

The Virginia Journal



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President's Message

Kerry J. Redican

We are looking forward to our November 9, 10, and 11 annual convention at the Hyatt Regency Reston (Town Center). This is one of the more popular locations for our VAHPERD convention. The theme for the convention is "Make it Happen." As I have emphasized over the past year, if we are going to advance health, physical education, recreation and dance we the ones who are going to have to "make it happen." Our work collectively will result in positive gains locally, statewide and nationally.

The convention program is designed to provide you with content and tools to make it happen. Dr. Larry K. Olsen, Associate Dean at New Mexico State University will be presenting an important message "Get Involved, Stay Involved, Make a Difference!" His inspiring keynote will be a great way to end Friday and a good start to our weekend programs. Dr. Olsen is a dynamic speaker with over 40 years of working to "make it happen!"

The convention program is filled with multiple opportunities to lean, grow and have fun. There is something for everyone - workshops, presentations, dances, casino night and prizes! The convention didn't just happen by itself. It took the hard work of your Board of Directors as well as colleagues who have worked tirelessly over the past year to organize this quality experience. Convention manager, Judy Johnson, Past Presidents Judy Clark and Bob Davis have all devoted countless hours to making sure it all comes together.

The convention also means elections. We have some fine colleagues running for office who have a solid understanding of VAHPERD and through their leadership will bring a fresh, new perspective to VAHPERD. On behalf of myself and the Board of Directors, we are looking forward to seeing you all in Reston!

Past-President's Message

Judy Clark

If you haven't made your reservations for the 2007 Convention, what are you waiting for? You have a lot to miss if you are not there. My year has been spent getting all of this ready for you. Our past Vice-presidents have found tremendous speakers from all over the country. We also have great members who are giving you a look into great programs they are part of.

We have over 115 sessions this year - how many can you be at? There is a pre-convention workshop on Trifit that will be held Friday morning. Our exhibits will have a grand opening on Friday at Noon. At 1:00 we begin our sessions with a choice of 9 or 10 every hour through Sunday at noon.

This year we will also have Healthy Connections - a health fair with information and examples. This one's for you - not for you to think about. There are three general sessions - with our keynote speaker, honoring our best and our brightest, and enjoying the rewards of coming to convention. Make sure you stay for the Closing General Session - that's our give away session. There's just one rule: must be present to win.

The Dance Division will host Kaleidoscope again this year, but you will have your chance as well. We will have our second annual ballroom dance competition right after Kaleidoscope. Come and dance as the STARS! Come and help choose the winners.

Our evenings will be filled with fun and activity. Come try your luck. Come shake a tail feather. Come and be seen. Come and make it happen. We're all waiting to see you!



Kerry Redican and Steve Ames
Making it Happen

Lesson Ideas from Dr. Charlotte Guynes, Lynchburg College

INVISIBLE BUGS

- Grade:* 4-8
- Equipment:* blowing bubbles, paper, dry powder/talc, soap, water, dry powdered paint, sheet of sticky colored dots/stars
- Objective:* to illustrate how germs travel
- Method:* Begin by explaining how immunizations reduce the likelihood of becoming infected with diseases such as small pox, measles, mumps, etc. Give a group of students a colored dot to stick on their forehead. Explain that the dots will indicate immunity. Select another student to be *Chicken pox Joe* (or another name if there is a Joe in class), and stick colored dots all over his face. Joe (or selected name) is instructed to move about the class touching other students on their hand to “infect” them since they have **no dots**. Since they have no immunity to the germ, they will become sick.
- Blow bubbles into an open space to indicate how germs spread by “droplets.” So that the students can actually see the droplet infection occurring, spread a sheet of paper in front of the bubble blower to catch the “droplets” and indicate how the germs spread in the air.
- Another demonstration of germs spreading will require the students to rub their hands in the powdered paint or flour/talc. When the hands are covered well they can touch their face, forearm, or the floor to transfer it to other places. The visibility of these hand prints indicates infection has taken place. Now have the students use soap and water to wash their hands or other body parts and items they touched. The soap and water will simulate a disinfectant that is responsible for getting rid of the unwanted germs we cannot see, boosting our immune system and reducing our risks for becoming ill.
- Lesson Focus:* This activity helps students understand how important it is to keep our immune system healthy so it can fight off the “invisible bugs” that can make us sick.

A FROG’S LIFE

- Grade:* 3-5
- Equipment:* party blowers, Velcro, small buttons, logs, blue sheet
- Objective:* to identify important environmental factors
- Method:* Use 1/2” buttons or smaller to simulate “bugs” for the frogs, and scatter them about the pond area. Take a few logs and blue sheet folded creatively to represent a pond where the frogs will come to catch bugs. Place Velcro dots on the end of each party blower and another dot on the bugs. The action of the party blower sticking to a bug will simulate how frogs catch bugs in the environment.
- Have the class discuss important environmental factors; habitat, population, sources of water, sources of food, and the food chain.
- Ask the students how the destruction of our environment can affect our health.
- To set the proper scene (habitat), have students hunch down like a frog and practice jumping around. Instruct the students to use caution when jumping around, and to avoid colliding with other “frogs.” Rotate small groups of “frogs” to the pond, and allow them to use the party blowers (simulating a frog’s tongue) with Velcro to catch bugs. Each frog will need to eat five bugs to remain healthy. When this group of frogs has caught their five bugs, rotate the next group of hungry frogs to the pond area.
- Now have student list factors that can either hinder or destroy life within our environment (fire, flood, earthquake, tornado, etc.), and how this affects us. Have the students describe how the world’s environment will play a significant role in our levels of health today, and for the generations to follow.
- Lesson Focus:* This activity will provide students with a greater awareness of the environment and how it can dictate our levels of health.
- Source:* adapted from Lynn Dominguez, Central Michigan University



Take The First Step: Fitness Challenge

By April Moore, MS, ATC, Physical Education Specialist

Physical educators are walking role models in our schools and in our communities. We strive to ensure the fitness development of our youth in attempts to make lasting impressions that will enable them to continue active, healthy lifestyles. As adults, that focus can get pushed aside with our busy and stressful lives and we forget to take care of ourselves. I wanted to shine the light on the importance of maintaining an active, healthy lifestyle to the faculty and staff at Dublin Elementary School (DES), we are also known as the Dublin Shamrocks.

To promote fitness month at DES, I challenged the faculty and staff to participate in my *Take The First Step: Fitness Challenge*. The challenge involved using a pedometer to record the number of steps taken on a daily basis for an entire month. I chose walking to get the faculty and staff moving because it can be accomplished at any age, fitness level, and it can be done with a friend. As always, it is recommended to consult a doctor before beginning an exercise program.

The challenge was to take 10,000 steps per day during the fitness month of May. Pedometers and calendars were given out to

record the numbers of steps taken daily along with explanations for their use. My goal was to not only get people moving, but to get them thinking to revisit their own health again. I provided throughout the month of May educational information via e-mail such as: the benefits of walking, strategies for taking more steps, and weekly websites to visit. At the conclusion of the challenge it was requested that the participants complete a short, anonymous survey about their experience with the challenge.

A total of 18 females participated in the challenge. Percentages of participants ages were as follows:

Ages 65 or older	® 5.6%
64-64	® 16.7%
54-54	® 44.5 %
44-44	® 11.1%
34-34	® 16.7%
18-24	® 5.6%

The following were questions and results of the Take The First Step: Fitness Challenge survey:

- | | |
|--|---|
| 1. Did this challenge get you thinking about your health? | 100% Yes |
| 2. Where do you see yourself in the following fitness categories? | 50% Somewhat out of shape 33.3% Somewhat fit 5.6% Fit |
| 3. How many days a week did you consciously make an effort to walk more? | 83% of the participants consciously made an effort to walk more 4 days or more a week |
| 4. Did you set a personal goal? | 83.3% Yes 16.7% No |
| 5. Did you meet your personal goal? | 56.3% Yes 43.8% No |
| 6. Do you feel better as a result of this challenge? | 88.9% Yes 11.1% Not sure |
| 7. Do you plan on continuing walking with a pedometer? | 61% Yes 16.7% No 22.2% Not sure |
| 8. Would you be willing to do classroom activities in cooperation with your physical education specialist using pedometers | 50% Yes 21.4% No 28.6% Not sure |
| 9. What is your overall satisfaction of how the challenge was conducted? | 72.2% Very satisfied 22.2% Somewhat satisfied 5% Neither satisfied nor dissatisfied |
| 10. Would you be willing to purchase your own pedometer for a small cost for a future challenge? | 72.2% Yes 16.7% No 11.1% Not sure |
| 11. How many days a week did you exercise before this challenge? | 61.1 % of the participants exercised less then 2 days a week. |

A few of the questions provided very intriguing results in which I would like to point out. The challenge made 100% of the participants start thinking about their health. Eighty three percent of the participants consciously made an effort to increase their walking 4 days or more a week. This is a substantial difference when you look at question 11 and how 61.1 % of the participants exercised less than 2 days a week before the challenge began. Finally, 88.9% of the subjects felt better as a result of the challenge.

The results of the challenge were gratifying. It was great seeing teachers comparing the number of steps they had taken throughout the day. Whenever someone mentioned the challenge, they had a smile on their face. Not only was the physical educator a role model for leading active lifestyles for the students, but the faculty and staff were also. This challenge allowed the faculty and staff to be role models in a different way from their normal classroom activities for our students. The challenge was also an opportunity to let teachers know more about what I do in my classroom as a physical educator.

Possible changes for the next challenge:

- I would do a base number of steps taken for 1 week, and then add the challenge of 10,000 steps to make a better impression of the possible gap between the number of steps taken daily before and after the challenge.
- Add a recess program in which teachers can check out pedometer for their class during recess time. This allows for not only time for physical activity, but numerous activities can be done using the information gained from regular pedometer use.
- Challenge other schools in the county.

I would like to thank Dr. Michael Moore and Dr. Melissa Grim at Radford University in the Exercise, Sport, and Health Education Department. Dr. Moore provided the survey and results on Websurveyor and Dr. Grim provided the pedometers used in the challenge.

Goal Oriented?

Step up and take on America's No. 1 killer, cardiovascular disease. Hear the cheers as your students go all out for fun, physical activity and community service. Fund research and educational programs — and help stop heart disease and stroke and save lives right in your community.

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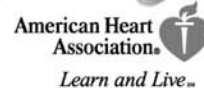
To learn more, call 1-800-AHA-USA1 or visit americanheart.org/hoops.



Hoops For Heart benefits the American Heart Association and is co-sponsored by the American Alliance for Health, Physical Education, Recreation and Dance.



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Examining Perceptions of the Health Impact of Spirituality in a University Community

By Beth Johnson, Ph.D., MPH, CHES, Assistant Professor of Health Promotion
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Abstract

Spiritual wellness is often overlooked in university attempts to promote health due to misperceptions regarding its definition and impact. A needs assessment was conducted to assess a university community's perceptions regarding spiritual wellness and the impact it has on college student health. One hundred and fifty-seven undergraduate students were surveyed for the individual phase and 18 faculty, staff, and community leaders were interviewed for the organizational phase of the assessment. A comparison of student versus faculty, staff, and community leader perceptions revealed that, while all believed spiritual wellness to be an important aspect of overall well-being, views differed about the existence of spiritual wellness among college students and about health issues negatively affecting college students. Identifying these differing views can correct misperceptions and promote the presence and positive health impacts of spiritual wellness among college students.

Introduction

Hawks (1994) states that spiritual wellness is comprised of eighteen internal and external aspects. The internal aspects include purpose in life; oneness with nature; sense of connectedness with others; commitment to something greater than self; sense of wholeness; principles, ethics, values; love; joy; peace; hope; and fulfillment. The external aspects include trust; honesty; integrity; selflessness; compassion; service; and connection to a higher power or larger reality.

Many connections have been established between spiritual health and other health issues. Within physical health, spirituality has been shown to reduce the risk of cardiovascular diseases, hypertension, and ulcers, and enhance one's ability to recover from illness (Johnson, 2003). Within psychological health, spirituality has been shown to reduce symptoms of stress (Kim & Seidlitz, 2002) and depression (Westgate, 1996; Weems & Wade-Gayles, 1996) and increase self-esteem (Knox, Langehough, Walters, & Rowley, 1998), positive decision-making (Felo, 1995), and one's capacity to cope with and adjust to life situations (Fabricatore, Handal, & Fenzel, 2000). Within social health, spirituality has been shown to lessen anti-social behaviors (Knox et al, 1998).

Spirituality can potentially influence other health issues due to its positive effect on stress. Previous research has shown that stress can result in fatigue, upset stomach, (Duenwald, 2002), sleep disturbances (Deckro, Ballinger, Hoyt, & Wilcher, 2002; Duenwald, 2002; Hudd, Dumlao, Erdmann-Sager, Murray, Phan, Soukas, & Yokozuka, 2000), headaches (Deckro et al, 2002; Duenwald, 2002), poor eating habits (Hudd et al, 2000; Sciacca & Melby, 1992), lack of exercise (Hudd et al, 2000), the common cold (Deckro et al, 2002), as well as the increased consumption of alcohol (Park & Levenson, 2002; Sciacca & Melby, 1992) and tobacco use (Sciacca & Melby, 1992). Stress has also been shown to be a factor in psychological health issues: depression (Dixon

& Reid, 2000; Frazier & Schauben, 1994; Geraghty, 1997), low self-esteem (Goldman & Wong, 1997; Hudd et al, 2000), and anxiety attacks (Duenwald, 2002).

