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Letter from the Editor

I am excited to present the 2018 AGEP Bulletin, *Science Today*. This edition showcases interdisciplinary scientific research from graduate students at Michigan State University. My hope is by the end of the Bulletin you will agree there is no panacea for improving society, the environment, or world. Instead, it will be through the collective effort of diverse people working in distinct fields to further their area of research, application, and theory. It is my belief that our combined effort will sustain what we have and carry us into a brighter future.

The 6th edition also features stories and conversations with researchers at various stages of careers in science. You will find this content in the three new sections: (1) Alumni Spotlight, (2) Faculty Spotlight, and (3) Summer Research Opportunities Program (SROP) Undergraduate Researchers. We believe by covering the nuances and subtleties of their stories, we can portray careers in science more holistically and increase visibility for the next generation of researchers and students.

To our readership and AGEP community, I thank you for your support. I have enjoyed serving the Bulletin and the opportunities to participate in science communication and extend scientific discourse into communities of the everyday. I have had a rewarding experience as Editor in Chief, and I wish the editorial board continued success.

Sincerely,

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Help-seeking and Secondary Victimization among Rape Victims in Nigeria

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Keywords: Nigeria, West Africa, Sexual Assault, help-seeking

Introduction

Sexual violence is a known phenomenon in many parts of Africa that has received much attention from across the continent (WHO, 2003). Previous studies estimated that at least 55% of Nigerian women experienced sexual violence (Ajuwon et al., 2014). Rape is among the most prevalent and pervasive forms of sexual violence in Nigeria. Rape has short and long-term health implications that are detrimental to the physical, mental, emotional, and social well-being of survivors and their families (Aimakhu, 2004). Global evidence suggests that survivors of rape need comprehensive medical and mental health care services to deal with the consequences of the experience (WHO, 2002). Considering the continued prevalence of rape in Nigeria, there is an urgent need to conduct research to document the experiences and perspectives of rape survivors.

The prevalence and consequences of rape in Nigeria are further exacerbated by problems in the provision and delivery of post-rape medical and legal services. Understanding the experiences of rape survivors with health workers and legal personnel will identify conditions that worsen the psychological, emotional, and social well-being of survivors. The current study examines post-assault service provision and the experiences of survivors with medical and legal systems personnel.

The research questions explored are:

1. What are the post-assault medical and legal services that survivors of rape report receiving?
2. What are the experiences of survivors of rape in their interactions with medical and legal systems personnel?

Based on the literature, the hypotheses are: 1) survivors will report receiving little to no post-assault medical care, and 2) survivors will report experiencing secondary victimization in their interactions with medical and legal systems personnel.

Methods

This study will utilize a phenomenological approach. The phenomenological method is used to explore a defined phenomenon by understanding and condensing people's experiences into a universal description. The phenomenon of interest in this study is service provision and secondary victimization in the medical and legal system.

Research Context

The study will be conducted in southwest Nigeria in collaboration with two sexual assault response organizations providing services to the local communities. The target population is adult women in the area who have accessed or attempted to access post-assault medical and legal help services, regardless of other sociodemographic characteristics such as sexual orientation, religion, marital status, ethnicity, ability, or socioeconomic status. The sample will consist of 30 participants. Purposive sampling will be used to recruit participants.

Data Collection

Semi-structured, face-to-face interviews with participants will be conducted. Interviews will be conducted once, audio-taped, and expected to span a one-hour period. The interview guide is based on sexual assault literature and developed specifically for this study (Campbell, 2005). Participants will respond to questions about their experience with rape, the process of disclosure, and subsequent interactions with legal and medical personnel.

Data Analysis

Audio tapes will be transcribed verbatim and analyzed using thematic analysis from qualitative research to recognize, analyze, and report themes in the data. Initial codes will be generated to identify common experiences noted in the transcripts. Significant statements and potential patterns will be noted. The codes will then be sorted into different themes that are central to the interviews. Next, the list of generated themes will be shared with the research team, study participants, and community partners for review. The themes will be refined by incorporating relevant feedback. A report detailing the emerging themes from the study will be developed.

Limitations and Implications

Limitations include difficulty in recruitment and responder bias. To minimize this, a recruitment protocol will be created in collaboration with community partners and stakeholders. As community partners are gatekeepers in this setting, their involvement in the development of this project will facilitate recruitment. The interview questions will also be framed in a concise manner to avoid misinterpretation and aid accurate recall. The findings from this study will yield beneficial implications for future research, policy, and practice. Results will provide relevant information to inform future research on the development of sustainable solutions that will address barriers to help-seeking and service delivery outcomes in this population. Study results can also inform the development and implementation of laws that promote equity for women, protect against violence, and make provisions for women experiencing violence to receive the help and support they need. Lastly, the outcomes can be used to improve the practices of medical and legal professionals to better serve survivors.

References

Aimakhu, C. O., Olayemi, O., Iwe, C. A. B., Oluyemi, F. A., Ojoko, I. E., Shoretire, K. A., ... Aimakhu, V. E. (2004). Current causes and management of violence against women in Nigeria. *Journal of Obstetrics and Gynaecology*, 24(1), 58-63.

Ajuwon, A.J., Olaleye, A., Faromoku B., and Ladipo, O. (2006). Sexual behavior and experience of sexual coercion among secondary school students in three states in North Eastern Nigeria. *BMC Public Health* Vol 6, pp 310.

Campbell, R. (2005). What really happened? A validation study of rape survivors' help-seeking experiences with the legal and medical systems. *Violence and victims*, 20(1), 55.

WHO World Report on Violence and Health. 2002.

World Health Organization. (2003). Guidelines for medico-legal care of victims of sexual

A secondary analysis of SBHC-reported mental health services and structural characteristics from 2005 to 2014

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Keywords: school-based health centers, consolidated framework for implementation research, mental health services, health service disparities, youth, linear mixed modeling, longitudinal analyses

Background

It is estimated that more than 20% of children and youth in the U.S. experience mental health difficulties, with only 30% receiving adequate mental health (MH) services^{1,2,3,4}. If left untreated, MH difficulties can lead to poorer academic performance, higher risk-taking behaviors, substance abuse, and other developmental difficulties among school-aged children⁵. School based health centers (SBHCs)-comprehensive service delivery models integrating physical and MH services within school settings-function as medical centers for children in urban, low-income areas and reduce healthcare access barriers faced by low-income families^{6,7,8,9}.

