

ECHO

ECHO: An international e-journal concerning communication and communication disorders within and among the social, cultural and linguistically diverse populations, with an emphasis on those populations who are underserved.

***ECHO is the Official Journal of the
National Black Association for Speech-Language and Hearing***



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About the Editor

Ronald Jones, Ph.D., CCC-A, ECHO Editor, is a professor in the Department of English and Foreign Languages at Norfolk State University. He is also Coordinator of the Communication Sciences and Disorders program and Director of the University's Speech, Language, Hearing and Literacy Center. Dr. Jones received his Bachelor of Science in Education degree and Master of Arts degrees from Northern Illinois University, DeKalb, IL and his PhD degree from the University of Cincinnati, Cincinnati, OH. He has written and presented extensively in his primary area of scholarly interest: Auditory Rehabilitation service delivery. Dr. Jones served as Chair of the Board for the National Black Association for Speech, Language and Hearing (2006-2008). Dr. Jones was the former managing editor for ECHO. He is also a past editor (of Letters) for the former ASHA magazine. E-mail address: rjones@nsu.edu.

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The following individuals served as reviewers or otherwise contributed, editorially, to the journal during 2012. We thank them for their contributions to ECHO (any omissions were certainly unintentional):

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About the Journal

ECHO is a refereed journal that welcomes submissions concerning communication and communication disorders from practitioners, researchers, or scholars that comprise diverse racial and ethnic backgrounds, as well as academic orientations.

ECHO welcomes submissions from professionals or scholars interested in communication breakdown and/or communication disorders in the context of the social, cultural, and linguistic diversity within and among countries around the world. ECHO is especially focused on those populations where diagnostic and intervention services are limited and/or are often provided services which are not culturally appropriate. It is expected that scholars in those areas could include, but not limited to, speech-language pathology, audiology, psychology, linguistics, and sociology.”

Articles can cover to any aspect of child or adult language communication and swallowing, including prevention, screening, assessment, intervention, and environmental modifications. Special issues of ECHO concerning a specific topic may also be suggested by an author or initiated by the editor.

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Guidelines to Authors

Topics accepted for publication in ECHO could include, but is not limited to, the following:

- Communication breakdowns among persons due to culture, age, race, background, education, or social status
- Use of the World Health Organization's International Classification of Functioning, Disability, and Health (ICF) framework to describe communication use and disorders among the world's populations.
- Communication disorders in underserved or marginalized populations around the world
- Service delivery frameworks for countries' minority populations, including those who are minorities for a variety of reasons including race, religion, or primary language spoken.
- Dialectical differences and their effects on communication among populations
- Evidence base practice research with culturally and linguistic diverse populations
- Provision of communication services in low income/resource countries
- Provision of communication services in middle income/resource countries
- Provision of communication services to immigrant and/or refuge populations
- Effects of poverty on communication development and the provision of services
- Education/training issues in serving diverse populations
- Ethical issues in serving diverse populations
- Role of religion in views of communication disability and its effect on service delivery

Submissions may include:

- research papers using quantitative or qualitative methodology
- theoretical discussion papers
- works using disability frameworks or models
- critical clinical literature reviews
- tutorials
- clinical forums
- description of clinical programs
- scientifically conducted program evaluations demonstrating effectiveness of clinical protocols
- case studies
- letters to the editor.

Manuscript Submissions

All manuscripts should be accompanied by a cover letter (e-mail) in which the corresponding author:

- Requests that the manuscript be considered for publication;
- Affirms that the manuscript has not been published previously, including in an electronic form;
- Affirms that the manuscript is not currently submitted elsewhere;
- Affirms that all applicable research adheres to the basic ethical considerations for the protection of human or animal participants in research;
- Notes the presence or absence of a dual commitment;
- Affirms that permission has been obtained to include any copyrighted material in the paper; and
- Supplies his or her business address, phone and fax numbers, and e-mail address.

All manuscripts must be submitted electronically and should follow the style and preparation presented in the Publication Manual of the American Psychological Association (fifth edition, 2001; see Journal for exceptions to APA style) Particular attention should be paid to the citing of references, both in the text and on the reference page. Manuscript submissions and inquiries should be addressed to: nbaslh@nbaslh.org.

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Current Issue

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Nancy L. Martino, PhD, CCC-SLP

Xavier University of Louisiana

New Orleans, LA

Corinne Williams

Xavier University of Louisiana

New Orleans, LA

Nancy L. Martino
nmartino@xula.edu

ABSTRACT

The purpose of this research was to examine the usage and development of African American English (AAE) during story retells produced by students in kindergarten and second grade in an urban public school located in the south. Participants were 34 typically developing African American kindergarteners and second graders from low SES homes in New Orleans, Louisiana attending two charter public schools. Kindergarteners produced significantly higher dialect density than second graders during a story retell task. Between the two grades, there were no significant differences in the number of different features that were used. Preterite *had*, zero subject-verb agreement, zero possessive and existential *it* were used by more second graders than kindergarteners while zero past tense and zero copula were used by more kindergarteners than second graders. The past tense nature of the task may have contributed to the findings.

KEY WORDS: African American English, story retelling, child language, morphosyntactic core

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Nancy L. Martino, PhD, CCC-SLP

*Xavier University of Louisiana
New Orleans, LA*

Corinne Williams

*Xavier University of Louisiana
New Orleans, LA*

INTRODUCTION

African American English (AAE) is a systematic variety of English that is characteristically spoken by many African American students when they start formal schooling (Washington & Craig, 2002). AAE is characterized by grammatical differences, known as morphosyntactic features, and pronunciation differences, known as phonological features. Examples of morphosyntactic features are the usage of “ain’t” and completive “done”, where someone might say, “He ain’t want that” and “She done left me” The focus of this research is on students’ morphosyntactic features of AAE.

While there is abundant research on the systematic and rule-governed nature of AAE, there is far less research about specific aspects of its development. Speech-Language Pathologists need to be educated in this area so that they may make appropriate clinical decisions regarding which children may be at risk of having delays or disorders and which are developing typically according to their AAE usage.

Among speakers of AAE, usage patterns vary across gender, socioeconomic status (SES), community, and discourse genre (Bountress, 1983; Craig & Washington, 2004; Ratusnik & Koenighsknecht, 1976; Washington & Craig, 1998). Boys have been observed to produce more contrastive AAE features than girls in free-play contexts but not in picture descriptions (Washington & Craig, 1998). Typically, children from low SES households produce more AAE features than other children in middle SES households (Ratusnik & Koenighsknecht, 1976; Washington & Craig, 1998). In addition to SES, community can play a big role in influencing young students in dialect density, which is the measure of the type of features used by speakers of a particular dialect (Bountress, 1983). A study by Craig and Washington (2004) found that children in a city environment were more likely to use AAE dialectal features than those in an urban-fringe community.

AAE speakers from different parts of the U.S. have been found to use a core group of features. Oetting and Pruitt (2005) found

that Louisiana speakers of AAE used many of the same features of AAE as speakers from the northern and eastern U.S.. These features include omission of copula or article (also known as zero be), subject-verb agreement, omission of past tense, and differentiated pronoun.

Past research has found that some speakers of AAE enter school speaking AAE but change in dialect towards Standard American English (SAE) when they become more exposed to a classroom and curriculum that promote SAE on a daily basis (Washington & Craig, 2002; Adler, 1992; Fishman, 1991). This change from AAE to SAE is known as a dialect shift. Bountress (1983) found that specific AAE features decreased from first grade to third grade. Craig and Washington (2004) found that the density of total features decreased in a short time period, from kindergarten to first grade. This is important information because there may be children whose dialect density does not decrease after kindergarten and these may be children with language delays or disorders.