The purpose of this research was to examine and compare the perceptions of students, faculty, staff, and community leaders on issues pertaining to: 1) the importance of spiritual wellness as an aspect of overall well-being; 2) aspects of spiritual wellness thought to be experienced by college students; 3) health issues thought to negatively affect the well-being of college students; and 4) health issues thought to be positively affected by spiritual wellness.

Methodology

Participants

Students living on campus at a small, liberal arts college during spring semester 2004 comprised the initial sampling frame for this study. A stratified random sample was drawn through probability sampling. Students were clustered into groups: freshmen, sophomores, juniors, and seniors. Using a table of random numbers, 75 students were chosen systematically from each group, making an initial sample of 300. These students were contacted using electronic mail with attachments. However, a computer virus attacked the university's institutional computing system. To contain the virus, the university deleted all attachments to e-mail messages from unknown senders, resulting in the loss of potential participants. Thus, a supplemental group was identified from freshmen, sophomores, juniors, and seniors who lived on campus and who enrolled that same semester in courses in personal fitness, first aid, wellness, and health promotion. The supplemental sample of 292 students came from 15 sections of courses taught by five faculty members.

The faculty, staff and community leaders who were asked to participate in this needs assessment were identified by the students. The survey asked students to identify faculty, staff, and community leaders whose courses and organizations addressed, or could potentially address, spiritual wellness issues on campus. From this list 31 individuals were invited to participate in the interview phase of the study.

Instruments

Instruments designed to obtain spiritual wellness information from university students found in the literature did not specifically address presence of, need for, and health impacts of spiritual wellness. Therefore, two instruments were developed based on theoretical principles from the ecological and health belief models as well as supporting research for this needs assessment: a survey instrument for students, and an interview instrument for faculty, staff, and community leaders. Both instruments included questions addressing the presence of, need for, and health impact of spiritual wellness.

An expert panel, consisting of two faculty members in

community health education, the director of the student health care center, and the director of the university wellness center, reviewed both instruments for face and content validity. The panel found both instruments acceptable. Due to time constraints caused by the computer virus, no reliability assessments could be conducted.

Procedures

The university’s institutional review board approved the procedures for this study. The final survey sample included 592 students from the initial and supplemental groups. A letter was sent, via e-mail, to students asking them to complete the attached survey instrument. Thirty-one faculty, staff, and community leaders received e-mail messages asking them to participate in an interview. To enhance response, the university’s Wellness Coordinator sent follow-up e-mail messages to this group encouraging participation. The principal investigator conducted all interviews, which took approximately 45 minutes. Analysis of survey and interview quantitative data included frequency distributions and cross-tabulations using SPSS version 11.0 for Windows. Survey and interview qualitative data were coded and analyzed to identify existing themes, which were then summarized to provide support for the quantitative data.

Results

Demographics

One hundred fifty-seven students (27%) participated in the survey. These students were ages 18 to 23, with an average age of 19 years. The majority (70%) was female. This gender distribution is similar to that of the university as a whole, in which females represent 67.7% (n = 2,439) of the student population.

Eighteen of the 31 faculty (n = 10), staff (n = 6), and community leaders (n = 2) (58%) participated in the interview portion of the needs assessment.

Spiritual Wellness: An Important Aspect of Well-Being

A majority of survey and interview participants believed spiritual wellness to be an important aspect of overall well-being (95.3% and 100%, respectively) as well as an essential part of the well-being of college students in particular (85.5% and 92.3%, respectively). Survey participants maintained their spiritual wellness by attending church, taking time alone to reflect, exercising, staying in touch with family, spending time with friends, participating in community service, and/or attending educational seminars. Many survey participants (44%) stated that they would participate in other spiritual wellness activities if the university offered more opportunities to do so. Students claimed that spiritual wellness positively influenced their grades, their capacity to learn, their happiness, and their stress level. Interview participants identified specific ways in which spiritual wellness provides important benefits, such as “preserve balance in life, a lack of which will cause other problems” and “self-discovery, the foundation for who you are and what you believe in”

Aspects of Spiritual Wellness Thought to be Experienced by College Students

Survey and interview participants were asked to identify how often they thought each individual aspect of spiritual wellness was experienced by college students. Table 1 lists those aspects indicated as being experienced “often” or “always”. Both groups indicated the same percentages of internal and external aspects (60% and 40% respectively).

Table 1: *Aspects of Spiritual Wellness Thought to be Experienced by College Students*

	Student Perceptions (^a N=155, ^b N=156, ^c N=157)		Faculty / Staff & Community Member Perceptions	
	n	%	n	%
Compassion	117 ^a	75.5	11	61.1
Connection to a higher power or larger reality	100 ^c	63.7	x	x
Deep concern for and commitment to something greater than self	107 ^c	68.2	x	x
Honesty	125 ^a	79.6	12	66.7
Hope	x	x	10	55.6
Integrity	120 ^c	76.4	10	55.6
Joy	120 ^c	76.4	x	x
Love	123 ^c	78.3	12	66.7
Peace	105 ^b	67.3	x	x
Sense of connectedness with others	105 ^a	67.7	12	66.7
Service	x	x	7	38.9
Strong beliefs, principles, ethics, and values	121 ^a	78.1	10	55.6
Trust	x	x	9	50.0

Health Issues Thought to Negatively Affect the Well-Being of College Students

Table 2 lists the top 10 health issues participants indicated as negatively affecting the well-being of college students “a lot” or “a great deal”. Of these, 60% were physical, 30% were psychological, and 10% were social as identified by the students. In contrast, interview participants identified negative affects as 20% physical, 50% psychological, and 30% social.

Health Issues Thought to be Positively Affected by Spiritual Wellness

Participants were asked to identify whether or not each individual health issue can be positively affected by spiritual wellness. Table 3 lists the top 10 to 12 health issues indicated as being positively affected by spiritual wellness. Of these, 10% were physical, 50% were psychological, and 40% were social as identified by the students. The interview participants identified 8% as physical, 42% as psychological, and 50% as social.

Table 2: *Health Issues Thought to Negatively Affect the Well-Being of College Students*

	Student Perceptions (^a N=155, ^b N=156, ^c N=157)		Faculty / Staff & Community Member Perceptions (^a N=16, ^b N=17, ^c N=18)	
	n	%	n	%
Anxiety attacks	x	x	15 ^c	83.33
Date rape/Sexual assault	X	x	13 ^a	81.25
Depression	30 ^c	19.1	15 ^c	83.33
Difficulty adjusting to college life	x	X	15 ^c	83.33
Ending of a relationship	32 ^c	20.4	14 ^b	82.35
Family problems	X	x	14 ^c	77.78
Fatigue	73 ^a	47.1	14 ^c	77.78
Financial burdens	40 ^c	25.5	x	x
Headaches	45 ^a	29.0	x	x
Increased consumption of alcohol	x	x	18 ^c	100.00
Lack of exercise	34 ^b	21.8	X	x
Poor decision making	x	x	16 ^c	88.89
Poor eating habits	44 ^b	28.2	x	x

Table 3: *Health Issues Thought to be Positively Affected by Spiritual Wellness*

	Student Perceptions (^a N=153, ^b N=155, ^c N=156, ^d N=157)		Faculty / Staff & Community Perceptions (N=18)	
	n	%	n	%
Academic probation or failure	x	x	16	88.9
Anti-social behaviors	107 ^c	68.6	x	x
Anxiety attacks	x	x	17	94.4
Death of a family member or friend	113 ^b	72.9	17	94.4
Depression	134 ^d	85.4	18	100.0
Difficulty adjusting to college life	110 ^d	70.1	18	100.0
Ending of a relationship	114 ^d	72.6	18	100.0
Family problems	112 ^a	73.2	18	100.0
Increased consumption of alcohol	106 ^c	67.9	17	94.4
Low self-esteem	127 ^c	81.4	18	100.0
Poor decision making	111 ^c	71.2	x	x
Sexual promiscuity	x	x	16	88.9
Stress	127 ^c	81.4	18	100.0
Violence		x	16	88.9

Conclusions and Implications

Some limitations of this study preclude its findings from being generalized beyond students attending this small public liberal arts college. Review of the literature produced no satisfactory existing instruments, thus the survey and interview instruments were developed specifically for this study. Therefore, reliability of these instruments was difficult to assess because no similar instruments were available for comparison. A relatively small sample size resulted from sampling and procedure changes caused by a computer virus. Nonetheless, this exploratory investigation of students, faculty, staff and community leaders produced preliminary data that warrants serious consideration by university health personnel.

A majority of survey and interview participants believed spiritual wellness to be an important aspect of well-being for both the general as well as the college population. Participants perceived that spiritual wellness was more important to the well-being of the general population than to college students. Perhaps this difference results from the fact that many young adults believe they are invincible and that what may negatively affect others cannot affect themselves, and thus believe that they have less need for spiritual wellness than the general population. As far as the interview responses, perhaps this difference results from the perspective that, as one interviewee stated, "there is so much change and exploration going on [during the college years] that it's hard to focus on spiritual wellness".

Participants agreed that college students experience the internal aspects of love; joy; sense of connectedness with other; and strong beliefs, principles, ethics, and values as well as the external aspects of honesty; integrity and compassion. This documents a commonality in understanding of spiritual wellness from the perspectives of both students as well as faculty/staff and community leaders. The descriptive statistics, however, revealed that college students believe they experience spiritual wellness more often than faculty/staff and community leaders believe students do so. Thus, promotion of spiritual wellness necessitates increasing awareness among students, faculty/staff, and community leaders about the various aspects of spiritual wellness. This would increase recognition of this aspect of health, when it is lacking in their lives or that of others with whom they come in contact, and how to implement changes to increase this basis for health.

Comparing health issues indicated by both groups of participants revealed that survey and interview participants agreed that the well-being of college students is negatively affected by the physical health issue of fatigue, the psychological health issues of stress and depression, and the social health issue of the ending of a relationship. Interviews revealed that faculty/staff and community leaders believe that health issues have a greater negative affect on the overall health of the college population than the college students themselves. One implication for practice is that the university could increase awareness among its students, faculty/staff, and community leaders regarding health issues and how they negatively affect students and about what can be done to alleviate such problems.

The comparison of health issues indicated by both groups of participants revealed agreement that spiritual wellness

can positively affect the physical health issue of increased consumption of alcohol; the psychological health issues of stress, depression, low self-esteem, and difficulty adjusting to college life; and the social health issues of family problems, the death of a family member or friend, and the ending of a relationship. Interviews revealed that faculty/staff and community leaders are more likely than college students to recognize the health benefits available to them through spiritual wellness. Therefore, the university could increase awareness among the university community regarding the benefits of spiritual wellness as they relate to the health issues frequently experienced by college students. Health promotion efforts should be targeted toward the specific health issues indicated by students as having negative consequences (i.e., headaches; upset stomach; sleep disorders; poor eating habits; lack of exercise; financial burdens; stress; fatigue; the ending of a relationship; and depression).

Most university wellness centers profess to address the six dimensions of wellness: physical, emotional, intellectual, social, occupational, and spiritual. However, in reality, most tend to address health topics based on the results of the National College Health Assessment (NCHA) (Robertson, 2003). Because this instrument does not include questions that address spiritual wellness, it is not likely to be one of the dimensions of wellness promoted on campus. Nonetheless, while the NCHA may appear to overlook spiritual wellness, when its data are compared with data from the needs assessment data collected in this study, it becomes clear that spiritual wellness is associated with the health issues students frequently experience. For example, the psychological health issues of depression and stress as well as the social health issues of family problems/concern for a troubled friend or family member, the death of a family member or friend, and the ending of a relationship/relationship difficulty are all related to spiritual aspects of well-being (Longwood University, Student Health and Wellness Center, 2003).

In addition, this study revealed that students and faculty/staff and community leaders cited stress as the chief health issue thought to negatively affect the wellbeing of college students, a finding that confirms previous research (Abouserie, 1994; Deckro et al, 2002; Geraghty, 1997; Goldman & Wong, 1997; Ross, Niebling, & Heckert, 1999; Sciacca & Melby, 1992). Other research has also shown that the negative affects of stress are compounded by the fact that it has the potential to contribute to other health problems such as fatigue (Duenwald, 2002), sleep disturbances (Deckro et al, 2002; Duenwald, 2002; Hudd et al, 2000), headaches (Deckro et al, 2002; Duenwald, 2002), poor eating habits (Hudd et al, 2000; Sciacca & Melby, 1992), lack of exercise (Hudd et al, 2000), upset stomach (Duenwald, 2002), and depression (Dixon & Reid, 2000; Frazier & Schauben, 1994; Geraghty, 1997). An important implication of this study, and others, is that spiritual wellness can have a direct positive affect on stress (Kim & Seidlitz, 2002) and depression (Westgate, 1996; Weems & Wade-Gayles, 1996). Furthermore, due to its direct positive affect on stress, spiritual wellness can also have an indirect positive effect on all of the stress-resultant health issues mentioned above. Very importantly, this study showed that students believe that spiritual wellness can have a positive impact on all these health issues. Therefore, it behooves the university

to focus significant time and resources on stress management. By increasing spiritual wellness students can lessen their stress levels, thereby decreasing additional health issues, and in so doing, potentially improve their overall health in a profound way.