Seventy percent of SBHCs in the U.S. offer some type of MH service^{10,11}, including referrals, screening/assessments, substance use treatment and medication management^{1,11,12}. However, some centers are not as well-equipped as others to provide all these services¹³. To better understand what differentiates centers to be more equipped, we applied a contextualist approach to examine how contextual variables unique to each SBHC contribute to MH service provision over time.

Theoretical Framework

Previous studies have not applied the Consolidated Framework of Implementation Research (CFIR) to organize inner contexts relevant to SBHCs. CFIR is a comprehensive framework used in dissemination and implementation (D&I) science to assess and justify constructs relevant to an implementation effort¹⁴. CFIR was used to organize contexts of SBHCs related to structural characteristics and guided interpretation of findings related to the interplay between inner contexts and MH service provision.

SBHCs are complex systems that interact with surrounding contexts. "Context" refers to the unique set of circumstances surrounding an implementation effort, such as the service delivery model for MH services through SBHCs¹³. Inner contexts, such as structural characteristics (e.g., size, location, maturity, staffing), can directly influence the provision of services^{11,13,15,16,17}. Given the position of SBHCs in improving lives of children and the sparseness of studies on contextual factors¹⁸, there remains a need to explore the role of context in explaining variations of MH services among SBHCs. The purpose of this project was to identify key factors in structural characteristics that promote delivery of MH services over time.

Methods

Secondary data from a longitudinal, nationally distributed survey administered to SBHCs agency leaders informed inner contexts related to structural characteristics. A total of 4,232 SBHCs within 41 states were included in the study. Descriptive analyses explored the reported number of four types of MH services (e.g., screening, medication management, referrals, and substance use treatment) offered by SBHCs across the U.S. Further, to account for inter-dependent groups of SBHCs within states, we applied a linear mixed model analysis (LMM) to identify key variables within the domain of structural characteristics of SBHCs that were significantly related to the number of MH services reported to be delivered from 2005 to 2014.

Results

There are significant variations in MH services accounted for by state and time-point, demonstrating a significant increase of all services, except substance use treatment. Linear mixed modelling results indicated that structural characteristics related to geographic location, hours open weekly, school type (e.g., public, private or magnet) and agency sponsor were significantly associated with the number of MH services reported to be delivered over time. Moreover, while specific inner setting variables were significantly and positively related to more services reported, differential impacts were observed for different types of services offered. For instance, geographic location reported as rural was related to more screening/assessment and referral services, but less medication management and substance use treatment services. See Figure 1.

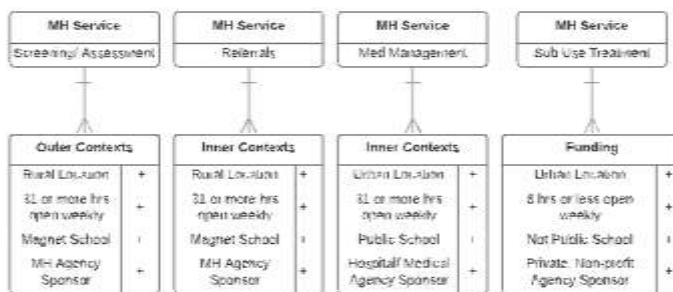


Figure 1: Significant, Positive Inner Contexts Influencing Mental Health Services

Limitations

A limitation to the current analysis is that LMM results do not determine or explain causal relationships between inner contexts and provision of MH services delivered through SBHCs. Rather, results suggest the association and direction of the relationship between inner contexts and MH services in SBHCs over time.

Implications

Using a contextualist approach helped identify specific inner contexts associated with the number of MH services in SBHCs over time. Such information can be crucial to understand the likelihood of more available MH services within a given setting. Given the variation in number of services reported for screening, medication management, substance use treatment, and referrals, future research should explore, “How does type of service moderate the impact of inner contexts on MH service provision?” Further, results provided novel information by examining how these associations changed over time. This information may be particularly useful for promoting facilitating factors that increase the use of specific types of MH services to increase access to quality treatment, promote funding, and reduce MH disparities among underserved youth.

References

1. Bains, R. M., & Diallo, A. F. (2016). Mental health services in school-based health centers: Systematic review. *The Journal of School Nursing*, 32(1), 8-19. doi: <http://dx.doi.org/10.1177/1059840515590607>
2. Brown, M. B., & Bolen, L. M. (2003). School-based health centers: Strategies for meeting the physical and mental health needs of children and families. *Psychology in the Schools*, 40(3), 279-287.

3. Merikangas, K. R., He, J., Burstein, M., Swendsen, J., Avenevoli, S., Case, B., Olfson, M. (2011). Service utilization for lifetime mental disorders in U.S. adolescents: Results of the national comorbidity survey-adolescent supplement (NCSA). *Journal of the American Academy of Child & Adolescent Psychiatry*, 50(1), 32-45.
doi:<http://dx.doi.org.proxy1.cl.msu.edu/10.1016/j.jaac.2010.10.006>
4. Simon, A. E., Pastor, P. N., Reuben, C. A., Huang, L. N., & Goldstrom, I. D. (2015). Use of mental health services by children ages six to 11 with emotional or behavioral difficulties. *Psychiatric Services*, 66(9), 930-937.
5. Padilla-Frausto, D. I., Grant, D., Aydin, H., & Anguilar-Gaxiola, S. (2014). Three out of four children with mental health needs in California do not receive treatment despite having health care coverage. Center for Health Policy Research, Available from:
https://www.researchgate.net/publication/320040250_Using_Children's_Literature_to_Strengthen_Social_and_Emotional_Learning?pag=3:mrect
6. Allison, M. A., Crane, L. A., Beaty, B. L., Davidson, A. J., Melinkovich, P., & Kempe, A. (2007). School-based health centers: Improving access and quality of care for low-income adolescents. *Pediatrics*, 120(4), e887-e894. doi: <http://dx.doi.org/10.1542/peds.2006-2314>
7. Armbruster, P., & Lichtman, J. (1999). Are school based mental health services effective? Evidence from 36 inner city schools. *Community Mental Health Journal*, 35(6), 493-504. doi: <http://dx.doi.org/10.1023/A:1018755100381>
8. Larson, S. A., & Chapman, S. A. (2013). Patient-centered medical home model: Do school-based health centers fit the model? *Policy, Politics, & Nursing Practice*, 14(3-4), 163-174. doi: <http://dx.doi.org/10.1177/1527154414528246>
9. Mason-Jones, A. J., Crisp, C., Momberg, M., Koech, J., De Koker, P., & Mathews, C. (2012). A systematic review of the role of school-based healthcare in adolescent sexual, reproductive, and mental health. *Syst Rev*, 1, 49. doi: 10.1186/2046-4053-1-49.
10. Bains, R. M., Cusson, R., White-Frese, J., & Walsh, S. (2017). Utilization of mental health services in school-based health centers. *The Journal of School Health*, 87(8), 584-592.
doi:<http://dx.doi.org.proxy2.cl.msu.edu/10.1111/josh.1252810>. Larson et al., 2017
11. Lofink H, Kuebler J, & Juszczak L. (2013). 2010-2011 School-Based Health Alliance Census Report. Retrieved from http://www.sbh4all.org/wp-content/uploads/2015/02/CensusReport_2010-11CensusReport_7.13.pdf.
12. Price, O.A. (2016). School-centered approaches to improve community health: Lessons from school-based health centers. *Economic Studies at Brookings*, 5, 1-17.
13. Damschroeder, L.J., Aron, D.C., Keither, R.E., Kirsh, S.R. Alexander, J.A., & Lowery, J.C. (2009). Fostering implementation of health services research findings into practice: A consolidated framework for advancing implementation science.

