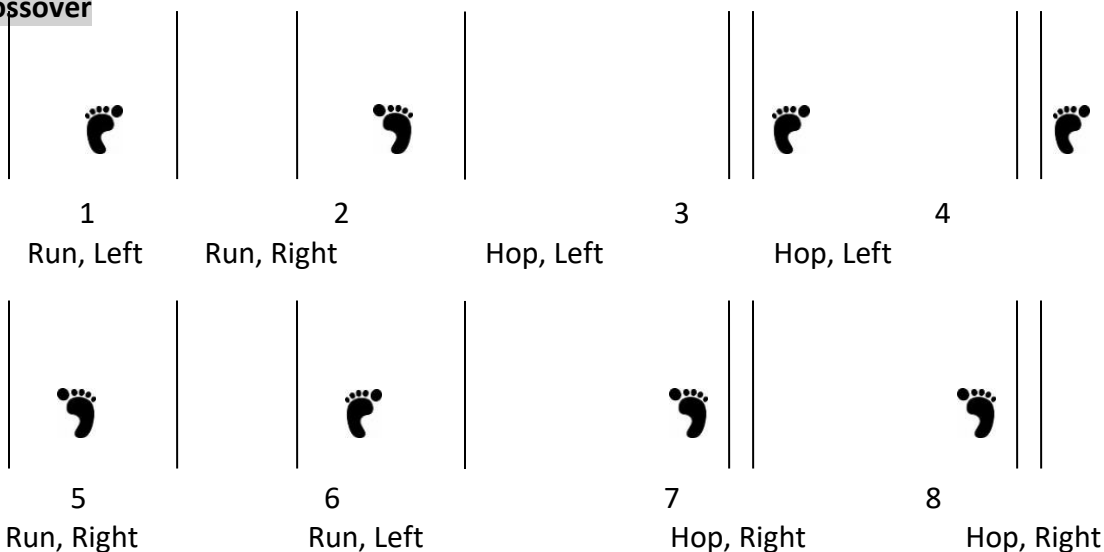
Good job lifting your feet.

You remembered the steps well.

Instructor - Circle the best answer for each of your dancer's attempts.

Observe	Name:			Name:		
	Attempt 1	Attempt 2	Attempt 3	Attempt 1	Attempt 2	Attempt 3
Dancer performed steps correctly	Y N	Y N	Y N	Y N	Y N	Y N
Dancer lifted feet high over poles	Y N	Y N	Y N	Y N	Y N	Y N

Crossover



Possible Comments:

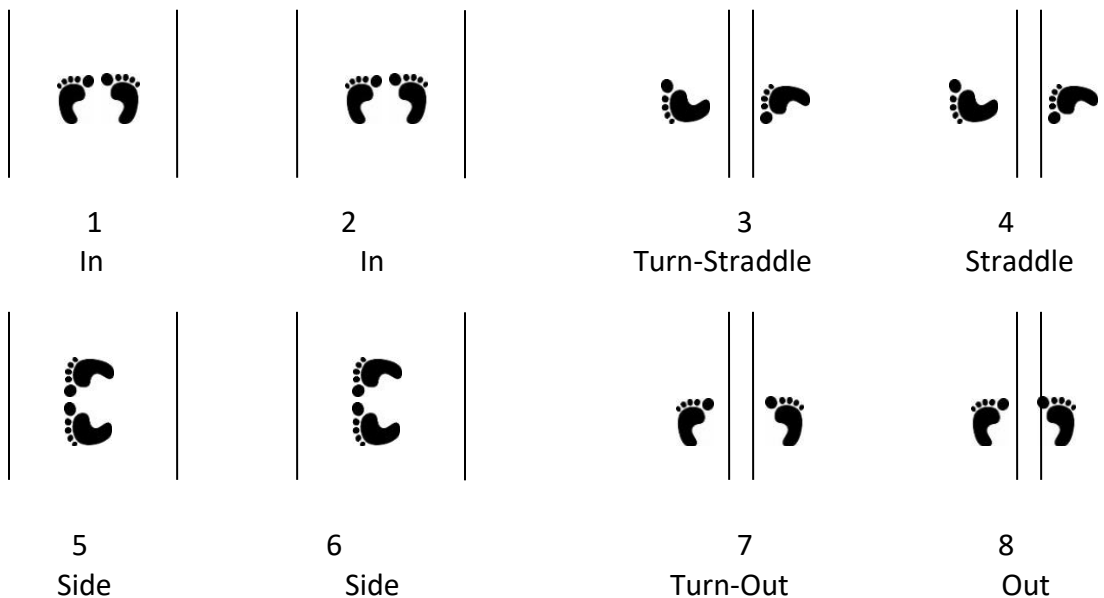
Good job lifting your feet.

You remembered the steps well.

Instructor - Circle the best answer for each of your dancer's attempts.

Observe	Name:			Name:		
	Attempt 1	Attempt 2	Attempt 3	Attempt 1	Attempt 2	Attempt 3
Dancer performed steps correctly	Y N	Y N	Y N	Y N	Y N	Y N
Dancer lifted feet high over poles	Y N	Y N	Y N	Y N	Y N	Y N

¼ Turn



Possible Comments:
 Good job lifting your feet.
 You remembered the steps well.

