Raising campus awareness on issues of globalization in veterinary medical education

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Abstract

Ross University School of Veterinary Medicine (RUSVM), due to its geographic location, provides an opportunity to raise awareness regarding issues of globalization in veterinary medical education, specifically in relation to diversity and acculturation. This manuscript discusses RUSVM's demographics and raises awareness concerning challenges North American students may experience when immersed in an environment where the racial mix of the university is predominantly White, vastly different than the community in which it resides.

RUSVM students, faculty and support staff (n=1448) were invited to complete the American Veterinary Medical Association climate survey. Survey response rate was 36%. Students and faculty self-identified as White (80% and 76%, respectively), and support staff self-identified as African American or Black (71%). Non-US Faculty reported a legal residence of Europe 8%, Africa 2%, or the Caribbean (44%), and support staff of Saint Kitts and Nevis (68%). Non-US students, most often indicated Canadian residency. Qualitative analyses resulted into three themes addressing university climate (35%), culture privilege (42%), and professionalism (24%). Matriculation of North American students wishing to study abroad should include deliberate discussions with respect to diversity, cultural and social contexts supporting acculturation, and adaptation to a broader academic environment.

Keywords: Diversity, Acculturation, Privilege, Globalization of Medical Education, Veterinary Medical Education

Introduction

"Globalization means that borders in the various dimensions of economics, ecology, and technology, cross-cultural conflicts, civil societies, and information are less relevant to everyday norms and customs. Globalization is the vehicle that removes barriers wittingly and unwittingly to create transnational lifestyles where people across separate worlds act
The above quote eloquently communicates the definition and effect of globalization veterinary medical education is currently experiencing (Gage, 2002; Gosselin, Norris, & Ho, 2015; Stevens & Simmons Goulbourne, 2012; Walsh, 2002). To increase access and equity to higher education Harden proposes education be viewed globally (Harden, 2006). One cause of the increase in globalizing veterinary medical education is students traveling from Western countries to seek educational opportunities or extracurricular international experiences in non-Western territories (Gosselin et al., 2015; Marshall, Smith, & Watts, 2006; Renberg, 2010). Additionally, veterinarians from Western territories join international programs organized through non-profit organizations, professional associations, and governments to meet rising demands for veterinary services globally. Unequivocally, it is a responsibility of the veterinary profession to address global issues and develop and implement comprehensive curricula supporting demands for international course content and experiences (Marshall et al., 2006; Renberg, 2010).

Globalization in veterinary medical education is a strategic initiative of the Association of American Veterinary Medical Colleges (AAVMC) achieved through continuous efforts to build international collaborations. Further commitment to veterinary education transnationally is reflected in the 2015 establishment of the Council on International Veterinary Medical Education (CIVME) (Kochevar, 2015). The agreement of day one competencies globally is essential to ensure alignment of standards in health care for animals and humans worldwide. Simultaneously, we cannot ignore evidence of how social contexts affect desired educational outcomes. To succeed in the globalization of veterinary medical educational transnational work; an in depth understanding of cultures, societies and economics is essential (Gosselin et al., 2015; Gustafsson, 2001; Kochevar, 2015).

In veterinary medicine in the United States there is a concern for lack of diversity and particularly the underrepresentation of minority students among American Veterinary Medical Association (AVMA) accredited institutions (Elmore, 2004). Presently, a supermajority of veterinarians self-identify as White (91%), while 5% self-identify as Hispanic, 2% self-identify as Black, 1% self-identify as Asian/Pacific Islander, and less than 1% self-identify as American Indian/Alaskan Natives (Elmore, 2004; Kendall, 2004). Likewise, these numbers are echoed in veterinary medical education (Chubin & Mohamed, 2009). Despite continuous efforts to increase minority enrollment, veterinary students of color still comprise less than 10% of the total veterinary student population. The representation of veterinary students self-identifying as Black, Hispanic, or Asians are not paralleling the demographics of the undergraduate student population as well as census data in the United States (Chubin & Mohamed, 2009; Greenhill, Nelson, & Elmore, 2007; Satcher, 2008).