14. Greenhalgh, T., Robert, G., Macfarlane, F., Bate, P., & Kyriakidou, O. (2004). Diffusion of Innovations in service organizations: Systematic review and recommendations. *The Milbank Quarterly*, 82(4), 581-629. <http://doi.org/10.1111/j.0887-378X.2004.00325.x>
15. Wade, T. J., Mansour, M. E., Guo, J. J., Huentelman, T., Line, K., & Keller, K. N. (2008). Access and utilization patterns of school-based health centers at urban and rural elementary and middle schools. *Public Health Reports*, 123(6), 739. Retrieved from <https://search-proquest-com.proxy1.cl.msu.edu/docview/201597552?accountid=12598>.
16. Pettigrew, A. M., Woodman, R. W., & Cameron, K. S. (2001). Studying organizational change and development: Challenges for future research. *Academy of Management Journal*, 44(4), 697-713. Retrieved from <https://search-proquest-com.proxy2.cl.msu.edu/docview/199783433?accountid=12598>.
17. Silberberg, M., & Cantor, J. C. (2008). Making the case for school-based health: Where do we stand? *Journal of Health Politics, Policy and Law*, 33(1), 3-37. doi: <http://dx.doi.org/10.1215/03616878-2007-045>
18. Dryfoos, J. G. (1998). School-Based Health Centers in the Context of Education Reform. *Journal of School Health*, 68(10), 404-408. doi: 10.1111/j.1746-1561.1998.tb06317.x

Mothering and Educational Leadership: Portraits of African Women in African Centered Education

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Keywords: Mothering, Black Women Educators, Educational Leadership, African Centered Education, transnational, Pan-Africanism, womanism

Introduction

Black women globally have contributed to the development and sustainability of educational institutions. My study focuses on their educational leadership roles in African Centered Institutions, specifically in South Africa and Detroit, Michigan. This creates a diasporic and transnational dialogue amongst women that illustrates a Pan-African solidarity in relation to African Centered Education. A gendered approach makes it possible to understand these women holistic perspectives, while integrating their multiple roles as mothers, wives, community leaders, and spiritual beacons. This project uses the concept of Mothering, a theoretical platform on race and gender to analyze Black women's leadership roles. "Mothering" as a praxis, mentioned throughout the experiences of black women educators, involves valuing others and a commitment to the survival and thriving of other bodies (Baylor, 2014; Oka, 2016; Msila, 2016; Karenga T., 2012; Collins, 1999). The role of a mother includes the ability to nurture, teach, mold, mentor, and provide a conduit for our ancestors (Karenga T., 2012; Dove, 1998; Godono, 2005). Mothering activities are witnessed throughout the emancipatory organizations, institutions, and social movements, reflecting the history of black women in the freedom movements in the United States and throughout the pan-African world (Karenga T., 2012).

Research Questions

1. What distinctive contributions do Black women make in African Centered Education?
2. What do their stories tell us about emergent themes that unify their leadership and identities?
3. How do they navigate their roles as educational leaders with that of familial, societal, and personal obligations?

Theoretical Framework

This investigation explores mothering as an aspect of womanist theory. Womanism is defined as a woman, "Committed to the survival and wholeness of the entire people, male and female" (Walker, 1983). This provides depth to the gendered discussion and helps to explain the family centered approach of the women in the study. Portraiture methodology seeks to record and interpret the perspectives and experience of the people within a study, thereby, documenting their voices, visions, authority, knowledge, and wisdom (Lightfoot, 1997). It complements a mothering framework that centers around black women stories. It is a genre of inquiry that seeks to join science and art by blending literary principles, artistic resonance, and scientific rigor (Lightfoot, 1997). In addition, portraiture methodology has been used by other scholars who have studied black women educators (Lightfoot 1997; Pollard, 1998; Cabral, 2006; Baylor, 2014). By analyzing the qualitative research data drawn from select interviews and content analysis, emergent themes are revealed allowing me to create a piece that is reflective of these women collective lives (Lightfoot, 1997).

Methods

I have selected 6 black women and educational leaders in South Africa (Johannesburg, Pretoria) and United States (Detroit, Michigan) to focus on. I interviewed each woman and spent extensive time spent

at their respective institutions using participatory observation. In Detroit, Michigan my participants work environments included Timbuktu Academy of Science and Technology, and The Hush House Museum and Leadership Training Institute. The South African institutions included the University of South Africa in Pretoria, The African Union International School, and Gogo Dineo's Institute of Spiritual Healing. Through, my interviews, participatory observations, and content analysis - I identified three emergent themes.