Instructor - Circle the best answer for each of your dancer's attempts.

Observe	Name:			Name:		
	Attempt 1	Attempt 2	Attempt 3	Attempt 1	Attempt 2	Attempt 3
Dancer performed steps correctly	Y N	Y N	Y N	Y N	Y N	Y N
Dancer lifted feet high over poles	Y N	Y N	Y N	Y N	Y N	Y N

Side-to-Side

1 Side

2 Side

3 Turn-Straddle

4 Straddle

5 Side

6 Side

7 Turn-Straddle

8 Straddle

Possible Comments:
 Good job lifting your feet.
 You remembered the steps well.

Instructor - Circle the best answer for each of your dancer's attempts.

Observe	Name:			Name:		
	Attempt 1	Attempt 2	Attempt 3	Attempt 1	Attempt 2	Attempt 3
Dancer performed steps correctly	Y N	Y N	Y N	Y N	Y N	Y N
Dancer lifted feet high over poles	Y N	Y N	Y N	Y N	Y N	Y N

Tinikling Steps

Students: Review the three different levels and decide where you would like to begin. You can practice basic steps, advanced steps, or create your own 8-count dance routine. Use the descriptions for each level to decide which steps you will perform. Predict how many attempts it will take you to do the 8-counts of your chosen routine correctly. Perform the steps while your partner moves the bands. Record how many attempts it takes to perform the steps correctly. You will do this four times. You may choose to do the same level or attempt another level.

Remember:

High steps over the poles
Careful foot position

Level 1: Practice basic steps by performing one of our three basic dance routines.

Run, Run, Hop, Hop
Out, Out, In, In
Side, Side, Straddle, Straddle

Level 2: Practice advanced steps by performing one of our three advanced dance routines.

About Face
Side-to-Side
Cross-Over

Level 3: Create your own 8-count dance routine making use of our cues.

Out	In	Side
Straddle	Run	Hop



Dance 1	Level Chosen: 1 2 3	Routine Chosen:
	Prediction: _____ Attempts	Actual: _____ Attempts
	If you choose level 3, what are your 8 steps?	

Dance 2	Level Chosen: 1 2 3	Routine Chosen:
	Prediction: _____ Attempts	Actual: _____ Attempts
	If you choose level 3, what are your 8 steps?	

Dance 3	Level Chosen: 1 2 3	Routine Chosen:
	Prediction: _____ Attempts	Actual: _____ Attempts
	If you choose level 3, what are your 8 steps?	

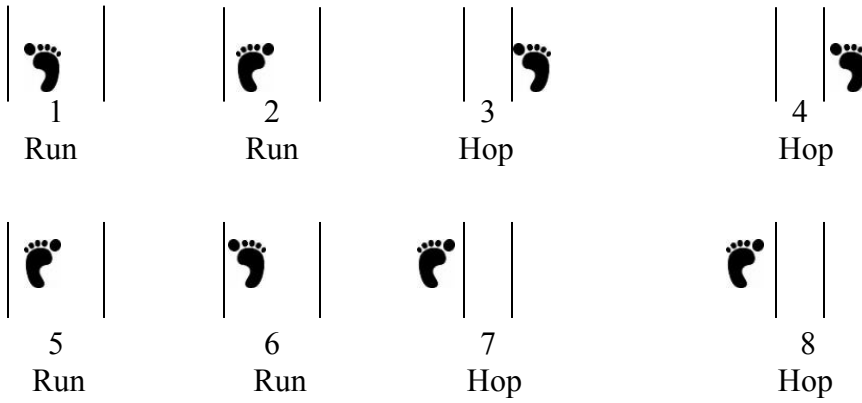
Dance 4	Level Chosen: 1 2 3	Routine Chosen:
	Prediction: _____ Attempts	Actual: _____ Attempts
	If you choose level 3, what are your 8 steps?	

Tinikling Step Cues:

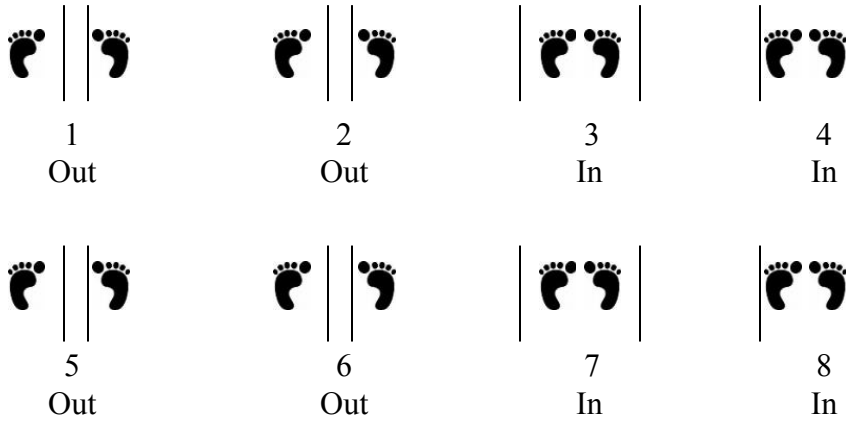
Out	In	Side
Straddle	Run	Hop

Level One Dance Routines

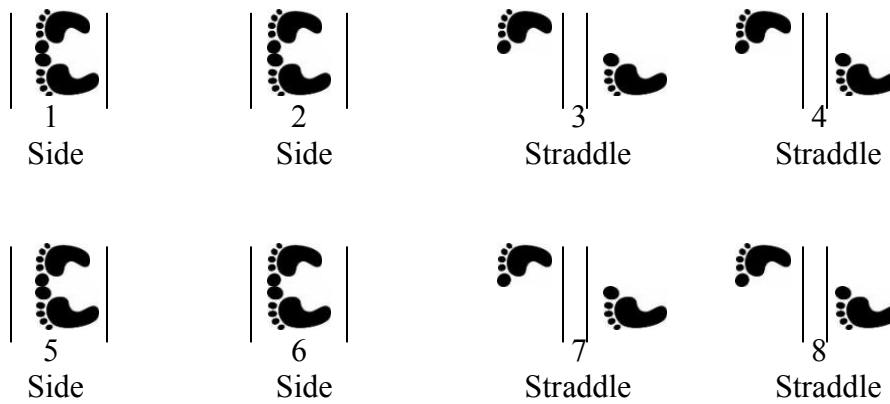
Run, Run, Hop, Hop



Out, Out, In, In



Side, Side, Straddle, Straddle



Level Two Dance Routines

About Face



1
In



2
In



3
Turn-Out



4
Out



5
In



6
In



7
Turn-Out



8
Out

Side-to-Side



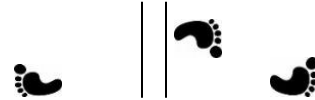
1
Side



2
Side



3
Turn-Straddle



4
Straddle



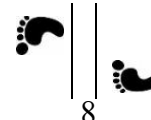
5
Side



6
Side



7
Turn-Straddle



8
Straddle

Cross-Over



1
Run



2
Run



3
Hop



4
Hop



5
Run



6
Run



7
Hop



8
Hop

Style H

Tinikling

Your role today is to create your own Tinikling step routine. You may choose from one of the options listed below:

Option 1: You have five minutes to review all the step patterns we have covered. Choose from the steps listed below to create your own 48-count step routine. You must have at least three different step patterns in your routine.

About Face

Out, Out, In, In

Cross Over

Side to Side

Run, Run, Hop, Hop

Side, Side, Straddle, Straddle

$\frac{1}{4}$ Turn

List your step patterns and the order performed.

Option 2: You have five minutes to create your own 48-count step routine. You must have at least three different step patterns in your routine. This allows you to create your own step patterns and name them.

List your step patterns and the order performed.



RESEARCH ABSTRACTS

FALL CONFERENCE 2021

Sickle Cell Disorder in High School Athletes

*T.A. Coppus, L.K. Delinsky, M. Moore, C.R. Welch & S.S. Freeman.
Troy University, Troy Alabama.*

Purpose: The purpose of this investigation is to educate coaches, parents, and student athletes on the importance of identifying sickle cell disorder in the athletic population. Sickle cell trait (SCT) is an inherited condition that can result in a structural deformity of the red blood cells. This condition is most often seen in the African-American population. Although it is usually a benign condition, under certain stressors such as extreme exertion, dehydration, asthma or high elevation, sickling can occur in SCT positive individuals.

Methods: The researchers systematically reviewed extensive literature on sickle cell disorders via the CINAHL, SPORTDiscus, and MEDLINE databases. Information on the causes, physiological effects, management protocols, and risks associated with participation in sports were compiled to determine the need for awareness in high school athletics. All findings were provided by peer-reviewed journals and the NCAA Health Education Center.

Results: There have been several sudden deaths due to SCT, especially in higher level football athletes. Sixty-three percent of all deaths in DI football during 2000-2010 were attributed to sickle cell trait. For this reason, in 2010 the NCAA adopted a policy requiring sickle cell testing for all Division I athletes and Division II and III later adopted the policy. The secondary school athletic population leads the nation in athletic-related sudden deaths. There are currently no requirements for sickle cell testing in secondary school settings, however sickling-related deaths account for up to 5% of all traumatic deaths in high school.

Conclusions: It is important for all coaches, athletic trainers, student-athletes, and parents to be educated on sickle cell trait, especially when dealing with high intensity sport athletes. At the high school level, sickle cell screening should be considered, and policies need to be created to prevent sudden death. Screening allows for preventative measures to be put into place to prevent potentially serious problems for a student-athlete with sickle cell trait.

The Importance of Having a Full-Time Athletic Trainer in the High School Setting

*L.K. Delinsky, T.A. Coppus, K. Upton, & L. Perkins.
Troy University, Troy, Alabama.*

Purpose: The purpose of this investigation is to inform coaches, parents, students-athletes, faculty, and administrators on the importance of having a full-time high school athletic trainer on staff at their school.