The number of feature types that are used by students appears to increase with age. Craig and Washington (2004) found that first graders used an average of three feature types but by fourth and fifth grades used an average of eight different types. These findings suggest that there is a developmental trajectory to AAE morphology just as there is to SAE morphology.

Variations of AAE usage have been found across discourse genre or type, such as picture naming, conversations, free play, oral reading of SAE text and spontaneous writing samples. Preschoolers and kindergarteners produced a higher number of AAE features with picture descriptions than during spontaneous free play interaction (Thompson, Craig & Washington, 2004). One discourse genre that has broad application in studying AAE usages is story retelling (Gazella & Stockman, 2003). This type of language elicitation task has provided researchers with a large body of literature about both mainstream and nonmainstream children’s language development and disorders, specifically in the areas of vocabulary, syntax, and story structure (Craig & Washington, 2002; Craig, Washington & Thompson, 2005;

Martino, 2011; Munoz, Gillam, Pena, & Gulley-Faehnle, 2003). Story retelling is a more complex linguistic task than picture description because children must reformulate a story using vocabulary, syntax and story grammar features (character, setting, plot, etc.). Is it possible that due to the complex nature of the task, speakers of AAE may use different dialectal features than what they use in free play or picture descriptions? They may also experience different types of changes from kindergarten to second grade. The present study's use of story retelling will help to increase understanding of AAE usage patterns.

In light of current studies of AAE development in children, the following research questions were asked: 1) do kindergarteners use significantly fewer AAE morphosyntactic features in a story retelling task than second graders; 2) is dialect density significantly higher in kindergarteners than in second graders in a story retelling task?

METHOD

Participants

The participants in this investigation were 32 typically developing African American children in kindergarten (n=17) and second grade (n=15) attending two public charter schools in New Orleans, Louisiana. Teachers were asked to identify five to seven typically developing children in their classrooms who were not receiving special education services or accommodations. Consent forms were sent to 60 children. Thirty-five children returned forms. To confirm that they were typically developing, the Expressive Vocabulary Test (Williams, 1997) was administered with a cut-off of one standard deviation below the mean. Three children scored below one standard deviation and were not included in the study. The kindergarten group consisted of 11 girls and 6 boys. The second grade group consisted of 7 girls and 8 boys. All of the participants in both grades qualified for free or reduced lunch. Each school consisted of over a 95% African American population.

Materials

Subjects were tested individually in a quiet room. After directions were given, they listened to a recording of the story while looking at pictures in the children's book, *Frog Goes to Dinner* (Mayer, 1974). The recording was spoken by a male using SAE. After the story, all materials were taken away and students retold the story to the examiner, who was European American. A second story, *One Frog Too Many* (Mayer & Mayer, 1975) was presented in the same fashion. Only the second story was used in obtaining results. All story retells were audiotaped.

Scoring

A trained African American undergraduate student majoring in Speech Pathology collected the data. A European American speech-language pathologist with a Ph.D. and another trained undergraduate student majoring in Speech Pathology transcribed

all retells individually. Transcription and coding agreement were 95%. Retells with discrepancies and errors were examined again until an agreement was made. The features were identified using Craig & Washington's (2004) morphosyntactic features types (see Table 1). For each participant, all morphosyntactic features were identified specifically and counted for a total. A dialect density measure (DDM) was calculated where AAE frequencies were divided by total number of words produced in the language sample.

Table 1. Morphosyntactic types.

Morphosyntactic type and definition	Abbreviation	Examples
Preterite had Had appears before simple past verbs	HAD	"And that boy had told him to go home"
Subject-verb agreement Subjects and verbs differ in marking of number	SVA	"Then they was (were) mad"
Zero copula/auxiliary Copula and auxiliary forms of the verb to be are variably included	COP	"And he __ still crying"
Zero past tense -ed markers are variably included on regular past verbs and present forms of irregulars are used	PST	"And Mike stop(ed) crying because he saw him"
Zero possessive Possession coded by word order so -s is deleted or the case of possessive pronouns is changed	POS	"And he landed on the big frog('s) head"
Existential it It is used in place of there to indicate the existence of a referent without adding meaning	EIT	"It was a frog."

RESULTS

The mean Expressive Vocabulary Test scores for the kindergarteners was 100 (standard deviation: 8.79) with a range between 85 and 119 and for the second graders was 97.2 (standard deviation: 5.14) with a range between 85 and 103. *T* tests revealed no significant differences between the two groups: $t(27.9) = 1.15, p = .259$. The total number of words used by the kindergarteners was between 19 and 168 (mean: 71.9; standard deviation: 43.3). The total number of words used by the second graders was between 91 and 323 (mean: 173.5; standard deviation: 58.3). All students in the study used at least one morphosyntactic feature of AAE, (e.g., zero past tense).

In order to account for the varying number of words in the story retells, a measure of dialect density was used. Dialect density consists of the total number of AAE features used divided by the total number of words. Table 2 shows dialect density means, standard deviations and ranges for kindergarteners and second graders. Kindergarteners had a higher dialect density than the second graders. Examination by *t* test revealed statistically a significant difference between the two groups: $t(32) = 2.975$ and $p = .006$.

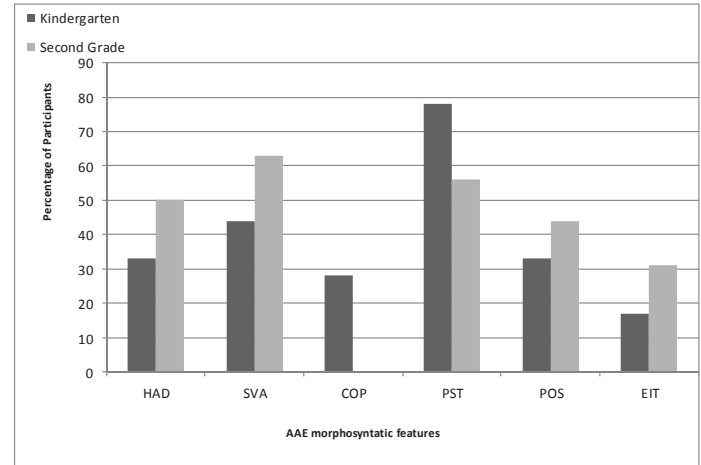
Table 2. Dialect Density Measures.

Grade	Dialect Density
Kindergarten (n=18)	
Mean	.072
Standard Deviation	.041
Range	.01-.14
Second grade (n=16)	
Mean	.037
Standard deviation	.026
Range	.01-11

Only those morphosyntactic features used by four or more students in each group were counted and included in the analysis. Kindergarteners used an average of 2.78 (standard deviation: 1.83) different features. They used 6 morphosyntactic features: preterite had (HAD), subject verb agreement (SVA), zero copula/auxiliary (COP), zero past tense (PST), zero possessive (POS) and existential *it* (EIT). Second graders used an average of 3.25 (standard deviation: 1.66) different features. They used 5 morphosyntactic features: existential *it* (EIT), preterite *had* (HAD), subject verb agreement (SVA), zero possessive (POS), and zero past tense (PST). Comparing the average number of different features across the two grades, results indicate that the number of different features increased from 2.78 to 3.25, although the differences were not significant: $t(32) = -.785, p = .43$.

Figure 1 shows percentage of students who used at least one instance of each feature, using the 25% criterion. The following features were used by both groups: HAD, SVA, PST, POS and EIT. It is interesting to note that COP was used by more than 25% of the kindergarteners but not by 25% of the second graders. HAD, SVA, POS and EIT were used by more second graders than kindergarteners while PST was used by more kindergarteners than second graders.

Figure 1. Morphosyntactic features by grade.