Findings

Data analysis reveals three emergent themes shared between the six women in my study: Mothering Leadership, Nation building, and The Consciousness or Spiritual Call to Educate. Mothering in leadership describes how nurturing and other motherly characteristics are used in leadership positions. Nation building, which lies within Pan - Africanism, consists of ideas and strategies used to unify a community or group of people due to systems that have marginalized them racially, politically, and economically. Lastly, the consciousness or spiritual call to educate consists of the rationale for the women in the study to create, manage, and or teach at institutions that provide a form of African Centered Education.

The research suggests that black women leaders are exploring alternative methods rooted in their political and spiritual convictions to educate students. They detour from traditional educators who seek to merge with societal norm, and unapologetically create their own radical healing spaces. Their models are successful, yet exposure of their approach is limited. These black women leaders in African Centered Education in South Africa and Detroit provide display an increasing trend of minorities separating from the established educational structures rather than conforming to standards that are not culturally inclusive.

References

Baylor, Aza A. "Sankofa: Traditions of Mentoring among Black Women Educators." ProQuest Dissertations Publishing, 2014. Web.

Collins, Patricia-Hill. *Black Feminist Thought: Knowledge, Consciousness, and the Politics of Empowerment*. Rev. 10th anniversary;2; ed. New York: Routledge, 2000;2002;1999;. Web.

Dove, Nah. "African Womanism: An Afrocentric Theory." *Journal of Black Studies*, vol. 28, no. 5, 1998, pp. 515-539.

Godono, Elvira. *Postcolonial Motherism: A Brand New Woman In the African Novel*. African Postcolonial Literature in English in the Postcolonial Web. September 23, 2005.

<http://www.postcolonialweb.org/africa/godona1.html>

Karenga, Tiamoyo, and Chimbuko Tembo. "Kawaida Womanism: African Ways of being Woman in the World." *Western Journal of Black Studies*, vol. 36, no. 1, 2012, pp. 33-47.

Lawrence-Lightfoot, Sara, and Jessica H. Davis. *The Art and Science of Portraiture*. Jossey-Bass, San Francisco, 1997.

Msila, Vuyisile and Netshitangani, Tshilidzi, "Women and Leadership: Learning from an African Philosophy," *Africanising the Curriculum: Indigenous Perspectives and Theories*, edited by Vuyisile Msila and Mishack T. Gumbo. Sun Press, 2016, pp. 83-96

Walker, Alice. *In Search of our Mothers Gardens: Womanist Prose*, Harcourt Brace Jovanovich, San Diego, 1983.

Syllabus Content Analysis: What are we teaching student leaders?

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Keywords: student leadership, syllabus, content analysis, diversity, equity, inclusion

Introduction

Higher education has been a place to develop the next generation of leaders. Within the last 30 years, leadership development has become an explicit educational outcome of colleges and universities (Association of American Colleges and Universities, 2007; Dugan & Komives, 2007). As a result, there are over 1,000 formal student leadership programs on college campuses across the United States (Brungardt, Greenleaf, Brungardt, & Arensdorf, 2006).

Despite all these student leadership programs, many claim there is a leadership crisis in the United States. Turbulent race relations, government gridlock, widening political and socioeconomic divide, and rampant cover-up of workplace sexual harassment, all point to this crisis (Astin & Astin, 2000). Many call for better training and development of student leaders to develop the competencies to handle the rapidly changing global world when they leave college. However, the vast majority of student leadership books, programs, curricula, theories, and models fail to account for how leaders perpetuate the same system that benefits the privileged and dominant group (Pendakur & Furr, 2016).

This analysis examined the content of student leadership programs. If college and universities want to produce leaders who can address the challenges as it relates to diversity, equity and inclusion, a content analysis of course syllabi is an essential component to understand what is being taught in these courses.

Research Questions

1. Do the concepts of diversity, equity, and inclusion exist in these courses?
2. How are the concepts of diversity, equity, and inclusion conceptualized in the courses?

Methods

A content analysis is conducted on 26 of the 58 syllabi from the National Clearinghouse for Leadership Programs (NCLP) database. The selected syllabi represented courses focused on general leadership topics or the theory and practice of leadership. Syllabi focused more on professional or skill development such as an event planning were not chosen for this analysis as well as syllabi focused on a specific context of leadership such as leadership and service learning.

Syllabi were from 2003-201, and there were 12 of them without a date. They represented a variety of institution types including 21 from public institutions, 19 from research institutions, two from religious institutions, four from comprehensive institutions, and two from liberal arts institutions. Six syllabi come from the same institution and another three come from the same institution. These sets of syllabi were part of a series of courses on leadership at the respective institutions.

For this analysis, I examined specific components of the syllabus for terms or phrases as it relates to the concepts of diversity, equity, and inclusion defined by the CAS Learning and Development Outcomes and Student Leadership Competencies Guidebook. These definitions are used as categories to evaluate the course description, course goals or learning objectives, course topics, assigned readings, activities and assignments. In addition, the leadership model of the course will be examined.

Findings

For the first research question, the results of the content analysis indicated that 18 of the 26 syllabi (69%) have an element of diversity, equity, and inclusion included within it. This means the vast majority of syllabi include these concepts in some form or fashion. It appears these courses were designed to provide student leaders with an awareness and understanding of these concepts. However, it is unclear if these courses were designed to prepare student leaders to be committed in taking action regarding these concepts.

For the second research question, the results indicated that the most frequent way for these concepts to appear is as a course topic. Diversity, equity, and inclusion were presented in this way within 14 of the 26 syllabi. This is followed by the course objectives or goals (n=10), course assignments (n=8), and assigned readings (n=7). The least frequent way to express these concepts is in the course description (n=3). Only two syllabi included these concepts in four or more components of the syllabus (e.g. course objectives, course assignments, etc.), and another three syllabi include these concepts in three or more components.

Conclusion

These findings contribute to the student leadership literature by examining how the concepts of diversity, equity, and inclusion are conceptualized within student leadership courses. While the majority of syllabi included these concepts, there was substantial variance in the extent to which the concepts of diversity, equity, and inclusion were conceptualized. Most of the courses failed to center these concepts in the design of the course. Instead, the concepts of diversity, equity, and inclusion were listed as one topic among many topics to be discussed in the course. This study demonstrates the need for more studies to examine the content of student leadership courses beyond the syllabus. Higher education institutions and their respective student leadership programs need to take seriously the way it teaches the concepts diversity, equity, and inclusion in these courses. They need to go beyond celebrating diversity and embrace a critical approach that confronts the root of these issues such as power, privilege, and culture in order to create a world that is truly equitable and inclusive.