Methods: The authors reviewed a large amount of literature on the importance of high school athletic trainers and their role in assisting student-athletes. Using EBSCObase and SPORTDiscuss, the authors searched under key words “high school” and “athletic trainer.” Limitations were set to search for articles written between 2010 and 2019.

Results: Approximately 80% of high schools do not have a full-time athletic trainer. In addition, when a full-time athletic trainer is not present, student-athletes run the risk of playing while hurt. Because coaching staffs may not know the warning signs for cardiac arrest, or other potential life-threatening events, an on-site athletic trainer would be able to provide immediate care and activate the emergency action plan.

Conclusion: Employing a full-time athletic trainer in high school is imperative. They can develop emergency action plans and monitor field, environment, and weather conditions. Additionally, they can coordinate injury prevention programs, prepare student-athletes for practice and games, communicate with physicians about injuries, treat and rehabilitate injured student-athletes, and help formulate return-to-play protocols for injured student-athletes.

"Approximately 80% of high schools do not have a full time athletic trainer".



Sex Differences in Response to Non-Traditional Resistance Training: A Literature Review

M.S. Green, J.B. Sluder, L.K. Delinsky, T.A. Coppus, G. Roca, D. Harrison, & G. Stacks. Troy University, Troy, AL.

Purpose: The purpose of this study was to investigate the effects of non-traditional resistance training (NTRT) on muscular strength and hypertrophy in males and females.

Methods: A literature search was conducted using SPORTSDiscus and MEDLINE databases. Key terms for the search included: resistance training AND hypertrophy AND male and female differences AND eccentric training AND blood flow restriction training AND strength and high frequency AND high frequency AND pre-exhaustion resistance training. Articles were considered for inclusion if published within the past 20 years, included both males and females, and provided results for muscular strength and hypertrophy in response to NTRT techniques.

Results: Pre-exhaustion advanced resistance training showed no significant differences in strength and body composition when compared to traditional resistance training. High frequency, low load blood flow restricted training to volitional failure showed gains in muscle CSA of rectus femoris, vastus lateralis, and total quadricep from baseline by $6.2 \pm 6.4\%$ ($p = .004$), $2.4 \pm 2.7\%$ ($p = .007$), and $1.2 \pm 1.8\%$ ($p = .04$), respectively. High frequency strength training compared to low frequency strength training resulted in similar changes in lean mass (HFT $1.06 \text{ kg} \pm 1.78 \text{ kg}$, LFT $.99 \text{ kg} \pm 1.31 \text{ kg}$; $p > .05$).

Conclusions: NTRT could possibly be employed to elicit similar, if not greater, adaptations in males and females. However, the understanding of NTRT techniques is vague, especially when both sexes are examined.



"Pre-exhaustion advanced resistance training showed no significant different in strength and body composition when compared to traditional resistance training".

Advocating Dry Needling by Athletic Trainers and Physical Therapists in Injury Rehabilitation and the Barriers Preventing its Application

J.B. Sluder, M.S. Green., T.A. Coppus, L.K. Delinsky, C. Addison, M. Loudior, & D. Hameed. Troy University, Troy, AL.

Purpose: The purpose of this study is to advocate for the more widespread implementation of dry needling as a modality for rehabilitation. The authors seek to illuminate the misconceptions and barriers that restrict the use of this technique in Physical Therapists, Athletic Trainers, and other allied health professions.

Methods: The authors reviewed the latest peer reviewed research literature comparing the effects of dry needling to that of common rehabilitation practices.

Results: The results of the research revealed a far more positive depiction of the technique than commonly believed. The literature reports increased range of motion, quality of life, cost effectiveness, and cessation of chronic pain from several orthopedic and general medical conditions.

Conclusion: Implementation of dry needling within typical orthopedic rehabilitation programs has reported decreased perceived chronic pain and increased range of motion. Research also suggests potential benefits in general medical conditions such as strokes. This technique holds comparable positive effects when compared to its conventional counterparts. The curriculum for Athletic Trainers provides the same skill set to perform dry needling as Physical Therapist.

"Implementation of dry needling within typical orthopedic rehabilitation programs has reported decreased chronic pain and increased range of motion."

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ASK THE EXPERT

SPORT NUTRITION FOR YOUNG ATHLETES

DR. ERIC PLAISANCE

Q: What is nutrition and why is it important?

Nutrition refers to the biochemical and physiological processes whereby humans ingest, absorb, assimilate, metabolize, and excrete nutrients for the purposes of growth, maintenance, and reproduction. Nutrition addresses both the acute (e.g. energy sparing and energy production) and chronic (e.g. growth and repair) and thus has significant impact on performance and recovery.

Q: What are the benefits of sports nutrition for youth athletes?

Youth athletes are an often forgotten age group when it comes to Sports Nutrition. This is primarily due to the fact that youth sports often do not achieve the “big business” status that collegiate and professional sports have garnered. Nonetheless, the benefits of proper nutrition for youth athletes cannot be understated. In fact, evidence from studies such as those conducted by Yeargin and colleagues, *Nutrients*, 2021 show that American youth football players are often hypohydrated prior to practices and had abnormal eating habits prior to competition.

Q: What can coaches do to help athletes with nutrition?