DISCUSSION

This study's aim was to examine the usage and development of AAE between kindergarten and second grade. Findings indicated that kindergarteners use fewer morphosyntactic features than second graders but the findings were not significant. Overall usage of AAE as measured by dialect density was significantly lower in second graders than in kindergarteners.

This study adds to the body of research by demonstrating changes in dialect usage in story retelling. Past studies have elicited samples from picture description tasks and spontaneous free play (Craig & Washington, 2004; Thompson, Craig, & Washington, 2004). In addition, even though the material presented to the students was spoken in Standard American English (SAE), all of the children in the study used AAE features. This finding is similar to past research which found that young AAE speakers use AAE during oral reading of Standard American English (SAE) materials (Thompson, et al., 2004).

The change in dialect density from kindergarten to second grade demonstrates the dialect shift that occurs after kindergarten (Craig & Washington, 2004). While these findings have been documented in picture description tasks, this is the first instance of documentation of the shift occurring during a story retell. Story retelling takes more cognitive resources than picture description due to more elements that must be remembered and called forth. Perhaps by second grade children are making more of an attempt to use SAE in the school setting.

Well over half of the kindergarteners (70%) used zero past tense (PST). The other features kindergarteners used were subject verb agreement (SVA), and zero possessive (POS). These findings are similar to other studies (Conner & Craig, 2006; Oetting & Pruitt, 2004; Craig & Washington, 2004). One feature that was used by kindergarteners in the present study was the morphosyntactic feature, preterite *had* (HAD). This feature appears to be present in the speech of speakers of Southern African American English (SAAE) but few other speakers of AAE (Oetting & McDonald, 2001; Thompson, Craig, & Washington, 2004). Preterite *had* has been found to be used in AAE story telling (Ross, Oetting & Stapleton, 2004). Also, zero possessive (POS) was used by many of the children in this study but has not been used extensively in other studies. The occurrence of zero possessive may be due to the nature of the linguistic context, i.e., narrative. There may have been more opportunities for use of the possessive form in this study compared to other studies as it was about a boy who owned (had possession of) two frogs and other animals. While there were only two instances in the recitation of the use of possessives (*his frog, the big frog's head*), many of the children used phrases such as *Mike pets*, and *the big frog head*, omitting the possessive form.

The second graders demonstrated a high percentage of subject verb agreement (SVA), which is in line with other studies (Oetting & Pruitt, 2004; Washington & Craig, 2002). The second graders also demonstrated occurrences of existential *it* (EIT), preterite *had* (HAD), zero past tense (PST), and zero possessive (POS). Curiously, none of the second graders used copula/auxiliary (COP), which was common in the 4 and 6 year olds in Oetting and Pruitt's findings (2004) and the children in Craig and Washington's study (2004). The past tense nature of the narration of the actual story may have contributed to the occurrence of preterite *had* and zero past tense while other studies may have used a present tense prompt such as, "*Tell what is happening in this picture.*"

The results of this study have important implications in the development of children who use AAE. While a common set of AAE features are used by children, these features change over time. Additionally, children from different parts of the United States share many AAE features. Yet, there are still features that are specific to children from specific regions of the country. These findings have additional implications for individuals who work with children who use AAE. Children may use different patterns of AAE depending on their age and the type of discourse they are using. In a story retelling task, for example, children may use different forms due to the past tense nature of the discourse.

This study's aim was to investigate the development of African American dialect in one particular city. In the future, different types of discourse should be examined and compared for usage and patterns of development. Studies need to include more children from a particular geographical area with the goal of establishing local norms. Also included should be those children who have expressive language impairment in order to investigate differences in usage between typically developing children and those with impairments.

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ABOUT THE AUTHORS

Nancy L. Martino, PhD, CCC-SLP, is an Associate Professor of Speech Pathology at Xavier University of Louisiana in New Orleans. Email: nmartino@xula.edu.

Corinne Williams is a senior Speech Pathology major at Xavier University of Louisiana.

ECHO

PROMOTING COMMUNICATION WELLNESS IN COLLEGE STUDENT-ATHLETES

Robert Mayo, PhD

*University of North Carolina at Greensboro
Greensboro, NC*

Cherie M. Avent, MA

*Guilford Technical Community College
Greensboro, NC*

Carolyn M. Mayo, PhD

*North Carolina A&T State University
Greensboro, NC*

Robert Mayo

r_mayo@uncg.edu

ABSTRACT

Communication wellness involves education and consultation to promote practices that will develop and maintain optimal communication. The purpose of this paper is to present a program designed to promote communication wellness in a group of college student-athletes. Elements of the program are described and forms of communication disorders commonly observed among this student population are presented. Applicability of the strategies described in this program to promote communication wellness in other young adult populations is discussed.

KEY WORDS: Communication wellness, Communication disorders in college-age students, Health promotion and college student-athletes, Healthy People 2020

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PROMOTING COMMUNICATION WELLNESS IN COLLEGE STUDENT-ATHLETES

Robert Mayo, PhD

*University of North Carolina at Greensboro
Greensboro, NC*

Cherie M. Avent, MA

*Guilford Technical Community College
Greensboro, NC*

Carolyn M. Mayo, PhD

*North Carolina A&T State University
Greensboro, NC*

INTRODUCTION

Part of being a college student-athlete involves representing the university in a manner that is consistent with its mission/goals (e.g., demonstrating academic achievement and integrity, increasing student engagement, connecting with communities, enhancing institutional image). Through sporting events, public speaking engagements, and media coverage, student-athletes become highly visual and verbal representatives of the university. In an age of ubiquitous media coverage of college sporting events (live, tape-delayed, or online streaming video), university athletes are frequently asked to speak spontaneously before the camera, and thus endure the verbal and nonverbal scrutiny of fans, alumni, faculty, and their fellow students. Data from the National Collegiate Athletic Association (NCAA, 2011) reveal that student-athletes attending Division I, II, and III institutions graduate at significantly higher rates than their peers from the general student body. It is also noteworthy that large numbers of minority student-athletes participate in intercollegiate athletics with African American athletes dominating the ranks of sports like basketball and football (Irick, 2011).

Regardless of their strong academic performance and graduation rates, surveys of male and female student-athletes suggest that they frequently feel the need to fight the “dumb jock” image (Fletcher, Benshoff, & Richburg, 2003; Harrison, 2002; Lawrence, Harrison, & Stone, 2009; Potuto & O’Hanlon, 2006). As noted by Cooper (2012), “despite the fact that the dumb jock theory has yet to be supported by scientific research, the insidious acceptance of this theory within U.S. educational institutions has presented significant psychological and social obstacles” for student-athletes. (p. 263). It is likely that the on-camera communication performance of student-athletes or their verbal participation in classroom activities can, in the view of

the aforementioned constituents, contribute to or discredit that image.

Though most student-athletes do not continue their sport professionally after leaving college (e.g., less than 3 percent of all college athletes go on to any level of professional sport, NCAA, 2011), they often have aspirations to continue working in the field of sports in roles such as reporters, commentators, etc. that entail oral and nonverbal communication. However, such roles are highly competitive and require effective communication skills (Stankovich, Meeker, & Henderson, 2001). According to Ruben (2000) an athlete with no job and poor communication skills is not merely unemployed, but rather s/he is unemployable. Ruben adds, “On the other hand, a paraplegic in a wheel chair with good communication skills can earn a good living and add to the wealth of the society.” (p. 245). Thus, it becomes evident that life preparation in a highly communicative society and information age is an essential part of the college experience as student-athletes in the twenty-first century face an era of survival of the communicatively fittest (Mayo et al. 2007).

Similar to their peers in the general student population, a number of student-athletes are less-than-effective communicators. For some student-athletes, this challenge may be attributable to dialectal differences and/or regional or foreign accents, underdeveloped oral/nonverbal communication skills, or high public speaking anxiety. Still, others may have clinically significant communication disorders such as stuttering, articulation errors, voice quality disturbances, or hearing loss that may be undiagnosed, untreated or undertreated.