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Comprehensive HIV Prevention: An Examination of Psychosocial Risks

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Abstract

Objective: Using Social Cognitive Theory as a conceptual framework, this study examined the influence of psychosocial constructs on the HIV risk-taking behaviors of a sexually active population. **Method:** A convenience sample was drawn from a community-based event celebrating diversity within a metropolitan locale in the southeastern United States. Analysis was used to examine the factors associated with HIV risk behaviors. All factors found to be significantly correlated with HIV risk behavior were examined for predictive ability using a hierarchical multiple linear regression. **Results:** Both internality/externality (a combination of sexual control and attributional style), as well as substance use (a combination of alcoholism screening and drug abuse) were found to be significant predictors of HIV risk behavior. **Discussion:** This study's findings indicate that, while much HIV prevention education has taken place, individuals continue to engage in behaviors that increase risk for contracting the disease. Moreover, the study's findings support the need for programming that includes topics such as sexual control, substance use, and personal identity and comfort levels.

Introduction

AIDS has had a tremendous toll in the United States. Since the first case was identified in 1981, 956,019 (Centers for Disease Control and Prevention, [CDC], 2006a) cases have been reported, and approximately 550,000 Americans have died (CDC, 2006a). The disease continues to have a tragic impact, not only on those who are living with Human Immunodeficiency Virus (HIV) infection, but also on the many friends, families, and entire communities that have been forever changed by the epidemic. An estimated 1.7 million people in the United States have been infected with HIV (Kaiser, 2006), and another 426,000 people are living with AIDS (CDC, 2006a).

Reducing the risk of HIV/AIDS requires identifying the psychosocial and behavioral factors, such as alcohol and drug use, that are associated with HIV (Avins et al., 1994) and HIV-related sexual risk-taking (Wingood & DiClemente, 1998). Further review of the HIV/AIDS literature has identified psychosocial factors that have been shown to differentiate between individuals who report lower HIV risk behaviors and those who do not. These factors include substance use, attributional style, and exposure to the HIV/AIDS culture. More specifically, evidence suggests that greater use of alcohol and illicit substances (Kalichman, Heckman, & Kelly, 1996; Robins, Dew, Kingsley, & Becker, 1997) are key social factors associated with high-risk sexual behavior. There is also evidence that external attributional style or locus of control (Aspinwall, Kemeny, Taylor, Schneider, & Dudley, 1991; Kelly, St. Lawrence, & Brasfield, 1991) are important psychological predictors of unprotected intercourse. It is therefore essential that these factors be examined collectively, to address their potential individual and combined impact upon HIV/AIDS-related sexual behavior.

Empirically-Based Predictors of High-Risk Sex

Locus of Control. Previous studies indicate that external locus of control predicts engagement in high-risk sexual behavior (Aspinwall et al., 1991; Kelly et al., 1991; Kelly et al., 1990). Aspinwall and colleagues (1991) found that self-efficacy, perceived risk, response efficacy, and prior sexual behavior accounted for 70% of the variance in the total number of sexual partners and the number of anonymous partners over a 6-month interval. Kelly et al. (1991) found that resumption of high-risk behavior was significantly associated with the belief that HIV infection was determined by external factors, such as chance and luck. In a second study, Kelly et al. (1990a) found that high-risk takers were more likely to view their health as being attributable to chance or luck, and less likely to perceive themselves as having control over their well-being.

Substance Use. Intoxification or drug use prior to sex are additional social practices that have been highly correlated with unprotected intercourse (Cabaj, 1989; Kelly et al., 1991; Plant, 1990; Valdiserri et al., 1988). Substance abuse promotes many types of high-risk sexual activities: it drives transactional sex to support an addiction, leads to the choice of higher-risk partners, and decreases the chances that a condom will be used in a given sexual encounter. Further, several studies have found that methamphetamines users are two to three times more likely than non-users to engage in unprotected anal sex, have condoms break or slip off, acquire a sexually transmitted infection, or become infected with HIV (CDC, 2006b).

Conceptually-Based Predictors of High-Risk Sex

Learned Helplessness and Attributional Style. A paucity of research exists with regard to the effects of individual attributional style on increased risk-taking behavior. Symptoms of helplessness include passivity, cognitive deficits, emotional deficits (including sadness, anxiety, and hostility), a lowering of aggression, a lowering of appetite, neurochemical deficits, and an increase in susceptibility to disease (Peterson & Seligman, 1984). Whatever particular explanation is made for an event, humans tend to habitually choose certain kinds of explanations for both good and bad events (Peterson & Seligman, 1984), a phenomenon termed attributional style (Abramson, Seligman, & Teasdale, 1978). An internal, stable, and global attributional style (i.e., pessimistic attributional style) has been empirically demonstrated in depressed individuals (Eaves & Rush, 1984; Persons & Rao, 1981; Raps, Peterson, Reinhard, Abramson, & Seligman, 1982). Furthermore, causal explanations for an event and expectations about the consequences of an event have similar properties (that is, internal, stable, and global) (Peterson & Seligman, 1984). Knowing an individual's attributional style does, therefore, assist clinicians in predicting helplessness deficits, much the same as other known risk factors for psychological and physical illnesses (Peterson, 1988; Peterson, Maier, & Seligman, 1993; Peterson & Seligman, 1984, 1987).

A Model of High-Risk Sexual Behavior HIV

Negative Persons

Several studies have reported significant associations between high-risk sexual behavior and external locus of control (Aspinwall et al., 1991; Kelly et al., 1990; Kelly et al., 1991). As well, both alcohol and drug use have predicted high-risk sexual behavior in the general population (Shillington et al., 1995). Although the psychosocial factors discussed above have been examined separately as predictors of mood state, self-esteem, and high-risk sexual behavior, there has been no integrated examination of these factors in a single study. The research discussed integrated these factors along with the conceptually-based predictor (pessimistic attributional style) to examine their respective influences on high-risk sexual behavior.

Measures

Attributional Style. The Attributional Style Questionnaire (ASQ) (Peterson et al., 1982) was administered to all participants. The ASQ yields scores for the exploration of events for internal versus external, stable versus unstable, and global versus specific causes, and has been found to correlate positively with self-esteem and the symptoms of learned helplessness (Peterson & Seligman, 1984). The instrument described four hypothetical events and asked participants to generate their own cause for each event, and to rate themselves along a 7-point scale. The three attributional dimensions (internality, stability, and globality) are associated with each event, thereby producing a total of 12 items. Participants ranked themselves on each item in the direction of increasing internality, stability, and globality (i.e., 1=lowest and 7=highest).

Sexual Regulation/Locus of Control. The Dyadic Sexual Regulation scale (DSR) items were developed from open-ended interviews with heterosexual and homosexual couples. Each of the scale's 11 items were assessed on a 7-point Likert-type scale (1 = *strongly disagree*, 7 = *strongly agree*).

Substance Use. Substance use was assessed using the Brief Michigan Alcoholism Screening Test (BMAST) (Pokorny, Miller, & Kaplan, 1972), a 10-item scale, as well as the Drug Abuse Screening Test (DAST-20) (Skinner, 1982). The BMAST is a condensed version of the 25-item Michigan Alcoholism Screening Test (MAST) (Selzer, 1971). The DAST was designed to provide a brief instrument for clinical screening and treatment evaluation research. The 20 self-report items tap various consequences that are combined in a total DAST score to yield a quantitative index of problems related to drug misuse.

High-Risk Sexual Behavior. High-risk sexual behavior was assessed using the UCSF Center for AIDS Prevention Studies Sexual Behaviors Questionnaire (Chesney, 1997). This 20-item scale asks participants to report the number of persons they have had sex with over the preceding three months. Participants are also asked to respond yes or no to questions about condom usage, insertive anal/receptive anal sex, and insertive/receptive oral sex. Two different scoring systems were used to measure sexual behavior.

UCSF-Defined Risk. Following the scoring system developed by the UCSF Center for AIDS Prevention Studies, participants were ranked on a 4 point scale based on their responses to 12

items regarding anal intercourse only (0 = sexually abstinent, 1 = anal sex abstinence, 2 = anal sex with consistent condom usage, 3 = unprotected anal sex 1 or more times). Scores can range from 0 to 32. This scoring system measures high-risk behavior defined strictly as unprotected anal intercourse. As such, only participants who engaged in unprotected anal sex will be deemed to be high-risk takers. Reliabilities for the SBQ have ranged from .70 to .81 (Chesney, 1997).

Multi-Indexed Definition of Risk. To broaden the definition of high-risk sexual behavior in accordance with the continuum of behavior articulated earlier, a second scoring system was developed. In this system, participants were scored dichotomously (0 = no, 1 = yes) on all items involving unprotected sex. That is, participants who indicated engagements in risk behaviors, without a condom, received 1 point for each behavior. The sum of the 18 items constituted each participant's total score for high-risk sexual behavior.

Results

Modeling High-Risk Sexual Behavior. A total of 219 participants met the study inclusion criteria and completed the survey instrument. Using correlation coefficients, relationships were examined between (a) internality/externality, measured by two indicators (ASQ and DSR); (b) substance use, measured by two indicators (BMAST and DAST); and (c) an observed, dependent variable (high-risk sexual behavior).

Determining the Significance of Specific Parameters. Two separate analyses were conducted given the two scoring methods used to compute the dependent variable. UCSF Defined Risk. First, the model was tested using the scoring system developed by UCSF to define high-risk sexual behavior. A multiple regression, simultaneously entering all indicators and variables, revealed that 31% of the variance in the dependent variable was accounted for by the predictors ($p < 0.001$). Variables were then examined individually for significance.

As hypothesized, participants who exhibited greater degrees of externality engaged in riskier sexual behaviors ($b = .60$, $p < 0.001$), as did persons engaging in substance abuse ($b = .15$, $p < 0.03$).

Multi-Indexed Definition of Risk. The model again was tested using the scoring system developed by the researcher. Thirty-four percent of the variance in the dependent variable was accounted for by the predictors ($p < 0.001$). Variables were then examined for significance.

As hypothesized, internality/externality ($b = .62$, $p < 0.001$) and drug abuse ($b = .20$, $p < 0.004$) contributed significantly to the proportion of variance in high-risk sexual behavior.

Discussion

Sexual Behavior. Sexual behavior, including avoidance of anal intercourse, condom usage, and number of sexual partners, may not be stable over time (Abid, Joseph, Ostrow, Tal, & Schwartz, 1991; Joseph, Abid, Koopman, & Ostrow, 1990; Stall et al., 1990). Studies have revealed that individuals engage in different levels of risky sexual activity at different times in their lives and also have shown that there are fluctuations with regard to the number of sexual partners over time.

Substance Use. The present results suggest that persons who

engage in higher levels of substance use are more likely to report engagement in high-risk sexual behavior. Among educators, substance use is one of the most often cited reasons for unprotected sex and this correlation has been interpreted as causal, i.e. people engage in high-risk sex because they use substances (Ekstrand & Coates, 1990; Siegel, Mesagno, Chen, & Christ, 1989; Stall et al., 1986; Valdiserri et al., 1988). Alternative explanations for the correlation between substance use and high-risk sex include the proposition that men are not having high-risk sex because they have been using substances, but that they use substances to achieve disinhibition, in order to act out their desire to engage in high-risk activity (Odets, 1995).

Internality/Externality. While attributional style was found to be a stronger indicator of internality / externality, the combination of the two indicators nonetheless proved to be a statistically significant predictor of high-risk sex ($p < .001$ for both measures of high-risk sex).

That pessimistic attributional style and external locus of control predict high-risk sexual behaviors is not unfounded. Peterson (1982) has suggested that perceived control is central to health and illness, and Peterson and Seligman (1987) propose many possible pathways by which attributional style may mediate behavior and illness. First, individuals with a pessimistic attributional style may become passive in the face of disease. Failure to seek or follow medical advice, such as utilizing HIV risk-reduction strategies, can be considered a helpless response that can invite or exacerbate illness (Seligman, 1975). Further, individuals with a pessimistic attributional style may neglect the basics of care (such as, for example, using condoms during sexual intercourse), because they see no connection between anything they might do and the onset of an illness (Becker, 1974).

Recommendations for Practice

Many psychosocial variables (e.g., attributional style, control factors, and substance abuse) are of importance in understanding the continued practice of HIV-related high-risk sexual behavior. Historically, HIV prevention efforts have operated on the assumption that HIV/AIDS is the preeminent health problem facing at-risk populations, and has generally offered limited regard to the other health problems facing such communities. If it is indeed true that the additive effect of interrelated psychosocial health conditions increases vulnerability to HIV infection, it may be possible to enhance the effectiveness of HIV prevention efforts by working to support a broader health movement within vulnerable communities. That is, by working in tandem with organizations addressing mental health and substance abuse problems within a community, it may be possible to increase the efficacy of HIV prevention efforts and related health promotion efforts.