The most important thing that coaches can do to help athletes with nutrition is to understand the complexities and barriers young athletes face when it comes to obtaining proper nutrition. First, young athletes have little control over the family budget/choices when it comes to the quality and quantity of foods acquired and that are available. Socioeconomic and other factors often contribute to significant disparities in dietary consumption which can influence performance in some cases. Coaches have a responsibility to fully understand their players and if nutrition is a concern, it would be pertinent to seek assistance from a Sports Dietician to assist the athlete and their family (of course with the family’s consent). Coaches should also carefully track physiological parameters such as body weight and performance measurements (such as strength, endurance, and power). Changes in performance (good or bad) are generally a reflection of the conditioning program and nutrition. Thus, if a coach notices significant changes in performance, it may signal a requirement for closer inspection of each of the factors that contribute to performance, including diet.

Q: What should youth athletes avoid consuming and why?

The most important thing that youth athletes should avoid consuming are sugar-laden sports and energy drinks. With the availability of sugar free options, there are now healthy alternatives sugar-laden sports drinks. Furthermore, energy drinks primarily contain high levels of caffeine and several other compounds that are poorly understood when it comes to understanding how they interact together.

Q: How do athletes plan nutrition?

a. What should athletes do to prepare for a game?

One of the greatest misconceptions is that nutrition for game preparation only includes the “pre-game” meal. Nutrition should align with practices as proper nutrition enhances performance during practice when important skills and conditioning are underway. Practice-related improvements naturally provide the greatest capacity for maximizing game time performance. Nonetheless, what one should consider when preparing for a game is, what are the weather conditions, what is the game time, and is your athlete participating in multiple games or matches?

A general rule of thumb is to consume food about 2.5 – 3.5 hours prior to competition. The meal should consist of low-fat proteins and contain moderate amounts of carbohydrate and low amounts of fat. The athlete should consume food until feelings of fullness are achieved. The combination of proteins, fats, and carbohydrates provides for slow absorption and allows a steady flux of energy during competition.

b. What should athletes do during a game?

The primary goal during competition is to remain hydrated with water. During prolonged competition over 1.5 hours, particularly in hot/humid environments, it may be necessary to occasionally provide a light carbohydrate snack in the form of a fluid or gel (8% v:v). Drinks containing greater concentrations of carbohydrates have the potential to cause gastrointestinal disturbances.

c. What should athletes do after a game?

Within the first 2 hours following competition, it is important to re-fuel the body. The meal plan should consist primarily of moderate amounts of carbohydrate and protein with limited dietary fat. The goal is to replenish liver and skeletal muscle stores of glycogen in preparation for the next competition or practice. It is also critical that athletes continue to consume a balanced diet in the hours that follow competition to ensure that they are meeting the needs required for growth and repair. Lastly, one of the most overlooked portions of the recovery process is rest, including sleep. There is little consensus on the number of hours of sleep, but it is clear that quality of sleep is key from a physiological perspective.



Q. What is the most common misconception about sport nutrition?

The most common misconception about sports nutrition is the use of sports drinks. Unless exercise extends beyond 1-1.5 hours in a hot and humid environment, there is little need for sugar-laden sports drinks. Water will suffice and satisfy hydration needs. First generation sports drinks often contain copious amounts of sugar which physiologically works against the athlete. By consuming high amounts of sugar during competition, athletes can experience a rise in the hormone insulin in response to sugar. Physiologically, during exercise and sport, insulin levels lower to allow the mobilization of fats as a fuel. This helps to spare stored levels of glucose in the liver and muscle in the form of glycogen. By sparing glycogen during the early phases of competition, glycogen levels will be available during the latter phases of competition, often where higher intensity efforts or fatigue are required. Sparing glycogen can thus have a significant impact on performance and cognitive function.

Q: Do you have a personal story you can share about an athlete(s) you have worked with on their nutrition?

One of the more intriguing observations I have made was working with the Women's soccer team at UAB. We observed that consuming protein in moderate amounts of between 15 to 30 g, with sufficient frequency to supply predicted need and while in a state of energy balance > -300 kcal, was significantly associated with lower body fat mass even after adjustment for total body weight (Delk-Licata A et al, Int J Sports and Exercise Med, 2019).

Practically speaking, our findings demonstrated that several players were consuming protein below recommended amounts and often at a single meal or no more than two meals. Our findings highlight the important relationship between moderate protein intake, consumed throughout the day, to minimize body fat.

Q: Where can coaches and players find quality information on sport nutrition?

The guiding body on sports nutrition is the Academy of Nutrition and Dietetics (AND). AND provides numerous tips on sports nutrition (e.g. <https://www.eatright.org/fitness>) for both youth and adult sports. It is also recommended that coaches and parents of players reach out to local universities with University Nutrition Departments. Certified Sports Dietician's often have service requirements as a condition of their appointment and may be willing to conduct trainings for coaches and parents as a service opportunity.

Dr. Eric Plaisance received his Ph.D. in Exercise Physiology from Auburn University in 2006 where he specialized in exercise and lipid metabolism. He is currently Associate Professor of Exercise Physiology and Chair of the Department of Human Studies at UAB. He has had a life-long passion for sports nutrition and exercise and has been heavily involved in UAB's Sports Nutrition program. He has mentored numerous Sports Dietician's who serve UAB Athletics and frequently consults about nutrition and conditioning for youth athletes.