It is notable that the prevalence of communication disorders may be higher among student-athletes than the general college student body. Culton (1986), citing longitudinal data collected over a 13-year period, reported a communication disorders (i.e.,

articulation, voice, and fluency) prevalence rate of 2.42 percent among non-athlete college students. By contrast, Robinson and Crowe (1987) reported that of the nearly 100 university student-athletes, whom they screened for communication impairment, 21 percent exhibited a voice disorder, 10 percent had a hearing impairment, and two percent stuttered. Robinson and Crowe's (1987) finding that nearly one-third of college student-athletes presented with a communication disorder is surprising inasmuch as the prevalence rate for such conditions among the general population of the United States is estimated to be between five and 10 percent (Ruben, 2000). This finding suggests that student-athletes warrant particular surveillance of their communication abilities in order to prevent or identify early the presence of communication disorders.

One way of preventing communication disorders is through providing opportunities for persons to engage in screenings/assessments, self-help activities, and educational programs with the goal of improving their quality of life and communication wellness. As defined by ASHA (2007), communication wellness "involves education and consultation to promote practices that will develop and maintain optimal communication."

The purpose of this paper is to describe a program, Athletes Communicating Effectively (ACE), designed to promote communication wellness in a college student-athlete population. The mission of the ACE program, is to enhance college student-athletes' (a) communication wellness; (b) interpersonal and public communication skills; and (c) communication exchanges in the classroom with faculty and fellow students. Within this paper we focus our discussion on the first of the aforementioned three missions of ACE, enhancing communication wellness among college student-athletes. Following a general description of the ACE program, we present the communication wellness components of the program utilized with student-athlete participants.

BACKGROUND, MISSION AND PROGRAM GOALS

Athletes Communicating Effectively (ACE) is a collaborative program between the Department of Communication Sciences and Disorders, the Department of Public Health Education, and the Department of Athletics at a large four-year university located in the South Atlantic Region of the United States. The university sponsors 18 NCAA Division I men's and women's intercollegiate athletic teams. Developed in 2007, ACE is part of a fifteen-week for-credit course designed to promote health and wellness among student-athletes. The first half of the course focuses on substance abuse prevention and is coordinated by an instructor in the Department of Public Health Education. The second half of the course, which comprises the ACE program, is directed by a faculty member and a staff person in the Department of Communication Sciences and Disorders and the Department of Athletics, respectively. The mission of ACE is to equip participants with the knowledge and skills for successfully

communicating verbally and nonverbally in a variety of venues, including athletic events, the classroom, meeting with professors and job interviews. Likewise, student-athletes learn the basic neurological and anatomical structures and functions of the systems which support speech, language and hearing. Students-athletes are also taught how to protect those structures from damage that might impair effective communication. Finally, strategies to optimize communication wellness are presented.

To measure the success of ACE, two overarching communication wellness program goals were developed. These goals were:

1. Identify student-athletes who exhibit communication disorders.
2. Limit to no more than two annually, the occurrence of new cases of communication disorders among student-athletes by reducing their risk factors.

COMMUNICATION WELLNESS/HEALTH PROMOTION COMPONENT

Within ACE, we utilize a communication wellness/health promotion approach. As mentioned above, in defining communication wellness for our participants we employ the operational definition published by ASHA (2007). Additionally, in describing for our student-athletes what the overall concept of wellness/health promotion means, we use the following definitions:

Communication wellness involves engaging in lifestyle practices that promote healthy development and optimal sustainability of those body parts responsible for speech, language, voice and hearing across the lifespan, from infancy to adulthood (Mayo, 2011).

Health promotion is the science and art of helping people change their lifestyle to move toward a state of optimal health. Optimal health is the process of striving for a dynamic balance of physical, emotional, social, spiritual, and intellectual health and discovering the synergies between core passions and each of those dimensions. Lifestyle change can be facilitated through a combination of efforts to enhance awareness, increase motivation, build skills and most importantly, to provide opportunities for positive health practices. (O'Donnell, 2008, p. 3)

Our approach with ACE is based on a classic social ecological model of health promotion described by McLeroy, Bibeau, Steckler, and Glanz, (1988). This model seeks to move the student-athlete along a path of lifestyle changes (see Figure 1) that (a) increase awareness of the presence or absence of a communication disorder; (b) change behavior by educating the student-athlete about communication, basic structures and functions of the human communication system, various speech, language and hearing disorders and how these disorders can be prevented; (c) promote lifestyle change within the student-athlete by increasing his/her motivation to address their specific

communication disorder and working with them to build the skill set to accomplish this change; and (d) create environments that support healthy communication practices and move participants to engage in and maintain high level communication wellness. A brief description of each of these points along the pathway of lifestyle change and the strategies utilized to enhance communication wellness is presented below.

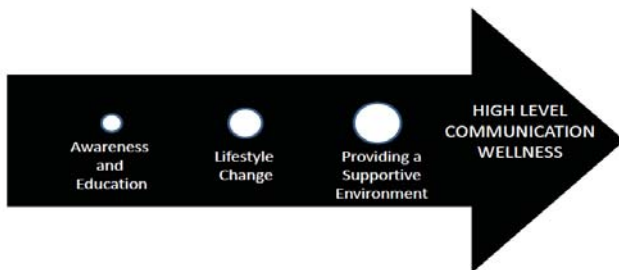


Figure 1. The Communication Wellness Enhancement Path.

Awareness and Education

In broad health education practice, awareness strategies are designed to increase a client's knowledge of or interest in a health-related area. Such strategies might be delivered through newsletters, health fairs, speech-language-hearing screenings, internet websites, and classes or seminars. At the beginning of the awareness and education stages of the ACE program, each student-athlete is evaluated in areas of fluency, voice, articulation and hearing by a certified speech-language pathologist (SLP) and a SLP graduate student-in-training using a screening protocol developed by ACE personnel. Participants who fail any of the screening evaluations are made aware of this fact by the examiner and are interviewed about their history with the communication disorder and any treatments they may have received. In some instances, a student-athlete is aware that she/he has a communication disorder prior to the screening and the test results confirm their knowledge. In follow-up discussions with the latter type of participant, they frequently share that their communication issue was of a pre-existent nature (e.g., a fluency disorder) or that it was "seasonal" (e.g., a voice quality disorder secondary to vocal abuse/misuse that occurs primarily during their competition season). Still other student-athletes who fail the screenings report that they were unaware they had a communication disorder. These participants typically exhibited a hearing loss. We also ask student-athletes about any history they may have of sport- and non-sport-related head injuries/concussions/loss of consciousness. We ask this same question of the team physicians and athletic trainers to corroborate the responses of participants.

During the awareness stage of ACE, the student-athlete who fails the screenings is provided with information on the type, severity, and prognosis for his/her communication disorder. In

the awareness stage, student-athletes are asked to describe any physical symptoms they may be experiencing, any changes they noticed in their communication abilities over time, and how their communication disorder alters the way they function or are perceived in the classroom setting, in social interactions, by family members, friends, teammates, coaching staff, and on the competition field/court. Additionally, for all student-athletes participating in ACE (those who failed or passed the screening evaluations), information is gathered on their history of prolonged occupational or recreational exposure to loud noises as well as their use of personal listening systems (i.e., iPods) and their past and current use of voice. Finally, as part of the awareness stage, student-athletes are encouraged to ask questions about the screening findings and the implications of these results. With the permission of the student-athletes, failed screening results are shared with their coaches and the appropriate athletic administrative staff member(s) to make them aware of the communication challenges these students face and to enlist their cooperation in providing support services for them.