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Effects of Caffeine and Coffee on Females

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Abstract

The effects of caffeine on the human body are variable. Possible effects on the female body include changes in blood pressure and heart rate. The present study examined the female response to coffee and caffeine at rest and exercise. Twenty-four healthy, college age women (age: 20.2 ± 1.47 , height: 166.65 ± 7.62 , body mass: 62.99 ± 10.80) volunteered to participate in this research study. On day one, two, and three subjects had their blood pressure and heart rate recorded at rest and exercise (treadmill: 4.85 km/hr, 10% grade) after ingestion of no substance (day one), coffee (day two), and caffeine (day three). No significant differences were noticed in the heart rate response for the different treatments. Significant changes were noticed in the systolic blood pressure (143.79 ± 17.36 with coffee ingestion vs. 135.96 ± 14.22 , and 132.79 ± 16.84 with no substance and caffeine respectively) and diastolic blood pressure (75.96 ± 14.98 with coffee ingestion vs. 69.50 ± 10.72 and 68.58 ± 11.12 with no substance, and caffeine respectively) among the three treatments. Coffee, but not caffeine ingestion, seemed to increase systolic and diastolic blood pressure during exercise. The present study also observed a 6.42% difference in the systolic blood pressure double products at rest and exercise.

Comparative Analysis of the Effects of Caffeine and Coffee on the Blood Pressure and Heart Rate Response during Rest and Exercise among College Aged Women

Caffeine is a very widely used substance and one ingredient found in coffee, carbonated beverages, energy drinks, and foods. Caffeine effects on the human body are variable, depending on the amount of caffeine ingested. The overall response of individuals to the substance differs (Papaioannou & Vlachopoulos, 2006). Usually, one tends to see an increase in blood pressure (BP) and heart rate (HR) with the ingestion of coffee. The hemodynamic effects of chronic coffee and caffeine consumption have not been sufficiently studied. The possible mechanisms of the cardiovascular effects of caffeine include the blocking of adenosine receptors and the inhibition of phosphodiesterases (Nurminen & Nüttynen, 1999). Several studies reported elevation in BP as a direct consequence of caffeine ingestion (Jeong, 1990; Papaioannou et al., 2006; Nurminen et al., 1999). Also, the research of Danniels, Mole, Shaftath, and Stebbins (1998) on the effects of caffeine on BP, HR, and forearm blood flow during dynamic leg exercise, confirms that caffeine may alter the cardiovascular response during exercise.

Caffeine in its role as an ingredient in coffee has been blamed for several negative effects on the body, mainly an increase in BP, which is significant for people with hypertension. On the one hand, caffeine is believed to boost an athlete's performance and has consequently been reported in the 2004 Monitoring Program by the World Anti-Doping Agency (WADA) in order to detect patterns of misuse in sports (2004). Currently, caffeine is no longer in the above-mentioned list. On the other hand,

caffeine increases sub-maximal exercise performance in healthy young subjects (Notarius & Morris, 2006). Unfortunately, its effects on exercise tolerance in heart failure (HF) have not been characterized. In general, caffeine allows HF patients to exercise longer at peak effort (Notarius et al., 2006). Caffeine is also reported to have a positive effect on reducing leg muscle pain during exercise among females, but this effect does not appear to be dose-dependent between 5 and 10 mg/kg body weight caffeine (Motl & O'connor, 2006).

Other researchers (Greenberg, 2006; Boozer, 2006) focusing their efforts on the effect of coffee on the human body, confirm that caffeine in coffee might be the reason for elevation in BP. Such findings provide evidence that cardiovascular patients may be at a higher risk than non-symptomatic patients. On the contrary, the research of Sudano & Binggeli (2005) on the cardiovascular effects of coffee suggests that coffee intake not only does not place people at a higher risk, but can have positive results on the overall cardiovascular health.

Unfortunately, very little information on this topic has been reported on women. One of the few studies completed suggests that no relationship between caffeine and hypertension was present (Winkelmayer & Stampfer, 2005). Also, there was no difference between the flight-or-fight response in both women and men (Farag & Wincent, 2006). Ahrens & Lloyd (2007) suggest that in women caffeine had no effect on the rating of perceived exertion, HR, or respiratory exchange ratio. Interestingly, they also found that a 6-mg x kg (-1), but not a 3-mg x kg (-1) dose of caffeine, increased VO₂ in the female subjects.

With a few exceptions (Yeragani & Krishnen, 2005) HR is not significantly influenced by substances such as coffee or caffeine. Ahrens et al. (2007) revealed that neither dose of caffeine had any effect on the VO₂, VCO₂, minute ventilation, or HR during aerobic-dance bench stepping.

In general, the public seems to be confused and uses the terms coffee and caffeine interchangeably as main contributors to similar effects on the human body. People have been advised by physicians to maintain a balanced diet and practice moderation with substances such as caffeine. Accordingly, strategies for encouraging reduced dietary levels of caffeine deserve serious consideration (James, 2004).

Therefore, the purpose of this study was to differentiate the effects of caffeine alone and caffeine in coffee. The research question was based on the connection between the effects of pure caffeine and coffee, and consequently, if other ingredients in coffee are to be blamed for the reported, but still unclear negative effects of caffeine on BP. Moreover, this study analyzed the female response to coffee and caffeine at rest and during exercise.

Method

Subjects

Twenty-four healthy college age women (age: 20.2 ± 1.47 , height: 166.65 ± 7.62 m, body mass: 62.99 ± 10.80 kg) volunteered

to participate in this research study. All subjects were full-time, residential students at a rural liberal arts college. A written informed consent was signed by the subjects after being informed about all risks, discomforts, and benefits of this study. Undergraduate Research and Creative Projects Committee (URCPC) approval was obtained for this study and procedures were in accordance with the Helsinki Declaration of 1975.

Subjects were screened by telephone interview and in person to exclude those that had allergies, any known negative effects towards caffeine, who were pregnant, breast-feeding, hypertensive, or currently ill. Subjects were required to refrain from Midol®, diet pills, or any other caffeine or methylxanthine containing substances (chocolate, coffee, Mountain Dew, Coca Cola, Pepsi, or other power exercise beverages) for at least 24 hours before each testing session. Subjects were also asked not to change any major aspects of their lifestyle immediately before or during the course of the study.

Experimental Design

The study design required female subjects to visit the testing site on three consecutive days. Participants were required to attend all three of the testing days. The subjects were tested at approximately the same time of day so error in BP variability to hour of the day was reduced. The total time for the testing of all subjects did not exceed three weeks.

On day one, subjects visited the testing site and signed an informed consent form after having all their questions answered concerning the study. Resting baseline blood pressure and heart rate were taken three times over a period of 45 minutes. Participants were then required to walk on a treadmill for 6 minutes in order to reach a steady HR (treadmill speed: 4.85 km/hr; treadmill grade: 10%, equivalent of 7.4 Mets). Their baseline exercise BP and HR was recorded. On day two, subjects visited the testing site for 65 minutes. They drank two 100mg cups of Folgers® instant coffee (containing a total of 200 mg caffeine). Their BP and HR were taken after 20 minutes of rest. Subjects' BP and HR were also recorded another three times over the next 30 minute period (in 10 minute increments). Participants were then required to walk on a treadmill with the same parameters as day one (treadmill speed: 4.85 km/hr; treadmill grade: 10%). BP and HR responses were monitored and recorded during the course of exercise. On day three, the procedures of day two were repeated. The only difference was that a 200 mg caffeine pill (Equate®-Stay Awake) was used in the place of two 100 mg cups of instant coffee. Factors such as time of day, monitoring of BP and HR, and equal amounts of caffeine on day two and three were strictly observed.

Blood Pressure and Heart Rate Apparatus

Subject's BP and HR were recorded throughout the study using an auto-inflate digital BP monitor with a D-ring arm cuff (Omron HEM-711AC). The monitor was rated number one by the top independent United States product testing laboratory and had been found accurate in validation studies using the protocols of the British Hypertension Society in 2006. The cuff was applied to the left arm, above the elbow and directly to the skin. Inflation and deflation of the arm cuff was automatically monitored through the device's Intellisense™ technology.

Measurement

Measurements were recorded at increments of 10 minutes during rest and at the sixth minute during exercise. BP and HR were recorded at regular intervals for each subject.

Substance ingestion

On day two, subjects received two 100 mg cups of Folgers® instant coffee containing a total of 200 mg of caffeine. Subjects were allowed to drink the fluid as rapidly or slowly as they wished. On day three, participants were asked to take a 200 mg caffeine pill (Equate®-Stay Awake) with 200 mg of water. Subjects were asked to report any signs of gastrointestinal discomfort before, during or after the ingestion of the different substances.

Statistical analyses

A repeated-measures Analysis of ANOVA (treatments [3] x time [3]) was used to determine whether there were statistical differences in the BP and HR data collected on days one through three. StatView 5.0 for Windows was used for the analyses.

Results

Significant changes ($p < 0.05$) were noticed as presented in Tables 1, 2, and 3. Significant differences for the intensity and treatments were also noted among the responses of the subjects.

Heart Rate

There was no significant change in the HR response for the treatments among the females tested. As presented in Table 1, the mean HR and standard deviations at rest with no substance consumption, with coffee, and with caffeine are respectively 69.00 ± 10.65 , 68.46 ± 12.37 , 64.63 ± 10.59 . At exercise, there was significant increase in the HR as expected. The HR at exercise with no substance consumed, with coffee and caffeine was respectively 113.88 ± 22.35 , 114.04 ± 20.37 , 109.46 ± 26.47 .

Systolic Blood Pressure (SBP)

Table 1

Heart Rate Response (mean beats per minute \pm SD).

Intensity	Heart Rate		
	w/ No Substance	w/ Coffee	w/ Caffeine
Rest	69.00 ± 10.65	68.46 ± 12.37	64.63 ± 10.59
Exercise	$113.88 \pm 22.35 \dagger$	$114.04 \pm 20.37 \dagger$	$109.46 \pm 26.47 \dagger$

$\dagger p < 0.05$, for Intensity

There were significant differences ($p < 0.05$) noticed among the different treatments (no substance, coffee, and caffeine). A Fisher's PSLD Post-Hoc test confirmed the significant differences between no substance, coffee, and coffee-caffeine. As expected, there was also a difference in the SBP with increased intensity from rest to exercise. Table 1 depicts and compares the

Table 2Systolic Blood Pressure Response (mean mmHg \pm SD).

Intensity	Systolic Blood Pressure		
	w/ No Substance	w/ Coffee	w/ Caffeine
Rest	109.00 \pm 10.24	110.54 \pm 10.86	107.38 \pm 9.38
Exercise	135.96 \pm 14.22 †‡	143.79 \pm 17.36 †‡	132.79 \pm 66.84 †‡

† p<0.05, for Intensity

† ‡ p<0.05, for Treatments

Table 3Diastolic Blood Pressure Response (mean mmHg \pm SD).

Intensity	Heart Rate		
	w/ No Substance	w/ Coffee	w/ Caffeine
Rest	66.17 \pm 10.61	72.50 \pm 11.76	65.67 \pm 7.21
Exercise	69.50 \pm 10.72 †	75.96 \pm 14.98 †	68.58 \pm 11.12 †

† p<0.05, for Treatments

data between the two intensities and the three treatments. The SBP at rest during the three treatments was respectively 109.00 \pm 10.24, 110.54 \pm 10.86, 107.38 \pm 9.38. At exercise, the SBP was 135.96 \pm 14.22, 143.79 \pm 17.36, 132.79 \pm 16.84. The difference in the double products (HR* SBP) for no substance and coffee was found to be 1047 or a 6.42% increase.

Diastolic Blood Pressure (DBP)

No significant differences in the DBP response were observed between the two intensities. A significant difference was found when results from the treatments were analyzed. Table 3 summarizes the findings. The differences between treatments with no substance, with coffee, and with caffeine were respectively 66.17 \pm 10.61, 72.50 \pm 11.76, 65.67 \pm 7.21. The DBP response for the same treatments with exercise was as follows: 69.50 \pm 10.72, 75.96 \pm 14.98, 68.58 \pm 11.12.

The typical hemodynamic response to exercise is 5-10 mmHg/Mets increase in SBP (Taylor & Beller, 1998). As observed the systolic mmHg per Met with no substance, with coffee, and caffeine ingestion were respectively 4.21, 5.20, and 3.97. Also, the diastolic mmHg per Met with no substance, with coffee, and caffeine were noticed to be 0.52, 0.54, and 0.45. A summary of the mmHg/Met equivalents is presented in Figure 1.