When addressing racial disparities, it must also be noted that those societies where Whites hold economic, political, and social power, White and Blacks often share a very different understanding of racial differences; where views can substantially undermine interracial interactions (Dovidio, Gaertner, Kawakami, & Hodson, 2002). For example, Whites in the United States report African Americans and Blacks cope well and often have a more comfortable state than average White individuals. Conversely, African-Americans and Blacks report experiencing racial discrimination throughout their lives to the degree it substantially hinders their social and professional progression. While discrimination is illegal in the United States based on several civil rights acts, most notably the Civil Rights Act of 1964 (Teaching With Documents: The Civil Rights Act of 1964 and the Equal Employment Opportunity Commission), racism, sexism, and other prejudices still exist today and are often expressed in more subtle ways substantially impacting people’s lives. Individuals strongly averse to meritocracy may still hold biases exhibited unconsciously and unintentionally mostly through non-verbal communication leading to distrust and feelings of anxiety and fear (Dovidio et al., 2002).
This study examined Ross University School of Veterinary Medicine's (RUSVM) demographics and the challenges North American students may experience in an environment where the university racial majority is White; but beyond the university confines students are in a minority. We coin the term **demographic duality** to describe this setting. Our experiences can inform Admissions officers to help prepare students interested in transnational education prior to matriculation.

**Methods**

**RUSVM Curriculum**

RUSVM is one of 19 international universities accredited by the AVMA Council on Education. To complete a Doctor of Veterinary Medicine (DVM) degree at AVMA-accredited RUSVM requires matriculating students attend and successfully complete seven 15-week semesters of in-residence coursework at the St. Kitts campus in the West Indies prior to completing three clinical semesters at an AVMA-affiliated institution in the United States, United Kingdom, Ireland, Australia, or New Zealand. Admission is granted three times per year in September, January, and May.

**Participants**

We invited all RUSVM students, faculty and support staff (n=1448) to participate in an online adapted form of the AAVMC climate survey. The invitation to complete the survey was sent by email and participants were able to access the survey online using E*Value™ software (E*Value). The survey was available for eight weeks (June 12th – August 7th, 2015). Participants received three email reminders from lead author (EA), as well as regular verbal and email reminders from class representatives, the student AVMA, the student organization Veterinary Students as One in Culture and Ethnicity (VOICE), and department heads to complete the survey. Participants were informed the survey included questions of a sensitive nature relating to diversity issues and participants had the choice to skip questions or not complete the survey. Furthermore, all participants were assured of confidentiality of responses. The study was approved by the RUSVM Institutional Review Board and was conducted in accordance with the tenets espoused in the Declaration of Helsinki. All participants gave their informed consent prior to completion of the survey.

**Materials**

The development of the climate survey was one of the initiatives stemming from symposium discussions held at the University of Georgia (UGA) College of Veterinary Medicine titled Diversity and Veterinary Medical Education: Building on Our Individual and Collective Strengths. The key stakeholders in creating the survey were the planning committee of the Southeastern Regional DiVersity Matters Symposium which followed the 2010 UGA meeting. In April 2011, the climate survey was administered through the AAVMC across all 28 United States veterinary schools and colleges (Greenhill, 2007, 2009). The survey was designed to assess campus climate defined as, "...the level of comfort existing within the respective campuses considering individual differences". (Greenhill & Carmichael, 2014) The survey contained 50 questions. Specifically, it addressed seven topics of interest; 12 demographic questions, eight comfort questions, six language questions, seven harassment questions, six curriculum questions, seven curriculum support questions, and four faculty and student relationship questions (Greenhill & Carmichael, 2014). RUSVM was the first international AVMA accredited college of veterinary medicine participating in the second climate study. The survey was previously conducted across all 28 US veterinary schools and colleges. Upon discussions and permission with the authors of the climate survey, the tool was adapted to facilitate participation of
all individuals within the university including students, faculty, and support staff. The adapted climate instrument included 80 questions addressing the same seven topics as stated earlier. The increase in the number of questions compared to the original climate survey tool reflected the separation of behaviors and actions into distinct questions for each group of interest; for example, "Have you ever witnessed verbal, physical or electronic harassment of students/faculty/support staff?" was divided to three separate questions for each identified group. Similar to the original survey, the adapted climate survey incorporated a variety of response options such as (1) dichotomous or two-point questions (No/Yes), (2) scaled questions (four-point scales: 1=Not at all in my experience, 4=Very much my experience) and (3) one open-ended question. Participants were informed completion of the survey would usually take between 15-20 minutes. This publication focuses on the demographic responses and open-ended question included in the adapted climate survey.