References

- Association of American Colleges and Universities. (2007). *College learning for the new global century*. Washington, DC: Author.
- Astin, A. W., & Astin, H. S. (2000). *Leadership reconsidered: Engaging higher education in social change*. Battle Creek, MI: W. K. Kellogg Foundation.
- Brungardt, C., Greenleaf, J., Brungardt, C., & Arensdorf, J. (2006). Majoring in leadership: A review of undergraduate leadership degree programs. *Journal of Leadership Education*, 5(1), 4-25.
- Dugan, J. P., & Komives, S. R. (2007). *Developing leadership capacity in college students: Findings from a national study*. College Park, MD: National Clearinghouse for Leadership Programs, Multi-Institutional Study of Leadership.
- Pendakur, V., & Furr, S. C. (2016). Critical Leadership Pedagogy: Engaging Power, Identity, and Culture in Leadership Education for College Students of Color. *New Directions for Higher Education*, 2016(174), 45-55.

Developing Inclusive School Climates for Minoritized Students: The Value of Community Partnerships

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Keywords: school partnership, community partnership, school climate

Introduction

The use of school-community partnerships can be beneficial in alleviating the hostile learning environments that minoritized students experience in schools, referring to those whose identities have been marginalized within traditional educational and social systems (Ice, Thapa, & Cohen, 2015). Although most research has examined school-community partnerships from a resource sharing and community building perspective, this study aims to examine these partnerships for the purpose of improving school climates for minoritized students by increasing community-inclusivity in school organizational structures. In this study, a community-inclusive school climate is defined as a learning environment that supports all students in their academic and social growth, participates in democratic decision-making with students, families and communities, and encourages culturally-appropriate engagement in the entire school context (Yull, Blitz, Thompson, & Murray, 2014; Ice, Thapa, & Cohen, 2015; Gross, et al., 2015). Inclusive school climates have been shown to improve student dropout rates and academic achievement, effectively engage parents and community members, and increase teacher retention (Ice, Thapa, & Cohen, 2015). Community-based organizations and community members have contributed to community-inclusivity in schools through their involvement in leadership and governing capacities, volunteerism, and by providing various forms of professional development to school staff to facilitate the reconstruction of school policies and structures that accommodate the culturally diverse needs of their students (Gross, et al., 2015). Culturally responsive pedagogy is used here as a framework to inform the development of these partnerships. The creation of authentic and reciprocal alliances between school personnel, community-based organizations and community members can help schools incorporate the cultural experiences, values, and backgrounds of their students within the school climate. This will lead teachers and principals to engage students in culturally appropriate ways (Ladson-Billings, 1995; Gross, et al., 2015).

Research Question

In what ways have school leaders utilized school-community partnerships to support the development of a community-inclusive school environment for minoritized students?

Conceptual Framework

Culturally responsive pedagogy incorporates students' voices, understandings, and backgrounds in all aspects of their educational experiences (Ladson-Billings, 1995). In contemporary educational settings, minoritized students experience hostile learning environments that perpetuate the marginalization and exploitation they experience in society (Ladson-Billings, 1995; Khalifa, Gooden, & Davis, 2010; Milner IV, 2012). According to Ladson-Billings (1995), this hostility stems from stereotypical beliefs, and deficit-oriented mindsets towards minoritized students' ways of dressing, languages, and other aspects of their cultural identities. Minoritized students have unique cultural backgrounds and ways of learning that are excluded from traditional White, hegemonic school paradigms. This leads to their rejection of conventional school instruction, content, and practices (Milner IV, 2012; Venzant Chambers & Huggins, 2014). This exclusion of minoritized students identities and experiences in their conventional learning is associated with low academic achievement. Consequently, Black, Latino, and Indigenous students have been shown to perform in the lowest categories of academic performance on most US educational

measures when compared to White students nationally (Khalifa, Gooden, & Davis, 2010; Venzant Chambers & Huggins, 2014). Furthermore, the invalidation of minoritized student cultures as enacted by school faculty impedes opportunities for students to engage within the classroom and the larger school context such as leadership and social activities.

Methods

I intend to conduct 3-4 interviews with 7th - 12th grade school principals in Lansing, Michigan. The sample will be kept small because the findings will be preliminary to a larger project. Therefore, in-depth interview data and analysis are prioritized considering time constraints. The interviews will be designed to capture the perspectives of school leaders regarding the impact that school-community partnerships can have on community-inclusive school climates from a culturally responsive lens. The proposed study will be conducted in Lansing, MI because of the unique composition of the Lansing Public School District when compared with other traditional middle- and high-schools which separates students according to 6th-8th, and 9th-12th grades. The largest 7th-12th grade schools in Lansing, MI educate a culturally diverse student body that predominantly consists of racial minorities. As such, there are a variety of student needs, identities, and interests that manifests within their school buildings.

Future Work

As mentioned, this research is preliminary to a larger study. The findings from these interviews will be used to inform a framework conceptualizing the development of culturally-responsive school-community partnerships. I intend for this work to eventually expand beyond academia to inform the development of initiatives and partnerships to bridge schools and communities to improve students outcomes and trajectories.

References

- Gross, J. M., Haines, S. J., Hill, C., Francis, G. L., Blue-Banning, M., & Turnbull, A. P. (2015). Strong school-community partnerships in inclusive schools are "part of the fabric of the school....we count on them". *School Community Journal*, 25(2), 9-34.
- Ice, M., Thapa, A., & Cohen, J. (2015). Recognizing community voice and a youth-led school-community partnership in the school climate improvement process. *School Community Journal*, 25(1), 9-28.
- Khalifa, M., Gooden, M. A., & Davis, J. E. (2010). Culturally responsive school leadership: A synthesis of the literature. *Review of Educational Leadership*, 20(10), 1-40.
- Ladson-Billings, G. (1995). But that's just good teaching! The case for culturally relevant pedagogy. *Theory Into Practice*, 34(4), 159-165.
- Milner IV, R. (2012). Beyond a test score: Explaining opportunity gaps in educational practice. *Journal in Black Studies*, 693-718.
- Osterman, K. F. (2000). Students need for belonging in the school community. *Review of Educational Research*, 70(3), 323-367.
- Venzant Chambers, T. T., & Huggins, K. S. (2014). The influence of school factors on racial opportunity cost for high-achieving students of color. *Journal of School Leadership*, 24(1), 189-225.