You Should Write a Practitioner Article for the ASAPERD Journal

Claire Mowling, EdD. University of Alabama at Birmingham

As professionals one of our charges is to guarantee that all Alabama State Association for Health, Physical Education, Recreation, and Dance (ASAPERD) members have the latest information about current issues and hot topics in the field. This new knowledge is intended to inspire practitioners to upskill and implement best practices. The ASAPERD Journal is a great place to share the latest evidence-based practices. This article is part one of a two-part series directed towards professionals interested in publishing in the ASAPERD Journal. The purpose of this article is to provide guidelines to prospective authors seeking publication of practitioner focused pieces. Part two will provide author guidelines for research articles using the IMRAD format.

What is the ASAPERD Journal?

The ASAPERD Journal is a scholarly peer-reviewed journal. The journal publishes articles in both practitioner and research formats. The goal is to provide professionals with the latest ideas, tools, and research in the field.

Typically, articles are from the following areas: health, physical education, adapted physical education/activity, dance, athletics/coaching/sports, sport & exercise science/fitness, recreation/physical activity, higher education, and future professionals.

The journal is published twice a year; fall/winter and spring/summer. The current ASAPERD journal is available on the website at www.asahperd.org and past volumes are available through the member portal. Each journal includes a message from the president, several practitioner and research articles, ideas and tips corner, ask the expert, professional development opportunities, advertisements, and author guidelines. All future journals will be published using a digitally interactive flipbook that provides more readability, downloading capabilities, and sharing opportunities through a variety of social media platforms.

What Practitioner Articles are published in the ASAPERD Journal?

The ASAPERD Journal is focused on publishing new and innovative ideas that contribute to the field.

Practitioner articles are supported by the latest research and offer readers new ways to implement current strategies. Articles provide suggestions that can immediately be used in the workplace. Such articles are great for faculty assigning readings in courses, undergraduate students completing clinical experiences, graduate students designing research, new professionals refining skills, seasoned professionals looking for new ideas, leaders seeking more about their employees' field etc. Content of the article should hook the reader early and engage readers using vignettes, stories, scenarios, examples, graphics, templates, forms, resources etc. Reading recent issues of the ASAPERD Journal will help prospective authors learn about the wide range of topics along with examples of ways the content was constructed to interest the reader. Articles should be clearly presented, in logical order, use simple jargon free language, and follow Publication Manual of the American Psychological Association guidelines (American Psychological Association, 2020).

For further submission guidelines consult any current or past journal. If unsure whether your idea is a good fit, send an email to asahperd.journal@gmail.com outlining the proposed article. The editor will provide feedback on the suitability of the topic. The editorial board and reviewers are responsible for safeguarding the purpose of the journal and ensuring articles published in the ASHPERD Journal are supported by the latest peer-reviewed literature.

Steps for Writing a Practitioner Article

The steps in the figures are divided into three sections, and it is advised to follow them in order. Begin with (1) planning, followed by (2) writing and (3) review.

What Happens During the Review Process?

The ASHPERD Journal has an open submission policy meaning anyone can submit a manuscript for consideration at any time throughout the year. Occasionally the editorial board may invite professionals to prepare an article on high interest topics in their area of expertise. The ASHPERD Journal uses a three-stage review process. Upon submission, the editor will decide if the manuscript matches the journal's purpose and intended audience. The editor does not assess quality of the submission during this time.