Analysis

Analysis followed a mixed method approach. Descriptive analyses stratified participants by RUSVM role (student, residents/post-doctoral students, faculty, or support staff) were completed using R 3.3.1 statistical software (R Core Team Vienna Austria). Qualitative analyses of narrative responses to an open-ended inquiry were coded by the main investigator (EA) and one of the co-authors (LG) into common themes using Dedoose software (Dedoose, Los Angeles CA). The qualitative analyses followed a two-step process. Firstly, the two authors independently reviewed and coded all comments that followed a discussion to concur on final themes. Once themes were finalized, the main investigator completed a second review and categorization of comments ensued another discussion for final agreement.

Results

Five hundred thirty individuals (37%) participated in the climate survey. There were four residents/post-doctoral students not included in the analysis as they do not spend the same amount of time as students enrolled in the DVM program within the St. Kitts community, as well as have limited interaction with RUSVM faculty and colleagues. This left 526 (36%) of a possible 1,448 respondents. Complete results of demographic information can be seen in Table 1.

General Impressions

Age was distributed as expected among the three groups. The majority of students were under 30 (85%) and, a plurality of faculty and support staff was 30-40 (41% and 38%, respectively). Race was also distributed as one might expect with a majority of students (80%) and faculty (76%) self-identifying as White and a majority (71%) of support staff self-identifying as African American or Black. The latter finding was not surprising, since a majority of support staff are from St. Kitts and Nevis. The majority of students and support staff self-identified with a female gender (79% and 53%, respectively) whereas a majority of faculty members self-identified with a male gender (56%). Three students (1%) and one support staff member (1%) self-identified as a gender other than male or female. With regard to sexual orientation, a substantial majority of students, faculty, and support staff self-identified as being heterosexual (81%, 71%, and 67%, respectively). The majority of students (77%) self-identified as being single, and the majority of faculty as being married (68%) while self-identifying as being married or single comprised the majority of responses for support staff (39% and 40%, respectively). The majority of students and faculty self-identified as coming from urban areas (55% and 44%, respectively) whereas 46% of support staff identified as coming from rural areas, once again the latter finding reflects the geographical location of the university. Likewise, three-quarters of support staff were legally not United States residents. In contrast, only 7% of
students were not legal residents of the United States; however, close to half of the faculty was legally not a United States resident (44%). The most common country, other than the United States, students stated as their legal residence was Canada (5%). The most common country, other than the United States, faculty and support staff listed as their country of residence was St. Kitts and Nevis (22% and 68%, respectively). Between approximately 10% and 20% of students, faculty, and support staff self-identified as having disabilities (17%, 12%, and 9%, respectively). The most common disability among students was a learning disability (6%), whereas the most common disability among faculty and support staff was coordination impairment (5% and 6%, respectively).

**Student Participants**

Three hundred sixty-seven students participated in the survey representing approximately a 33% response rate.

Other than self-identifying as heterosexual, students self-identified as: bisexual, gay, lesbian, queer, questioning, and other sexualities not listed (sexualities listed were: bisexual, gay, heterosexual, lesbian, queer, and questioning).