Based on our previous health promotion work with older adults (Mayo & Mayo, 1996), we have found it very important to assess student-athletes from a holistic frame of reference to determine if they are viable candidates for participating in a wellness program such as ACE. Thus, we ask questions about participants' pre-existing health status, nutritional lifestyle, level of exercise (beyond specific training for their sport), leisure pursuits, exposure to and management of internal and external stress, degree of support from family or significant others, cultural background, affiliation with community institutions and personal and communication style as they enter the ACE program. This information allows us to assist participants as they develop goals and carry them out during the educational, lifestyle change and support stages of the program.

In the education stage of ACE, participating student-athletes engage in learning modules designed to help them achieve overall and individual communication wellness goals. These learning modules are as follows:

1. Communication and Society
2. What is Effective Communication?
3. Forms of Communication: Verbal, Nonverbal, Interpersonal
4. Countering Communication Stereotypes & Miscommunication
5. Communication Wellness: Speech, Language, Voice and Hearing:
 - A. Basic Structure and Function of the Speech, Language, Voice and Hearing Systems
 - B. Common Disorders of Speech, Language, Voice and Hearing
 - C. Are You At Risk for a Communication Disorder?
 - D. Prevention of Communication Disorders
 - E. Developing Your Communication Wellness Goals

ECHO

In discussing the prevention of communication disorders in the education stage of ACE, student-athletes learn about the three levels of prevention practice--primary, secondary, and tertiary, and are given examples of behavioral practices that exemplify each level. Table 1 lists and describes each of the levels of prevention. Most student-athletes who participate in ACE do not exhibit an actual communication disorder and consequently operate at the primary prevention level where they learn to inhibit the development of a communication disorder by altering their behavior, lifestyle or communication practices.

Table 1. Levels and Definitions of Primary, Secondary, and Tertiary Prevention of Communication Disorders (Modified from ASHA, 1988, Marge, 1988 and Mayo, 2011).

Level of Prevention	Definition	Examples: General Population	Examples: College Student-Athletes
Primary Prevention	The elimination or inhibition of the onset and development of a communication disorder by altering susceptibility or reducing exposure for susceptible people. Approaches include interventions and behaviors that eliminate the cause or causes of disabilities before individual exposure.	General Population: Men desiring to procreate quit smoking, excessive drinking of alcohol, and use of drugs that can cause mutations in sperm and increase the chances of pre-, peri- or post-natal problems.	Student-Athletes: Modification/improvement of protective features and function of football helmets to reduce incidence of concussions in current and future student-athletes.
Secondary Prevention	The early detection and treatment of communication disorders. Early detection and treatment may lead to the elimination of the disorder or the retardation of the disorder's progress, thereby preventing further complications. The major strategy used is screening of asymptomatic or susceptible populations.	General Population: Early assessment of disfluent preschool age children and referring at-risk youngsters for indirect or direct fluency intervention.	Student-Athletes: Providing routine hearing screenings of student-athletes as part of their required department of athletics annual health assessment. Offering laboratory tests to identify biological markers of concussion in contact sports. http://www.cbssports.com/mcc/blogs/entry/22475988/27696073 .
Tertiary Prevention	The reduction of disability by attempting to restore effective functioning. The major approach is rehabilitation of the disabled individual who has realized some residual problem as a result of the disorder.	General Population: Providing language/communication therapy for a client with aphasia following a stroke.	Student-Athletes: Providing voice therapy for student-athletes with sport activity-induced voice disorders (e.g., vocal nodules, contact ulcers).

However, some of our participants enter the program with a communication disorder and thus, are in need of secondary and/or tertiary prevention services (e.g., assessment and/or treatment). During the education stage, the student-athlete with a communication disorder learns about the etiology, prevalence, signs/symptoms and the preventable or non-preventable nature of

his/her disorder. Finally, it is in the education stage where student-athletes begin to develop communication wellness goals that are specific to their needs and interests. These goals are later expanded in the lifestyle change stage of ACE.

Lifestyle Change

Lifestyle change can be facilitated through a combination of efforts to enhance awareness, increase motivation, build skills and most importantly, to provide opportunities for positive health practices (O'Donnell, 2008). In the context of health, 'lifestyle' has been defined as all those behaviors over which an individual has control, including actions that affect a person's health risks (Ardell, 1979; Walker, Sechrist & Pender, 1987). Examples of lifestyle change programs include smoking cessation, exercise and nutrition education, weight loss, and communication skills enhancement (O'Donnell, 1995).

ECHO

In the lifestyle change stage of the ACE program, all student-athletes work to develop a personal plan to prevent a communication disorder. The prevention plan covers one or more of the three levels of prevention described previously---primary, secondary, or tertiary, depending on the needs and interests of the student-athletes. In developing their personal communication wellness plan, participants have the opportunity to work with a speech-language pathologist (RM) and a communication skills coach (CA) individually or in a group with other student-athletes. Within their personal communication wellness plan, participants articulate their goals (e.g., 'Prevent a noise-related hearing loss'); indicate the anatomical and neurological structures that need to be protected to prevent a disorder/enhance wellness (e.g., 'Structures of the inner ear'); identify their specific risk factors (e.g., 'Frequent listening to music at high intensities on my iPod', 'I have a family history of hearing loss'); develop and utilize wellness strategies (e.g., 'Wear ear protectors when using power tools', 'Listen to music on my iPod at lower loudness levels and for shorter time periods') and assess and report their progress. In this context within the lifestyle change stage of ACE, participants are learning to engage in primary prevention practices to inhibit the onset/development of a communication disorder.

Student-athletes who present with actual communication disorders also develop personal communication wellness plans. The personalized plans can include primary, secondary and tertiary prevention goals. For example, in the case of a student-athlete with a voice quality disorder, his/her personal communication wellness plan might include the primary prevention goals of 'Eliminating vocally abusive behaviors that contribute to my voice disorder' and 'Consistent use of pitch and loudness levels that maintain healthy voice.' Additionally, this same student-athlete might require intervention services for his/her voice disorder in the form of complete or modified vocal rest (secondary prevention/early detection and treatment) or voice therapy/voice rehabilitation (tertiary prevention/reduce disability, restore effective function). As part of the lifestyle change stage of ACE, student-athletes who have a communication disorder can elect to receive intervention services at the on campus speech and hearing center or from professionals in the local community to enhance their communication wellness.

Lastly, in the lifestyle change stage, we ask all ACE participants to identify their personal motivations for engaging in communication wellness and the personal benefits of pursuing a healthy lifestyle. These reasons are then incorporated into participants' personal wellness plans and are used to encourage them to engage in health-promoting practices throughout their lives.

Environmental Support

With respect to providing the individual with a supportive environment in which to carry over lifestyle change, Cohen and Chehimi (2007) observed that prevention initiatives and efforts often focus on changing individual behaviors alone while ignoring the societal context surrounding them. As personal choices are made in the context of a larger environment and many health problems are related to conditions outside the individual's control, primary prevention and wellness programs must broaden their initiatives to focus not only on the individual but also his/her environment i.e., the home, school, work setting, and/or community.

Environmental support can take the form of institutional policy designed to promote health within the workplace (e.g., establishing a smoke-free work setting), formation of self-help/advocacy groups, or development of personal wellness programs that involve interaction with a support person, peers, coach, or faculty member to help maintain and provide motivation for change (O'Donnell, 1995). Indeed, for participants of ACE, the major sources of environmental support for their communication wellness plans and activities are peers, teammates, coaches, athletic staff and faculty members. When ACE participants grant permission, the results of their screenings and/or wellness plans can be shared selectively with these individuals. The support of these partners can empower the student-athlete as he/she engages in lifestyle changes. Specifically, members of the student-athlete's environmental support system can assist him/her gaining access to additional specialized services, if needed, and by providing feedback, reminders and reinforcement as the student-athlete seeks to carry over her/his wellness activities into real world settings.