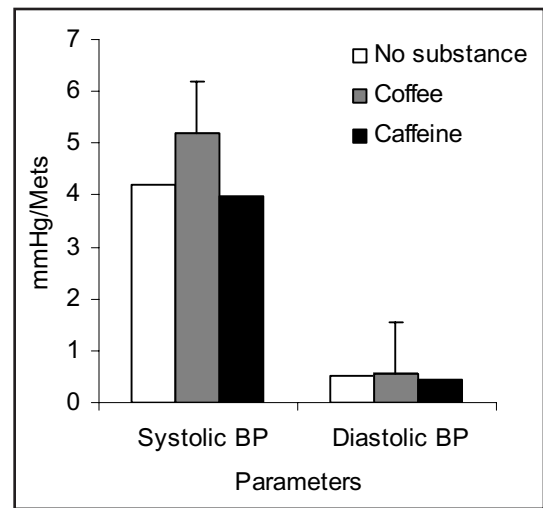


Figure 1. MmHg/Mets differences in the systolic and diastolic blood pressure with no substance, coffee, and caffeine consumption.

Discussion

The results from the present study demonstrated that there were no significant changes in the HR for the different treatments with no substance, coffee and caffeine at rest and during exercise among the females tested. The findings are in agreement with previous reports on the relationship between coffee and caffeine on the HR response (Yang & Tiselius, 2007; Ahrens & Crixell, 2007; Crowe & Leicht, 2006; Daniels & Mole, 1998). As expected, HR increased only with increase in intensity from rest to exercise.

Yeragani, Krishnan, Engels, and Gretebeck (2005), on the other hand, reported that there was a significant increase in HR and a decrease in HR variability after exercise during both placebo and caffeine ingestion. This research group also found that pre-exercise caffeine condition was associated with a significant increase of HR variability with extremely high frequency range (0.15-0.5 Hz). The final conclusion was that the caffeine might have different effects on the heart rate at exercise and rest. This might also have an application for patients with cardiac illnesses who use caffeinated beverages.

Some of the studies on animals suggested that heart rate response to caffeine might be dose-dependent. Ilbach, Siller, and Stalhandske (2007) concluded that caffeine was found to induce, to various degrees, a dose-dependent early increase in spontaneous physical activity, HR, SBP, and DBP. They also found that the highest dose of caffeine (45mg/kg b.w.) induced a biphasic response, with an early and pronounced increase in body temperature, spontaneous physical activity, SBP&DBP. Caffeine seemed to play a minor role in small doses, confirmed in the present study, but when increased to 75mg kg (-1), it lessened the responses. Caffeine was reported to influence the adenosine receptor which is involved in the regulation of HR, body temperature, and locomotor activity. Also, intermediate doses of caffeine (30mg kg (-1)) appeared to increase or decrease the HR in rats depending on sex and genotype (Yang et al., 2007).

Significant differences (p<0.5) were noticed in the SBP response at rest and exercise during the three treatments (no substance, coffee, and caffeine). There was a noticeably larger increase

in the SBP with the ingestion of coffee than with no substance or caffeine. This finding does not support the conclusions of Lancaster, Muir, and Silagy (1994) who found that coffee had no significant effects on total or high-density lipoprotein (HDL) cholesterol or BP in the population of the United Kingdom. They concluded that the coffee drunk in the United Kingdom did not present any significant risks of cardiovascular disease of any type. Burr, Gallacher, Butland, Bolton, and Downs (1989) did not find any significant changes in the DBP response due to coffee among the British population. They also supported the previous findings that coffee was not associated with heart disease in Britain.

Other researchers, however, found that BP increased with the ingestion of caffeine (Engls & Wirth, 1999; Daniels et al., 1998; Winkelmayr et al., 2005; James et al., 2004; Hartley & Lovallo, 2004; Robertson & Frolich, 1978), which does not support the present study. Most of these research studies used a mg/per body weight equivalent of caffeine, but did not specify what source of caffeine they implemented. They also stated that the particular amount of caffeine was equivalent to certain amounts of coffee, but failed to account for the many different ingredients in the various brands of coffee. Those ingredients, either alone or grouped together, might cause a certain BP response.

Other variable responses were noticed in the research results of Robertson et al. (1978) who observed that after caffeine ingestion mean BP rose 14/10mmHg one hour after the ingestion of the substance. No such result was observed with the ingestion of pure caffeine in the present study. Furthermore, there was also a fall and then a rise in the HR. Also, Lovallo et al. (2004) concluded that women responded to caffeine with increases in stroke volume ($p < 0.001$) and cardiac output ($p < 0.001$), with no difference in vascular resistance from women taking placebo. In this same study men and women showed similar BP responses to caffeine, but the BP responses might have been due to different homodynamic mechanisms. Women who consumed a dietary dose of caffeine showed an increase in cardiac output; whereas, men showed increased vascular resistance. The DBP also seems to be influenced by coffee more than caffeine. Even though there was a slight difference, there was no statistically significant difference found.

The literature seems to be contradicting on the topic of caffeine and its effects on BP. Even though there is more research done on men than on women, there does not seem to be a single study that fully explains the cause of increased BP. A major study was conducted by Winkelmayr et al. (2005) on the habitual caffeine intake and the risk of hypertension in women. They concluded that no linear association between caffeine consumption and incident hypertension in women was found. It was suggested that sugary caffeinated beverages might be a cause for hypertension. The present study supports this conclusion in the sense that pure caffeine did not cause any significant increase in the SBP, while coffee did. HR was not influenced by coffee or caffeine. DBP did not significantly increase, either. Further research is needed to analyze the different ingredients in popular brands of coffee and examine their influence independently or in groups with other ingredients of coffee on females. Also, as suggested by Winkelmayr et al. (2005), sweetened coffee (artificially or naturally) should be examined and results compared to coffee

with no sweetener in it. Also, future research might analyze the effects of decaffeinated coffee on women at rest, moderate, and high intensity exercise. The present study also observed a 6.42% difference in the SBP double products at rest and exercise. Double product is an indirect index of cardiac oxygen consumption, and thus, the above percentage becomes significant and might hinder performance at lower intensities and even put the individual at a disadvantage or risk at high intensities.

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Caption...

Middle School Health Class

Preparing 8th Graders for the Transition to High School

By Kathy Wrenn

For several years now, I have been teaching a drug education class in the spring that prepares our 8th graders for the transition to high school. I designed the course with the help of Sally Chambers, our middle school guidance counselor, plus Jeff Wolfsberg and Brenda Conlan from Lifestyle Risk Reduction (LRR), and Renee Soulis from Freedom from Chemical Dependency (FCD).

I want our 8th graders to have a deep understanding of what happens when teens use alcohol or other drugs. We go beyond “don’t do it because it is bad for you” because the students need to realize how the choices they make can affect their lives. I want them to understand *internal pressure* and the importance of knowing how to deal with situations BEFORE being faced with them. For example, it is important to make a personal commitment not to use alcohol or drugs and to think about why you are making that decision.

We watch several movies on smoking, drinking and the brain, and we do a web search activity to find out information from www.coolspot.gov. We spend three days in class discussions talking about a wide range of topics: our school training rules, the students’ perception of harm when using, their expectations of use in the high school, and the social, physical, and psychological/emotional/behavioral consequences of using drugs and alcohol, as well as the legal consequences.

Every year the 8th graders seem to think that more of our high school students drink than has been reported in recent surveys taken at our school. We have a high school group, TEACH (Teens Expressing Alternative Choices), that visits the spring health class to correct misperceptions by explaining that the majority of our high school students do not drink. They tell the 8th graders, “You are not going to hear someone talk about how sober they were over the weekend.” We then discuss the “social norms theory,” which says that *everyone, adults and kids, exaggerates how much alcohol and other drug use actually happens. When this occurs, we tend to do things that we think others are doing, when in fact they really aren’t doing those things at all.* During their visit, the TEACH students share their own stories of why

they choose not to use, and they talk to the 8th graders about high school life. This last spring, one of my 8th graders commented, “I thought high school was going to be filled with pressure to use, but now I know it isn’t.”

The 8th grade students have two projects for this class. First is the Personal Identity Project in which they create a collage of words, pictures, phrases, etc. that helps to convey the values and beliefs that mean the most to them. This project should represent who they are and what is important to them. We talk about the dangers of losing some of these things that are important when using alcohol and other drugs. The second project is a PowerPoint presentation for the class. Students research the life of a celebrity whose drug abuse has had a major impact on his/her life. The class gets to hear 10 examples of how drug use impacted the celebrities’ lives, careers, and relationships.

Key Messages to the 8th Grade Class:

- Be true to yourself – your goals and who you are
- Know how you will deal with the internal pressure – make a personal commitment before you are faced with the situation
- Think about the consequences – emotional/psychological/behavioral, social and physical.
- Remember -- not everyone is doing it!
- Learn how to have fun and have parties without alcohol -- avoid using alcohol to “have fun”, provide courage, deal with stress, etc.
- Early exposure to an addictive substance leads to a greater chance of life-long addiction! Statistics tell us that 40% of kids who begin drinking at 15 will become alcoholics while only 10% of those who wait until age 21 will develop alcoholism.

Article written by Kathy Wrenn, Collegiate Middle School, Physical Education and Health Department Head. If you have questions, please feel free to contact me at kwrenn@collegiate-va.org



New NASCAR Course Elevates Profile of Virginia State University's Sport Management Program

At the beginning of the spring 2007 semester at Virginia State University (VSU), instructor Keith Green, Director of Public Relations at Richmond International Raceway (RIR), and course facilitator, Dr. Leon Wright Bey, who is a Professor in the Department of Health, Physical Education, Recreation, and Dance (HPERD Department) at VSU, introduced a unique, three-credit course entitled, "The Business and Marketing of NASCAR." The idea for the course is credited to Dr. Michael W. Jackson, Professor and Director of Graduate Programs in Sport and Recreation Administration at Temple University (TU), who suggested that his former graduate students (co-authors of this article, Green and Bey) collaborate on this project.

The class relied on the industry knowledge of Mr. Green, who has 14 years of sports marketing experience, including nearly 9 years of helping to promote NASCAR races. Bey, who has taught for 31 years, assisted him by handling many of the administrative aspects of the class.

The course included three site visits to Richmond International Raceway (RIR) during NASCAR testing and race weekend, making it more than likely the first time a course of this nature and scope was taught anywhere in the country and most certainly, making it unique to "Historically Black Colleges and Universities." Hosting a course of this nature on the VSU campus definitely elevated the profile of its sports management program.

It provided students with a board overview of the NASCAR industry through a combination of in-class lectures by the instructor, guest speakers who are industry experts and site visits to the track. Students learned how fundamental business practices including, but not limited to, marketing, public relations, advertising, sales and technology relate to America's number two sport, NASCAR.

Students also learned about the history of the sport and what NASCAR is doing to reach out and involve more minorities in the sport. Given the relevant demographics of the class, exposure to NASCAR's diversity initiatives (e.g., internship opportunities) was a particularly significant aspect of the course.

During the first class, only about a half a dozen students acknowledged ever having attended or watched a NASCAR race or of having known much about the sport. To introduce most of the students to the sport and help immediately grab their attention, a video narrated by rapper Funkmaster Flex was shown to the students. The introductory piece gave a board overview of NASCAR and how the sanctioning body is going to great lengths to involve more minorities in the sport. This was a terrific tone-setter for the class.

A brief overview of NASCAR was also given and this in turn also helped to set the tone for the class. Students were encouraged to think of the class as an open forum and to ask questions about anything related to the sport at any time. This led to some fantastic questions throughout the duration of the semester.

In-class guest speakers included members of the marketing and sales team at Richmond International Raceway; Nate Ryan, Motorsports journalist for USA Today; Ben Hamlin, the sports director for NBC12 in Richmond and Todd Ervin, the Director of

Multi-Cultural Marketing for International Speedway Corporation, parent company of Richmond International Raceway and 12 other tracks.

Specifically, the students learned how NASCAR is big business and how the teams, drivers, tracks, sanctioning body (NASCAR), TV networks and sponsors all work together to make NASCAR a \$3 billion-plus industry each year. Students seemed to have been amazed at the enormity of the motorsports industry.

All of the lectures by the instructor and information provided by the guest speakers culminated in several site visits to RIR to help the experience come full circle for the students. The students attended one of or both of the NASCAR test sessions at the track, which is a little more than a half hour from campus. They sat in on press conferences held by the drivers (even having the opportunity to ask 2006 champion Jimmie Johnson and local hero Denny Hamlin of Chesterfield questions!), listened intently as more guest speakers lectured, took a tour of Dale Earnhardt, Jr.'s hauler and soaked in some of the testing action from pit road and the grandstands.

Some of the at-track guest speakers included Gary Graves from USA Today; Joe Balash, Director of the NASCAR Busch Series and Kenneth "Lightening" Scott, a NASCAR official who is the nephew of legendary African American racecar driver, Wendell Scott.

A handful of students even took advantage of an invitation from track and NASCAR officials to attend the May 4-5, 2007 NASCAR weekend at the track after the class had ended! Their participation in this regard, underscored their interest in NASCAR and appreciation for germane opportunities that Mr. Green presented during various class sessions.

Throughout the semester, students were encouraged to follow the sport by watching races on television and by periodically checking websites and newspapers that had the latest NASCAR news. The "news of the week," along with information contained in the class lectures and from guest speakers, formed the basis of the weekly quizzes given by the instructor. In addition to the quizzes, each student was required to pick a NASCAR topic of his or her choice and give a technology-assisted oral presentation. This was an opportunity for the students to not only learn more about many NASCAR topics, but to also help sharpen their presentation skills. The take-home final was then based on the quizzes, class lecturers and one question from each student's oral presentation.