Among students, faculty, and support staff, students appeared to be the most diverse in terms of belief systems. In addition to designated responses for religion, students also noted subscribing to the following belief systems: Sikh (n=4), Beatleology (Jaquette A & R, 2009) (n=1), Catholic & Agnostic (n=1), Christian and Buddhist (n=1), Hindu (n=1), "Jewish AND Catholic" (n=1), Neopagan (n=1), and Spiritualist (n=1).

**Faculty Participants**

Forty-one of the 64 (64%) faculty participated in the survey. Faculty appeared to be less diverse in terms of sexuality only self-identifying as bisexual (5%), gay (7%), or heterosexual (71%). The remaining 17% chose not to self-identify their sexuality; this is different than identifying with "A gender not listed."

In terms of religion, faculty were less diverse compared to students and all responses for faculty were represented by choices on the survey.

**Support Staff Participants**

RUSVM employs 283 individuals as support staff. One hundred eighteen chose to participate in the survey for a 42% response rate. Support staff reported being a more diverse group with respect to sexuality than faculty. Three percent of support staff self-identified as bisexual, 1% as questioning their sexuality, and 15% (n=18) self-identified with a sexuality not listed in the survey.

In terms of religion, support staff were also well represented by choices enumerated on the survey; however, three support staff members did identify with Jehovah Witnesses (n=1), Rastafarians (n=1), and Spiritualism (n=1) when asked to identify with a religion.

Table 1: Percentage and relative frequency of demographic characteristics of students, faculty, and support staff at Ross University School of Veterinary Medicine, St. Kitts and Nevis

| Variable       | Students (n=337) | Faculty (n=64) | Support staff (n=283) |
|----------------|------------------|----------------|-----------------------|
|                |                  |                |                       |