Sample Student-Athlete Personal Communication Wellness Plans

Figures 2 and 3 present examples of personal wellness plans for two of our ACE student-athletes. The names of the participants illustrated in these figures have been changed for purposes of confidentiality. Sections of the plans of both student-athletes which correspond to the awareness and education, lifestyle change, and environmental support components of the ACE communication wellness model are shown in parentheses.

The sample communication wellness plan shown for 'Jane Smith' (Figure 2), illustrates her personal need/motivation for communication wellness, her plan for changing her lifestyle to achieve her goals, and the types of environmental support which can be offered for the maintenance of personal wellness. Although most wellness programs assist the person in identifying health issues which focus on their self-responsibility, environmental factors are seldom considered. As environmental considerations are a unique component of this model, we elaborate on this feature in Jane Smith's personal communication wellness plan. For instance, in the area of environmental support, Coach 'Amy

ECHO

Goodeed', takes an active role in assisting with Jane's plan by agreeing to hold cheer practices without voicing or minimal voicing required by Jane for two days prior to games. This type of environmental support allows Jane to remain a member of the cheer squad, have periods of vocal rest in an effort to not exacerbate damage to her voice from constant cheer shouting and to recover from her vocal injury. Likewise, Jane's peers can offer support. In her plan, Jane makes the decision to decrease vocally abusive behaviors like screaming or loud laughter. When she is among her peers and starts to engage in abusive vocal activities, they can remind Jane of the strategies she outlined in the plan to protect her voice. Furthermore, with the support of her peers and coaches, Jane will be able work the summer cheer camp in a capacity not requiring vocal demonstrations. She can serve in an administrative capacity and remain an integral part of the camp, while her peers and coaches show how to cheer. Lastly, Jane notes that a professor has trouble hearing her sometimes during presentations because her voice gives out. At the recommendation of the instructor, Jane may use a headset microphone/voice amplifier system when making oral presentations in class to project her voice around the room for all to hear. All of these individuals and actions within her environments make it possible for Jane to accomplish the goals of her communication wellness plan, which can contribute to her success in the classroom, as an athlete and future attorney.

Figure 2. Example of Personal Communication Wellness Plan for a Student-Athlete.

PERSONAL COMMUNICATION WELLNESS PLAN FOR 'JANE SMITH'

Sport: Cheer

Coach: 'Amy Goodeed'

Year: Sophomore

Academic Advisor: 'Mary Doe'

History of and Risk for Communication Disorders (Awareness and Education)

Voice: Vocal Nodules. I developed vocal nodules my freshman year of cheering at the university. My ENT doctor placed me on vocal rest. My risk for a voice problem is high because I am on the cheer squad. I am a scholarship athlete. So, quitting the cheer team is not a financial option for me.

Personal Need for Effective Communication Abilities (Lifestyle Change)

My ability to produce a clear voice is significant to me as a person. I do not like people making comments or jokes about the way I sound.

As a student, my ability to speak with a clear voice is important to my success in the classroom. When my voice gives out, one of my professors sometimes tells me she has trouble hearing me in class when I ask or answer questions or give an oral presentation.

I want to be an attorney. So, my ability to produce a clear, powerful and confident voice is definitely important to my success.

Plan (Lifestyle Change)

I will increase my daily water intake to keep my voice healthy.

I will engage in non-cheer voicing two days before each game. 'Coach Goodeed' has agreed to conduct practice without cheer voicing for two days prior to each game.

I will reduce my vocally abusive behaviors of coughing, screaming, loud laughter, and non-cheer shouting.

I will use a headset microphone/voice amplifier system when I give oral presentations in my classes.

This summer I will work for a local university Cheer Camp in a role that does not require me to lead cheers or vocally demonstrate cheers.

Environmental Support

On-Campus: 'Coach Goodeed', teammates, 'Dr. Helpful' (one of my professors), my friends, and ACE staff

Off-Campus: My parents, boyfriend, aunt, and friends

ECHO

Figure 3. Example of Personal Communication Wellness Plan for a Student-Athlete.

PERSONAL COMMUNICATION WELLNESS PLAN FOR ‘JOHN SMITH’

Sport: Men’s Basketball **Coach:** ‘Joe Buckets’
Year: Freshman **Academic Advisor:** ‘Mary Doe’

History of and Risk for Communication Disorders (Awareness and Education)

None. But I have ringing in my ears which I learned might be associated with listening to my iPod at high volume levels and/or job-related noise exposure. My risk for a hearing loss might be higher because I work with loud noise-producing equipment in my summer job and I have not worn ear protection.

Personal Need for Effective Communication Abilities (Lifestyle Change)

My ability to hear well is significant to me as a person. I want to be able to clearly hear my friends, family, teammates, and coaches. As a student, my ability to hear well is vital to my success in the classroom. I need to be able to hear my professors in classroom lectures/labs and my fellow students in small-group course activities. I want to become a sports broadcaster. Therefore, my ability to hear well is important to my success.

Plan (Lifestyle Change)

I will now listen to music at a healthy, non-harmful volume under my iPod using the volume limiter on my device. <http://support.apple.com/kb/TA38403>
I will wear an ear protection device when operating lawnmowers, trimmers, and blowers during my summer landscaping/lawn care job.

Environmental Support

On-Campus: My friends, teammates, coaches, academic advisor, faculty members, and ACE staff
Off-Campus: My mother and sister, girlfriend, friends, boss on my summer job, co-workers

PROGRAM RESULTS

The two primary communication wellness goals of the ACE program were to (1) identify student-athletes who exhibit communication disorders and (2) limit to no more than two annually, the occurrence of new cases of communication disorders among student-athletes by reducing their risk factors.

Goal 1 Outcome

The objectives of the first program goal were as follows: By the end of the ACE course participants will:

- (1) know whether or not they have a communication disorder,
- (2) describe the type and severity of their communication disorder, and
- (3) select options for managing their communication disorder.

Between the years 2007-2010, 150 student-athletes participated in ACE. Of these students, 18 (12 percent) presented with clinically significant speech, voice or hearing disorders (see Table 2). While fewer of our student-athletes exhibited a communication disorder than those reported by Robinson and Crowe (1987), our figure of 12 percent exceeds the prevalence rate of 2.42 percent among non-athlete college students (Culton, 1986) and the estimate of five to 10 percent within the general population (Ruben, 2000). Our results again underscore the need to assess and monitor the communication abilities of college-

student athletes to prevent or identify early, the presence of a communication disorder.

Table 2. Communication Disorders Exhibited by Student-Athletes Participating in the ACE Program 2007-2010. Number of Student-Athletes with Disorder Indicated in Parentheses.

Type of Communication Disorder and Participant Gender	
Hearing Loss (9)	
Sensorineural loss	Male = 5 Female = 1
Conductive loss	Male = 3
Voice Quality (7)	
Chronic hoarseness	Female = 5
Chronic harshness	Male = 2
Fluency (2)	
Stuttering	Male = 1
Cluttering	Male = 1

ECHO

After receiving the results of their communication screening evaluations and counseling from ACE staff, all participants with a communication disorder were able to describe to ACE staff, coaches, peers or faculty, their disorder (i.e., type, signs/symptoms) and its impact on their daily lives (i.e., the severity of the condition). When offered options to manage their communication disorder, 83 percent of the 18 student-athletes with a communication disorder chose to pursue follow-up services (i.e., additional assessment, counseling, or intervention).