Yull, D., Blitz, L. V., Thompson, T., & Murray, C. (2014). Can we talk? Using community-based participatory action research to build family and school partnerships with families of color. *School Community Journal*, 24(2), 9-31.

Moving Up or Moving Out? Candidate Training Programs & Women of Color's Progressive Political Ambition

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Keywords: women candidates, women of color, training programs

Introduction

Women trailblazers such as Kathy Tran, the first Asian-American woman delegate of Virginia, have contributed to historical gains for women in politics. Even with such progression, women remain tremendously underrepresented electorally—making up only 25 percent of state legislators and 22 percent of statewide executive positions (CAWP 2018). While the statistics are daunting for women in general, there is a silver lining for women of racial groups. Women of color account for a significant portion of the increase in political representation demonstrating that minority women can and do win political office (Hardy-Fanta, Lien, Pinderhughes and Sierra 2007). However, pursuing political office for women of color is not an easy task (Smooth 2014). Women of color are less likely to be recruited by political parties (Sanbonmatsu, Carroll, and Walsh 2009). Further, minority women have difficulty raising campaign funds (Sanbonmatsu 2005).

To overcome such issues, modern women are attending training programs to build confidence and political knowledge before declaring candidacy for public office (Sanbonmatsu, Carroll, and Walsh 2009). Women of color especially are preparing in this way. Despite their participation, however, numbers show alumnae of color are pursuing political office at a much lower rate than white women, making up only 6 percent of state legislators (CAWP 2018). This not only becomes a question of ambition but, a question of program effectiveness since programs are aimed at increasing the number of women in office through intensive training.

I want to discover if networks gained through training program participation influence the progressive political ambition—the desire to run for higher office—of minority women. I hypothesize that of those women who have served in a state elective position, women of color are less likely to run for national office.

Methods

Data for this study was collected from the official websites of the Maryland, New Jersey, and Virginia chapters of Emerge America—an intensive candidate training program with a mission of recruiting, training, and providing a powerful network to Democratic women who want to run for office. These were selected as focus states because of their high minority populations. The key dependent variables are: ran for local office, won local race, ran for state office, won state race, ran for federal office, and won federal race. Each variable is coded '1' if alumna has pursued or been elected to that particular office and '0' otherwise. The key independent variables are: race, highest degree attained, profession, party involvement, and political staff. For race, candidate of color is characterized as '1' and white candidate as '0'. To determine race, I examined skin color, last name, and patterns of participation in organizations such as Hispanic National Bar Association (Harris 2002). Highest degree attained is quantified by degree ranging from bachelor's degree to professional degree specifically Juris Doctor. Profession is classified based upon the traditional candidacy pool—the concept that traditional candidates have legal, education, or business backgrounds (Moncrief, Squire, and Jewell 2000). Thus this variable is categorized as law, education, business, and other. Party involvement is coded '1' if alumna has participated in party committees, served as a party delegate, or have had similar party duties, '0' if

otherwise. Political participation is coded '1' if alumna has experience working on a campaign or employment as staff for elected officials, '0' if otherwise. To characterize the women in the sample, I calculate descriptive statistics. Though my ultimate goal is to examine if inherited networks influence progressive political ambition, understanding what women are emerging as candidates is an important contribution to literature since little is known about this group.

Results

On the state level, 22 women have ran for office. 50 percent of those women are candidates of color. 6 of the 22 women were elected as state officeholders. 67 percent of those women are candidates of color. None of the women in the sample have pursued national office thus none of them have been elected as national officeholders.

This data shows that both women candidates of color and white women candidates are emerging as challengers. It also shows that more women candidates of color have been elected. Even with this surprising finding, my hypothesis is not supported— no women within this sample have pursued a national office. It should be considered, however, since this data was collected in 2016. Alumnae from this sample have not yet reached that level of government because they have not had time to serve on the state level and declare candidacy for national office. So, reanalyzing this theory later may produce different results.

Ultimately, this work shows that minority women are finding just as much value in and pursuing state office as their counterparts which provides hope that women of color will activate their progressive political ambition and attempt to move from state elective office to federal elective office.

Future Work

The next step is to expand the dataset to include alumnae from each Emerge America chapter. With participant profiles from each chapter, I will apply a network analysis to examine whether networks inherited from the program disproportionately benefit white alumnae. I will also expand the dataset to include other candidate training programs—specifically programs that target women of color. With this, I will compare outcomes to determine if specialty programs provide more opportunity to the women with intersectional identities than general programs.

Implications

Progressive political ambition is important because state and local offices act as a pipeline to higher office (Gamble 2012). However, campaign training programs that target women are instead designed to appeal to nascent ambition. This research has the potential to influence structural improvement of training programs and other initiatives created to increase representation. This work further emphasizes the importance of state elections for women who are seeking to chip away at the lack of representation within politics. If women of color are not active beyond state level government, there will never be balanced representation in any federal institution.

References

Center for American Women and Politics. (2018). Gamble, Katrina (2012). Young, Gifted, Black, and Female: Why Aren't There More YvetteClarkes in Congress. In Andra Gillespie, *Whose Black Politics?* (p 293-308). New York, NY: Routledge.

Hardy-Fanta, C., Lien, P. T., Pinderhughes, D. M., Sierra, C. M. (2007). Gender, race, and descriptive representation in the United States: Findings from the gender and multicultural leadership project. *Journal of Women, Politics Policy*, 28(3-4), 7-41.

Harris, D.R. (2002). "Racial Classification and the 2000 Census." Prepared for the National Research Council Panel to Review the 2000 Census. Unpublished manuscript.

Moncrief, G.F, Squire, P., & Jewell, M.E. (2000). Who Runs for the Legislature? Upper Saddle River, NJ: Prentice Hall.

Sanbonmatsu, K., Carroll, S. J., & Walsh, D. (2009). "Poised to run: Women's pathways to the state legislatures." Center for American Women and Politics.