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| Variable                      | Students (n=337) | Faculty (n=64) | Support staff (n=283) |
|-------------------------------|------------------|----------------|----------------------|
| **Age group**                 |                  |                |                      |
| <30                           | 85(313)          | 0(0)           | 26(31)               |
| 30-40                         | 11(41)           | 41(17)         | 38(45)               |
| 41-50                         | 2(7)             | 24(10)         | 23(27)               |
| 51-60                         | 1(2)             | 27(11)         | 7(8)                 |
| >60                           | 0(0)             | 7(3)           | 4(5)                 |
| **Race**                      |                  |                |                      |
| Asian                         | 5(17)            | 7(3)           | 2(2)                 |
| Black or African American     | 2(6)             | 2(1)           | 71(84)               |
| Native Hawaiian/Pacific Is.   | 1(2)             | 0(0)           | 0(0)                 |
| Other                         | 4(15)            | 2(1)           | 5(6)                 |
| Two or more races             | 7(25)            | 7(3)           | 8(9)                 |
| White                         | 80(295)          | 76(31)         | 14(17)               |
| **Hispanic**                  |                  |                |                      |
| Female                        | 16(60)           | 12(5)          | 3(3)                 |
| Male                          | 79(291)          | 44(18)         | 53(62)               |
| Not listed                    | 19(69)           | 56(23)         | 44(52)               |
| **Gender**                    |                  |                |                      |
| Female                        | 14(50)           | 68(28)         | 39(46)               |
| Male                          | 77(281)          | 12(5)          | 40(47)               |
| **Transgender**               |                  |                |                      |
| Bisexual                      | 6(23)            | 5(2)           | 3(4)                 |
| Gay                           | 2(6)             | 7(3)           | 0(0)                 |
| Heterosexual                  | 81(298)          | 71(29)         | 67(79)               |
| Lesbian                       | 1(3)             | 0(0)           | 0(0)                 |
| Queer                         | 0(1)             | 0(0)           | 0(0)                 |
| Questioning                   | 1(4)             | 0(0)           | 1(1)                 |
| Not listed                    | 3(11)            | 0(0)           | 15(18)               |
| **Marital status**            |                  |                |                      |
| Divorced                      | 5(19)            | 10(4)          | 7(8)                 |
| Domestic partner              | 2(8)             | 5(2)           | 8(9)                 |
| Legally separated             | 0(1)             | 2(1)           | 3(4)                 |
| Married                       | 14(50)           | 68(28)         | 39(46)               |
| Single                        | 77(281)          | 12(5)          | 40(47)               |
| Other relationship            | 2(8)             | 2(1)           | 3(4)                 |
| **Belief systems**            |                  |                |                      |
| Agnostic                      | 12(44)           | 7(3)           | 1(1)                 |
| Variable                        | Students (n=337) | Faculty (n=64) | Support staff (n=283) |
|--------------------------------|-----------------|----------------|-----------------------|
| Atheist                        | 9(33)           | 12(5)          | 2(2)                  |
| Buddhist                       | 0(0)            | 2(1)           | 1(1)                  |
| Christian                      | 50(184)         | 51(21)         | 76(90)                |
| Islamic                        | 1(3)            | 0(0)           | 0(0)                  |
| Jewish                         | 3(10)           | 0(0)           | 1(1)                  |
| None                           | 22(81)          | 17(7)          | 14(17)                |
| Other                          | 3(12)           | 5(2)           | 5(6)                  |
| Veteran                        | 1(4)            | 7(3)           | 1(1)                  |
| Setting                        |                 |                |                       |
| Rural                          | 27(98)          | 24(10)         | 46(54)                |
| Suburban                       | 55(202)         | 44(18)         | 24(28)                |
| Urban                          | 18(66)          | 32(13)         | 27(32)                |
| Int'l non-US legal resident    |                 |                |                       |
|                                | 7(25)           | 44(18)         | 75(89)                |
| Country of non-US residence    |                 |                |                       |
| Canada                         | 5(19)           | 7(3)           | 2(2)                  |
| Chile                          | 0(0)            | 2(1)           | 0(0)                  |
| Cyprus                         | 0(0)            | 2(1)           | 0(0)                  |
| Germany                        | 0(1)            | 0(0)           | 0(0)                  |
| Ireland                        | 0(0)            | 0(0)           | 1(1)                  |
| Jamaica                        | 0(0)            | 0(0)           | 1(1)                  |
| Japan                          | 0(1)            | 0(0)           | 0(0)                  |
| Portugal                       | 0(0)            | 2(1)           | 0(0)                  |
| Romania                        | 0(0)            | 2(1)           | 0(0)                  |
| Saint Kitts/Nevis              | 1(3)            | 22(9)          | 68(80)                |
| Singapore                      | 0(1)            | 0(0)           | 0(0)                  |
| South Africa                   | 0(0)            | 2(1)           | 0(0)                  |
| Trinidad/Tobago                | 0(0)            | 0(0)           | 1(1)                  |
| UK                             | 0(0)            | 2(1)           | 3(3)                  |
| Zimbabwe                       | 0(0)            | 0(0)           | 1(1)                  |
| Disability                     | 17(61)          | 12(5)          | 9(11)                 |
| Disability type                |                 |                |                       |
|                                | Coordination impairment | 4(15) | 5(2) | 6(7) |
### Qualitative Content Analysis

Student respondents shared an opinion to the open-ended inquiry "What else do you want to tell us about the diversity climate at RUSVM?" resulting in 72 narratives. Coding identified three themes; twenty-five (35%) responses were focused on the RUSVM climate, 30 (42%) responses were specific to cultural privilege, and 17 (24%) responses addressed issues of professionalism. Eighty percent (n=20) of student comments indicated a supportive and inclusive climate. Conversely, the majority of comments in regards to cultural privilege (77%) and professionalism (88%) indicated a concern.

#### RUSVM Climate

Students reported that overall the climate at RUSVM is open and respectful towards diversity. Specifically, students shared that RUSVM adequately embraces diversity and are thankful for the experience to meet people with a diverse background, lifestyle, sexual orientation and beliefs as such enriched their learning experience. It was also noted that RUSVM should continue to reach out to underrepresented populations and further increase the campus diversity; an issue not unique to RUSVM and a priority for most AVMA accredited veterinary colleges.