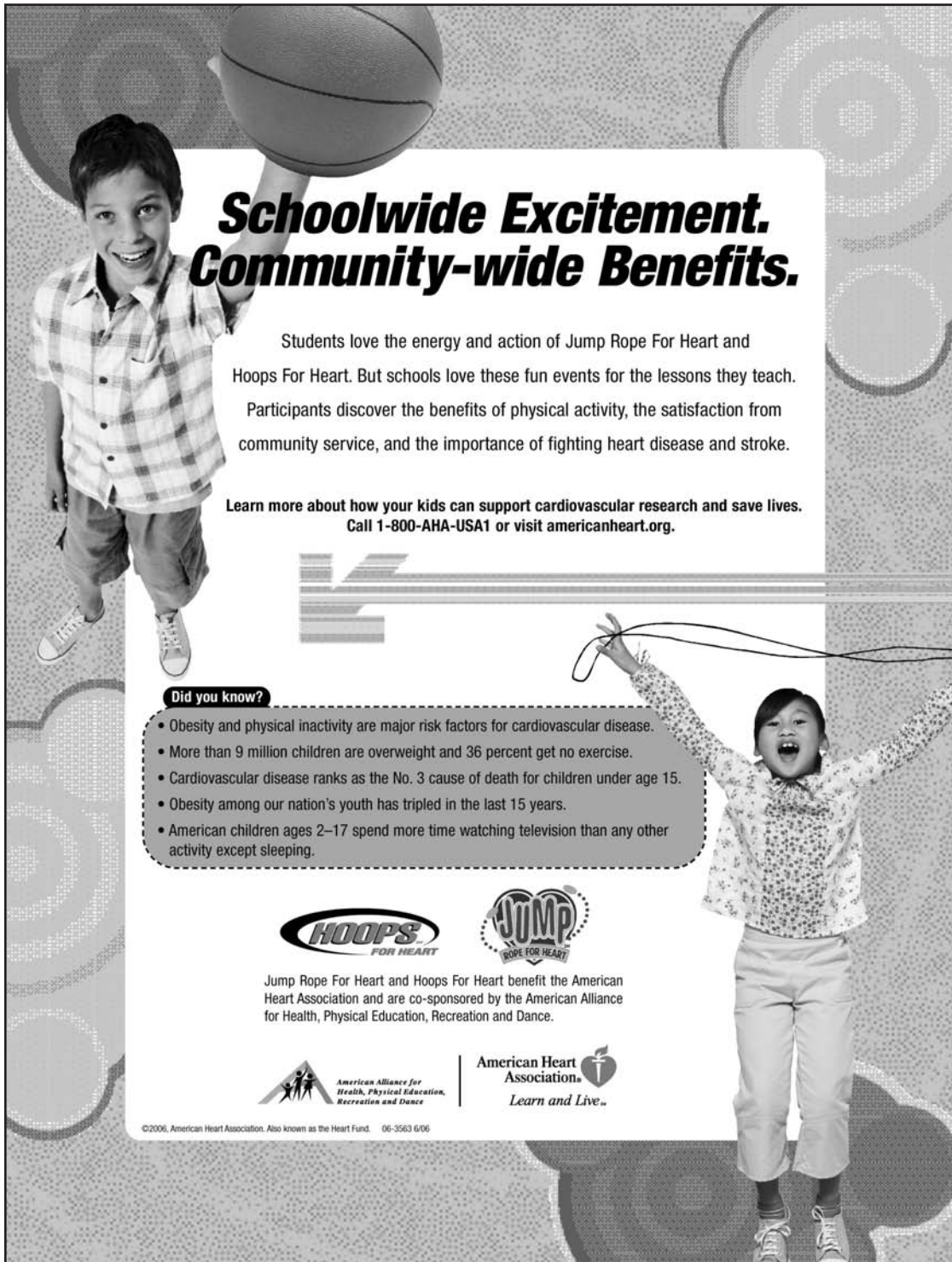
Overall, this seemed to have been an enlightening and rewarding experience for the students, many of whom had never thought of NASCAR as a career possibility prior to their enrollment in this course. It was also most certainly a rewarding experience for the instructor, Mr. Green, who was teaching for the first time.

"Mr. Green, who is an authority in his field, provided expert instruction for this course," said co-author Bey. "In fact, his extraordinarily innovative teaching style matched that of a veteran instructor, as opposed to one who had no prior classroom experience," he continued.

The authors hereby express their gratitude to Dr. Jackson; Dr.

Andrew Kanu, erstwhile Chair of the VSU HPERD Department; Dr. Weldon Hill, Dean of the School of Liberal Arts and Education at VSU; Dr. Ali Ansari, Dean of VSU's School of Graduate Studies, Research and Outreach; all student participants and guest speakers; administrators and staff at RIR; and many other indi-

viduals for their great support. It is largely because of Mr. Green's expertise and their contributions that 32 HPERD Department students successfully completed this historic course while gaining unprecedented exposure to the motorsports industry.



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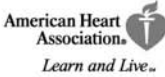
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Virginia State University's 2nd Annual HPERD/Sport Management Leadership Symposium Attracts Industry Leaders and Provides Unique Networking Opportunities for Students

By Leslie Crocker, HPE Instructor, Meadowbrook High School,

Adjunct Instructor, HPERD Department, Virginia State University

Leon Wright Bey, Professor, HPERD Department, Virginia State University

On Monday, April 30, 2007, several authorities in the fields of collegiate and professional sports, community and public school health, physical education, athletics, parks, and recreation and leisure services, participated in The 2nd Annual HPERD/Sport Management Leadership Symposium at Virginia State University (VSU). The Symposium was the brainchild of the co-author of this article, Leon Wright Bey, who is a Professor in the VSU HPERD Department. The other co-author, Leslie Crocker (HPE Instructor, Meadowbrook High School and Adjunct Instructor, VSU HPERD Department), and Dr. Lauren Hamilton, Associate Professor, VSU HPERD Department, were among 19 members of the event's planning committee that was comprised of students, faculty, administrators, members of the HPERD/Sport Management Majors Club Executive Board, and a wide variety of other contributors.

The theme for this year's event was "The Dynamics of Networking." Listed below are the practitioners who served as panelists and/or moderators:

Topic: Networking in Collegiate & Professional Sports

- Janice Johnson, Executive Director, The Rudi Johnson Foundation
- Monique Morgan, Associate Commissioner, The Central Intercollegiate Athletic Association (CIAA)
- George Christopher, Esq., Chief Executive Officer, L'Impresa Sports Management
- Anthony Davis, Director of Sport, University of Technology, Jamaica
- Peggy Davis, Athletic Director, Virginia State University
- Shequra Dickerson, Assistant to the Director of Compliance, The Colonial Athletic Association (CAA)
- Noir Fowler, Public Relations, Community Development and Game Promotions, The Richmond Braves
- Ryan Losi, CPA, Director of Business Development, Piascik & Associates, P.C.
- Steve Piascik, CPA, President, Piasick & Associates, P.C.
- Curtis Symonds, Chief Operating Officer, Washington Mystics (WNBA)
- James L. Tanner, Jr. Esq./NBA Certified Agent, Williams & Connolly, LLP

Topic: Networking in Community and Public School Health, Physical Education, Athletics, Parks, Recreation and Leisure Services

- Venisha Bowler, Senior Manager, World Games & Competitions, Special Olympics
- Harold E. Jordan, Attorney/Entrepreneur, Former Owner of Professional Sports Teams

- Millard Bolden, Project Manager, Youth Services, City of Roanoke (VA) Parks & Recreation
- Kim Brandveen, Executive Director, HealthCare Solutions, Petersburg, VA
- Robert Gregory, Assistant Principal, Kramer Middle School, SE Washington, DC
- Remus James, Head Football and Track Coach and Information Technology Teacher, Petersburg High School (Petersburg, VA)
- Corey Johnson, Health and Physical Education Teacher, Tussing Elementary School, Colonial Heights, VA
- Portia Kershaw, Health and Physical Education Teacher and Driver's Education Coordinator, Meadowbrook High School (Chesterfield County, VA)
- Nichole Martin, Community Health Prevention Specialist for the Crater Health District (Petersburg, VA)
- Larry Stewart, Activities and Athletic Director, Matoaca High School (Chesterfield Co., VA)

The keynote speaker for the afternoon luncheon was Kellen Winslow, a member of the Pro Football Hall of Fame and the NFL All-Time Team. He presently serves as the Director of Planning and New Event Development for the Walt Disney World Sports Complex in Orlando, Florida. His assistant, Ms. Megan Jackson, her father, Dr. Michael W. Jackson (Professor and Director of Graduate Programs in Sport and Recreation Administration, Temple University), and the support of several VSU leaders were the keys to VSU being able to secure Mr. Winslow's services for this event. Dr. Jackson serves as the National Advisor for the Symposium and was the keynote speaker at last year's inaugural affair.

Ben Hamlin, Sports Director, NBC Channel 12 News, was the Master of Ceremonies for the luncheon. Others who spoke at the luncheon and/or at other sessions are listed below:

- President Eddie N. Moore, Jr., VSU President
- Dr. W. Eric Thomas, VSU Provost/Vice President for Academic and Student Affairs
- Dr. James Hunter, VSU Vice Provost for Academic Affairs
- Dr. Weldon Hill, VSU Dean of the School of Liberal Arts and Education
- Dr. Andrew Kanu, Present Director of Interdisciplinary Studies (VSU) and former Chair of the VSU HPERD Department
- Dr. Michael W. Jackson, Professor and Director of Graduate Programs in Sport and Recreation Administration, Temple University (Philadelphia, PA)
- Megan Jackson, Kellen Winslow's Assistant
- Keith Green, Director of Public Relations, Richmond International Raceway
- Dr. Lauren Hamilton, Associate Professor, VSU HPERD Department

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- Aaron Jones, Senior/President of the VSU HPERD Sport Management Majors Club
 - Khadijah Muhammad, Graduating Senior (May 2007), and Secretary for the VSU HPERD Sport Management Majors Club
 - Leslie Crocker, HPE Instructor, Meadowbrook High School; Adjunct Instructor, VSU HPERD Department
 - Dr. Leon Wright Bey, Professor, VSU HPERD Department; Symposium Founder

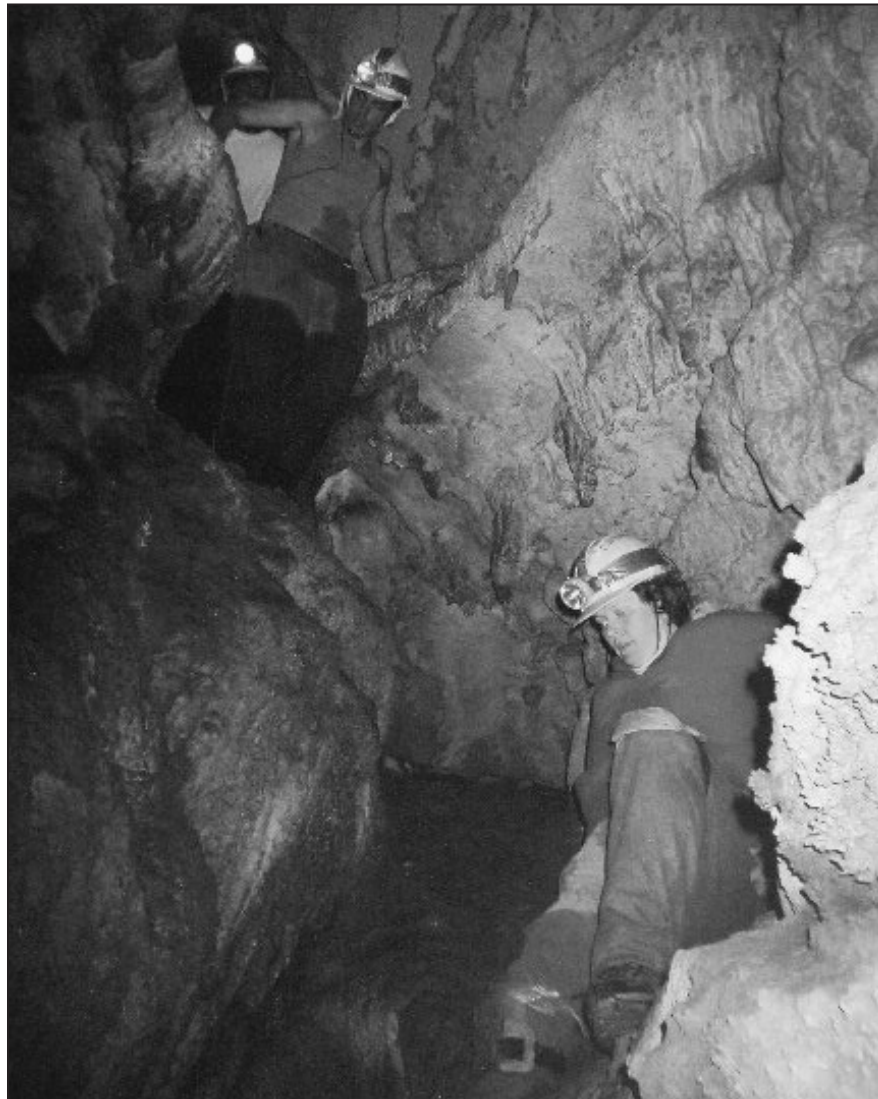
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This event was attended by: VSU students, faculty, staff, administrators, coaches, and alumni; parents; community leaders; and a variety of other individuals. Although in only its second year, it has already provided great opportunities for students to receive very valuable advice on the importance of networking en route to their becoming future professionals in the HPERD/Sport Management arena.