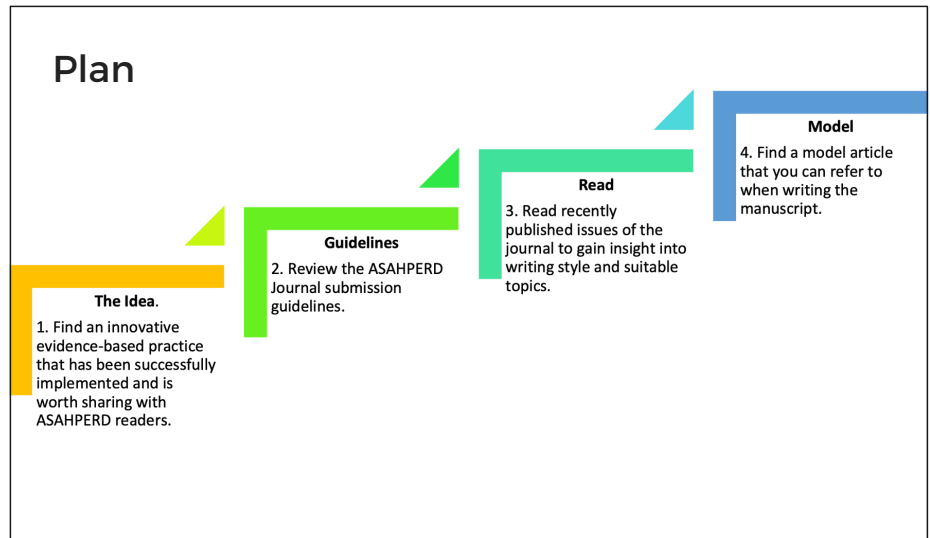


Figure 1: Planning steps for your manuscript

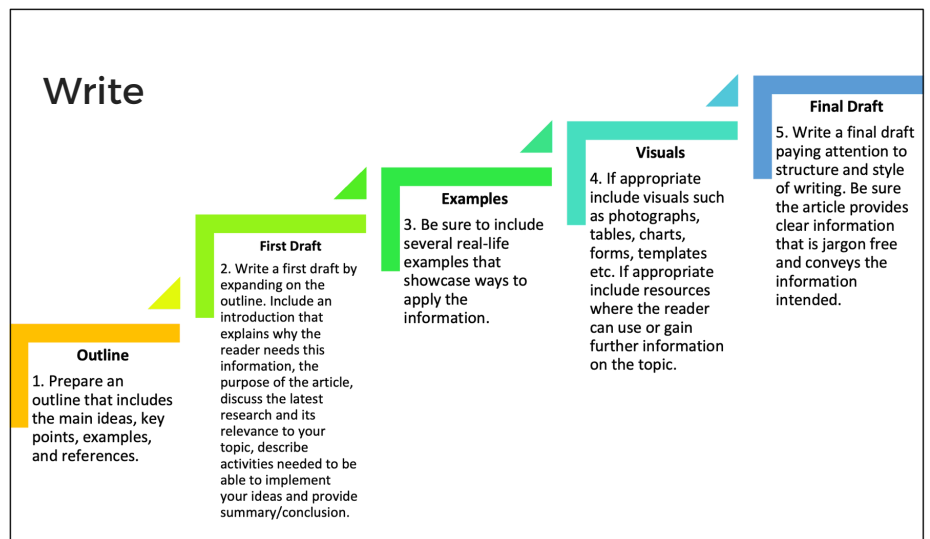


Figure 2: Writing steps for your manuscript

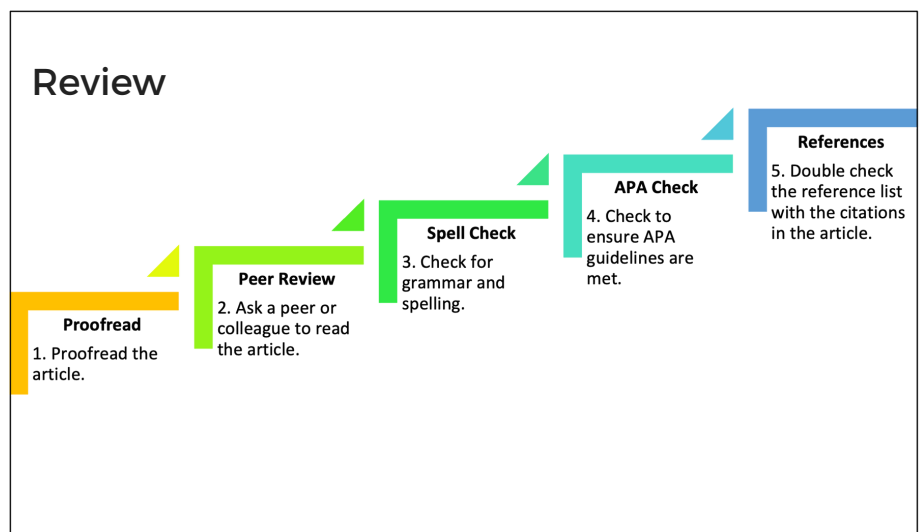


Figure 3: Reviewing steps for the manuscript

If the manuscript is deemed not acceptable for publication in the ASAPERD Journal, the author will receive an email of rejection from the editor. If the manuscript is appropriate, it is sent to at least two reviewers who have expertise in the area. During blind review, peer reviewers assess the manuscript for audience, innovation, relevance, evidence of current research, practical application, writing style, and APA formatting. As the author(s) you will not know who reviewed your manuscript, but all names of the reviewer's are printed in the journal. Reviewers will provide specific suggestions to author(s) to improve the overall quality of the manuscript. At this time, reviewers will recommend accepting the manuscript as written, accept with minor revisions, major revisions, reject and encourage re-submit or reject. The editor then performs an independent review and writes a decision email to the author(s) that provides constructive feedback and suggested changes. Acceptance is contingent on the author(s) making the changes. If changes are not made, the manuscript will not be published. Once accepted the manuscript will be checked and the editor will work with author(s) on permissions and releases and any final changes.

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Why Write for the ASAPERD Journal?

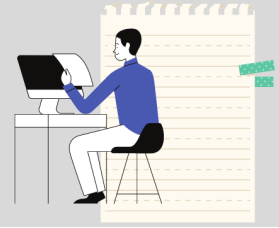
Anyone can write for the ASAPERD Journal. If you have an innovative idea to share with others consider sharing it through the journal. The current journal is available to everyone while past issues are archived for members. Publishing ensures that your ideas reach many professionals. Your practical articles will provide useful information to others in the profession. No matter what your current role, consider ideas of interest and start writing for the ASAPERD Journal now.