Goal 2 Outcome

The objectives of the second program goal were as follows: By the end of the ACE course participants will be able to:

- (1) describe three processes involved in normal speech/voice production and hearing,
- (2) list three activities that can increase their risk of developing a communication disorder,
- (3) list five personal benefits to seeking communication wellness,
- (4) discuss three strategies they used to reduce their risk for developing a communication disorder, and
- (5) identify three persons who supported their efforts to engage in behaviors that facilitate communication wellness.

Here we focus our report on the 132 ACE participants who did not exhibit a communication disorder. All of the student-athletes achieved the five objectives of this goal. Table 3 provides examples of student-athletes' most-frequently stated comments under three of the objectives. Nearly all student-athletes participating in ACE (95 percent) linked their reasons/motivations for seeking communication wellness to (a) being viewed as a competent communicator; (b) fitting in socially; (c) maintaining their overall health; (d) performing well in the classroom; and (e) career opportunities after college. Finally, none of the student-athletes who participated in ACE over the three-year period developed a new communication disorder.

Table 3. ACE Program Goal 2 Objectives: Examples of ACE Participants' Most-Frequently Stated Responses.

'Activities that are not a part of my sport that can increase my risk for developing a communication disorder'
<ul style="list-style-type: none"> • Loud noises/music. Recreational shooting of firearms • Use of alcohol or other drugs • Smoking cigarettes/using tobacco products • Driving off-road or all-terrain vehicles/Reckless driving
'Strategies I will use to reduce my risk of developing a communication disorder'
<ul style="list-style-type: none"> • Limit my exposure to loud noise and music • Wear ear protection when working with power tools or shooting firearms • Eliminate or reduce reckless behaviors (e.g., binge drinking, smoking pot, driving at high speeds) • Use proper breath support when talking
'Persons in my environment who will support my efforts to maintain communication wellness'
<ul style="list-style-type: none"> • Friends, peers, teammates • Coaches, ACE staff • Academic advisor, faculty members • Family members

CONCLUSIONS

This paper has presented one component of a comprehensive program—Athletes Communicating Effectively—that focused on communication wellness and the prevention of communication disorders. In examining the outcomes of the program, we found that the 150 students-athletes who participated in the ACE program progressed toward the end point of the arrow as seen in Figure 1 as effective communicators. In other words, due to their increased awareness, education and self-goal delineation and attainment, these student-athletes were found to be moving in a positive direction toward achieving maximum communication wellness and effectiveness irrespective of whether an identifiable communication disorder was found or not found.

In examining factors that influenced the college selection process of 126 student-athletes, Letawsky, Schniederm, Pedersen, and Palmer (2003) reported that academic support services on campus ranked third (mean = 3.83 on a five-point likert scale) among the five top influential factors. We propose that these services should not only include traditional components of academic support like tutoring for challenging course work, but should also involve student-athletes in activities that promote overall success as a student and future participant in the workforce. Engaging student-athletes in activities as presented in the ACE program

can lead to them being an effective communicator throughout their young adult to mature adult lifespan.

New to topics presented in the USDHHS Healthy People 2020 (HP 2020) (USDHHS, 2012) initiative is a focus on adolescents (ages 10-19) and young adults (ages 20-24). Together, these two age groups incorporate the typical age range of undergraduate college students, including college student-athletes (ages 18-21). For the most part, this population is said to be in good health. However, as the youthful cohort continues to transcend into full adulthood, their health and well-being can be supported by what HP 2020 calls environmental factors; family, peer group, school, neighborhood, policies and societal cues. These environmental factors are reinforced as an important consideration in the ACE program model. Scholar-athletes were asked to scan both their campus and non-campus environments to identify supportive influencers who could further guide the student-athlete toward positive lifestyle choices involving communication wellness.

Additionally, HP 2020 advocates increasing the proportion of young people who have had annual wellness checkups (Objective AH-1). We propose that any wellness checkup administered to this group include a communication wellness section. As wellness programs for students and staff continue to gain impetus on college and university campuses, all or selected components of the ACE program model can be used with students engaging in intercollegiate sports, intramural sports and the general student population.

Due to the popularity of sports on college campuses, student-athletes who engage in a communication wellness program like ACE, can act as role models for entering freshmen and college transfer students. Specifically, through live or recorded commentaries presented during new student orientation programs, student-athletes can tell their "I stories" about the personal benefits gained from a program focused on communication wellness as a current student-athlete, and how they intend to use their newly developed communication and healthy lifestyle skills in their future career endeavors.

Finally, wellness and preventive practices are a key strategy being emphasized by the Affordable Care Act (recently upheld by the U.S. Supreme Court as law) to reduce health care cost over time. A list of prevention practices under this new law are found at <http://www.healthcare.gov/prevention/index.html> and include several lifestyle areas that affect young adults (e.g., obesity, alcohol misuse, blood pressure, diet, type 2 diabetes). These preventive services must be covered without consumers having to pay a co-payment, a co-insurance or meet a deductible. The growing interest at the highest levels of government in the United States to provide our citizens with preventive services should be strongly considered as a major responsibility of all health care providers, including communication disorders professionals.

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ABOUT THE AUTHORS

Robert Mayo, PhD, CCC-SLP, is a Professor in the Department of Communication Sciences and Disorders at the University of North Carolina at Greensboro in Greensboro, North Carolina. E-mail: r_mayo@uncg.edu

Cherie M. Avent, MA, is an Instructor in the Department of Communication at Guilford Technical Community College in Greensboro, NC. She served as the Lead Instructor for the ACE Program for three years. E-mail: cmavent@gtcc.edu

Carolyn M. Mayo, PhD, CCC-SLP, is an Associate Professor of Speech-Language Pathology and Audiology in the Speech Program, Department of English at North Carolina A&T State University in Greensboro, North Carolina. E-mail: cmmayo@ncat.edu

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MULTICULTURAL REPRESENTATIONS ON CSD CLINIC WEBSITES

Alisha Richmond, PhD, CCC-SLP

*Texas State University-San Marcos
San Marcos, TX*

Meredith Reckles

*Texas State University-San Marcos
San Marcos, TX*

Alisha Richmond, Ph.D. CCC-SLP

ar47@txstate.edu

ABSTRACT

This study examined the clinic websites of 124 communication sciences and disorders (CSD) graduate programs for appeal to a multicultural and multilingual audience. The recruitment of a diverse clinic client population is critical to successfully training culturally competent Speech-Language Pathologists. Results indicated that many of the websites do not provide information and descriptions that could appeal to a multicultural, multilingual, or multiethnic audience. The lack of culturally and linguistically diverse populations may influence the number of clients from diverse groups who seek services from CSD programs. Recommendations and suggestions are provided.

KEY WORDS: multiculturalism, communication sciences and disorders, diversity, health literacy, social marketing, healthcare access

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Alisha Richmond, PhD, CCC-SLP
Texas State University-San Marcos
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Meredith Reckles
Texas State University-San Marcos
San Marcos, TX

INTRODUCTION

The United States is increasingly becoming a very diverse community. Members of a minority group make up more than one third of the total United States population. Additionally 20.1% of households speak more than one language (US Census, 2010; 2011). Persons from minority groups will need speech and language services just as much as their counterparts. For example, current statistics indicate that 5% of all children entering kindergarten will need speech and language services. Additionally, nearly 1 million adults in the United States are diagnosed with aphasia annually (NIDCD, 2008). Many of these adults will need services provided by Speech-Language Pathologists. Therefore it is imperative that future Speech-Language Pathologists can meet the needs of a diverse client population.

Communication sciences and disorders (CSD) programs are required to train future speech-language pathologists to serve clients from culturally and linguistically diverse backgrounds (ASHA, 2004). This type of training includes exposing CSD students to persons from various ethnicities, age groups, and disability groups. In response to this challenge, many CSD programs developed multicultural and/or multilingual emphasis programs to prepare future professionals. Faculty and staff have also reported the successful infusion of multicultural issues into the course curricula (Stockman, Boulton, & Robinson, 2008).