Qualitative, Quantitative, and Visual Analyses: Utilizing a Mixed-Method Approach to Assess Egocentric Resource Support Networks

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Keywords: Female Offenders, Egocentric Social Networks, Resource Accessibility

Research Problem

With nearly one million women under correctional supervision, the assessment of female offenders' correctional experiences has become increasingly common. One distinct area of research is the emotional and tangible support women receive during the correctional process. Re-entry literature highlights the importance of support from kinship ties and significant others post-incarceration (Bui & Morash, 2010; Clone and DeHart, 2014; Leverentz, 2006; Petersilia, 2003). However, social support research regarding probationers who had been diverted from prison terms and remained in their communities is limited (Reisig, Holtfreter, & Morash, 2002). Notably, community supervision requirements (i.e., payment of court-related fees, attendance at supervision meetings, employment) inherently impose a need for strong social support and the requirements are imposed on a population of women who are often cited as under-resourced (Morash, 2010). The current research utilizes qualitative, quantitative, and visual analyses to answer three research questions:

1. What are the most meaningful forms of support provided by women's most helpful network members?
2. Which characteristics are associated with the activation of supervision-related resource support?
3. How can visual diagrams be used to further contextualize women's support network characteristics?

Research Methods

Data are derived from 41 in-person interviews with female offenders about their 323 network members. Participants were compensated \$40 for the 1.5hr interview. All of the participants possess one or more felony convictions, a history of substance use, and participated in a larger 6-year study of women under correctional supervision. Women were asked 10 name generator questions to elicit network members. Once the network was established, participants answered various questions about the characteristics of their network members and the types of resource support (i.e., transportation, financial, emotional, housing, childcare) each provided during the correction process. Next, participant described the frequency of communication between each of the potential ties among their network members (i.e., daily, weekly, monthly, yearly). Finally, participants identified their "most helpful" network member, and described the most memorable experience of supervision-related resources support from that individual.

Results

When participants were asked about their most helpful network member, mothers and significant others were most frequently identified. Their narratives surrounding the most memorable experiences of support from these network members highlighted the helpfulness of transportation, financial, and emotional supervision-related resource support (R1; Goodson, 2018). Early findings from multilevel logistic regression models suggest that women activate network members differently across resource types. Parents and significant others played crucial roles in resource accessibility (R2). Mothers were particularly helpful in providing transportation to supervision-related requirements. Significant others and fathers were important for assistance paying court-related fees and providing emotional support

regarding correctional experiences. Generally, younger offenders were more likely to receive support and older network members were more likely to be activated for support. Ties that were characterized as holding “very close” relationships as well as geographically close ties were more likely to be activated for transportation, emotional, and financial support.

Visual representations of such findings hold the potential to improve dissemination tactics for practitioners and add additional context to the quantitative and qualitative findings. Although the assessment of women’s structural network characteristics is still underway, Woman 137’s network (Figure 1) includes important information about her network construction (R3). Signified by the outline and background color of each node, Woman 37 received support exclusively from her mother (#6), grandmother (#4), and boyfriend (#1). Displayed by the lines connecting each node, her boyfriend bridges the connections between her other groups of network members, placing him in powerful position of influence. Generally, her network is loosely knit and present opportunities for access to novel information.

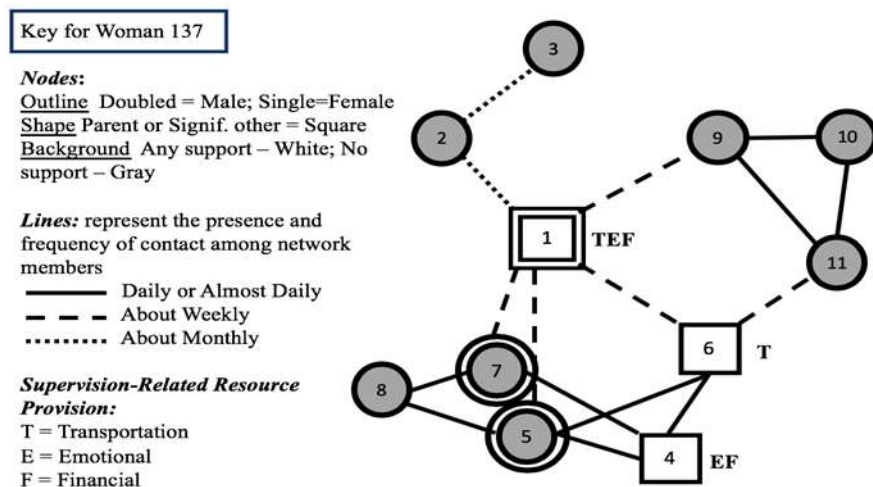


Figure 1: Example Egocentric Network Visualization

Scholarly Contribution

Perhaps the most interesting finding is the supportive roles of male figures (e.g., significant others and fathers), whom have rarely been highlighted as positive influencers of women in the criminal justice system. Furthermore, the advisement of women in the criminal justice system could be strengthened by an appraisal of offenders resources access. Failure to acknowledge resource deficits during the supervision process deprives correctional populations of a fair opportunity to abide by the restrictions. The current research demonstrates how researchers can more concisely assess resources that are embedded in women egocentric networks. Despite the contributions of the research, there are some limitations. The small sample size limits generalizability and the findings may not be applicable to male offenders. Future research should utilize a larger sample size and quantitatively assess the structural characteristics of women’s networks (e.g., density).

Reference

Bui, H., & Morash, M. (2010). The impact of network relationships, prison experiences, and internal transformation on women’s success after prison release. *Journal of Offender Rehabilitation*, 49, 1-22.

Clone, S., & DeHart, D. (2014). Social support networks of incarcerated women: Types of support, sources of support, and implications for reentry. *Journal of Offender Rehabilitation*, 53, 503-521.

Leverentz, A. M. (2006). The love of a good man? Romantic relationships as a source of support or hindrance for female ex-offenders. *Journal of Research in Crime and Delinquency*, 43, 459-488.

Morash, M. (2010). *Women on probation and parole: A feminist critique of community programs & services*. Lebanon, NH:Northeastern University Press.

Petersilia, J. (2003). *When prisoners come home: Parole and prisoner reentry*. New York, NY: Oxford University Press.

Reisig, M. D., Holtfreter, K., & Morash, M. (2002). Social capital among women offenders: Examining the distribution of social networks and resources. *Journal of Contemporary Criminal Justice*, 18, 167-187.