#### Cultural privilege

Cultural and language dominance emerged as the two important subthemes. Students reported feeling comfortable on campus, though acknowledged that there is a distinct ethnic and racial disproportionate representation of students and faculty compared to support staff and that such can pose challenges particularly with students imposing their norms and cultural expectations. Some feelings of frustration were further noted associated with individuals’ tendency to socialize within groups that they identify closely the most despite the diverse nature of the campus. Furthermore, students reported concerns communicating and when been taught by faculty whose first language is not English.

#### Professionalism

Students expressed concerns regarding attendance and at times associated the term professionalism with applicant screening for specific racial/ethnic backgrounds.
"RUSVM embraces diversity and offers students from a wide range of backgrounds the opportunity to follow their chosen career in veterinary medicine."

Excerpt from the RUSVM mission.

The commitment of veterinary medical education to diversify student and faculty populations supports the need to meet the core attribute of providing and ensuring social justice within ever changing societies. As such, RUSVM strives to achieve its mission and allocate appropriate resources and implement targeted strategies to support recruitment and enrollment of non-United States born students and employment of non-United States born faculty alike. Increasing student racial, geographical and ethnic representation within a campus is considered an effective approach to increasing faculty diversity (Page, Castillo-Page, & Wright, 2011).

From September 2009 to 2014, RUSVM achieved a noticeable increase in enrolled Hispanic, Asian or Pacific Islander, and Black or African American students (9%, 2%, and 1%, respectively). Current demographic student representation at RUSVM is very similar to other North American veterinary schools (Greenhill & Carmichael, 2014). Although the majority of faculty reported being White, 44% indicated being an international, non-US legal resident and listed their country of residency within Europe, Asia, Africa, or the Caribbean. The diversity experienced on the RUSVM campus is reflected in a student's comment; "I feel thankful to have met so many people from different backgrounds, lifestyles, sexual orientations, and beliefs… I think it makes the whole experience a lot more enriching, and many of those students are my good friends."

It is equally important to evaluate the meaning of diversity considering the local population with respect to the university's geographical location. To this end, the university being located on an island that is primarily of African ethnic descent poses great opportunities as well as some inherent challenges. Certainly, international students and faculty are provided with the unique occasion to experience a different culture and develop their cultural awareness and competency, though local ethnic representation creates a disproportionate percentage of supporting staff being of African descent compared to recruited faculty or enrolled students. This disproportionality can pose difficulties and complexities related to acculturation considering existing power differentials based on their role within the institution being primarily one of support. The result for many students, particularly the American students, is a form of cultural dissonance, stemming from a social privilege experienced on campus but not necessarily extended beyond its gates. To this extent, a student commented, "RUSVM is unique in its international diversity, in both support staff, faculty, student make up, and the fact that the students are (likely entirely) foreign visitors. Many diversity climate issues spring from the cultural, ethnic, racial differences from the RUSVM student and faculty body and the St. Kitts nationals (many of whom are support staff)…"

According to E. Dean Gage, future veterinary medical graduates must have knowledge and skills to lead veterinary medicine globally and he states "leadership is people" (pp 201-202). The understanding of diversity and the successful interaction with people from different cultures and beliefs is supported through leadership development requiring students are educated as well as mentored, but primarily engaged in life and work experiences promoting such leadership outcomes (Gage, 2002). RUSVM students have a unique opportunity for immersion in an international experience for two and a half years truly placing them in a position of leadership and racial, ethnic and cultural diversity through the continual acculturation experienced during their stay on St. Kitts.