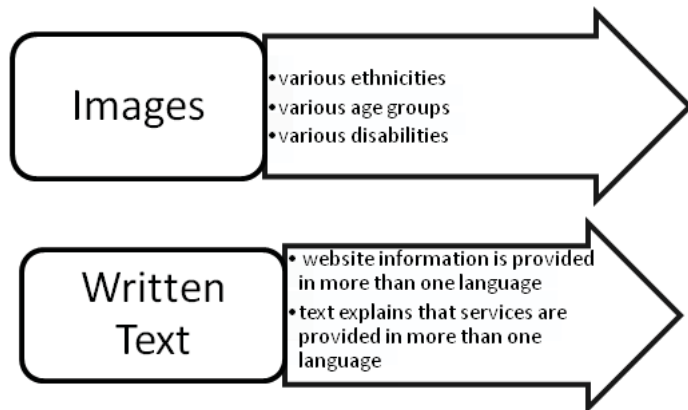
Clinical experiences are also an important component of training culturally and linguistically competent Speech-Language Pathologists. In most cases, the Speech, Language and Hearing Clinics (SLHC) of CSD programs are the initial point of contact to meet the service needs of clients with communication disorders while simultaneously facilitating clinical training of CSD students. Although programs feel they are meeting

competencies in exposing students to various multicultural groups (Horton-Ikard & Munoz, 2010), many Speech-Language Pathologists reported a lack of training in serving multicultural and multilingual populations (Kohnert, Kennedy, Glaze, Kan, & Carney, 2003; Roseberry-McKibbin, Brice, & O'Hanlon, 2005; Stewart & Gonzalez, 2002). For example, Kohnert and colleagues (2003) found that many Speech-Language Pathologists agreed that they would have benefitted from more experiences with assessing children from diverse backgrounds during their graduate training experiences.

Barriers to providing these types of training experiences may in part, be a result of a lack of clients representing diverse backgrounds (Hammond, Mitchell, & Johnson, 2009). In some instances, persons from diverse backgrounds may not be in close geographical proximity to some CSD programs (Stewart & Gonzalez, 2002). In other instances, the CSD program may not have established community networks to reach diverse populations. However attracting multicultural and multilingual clients should be a goal of all CSD programs.

Advertising health services through the internet is now a popular method of attracting potential clients. More people are using the internet to find health related information than in the past (Lenhart, Horrigan, Rainie, Allen, Boyce, Madden, et al., 2003). Therefore many potential clients are reviewing the information for CSD SLHC's through online methods. The investigators believe that SLHC websites should adhere to the same standards of multicultural considerations as the classroom curricula and physical clinic setting. The investigators have therefore developed the term "multicultural enhanced site" (MES) to reflect the ideal web presence of SLHC websites for CSD programs. Figure 1 displays the components of a successful MES.

Figure 1. Components of an Effective Multicultural Enhanced Site (MES).



The SLHC website represents the quality of services that will be offered by the CSD program and the clients that are served. Therefore a MES should promote the service of persons of various ethnicities, language backgrounds, and disabilities. These qualities can be promoted through images and written text. Battle (2000) contends that culturally competent clinicians are those who have respect for each individual’s language and culture. Just as with culturally competent Speech-Language Pathologists, a MES communicates to the audience that the organization is sensitive to their needs and respects diversity.

It is unclear if SLHC websites are created to attract culturally and linguistically diverse clients. Therefore, the current study explored the components of SLHC websites for all American Speech- Language-Hearing Association (ASHA) Council on Academic Accreditation (CAA) accredited programs to determine their appeal to culturally and linguistically diverse populations.

METHOD

The primary investigator reviewed literature concerning marketing and multicultural populations to develop the variables that would be collected from each SLHC website. The language in which the text was written and images were examined in detail. The images were analyzed for ethnicity, observable disability, and role (i.e. client, clinician, or ambiguous). For this study, ethnicity was determined based on the physical appearance of the person. Therefore, facial features and attire were analyzed to determine possible minority status. The U.S. Census descriptions of ethnicity were used (US Census, 2011).

Noticeable disabilities were also determined based on the person’s physical appearance. The investigators collected data on persons with syndromes (e.g. Fetal Alcohol Syndrome) or persons with physical limitations (e.g. a person using a cane). Finally, the role of the person was also determined based on the person’s age, positioning, and activity. Persons were coded as a clinician, client, supervisor, or other. Other was used in instances when the person was depicted in non-therapeutic type

settings. The second investigator collected the data based on the previously mentioned categories from each ASHA CAA-accredited academic program. Data was entered into an excel spreadsheet. The content of each website was analyzed (i.e. written text and images) through descriptive statistics.

RESULTS

A total of 200 university websites were reviewed to determine (1) if clinic websites existed and (2) if they were MES websites. Twenty five programs did not have a specific website for describing the SLHC and 51 CSD programs had webpages that provided minimal information concerning their SLHC. These websites were excluded from data analysis. Therefore the investigators analyzed 124 SLHC websites.

Table 1 provides the results of an analysis of all graduate Communication sciences and disorders programs with SLHC websites. Results revealed that less than thirty percent of the clinic websites displayed pictures of ethnically diverse people. African American, Asian, and Latino were the most widely depicted minority groups. The images mainly depicted minorities in the role of clinician or client. There was only one image that depicted a minority in the role of “supervisor”. Additionally less than 4% of the CSD program clinic websites provided information in more than one language. All clinic documents were provided in either English, or English and Spanish. Finally, the clients mainly exhibited Down Syndrome and a physical handicap by being in a wheel chair.

Table 1. Characteristics of CSDS Clinic Websites (N=124).

Website Characteristics	Percentage Found	Percentage Not Found
Images of minorities	43.5	56.5
Person with observable disorders	4.8	95.2
Information provided in more than one language	.16	98.4

DISCUSSION

The purpose of this study was to determine how academic clinic programs that are accredited by ASHA appeal to a multicultural audience through their websites. For this study, individuals were considered to be from various cultures based on: ethnicity, chronological age, and an observable disability (e.g. typically developing vs. Down syndrome). The ability to have clinical experiences with a diverse set of clients is a critical component of training future Speech-Language Pathologists (Chen, et al 2001). Today more potential clients and family members of potential clients began to use the internet for seeking information than in the past. Therefore, it is important to provide an online presence that reflects the mission of ASHA and the accredited programs regarding serving multicultural and multilingual populations.

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Attracting a multilingual population is also an important consideration for SHLC's. This is important in the United States based on the increase in non-English speaking citizens who could benefit from speech and language services (US Census Bureau, 2010). In terms of persons whose native language is not English, it will be a disadvantage for persons of various cultures to have internet access, locate a clinic website, only to not understand the speech and language services could be provided in their native language. The lack of linguistic diversity in SHLC clients threatens the clinical training of future Speech-Language Pathologists.

CONCLUSION

In conclusion, the results of the current study revealed that SLHC websites may not demonstrate to potential clients that services could be provided in another language. This may deter some potential clients from seeking services from CSD programs. Results also indicated that a majority of websites did not display pictures of persons from non-white races, different ethnicities, and disability groups. Including more persons of diverse background through images and providing information in various languages could increase the feelings of comfort for potential clients of various backgrounds. These feasible modifications to SHLC websites could further the efforts of promoting multicultural training in CSD programs.

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ABOUT THE AUTHORS

Alisha Richmond, PhD, CCC-SLP

Assistant Professor

Department of Communication Disorders

Research Director & Principal Investigator-Communication, Autism, and Language Learning Lab

Texas State University-San Marcos

ar47@txstate.edu

Meredith Reckles, Undergraduate Student

Department of Communication Disorders

Texas State University-San Marcos