One of the primary reasons for the success of this event was the great support that was received from Dr. Andrew Kanu, Present Director of Interdisciplinary Studies (VSU) and former Chair of the VSU HPERD Department, and a variety of others. These persons include, but are not limited to, members of the VSU administration, and others whose names and/or units appear throughout this document. Special gratitude is extended to all of these great supporters.

Plans are currently underway for the 3rd Annual VSU HPERD/Sport Management Leadership Symposium that is projected to be held during the Spring 2008 Semester at VSU. For more information, please contact Bey at lbey@vsu.edu.



Caption...

Out of the Darkness

How two teachers lead students toward educational success.

By Linda Baumler & Andrea Claxton

Point Option Alternative School, Newport News Public Schools

We emerge from the cave, blinking at each other in the bright light. We are much muddier than when we entered. We arrange ourselves on rocks by the entrance for a group photo and grin, joyfully feeling the sun warm our triumphant faces. When we entered the cave a few hours before, we had been a rag-tag bunch, some excited, some terrified. Now we are cavers one and all. Having gone in as individuals, we are now a team, knowing that we can count on each other in the toughest of circumstances.

As teachers in our alternative high school program, the challenge is to explore new methods of encouraging student success. As a result, three years ago, Outdoor English was born. The class combines state standards for English instruction with the standards for physical education. Students earn credit in English and P.E. in this double-block class. A graduate of our program, who has since become a teacher himself, once wrote,

A living ideal in the Point Option philosophy is that class does not always have to take place in a classroom. I have been able to participate in a class that not only allows me to learn outside of a classroom, but to learn things that you won't find in any textbook.

Most of the students in our school have been unsuccessful in a more traditional setting. These otherwise capable students find the challenge of applying learning to real life situations both powerful and productive. As educators, we also find ourselves challenged to move beyond the boundaries of our own curricula. Can the English teacher run the mile? Can the P.E. teacher write a descriptive paragraph? Students witness the value and joy of life-long learning.

We begin preparing eight weeks before the caving trip. On day one, we inform students of the requirements they must meet if they intend to participate in this overnight trip. Everyone will need to develop their levels of fitness until we can run a mile, and complete sit-ups and push-ups. Students will learn about camping techniques and wilderness etiquette. In addition to this, students will be developing their research and presentation skills. They will learn about cave formations and animals. They will also learn about caving safety and equipment. Then in groups they will teach the information they have learned to the rest of the class. Each group will present the information in a different way using appropriate technology. One option is to make a movie, another is to create a photographic montage, and another is to present the information using graphs and charts. Students think about their strengths and move themselves into the appropriate groups. During the evaluation phase after the trip, all students commented that this method of forming groups was different from what they were used to, and that it worked well. They also liked working on the projects and teaching the information to each other.

But the part that students seemed to like the best was how we developed our levels of fitness. Fitness activities were included

in all three class meetings each week, but every day was a little different. Some days the entire class worked out together. These usually took the form of fitness games. Other days, presentation groups worked together to meet specific fitness challenges. Students entered class to find a list of fitness and research activities on the board and decided as a group in which order to accomplish these objectives. This served the double purpose of developing individual fitness while improving their ability to work together. On still other days, students worked out individually. Each student maintained a fitness goal sheet that helped them record their progress toward mastering trip requirements. This knowledge, group work, and fitness work would allow us to visit an environment most people only see on TV.

The cave is very dark, the darkest place we have ever been. Back in the twilight zone we had seen lots of insects, but only our lamps allow us to see now. It feels like an alien environment. We have all been challenged by some feature of the cave now; only by relying on each other and our faith in our individual strengths have we made it this far. We have crossed crevasses, and crawled through wormholes. We have maintained three points of contact as we dropped down to the third level of the cave where we find a stream. We have admired the stalactites and stalagmites, marveled at rim stone dams. Once we get as far as we can go on this journey into the cave, we sit down, extinguish our lights and are enveloped by complete silence and darkness. A bat flies past the group, breaking the silence. After it passes, we begin to notice the sounds of dripping water, the maker of the cave and its formations. In a few minutes we turn our lights back on and begin the journey back to the surface. This seems easier, and a little bittersweet.

It is important to acknowledge that we are the beneficiaries of some amazing synergy. In addition to caving, we offer our students opportunities to canoe, kayak, and backpack, all on overnight trips. What we have created is the direct result of the work of pioneering colleagues and the supportive encouragement of many administrators, not to mention some degree of luck. However, it is also the result of hard work, plenty of sweat, and taking the initiative to capitalize on opportunities when they have presented themselves. We firmly believe that these last elements would be enough for another group of teachers and administrators to implement a similar program.

As our group arrives at the mouth of the cave, the unknown yawns before us in the darkness. But is it really unknown? We will be challenged physically, mentally and emotionally. We must learn to rely on each other; we have to be sure we can count on our own bodies. This is the moment when we would confirm that gaining knowledge allows us to try new things. We are ready to face this challenge. And if we can face the challenges of the cave, we can certainly face life.

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Charlotte Kelso and Charlotte Kelso

What Adapted Physical Education Teachers in Virginia Should Know About Islam

*By Matthew D. Lucas, Department of Health, Recreation, and Kinesiology
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Growing Number of Students Practicing Islam in Virginia

The growth of Islam across the world, in this country, and in the state of Virginia has become increasingly evident over the past decade. It is to be noted that Islam is not only the second largest practiced religion in the world, but it is also the fastest growing religion in the world, with over 1.1 billion followers (National Council of Churches, 2005). Islam is also the fastest growing religion in the United States in terms of followers (Adherents.com, 2005). There are nearly 2000 mosques—Islamic places of worship—nationwide, as well as numerous Islamic Sunday and weekend schools (Peters & Bandler, 1997; Roof, 2000). In the state of Virginia, Islam has essentially the same number of followers as Judaism and is the second fastest growing religion (Wikipedia.org, 2007). As the number of followers of a particular religion increases, conventional wisdom would suggest that the number of students who follow a particular religion would also increase. Thus, it would be safe to assume that there are an ever-increasing number of students that follow Islam in the Virginia Public School System and subsequently in our physical education classes. Unfortunately, determining the actual number of Islamic students—or students who practice any one particular religion—is virtually impossible because of the sensitive nature that is often associated with surveying a family's religious preference. Public Law 94-521 prohibits the U.S. Census Bureau from asking a question on religious affiliation on a mandatory basis (U.S. Census Bureau, 2006).

Growing Number of Students in Virginia Who Practice Islam and Receive Special Education/ Adapted Physical Education Services

As the number of students who practice Islam in Virginia grows, the number of Islamic students who receive special education (including adapted physical education) should also increase (more students equals more diverse students, including those serviced by special education and adapted physical education programs). As noted, determining such a number is virtually impossible because of the sensitive nature of the subject.

Importance of Determining What Adapted Physical Educators Should Know about Islam

With a growing number of students practicing Islam and receiving special education services including adapted physical education, it is important for teachers to understand a variety of specific Islam-related factors for the purpose of improving the education of these students. Also, it should be remembered that limited knowledge often could lead to feelings of being uncomfortable and in return to negative stereotypes. This theory of negative stereotyping leads the “in-group” to expect negative behavior, and thus feel uncomfortable with the other group simply because of these negative stereotypes (Kendall, 2006). Unfortunately the religion of Islam is not a subject that many teachers have a great

deal of knowledge in regards to because the state of Virginia, like the United States is a traditionally Judo-Christian society.

Islamic Practices That Might Effect Adapted Physical Education and Solutions

Before discussing Islamic practices and how adapted physical educators should accommodate for them it should be remembered that as teachers it is considered unethical to ask a child or a parent questions regarding their religious preference unless they open the discussion. With this said, many modifications should not be made unless parents/guardians express a desire for accommodations. If an adapted physical education teacher is made aware of the fact that the parent/child is Islamic, there are religious practices the teacher may have questions in regards to because of possible conflicts with physical education class. These questions might deal with: 1) removal of head covering, 2) putting on a slip-over jersey by an opposite-gender teaching assistant, 3) attendance at school on holy days, 4) prayer obligations for students, and 5) co-educational issues. The following presents information on these religious practices and possible solutions.

Removal of Head Covering

Girls of the Islamic faith often wear head coverings as a sign of their beliefs. Many individuals, including adapted physical educators, may believe that the wearing of such a head covering would represent a problem in adapted physical education class because of a restricted field of vision. However, this is rarely the case as the covering is only supposed to cover the hair - not the eyes. Exceptions may be culturally related such as in the case of a burka for individuals with a heritage from Afghanistan. If this is the case, the individual should not be asked to remove the clothing, but instead allowed to participate in a safe environment such as one parallel to the rest of the students in the class.

Putting on a Slip-Over Jersey by an Opposite-Gender Teaching Assistant

Often times slip-over jerseys are used in general/adapted physical education class as an easy way of marking different teams. This is done in a variety of activities and is often facilitated by teaching assistants for students that can not put the jersey on or can not do this quickly because of motor difficulties (many students receiving adapted physical education services). The physical education teacher or a teaching assistant that is assigned to the class is usually the individual that assists the student. This individual may be a male or a female. If a same-gender teaching assistant or same-gender teacher were not readably available, an easy solution would be to allow a same-gender peer to assist the child with the disability. The teacher should also always verify that the student is comfortable with the individual, adult or peer, who assists the student.

Attendance at School on Holy Days

Another interesting topic related to students of the Islamic faith deals with attendance at school on Islamic Holy Days. Public school systems in this country, including Virginia, have traditionally followed a schedule recognizing Christian holidays such as Christmas and have ignored religious holidays associated with other religions, such as Islam. Schools recognize the rights of students to miss school because of religious holidays. However, a problem may arise when a school plans a special event, such as a demonstration of a local wheelchair basketball team, on the day in question. Such an event would probably be of particular interest to a student who uses a wheelchair - a student who might receive adapted physical education services. School officials, including teachers, should plan such events carefully as to avoid such conflicts and change the dates of such events if a conflict comes to their attention. If such changes are not possible, at the very least, schools should videotape the event and allow the student that missed it to observe it at a later time, possibly with others peers who were absent.

Prayer Obligations for Students and Potential Conflicts with PE Class

Many individuals of the Islamic faith set aside times during the day in which to pray. Physical education teachers, including adapted physical educators may believe that such prayer obligations for students could be a conflict with physical education class time. This may especially be the belief when the student receives itinerit adapted physical education services and the itinerit teacher can only be at a school during a limited time span. However, this should not represent a problem. This is the case because the individuals involved in this religious practice usually follow the guidelines in which they have a time span of about three hours in which they are to pray for about twenty minutes. Thus, schools should have no problem accommodating this religious practice. In terms of a solution, it would be difficult to imagine this truly being a problem. However, it is important to remember that schools should accommodate students and provide a quit area in which to pray for the time that is designated by parents and children.

Co-educational Issues

In terms of co-educational issues common in adapted physical education classes, one topic deals with specifically separating students based on gender during certain activities. It should be noted that in many school districts, students are separated after puberty for all "contact sports". Co-gender classes may be a particular

concern for students receiving adapted physical services because of a lack of balance causing them to fall "into" opposite-gender students. Students should always be given an alternative activity in which to participate in order to alleviate this issue. Teachers should remember that this should be presented to not just the student in question but to other students to avoid the stigma of being signaled out.

Conclusion

With a growing number of diverse students in the state of Virginia it is more important than ever for teachers, such as adapted physical education teachers, to recognize differences among students. Teachers should avoid allowing negative stereotypes to form in their minds or to flourish in their classrooms. With a better understanding of these differences, such as Islamic beliefs and traditions, adapted physical education teachers can hopefully serve students of the Islamic faith better than ever.

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Experiential Classroom Learning for Sport Management Students: Preparing Them for the Real World

*By Ralph Charlton, Assistant Professor and Program Coordinator for Sport Management
Hampton University*

The number of undergraduate and graduate programs in sport management continues to increase as the sport industry continues to boom and grab the spotlight. In addition to the excitement of sports, the economic value of the sport industry is estimated to be \$213 billion last year, twice as large as the automotive industry (The sports industry, n.d.). Sport management students find getting an internship and later a job to be increasingly competitive. A key to breaking into the sport business is a good field experience.

How can sport management educators better prepare their students for successful field experiences? Field experience supervisors are looking for students to have the knowledge, skills and abilities to immediately contribute to their organizations. One of the answers lies in creating experiential learning within the classroom as students complete their coursework in preparation for field experiences.