The cultural dissonance possibly experienced by RUSVM students underscores the need to provide educational and experiential learning opportunities for students related to diversity. As a result, RUSVM developed a mandatory
targeted curricular exercise for all incoming students. Students in semester one are divided into small groups meeting with two facilitators for a two-hour mandatory discussion. During the session, students view three vignettes raising issues surrounding diversity, multiculturalism, the notion behind earned and unearned privileges, explicit and implicit stereotypes, and the importance of self-awareness of our own biases and how they can shape daily interactions, as well as practice veterinary medicine. Furthermore, the curricular exercise addresses the role of animals and the meaning of the human-animal bond within cultures and across cultures. Additional discussions focus on students’ transitioning to St. Kitts and a new culture. Students are urged to be mindful of their own ethnocentric views, while exploring differences as well as similarities between Kittitians and their own culture. We acknowledge students experience cognitive and cultural dissonance towards societal norms on the island. Discussions, often unveil unconscious biases as well as feelings of affinity biases. Students often report frustration and at times anger when not experiencing a North American lifestyle as initially expected. As part of the assignment, students are asked to interview one of our Kittitian support staff and further explore issues of diversity and culture. Completion of the diversity exercise requires students to submit a reflective work of 500 words assimilating classroom discussions, interviews, as well as their own views of the value of diversity as a competency in the veterinary profession. Further university initiatives supporting diversity and global veterinary issues include guest lectures, integrated experiential exercises with simulated clients, as well as student exchange programs and externships exposing students to international veterinary curricula.

Unequivocally, acculturation is not smooth. Through the climate survey we also heard concerns surrounding professionalism with students being late or missing class or using profanity during class breaks. However, "professionalism" was also (inappropriately) used as a proxy for addressing ethnic diversity and how specific ethnic backgrounds are considered less professional. Curricular programs addressing professionalism as well as the process of developing professional identity are included within the veterinary professional foundations courses and communications program. Equally important are student initiatives on promoting professionalism including the development of PASS (Professional Attitude for Student Success) certification. We also experienced issues involving language and accent where North American students perceived faculty whose first language is not English providing an inferior teaching and learning experience. While the perception of inferior teaching and learning may exist we do not believe the instruction of professors not born in the United States is actually inferior; we do recognize language skills and differences in educational systems between the United States and professors born outside the United States can have an impact on the teaching effectiveness (Haiyan & Hills, 2008). The path of globalizing veterinary medical education requires unpacking what it truly means to be professional and equally help students manage expectations. It is naïve to consider norms and privileges will be maintained or enhanced when traveling and living in an international environment. Addressing expectations prior to departing to study or live abroad can minimize disappointment and frustration and begin to bridge cognitive and cultural dissonance.

Like all studies, this investigation had its limitations as it addressed data considering only one veterinary school in the Caribbean and future opportunities exist in comparing results with other veterinary and medical schools possessing similar demographic duality.

In closing, our work raises implications for Admissions officers and particularly for matriculating North American students to international settings. We suggest diversity and culture must be discussed through deliberate curricular interventions supported through guided mentorship and continuous self-reflection.

**Take Home Messages**

- Globalization in veterinary medicine is a professional priority and obligation.
We propose the term *demographic duality* to describe the education setting where students within university confines hold a racial majority though beyond the university represent a minority.

- Differences between expected cultural and societal norms can result in cultural dissonance.
- Admission Officers must inform students interested in international studies on issues of diversity and the process of acculturation.
- Universities interested in international recruitment must consider deliberate curricular programs addressing diversity, culture and societal expectations.

**Notes On Contributors**

EA, LG, GEG, and CF contributed to study conception and design. EA and GEG drafted the original manuscript and LG edited the original manuscript. All authors contributed subsequent revisions of the manuscript. GEG did the statistical analysis for the investigation. All authors approved the final manuscript.

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**Bibliography/References**

Chubin, Daryl E., & Mohamed, Sabira. (2009). Increasing Minorities in Veterinary Medicine: National Trends in Science Degrees, Local Programs, and Strategies. Journal of Veterinary Medical Education, 36(4), 363-369.
Dedoose Los Angeles CA.). Dedoose Version 6.1.18, web application for managing, analyzing, and presenting qualitative and mixed method research data (2015). Los Angeles, CA: SocioCultural Research Consultants, LLC (http://www.dedoose.com/).