References

American Psychological Association (2020). *Publication manual of the American Psychological Association 97th ed.*. Washington, DC: Author.



PUBLISHING IN THE ASAHPERD JOURNAL



The ASHPERD Journal is looking for articles that communicate theory, research and practice in an ASHPERD (health, physical education, recreation, or dance) discipline. Acceptable topics include teaching techniques; research; Alabama state resources and services; meeting Alabama state or national standards; philosophy; advocacy and policy appropriate for Alabama; and reviews of web resources, books, and audiovisuals. The current schedule for publication is spring and fall. Acceptance of articles for publication is ongoing.

Manuscripts must meet the most current APA Guidelines, be submitted electronically as a word document in portrait configuration (not landscape), include an abstract, and not exceed 3000 words or 10 pages double-spaced, Times New Roman, and 12 font. Headers should be centered, and sub headers left justified. Do not insert any extra blank spaces or special formatting. Line numbers must be visible down the left hand side of the manuscript. The abstract should be 50 words or less. Please include a cover letter with your credentials (student or faculty and your university affiliation or place of employment) and stating the article is not being considered for publication elsewhere. Manuscripts should be submitted to the journal editor, asahperdjournal@gmail.com.

Pre-professional undergraduate and graduate student submissions must be accompanied by a letter on official University letterhead from a faculty sponsor (even if NOT listed as a co- author) that they have reviewed the paper and vouch that it is in a condition worthy to be submitted to a peer-reviewed journal. We are requesting faculty sign and provide their contact information for an undergraduate or graduate student to ensure that the work is of high quality and was produced as part of a guided experience.

Ideas & Tips Corner

The Ideas & Tips Corner features short articles about one specific practical area of interest in physical education, health, recreation, exercise science or dance. Articles contain a brief introduction, followed by practical information, and steps to success that can immediately be implemented in the appropriate environment. The ASHPERD editorial team encourages members who value the sharing of knowledge to promote positive change in our field to submit a short article for the ideas & tips corner. Submissions should not exceed 1,000 words.

Ask the Expert

Ask the Expert features a short interview, questions and answer style article highlighting one area of interest to the audience. The expert seeks to provide the reader with background and practical information that can be applied. The ASHPERD editorial team encourages experts to reach out to the journal to be considered for an 'ask the expert' segment in future journals. Alternatively, Individuals may nominate an expert in the field.

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KEYNOTE SPEAKERS

1st General Session - Monday, February 14

Steven J. Petruzzello, Ph.D., University of Illinois
Urbana-Champaign, "Physical Activity and Mental Health."



2nd General Session - Tuesday, February 15

Michelle Hutchinson, DMD, Centers for Disease
Control and Prevention, "Re-imagining Health Literacy:
Keeping Our Focus and Moving Forward."



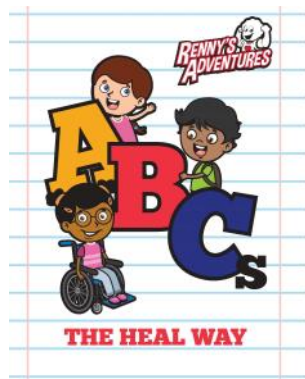
Featuring the HEAL United Reading Literacy Workshop Tuesday, February 15 beginning at 10:00 - Lunch Provided!

Presented by Sonya Yates, a Certified Academic Language Therapist and National Board Certified Teacher; Ms. Yates holds certifications in special education, psychometry, and instructional leadership. Sonya's statewide appointments include roles with the Alabama Literacy Task Force, Committee on Grade Level Reading, and Dyslexia Advisory Council.

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Our high quality, traceable, dry-erase "ABCs the HEAL Way" book and hard cover, read-aloud "The Ultimate Treasure Hunt" as well as coloring workbooks will be provided at no cost as long as supplies last.

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PROGRAM INFORMATION

Go to asahperd.org/hpl-summit for session titles and descriptions.

HOURLY BREAKOUT SESSIONS

- Sunday 1:30 pm - 5:00 pm
- Monday, 10:00 am - 5:15pm
- Tuesday, 10:00 am - 5:15 pm

RESEARCH POSTER SESSIONS

- Tuesday, 11:15 am - 12:15 pm
- Tuesday, 1:45 pm - 2:45 pm

COVID-19 PROTOCOL

The Summit organizers take the health, safety, and well-being of our attendees very seriously and will keep this at the forefront of our decision-making. At this time, we plan to hold the Summit in Birmingham. We will continue to monitor CDC guidelines as well as local policies and conditions in the coming weeks. *All attendees will be required to wear masks* at the Summit at all times (except while actively eating/drinking). Presenters will be required to wear their masks while presenting.

- Attendees are encouraged to wear KN95, KF94, or N95 quality masks or double-mask if using cloth masks, surgical masks, paper masks, or gaiters which some experts find to be less effective.
- Masks must cover the mouth and nose.
- Individuals who have a documented disability which precludes the wearing of a mask may request a modification to mask policies. Please contact Donna Hester at dhester@asahperd.org to discuss modifications to mask policies.

See complete COVID-19 protocol at www.asahperd.org/hpl-summit.