Experiential and Service Learning

An extensive body of educational research points to experiential learning as best practice in the higher education setting. Kros, Polito, and Watson (2004) define experiential learning as “a process through which knowledge is created through the transformation of experience” and argue that it “can be used to increase student interest and improve course outcomes” (p. 283). “Service learning” is one type of experiential education – in which the goal is to integrate contributions to the community into the academic process – and it has been found to be equally successful. A variety of disciplines have studied the impact of experiential learning on their students and found positive educational outcomes as a result (Hakeem, 2001; Kros, Polito, & Watson, 2004; Petrosius & Washburn, 2004; Pugsley & Clayton, 2003; Rocha, 2000). Used effectively, experiential learning and service learning in sport management courses could lead to improved recollection, knowledge, grades, attitudes, and confidence. Sport organizations are looking for students with practical experience, and sound academic backgrounds in business, management, and sport. Experiential and Service learning can be the key to students gaining that practical experience while enhancing academics.

An Experiential Service Learning Model

Hampton University sport marketing and management courses employ two models of experiential/ service learning that are effective in integrating academic concepts with real experience and providing that practical experience which is key to subsequent, successful internships and practica in sport management. In collaboration with the University’s athletic department, students in the “Sport marketing” course have developed and implemented marketing strategies for the school’s football and basketball programs for the past five years. The “Management of Athletics” class has been supported by the University’s student activities office by enabling the students to plan and implement one-day intramural

events. Through the collaboration and leadership of staff, faculty and students, all have benefited.

Background

Hampton University is a private, historically black college and university (HBCU) located in Hampton, Virginia. It has an undergraduate enrollment of 5800. The institution is a Division I member of the NCAA and competes in the Championship Division for football within the Mid-Eastern Athletic Conference. The athletic program has been very successful, but the athletic department continuously seeks ways to get more students in the seats. The student body is also very athletic and looks to take advantage of any additional intramural opportunities.

A Collaboration- Sport Marketing

With an understanding of athletic department needs, athletic department staff were approached by sport marketing faculty with the idea for an experiential learning experience that would benefit students, faculty, and the athletic department. Members of the athletic department were excited about the prospect of getting free help with their marketing. Faculty were excited about the opportunity to integrate classroom concepts with real world experience. Students were not excited -- until they became engaged in the opportunity and believed their work could make a difference on campus.

Sport marketing students were divided into “marketing firms.” Each “firm” was responsible for developing a marketing strategy to reach set attendance goals at one game that has been chosen by the athletic department. After analyzing their sport product and determining their target market, the student groups proposed strategies to the athletic department staff. If department staff approved the strategies, the students’ marketing firm developed an action plan and went forward. If not approved, students went back to the drawing board, and with the supervision of faculty a new strategy is proposed.

Not every strategy has worked well, but there have been some excellent results. Sport marketing students have promoted several basketball games over the last four years and four football games. Just over half of the games have reached attendance goals. Although certainly the students cannot take all the credit, the athletic department has been impressed with the creative ideas and strategies implemented by the students and now count on student involvement each semester. Some of the more creative and successful marketing strategies include: an “American Idol” type contest during halftime; children’s festivals with games and activities; community relations efforts such as having players meet with first-year students in their dorms to ask for their support; obtaining donated Air-Tran tickets and conducting a raffle during games; a half-time fashion show; persuading a booster to donate money for the purchase of promotional signs that say “Pirate

Football Saturday.”

The following describes the objectives for the sport marketing course

1. *Apply key marketing concepts and strategies within various settings and sectors of the sport industry.* The students were able to take marketing concepts like strategic planning, segmentation, differentiation, positioning, and branding and apply them to Hampton athletics with the strategies they designed and implemented.
2. *Analyze sport organizations to realize strategic marketing opportunities.* The students completed a thorough analysis of strengths, weaknesses, opportunities and challenges for the athletic program. The analysis provided insight into what and how marketing strategies might work.
3. *Develop marketing strategies to realize marketplace opportunities.* Based on their organizational analyses, students created and proposed what they believed would be successful strategies.
4. *Implement strategies to garner a better understanding of both participant and spectator markets.* Students have tried a wide variety of strategies. They have learned from both successes and failures.

Students have learned many other lessons through their efforts. They became aware of the extensive hard work it takes to design and implement a successful marketing strategy. They came to better understand how important it is to choose an appropriate target market for the product and then understand that population. They quickly found out it takes time to go through the channels to get ideas approved. They developed communication skills by writing and presenting the strategy, and then by promoting the strategy. Finally, the importance of teamwork became very apparent given the multiple tasks necessary to be successful.

Serving the Campus- Management of Athletics

Staff members of the student activities office at Hampton University are responsible for providing social, organizational, leadership and physical fitness opportunities for the campus. They welcomed the opportunity to be able to provide additional programs through our Management of Athletics course. Students in this course have provided over twenty different intramural sport events over the last four spring semesters.

For this project, students divided themselves into groups of four or five and develop a proposal for an event. They proposed the event structure and risk management plan, determined the resources and promotional strategy needed, and decided how they will evaluate the event. Once the event proposal has been critiqued and approved by student activities, they moved forward with their plan. The students spent their time obtaining facility approvals, promoting their event, and obtaining the materials for the event on a budget of zero dollars. Successful events have included competitions in flag football, 3on-3 basketball with dunk and three-point shooting contests, dodgeball, volleyball, spades, and a long-drive competition in golf. The events are evaluated by the groups after implementation.

These are the ways that course objectives for Management of Athletics are met by this model of experiential learning.

1. *Provide opportunities to research and analyze the most effective management theories, principles and techniques for the various segments of the sport industry.* Students are able to apply management, leadership and teamwork theories discussed in class to their projects. They also gain practical experience in the key areas of: planning, organization, event management, risk management, promotion, and conflict resolution.
2. *Provide the opportunity for a thorough analysis of the components and organizations that are key to the various segments of the sport industry.* Students gain a basic understanding of how to implement an athletic event for the public. The lessons can be applied to the operations of a variety of sport organizations, including college athletic or intramural departments, parks and recreation programs, and youth athletic leagues,

Supplementing the learning from this project is a requirement to volunteer for one of the most prestigious AAU basketball tournaments in the country. Students serve as gym coordinators, ensure that the schedule in each facility runs smoothly and that coaches follow AAU rules, and that officials and scorekeepers are present. They also deal with any conflicts that might arise.

Impact of the Projects

Students evaluate these experiential learning opportunities after every use. They consistently report that the experiential projects are effective learning tools. In fact, a large majority prefer this approach to the traditional lecture method. The students have provided insights into the ways that the projects affect both their academic progress/learning and their career focus. These comments from students over the last three years provide a perspective on the impact of the activity: project was a great tool for learning sport marketing, helped me realize how much work is needed to be effective, real setting with real marketing issues, better than learning from a book, got the full effect of what marketing is all about, changed view on future plans, new feel and enlightenment for sport management. Students find that the projects are stressful and time consuming, but the impact on building students' knowledge and skills necessary for productive field experiences and subsequent careers are well worth it.

Making Experiential Learning Work

These are the keys to making these experiential projects work.

1. *A positive relationship with the athletic department and student activities office.*
 - Develop a relationship with department liaisons that have contact with the personnel who make decisions. Time is a factor during a semester-long project. These liaisons are critical to navigating approval channels quickly.
 - Maintain good communication. Inform the departments or offices about class guidelines and, reciprocally, be sure the department's needs and their approval process is understood. Doing the approval paperwork incompletely or incorrectly puts the projects at risk by placing it in a time crunch.

- Invite the department staff to the class to hear students' presentations and strategy proposals. This gives students that real world experience and motivation.
 - Take steps to insure that the department or office staff members feel appreciated for their involvement. Thank you letters from the involved students are essential.
2. *Clear project guidelines and assessment.*
 - Distribute a step-by-step guide for the elements of the project.
 - Specify how the project will be graded.
 - Require written components, such as proposals, action plans, weekly updates, and evaluations. This process enhances writing skills and critical thinking, and also presents tangible products to assess.
 3. *Ongoing faculty guidance and supervision.*
 - Check in with groups weekly to monitor progress. Be sure in an on-going way that students are on track. There are real world implications if students do not perform well.
 - Review students' written materials before forwarding them to the departments or offices for approval. Mistakes or missing information reflect poorly on the student, the sport management program, and the departments. Remember that the athletic department and student activities office are counting on the students.
 - Be there game day or event day to support the students and to troubleshoot any implementation issues.

Challenges

There are challenges to implementing experiential learning projects. One is finding time in the classroom to focus on the projects and to focus on important course content as well. Projects like these are demanding and require sufficient course time to ensure the students are prepared and can achieve results. It is often difficult to squeeze in important concept discussions as the date for the projects get closer. Also, this is group work and typical group issues often arise to deal with-- mostly with students who do not contribute but rather ride the coattails of the leader in the group. Finally "authentic assessment" is difficult to determine with experiential and service learning. Butin (2003) contends, in fact, that service learning cannot be assessed individually but only on the relationships and environment involved in service learning.

Conclusion

The Federal Government's Occupational Information Network found that marketing professionals' primary areas of knowledge should be in sales, marketing, and customer service. Their top skills should be critical thinking and coordination. Their abilities should be best in written comprehension, oral comprehension and oral expression. Projects like the one at Hampton University provide important development opportunities for students in critical areas necessary for the careers they have chosen.

Sport management is a competitive business. "Sport organizations are often deluged with resumes when no jobs are available or experience an overload of applicants for an entry-level position" (Southall, Nagel, LeGrande & Han, 2003). Sport Management students must start early to get the practical experience necessary for success in their careers. There are effective models of experiential/ service learning out there, including these two, with strong evidence of positive results. Sport management students will benefit from adoption of this pedagogy into coursework leading up to their field experiences.

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The Virginia Journal is published twice yearly (Fall and Spring) by the Virginia Association for Health, Physical Education, Recreation and Dance. Deadlines for submitting materials for inclusion in the spring issue are July 15th and January 15th. Manuscripts should be sent to Dr. David Sallee, TVJ editor, by email in an attached WORD document. In submitting a manuscript, the author affirms that it has not been published or accepted for publication elsewhere, unless otherwise stated in writing.

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Illustrations such as pictures, graphs, and drawings are valuable additions to manuscripts. Please send these as separate files with your manuscript.

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Each article is reviewed by three members of the Editorial Board. Sometimes a guest editor is asked by the editor to review a manuscript depending upon the topic. To be accepted for publication the article must be approved by at least two of these persons. Reasons for rejecting articles include: topic is not of interest to the profession or to only a few members of the Association, topic is of interest but has already been thoroughly discussed in the literature, manuscript discussion is too general and vague, poor research techniques, or the manuscript is poorly written. In some instances a manuscript may be rejected but the author is invited to revise and resubmit it with corrections. Manuscripts accepted are subject to editing to conform to the Journal format.

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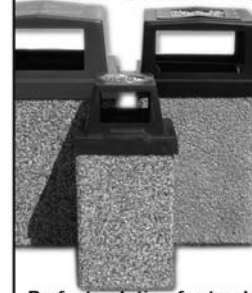
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VAHPERD Values

- Excellence in teaching, research and educational practices in HPERD and related professions
- Positive efforts to promote our disciplines
- Professional integrity and high ethical standards
- Effective communication within and between members and related professionals
- An active and healthy lifestyle
- Embracing the role of special and diverse populations

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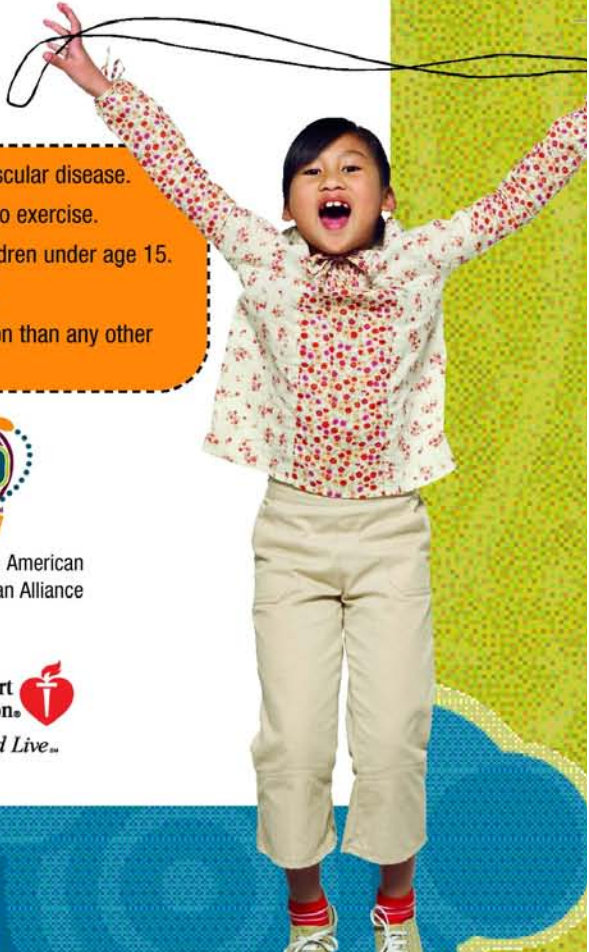


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