Dovidio, John F, Gaertner, Samuel E, Kawakami, Kerry, & Hodson, Gordon. (2002). Why can't we just get along? Interpersonal biases and interracial distrust. Cultural Diversity and Ethnic Minority Psychology, 8(2), 88.

Elmore, Ronnie G. (2004). Reasons for the Lack of Racial Diversity in Veterinary Medicine. Journal of Veterinary Medical Education, 31(4), 414-416.

Gage, E. D. (2002). The globalization of veterinary medical education. J Vet Med Educ, 29(4), 201-204.

Gosselin, K., Norris, J. L., & Ho, M. J. (2015). Beyond homogenization discourse: Reconsidering the cultural consequences of globalized medical education. Med Teach, 1-9.

Greenhill, Lisa M. (2007). Introducing DVM: DiVersity Matters (An Association of American Veterinary Medical Colleges Initiative). Journal of Veterinary Medical Education, 34(2), 43-46.

Greenhill, Lisa M. (2009). DiVersity Matters: A Review of the Diversity Initiative of the Association of American Veterinary Medical Colleges. Journal of Veterinary Medical Education, 36(4), 359-362.

Greenhill, Lisa M., & Carmichael, K. Paige. (2014). Survey of College Climates at All 28 US Colleges and Schools of Veterinary Medicine: Preliminary Findings. Journal of veterinary medical education, 41(2), 111-121.

Greenhill, Lisa M., Nelson, Phillip D., & Elmore, Ronnie G. (2007). Racial, Cultural, and Ethnic Diversity within US Veterinary Colleges. Journal of Veterinary Medical Education, 34(2), 74-78.

Gustafsson, Borje K. (2001). Globalization: Veterinary Education Lagging Behind. Journal of veterinary medical education, 28(3), 91-93.
Haiyan, Hu, & Hills, Stacey. (2008). When two worlds collide: An exploratory study of foreignborn professors’ teaching experiences in american business classrooms. Journal for advancement of marketing education, 13, 56.

Harden, R. M. (2006). International medical education and future directions: a global perspective. Acad Med, 81(12 Suppl), S22-29.

Jaquette A, & R, Jaquette. (2009). Beatleology: A magical mystery tour to discover your inner beatle.

Kendall, Tom. (2004). Diversity and Changing Demographics: How They Will Affect Veterinary Medicine. Journal of Veterinary Medical Education, 31(4), 406-408.

Kochevar, Deborah T. (2015). Fifty Years of Evolving Partnerships in Veterinary Medical Education Journal of veterinary medical education, 42(5), 403-413.

Marshall, E. S., Smith, R., & Watts, C. (2006). Global veterinary opportunities and responsibilities: some recent graduates' perspectives. J Vet Med Educ, 33(3), 416-418.

Page, Kathleen Raquel, Castillo-Page, Laura, & Wright, Scott M. (2011). Faculty Diversity Programs in U.S. Medical Schools and Characteristics Associated With Higher Faculty Diversity. Academic Medicine, 86(10), 1221-1228.

Renberg, W. C. (2010). Developing an international program in a North American veterinary college. J Vet Med Educ, 37(4), 340-346.

Satcher, David. (2008). The importance of diversity to public health. Journal of veterinary medical education, 35(2), 151.

Stevens, F. C., & Simmonds Goulbourne, J. D. (2012). Globalization and the modernization of medical education. Med Teach, 34(10), e684-689.

Teaching With Documents: The Civil Rights Act of 1964 and the Equal Employment Opportunity Commission. Retrieved from https://www.archives.gov/education/lessons/civil-rights-act/.
Walsh, Donal (2002). Expanding the horizons of veterinary medical education: Global obligations and opportunities Journal of veterinary medical education, 29(4), 201.

Appendices

Declaration of Interest

*The author has declared that there are no conflicts of interest.*