Control Strategy for Core-Loss Reduction in High-Frequency Transformers for EV Chargers with Galvanic Isolation

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Keywords: high-frequency transformer, core loss, root mean square

Introduction

With the present trend of reducing carbon emissions, electric vehicles (EVs) have become a popular topic for the scientific community. The main target is to increase the number of EVs on the road, while decrease the number of conventional fuel cars. One of the many ways to achieve this is by reducing charging times, which can be accomplished with ultra-fast charging (UFC) stations. These stations aim to fully charge EVs within 10 minutes, which is comparable to refueling a conventional fuel car.

A key component in UFC stations is the high-frequency transformer (HFTx). It is mainly used for two purposes: step up or down the AC voltage across it to a voltage level closer to the specifications of the EV batteries, and isolate the main power supply from the EV batteries so if a fault happens on any of the two sides it will not propagate to the other. Since this transformer is typically one of the lossiest, bulkiest, and heaviest components in a power electronics system [1-2], much research has been done on HFTx size and loss optimization [3-5]. The losses in an HFTx can be classified by two types: core and winding loss. This study is focused specifically on reducing the transformer core loss with the aim of increasing the system's overall efficiency. Traditionally this has been done by designing different transformer structures or using different core materials. Both are typically attached to complex optimization algorithms [3-5]. Also, these approaches are effective but may be inconvenient for a system that is already built and require designers to limit themselves to the current state of the art in transformer manufacturing and/or core materials. In this study, an approach to reduce the HFTx core loss while the converter is under operation is proposed. The approach is independent of the transformer manufacturing process and/or core material, may be applied to an existing system by modifying its control strategy, and its improvement can be additive to any improvement made in the aforementioned approaches; thus, taking advantages of the current state of the art while providing an improvement in addition to it).

Analysis and Results

A top-level block diagram of the UFC system is shown in Fig. 1. One of its main stages is composed of a direct current (DC) to alternate current (AC) power electronics converter, which takes a DC voltage and typically generates a symmetrical AC quasi-square voltage waveform (v_{ac}) that is applied to the HFTx terminals. The height of v_{ac} is equal to the DC/AC converter input voltage (namely, V_{in}) which is controlled by a DC/DC power electronic converter, while the width (namely, Δt) is controlled by the DC/AC converter itself. The bigger the area of the square, the higher the HFTx core loss. The root mean square (RMS) value of v_{ac} is controlled by changing V_{in} and Δt (so the area of the square), which is important to regulate the power that flows to the EV batteries.

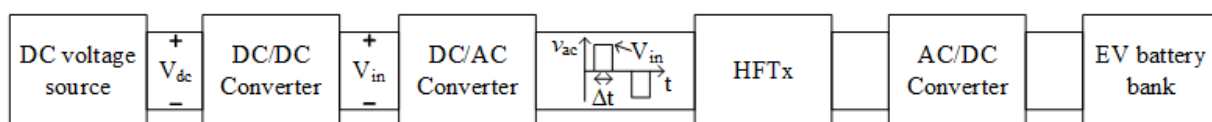


Figure 1. Top-level block diagram of an ultra-fast charging station.

In this study it is proposed to control v_{ac} to supply the power the EV battery is demanding while reduce the HFTx core loss. This is possible because since both the height and the width of v_{ac} can be changed, there are multiple feasible quasi-square voltage shapes (i.e., multiple shapes that achieve the same RMS voltage) for every specific power the battery is demanding, which allows the controller to select the quasi-square wave with smaller area, and thus minimum HFTx core loss at every power demand. It is found by analysis that the feasible solutions require reducing the area with an increase in V_{in} while a decrease in Δt . However, there is a limit on how high V_{in} can be which is imposed by the DC source and the DC/DC converter. In addition, increasing V_{in} increases other losses in the system, which also constrains the maximum value of V_{in} . A detailed analysis of the losses at each stage of the EV charger is needed in order to verify if it is worth implementing the proposed control strategy..

The proposed idea has been theoretically validated, and readers interested in the technical details of it are referenced to a paper that will be published on this topic next March on the 2019 IEEE Applied Power Electronics Conference. In summary, for every power the battery is demanding there exist a combination of V_{in} and Δt that reduces the HFTx core loss more significantly than the increase in loss at other stages of the EV charger, achieving an overall loss reduction in the system. Although the idea is presented for EV battery charging, it applies to any power electronics system that uses an HFTx that is fed from a quasi-square wave voltage.

Broader Implications

This study describes a control strategy that can be used to improve the efficiency in EV battery chargers, which translate to smaller, lighter, and cheaper charging systems. These advancements are key to promote the mass development and adaptation of EVs, speeding-up the replacement of fossil-fueled-based vehicles so as to reduce carbon emissions in the environment. Current work is focused on validating the theory experimentally.

References

- F. Krismer, J. Biela and J. W. Kolar, "A comparative evaluation of isolated bi-directional DC/DC converters with wide input and output voltage range," Fourtieth IAS Annual Meeting. Conference Record of the 2005 Industry Applications Conference, 2005., Kowloon, Hong Kong, 2005, pp. 599-606 Vol. 1.
- H. Akagi, T. Yamagishi, N. M. L. Tan, S. Kinouchi, Y. Miyazaki and M. Koyama, "Power-Loss Breakdown of a 750-V 100-kW 20-kHz Bidirectional Isolated DC–DC Converter Using SiC-MOSFET/SBD Dual Modules," in IEEE Transactions on Industry Applications, vol. 51, no. 1, pp. 420-428, Jan.-Feb. 2015.
- R. Petkov, "Optimum design of a high-power, high-frequency transformer," in IEEE Transactions on Power Electronics, vol. 11, no. 1, pp. 33-42, Jan. 1996.
- W. G. Hurley, W. H. Wolfle and J. G. Breslin, "Optimized transformer design: inclusive of high-frequency effects," in IEEE Transactions on Power Electronics, vol. 13, no. 4, pp. 651-659, July 1998.
- W. -. Gu and R. Liu, "A study of volume and weight vs. frequency for high-frequency transformers," Proceedings of IEEE Power Electronics Specialist Conference - PESC '93, Seattle, WA, USA, 1993, pp. 1123-1129.

When does the United Nations Security Council get involved in International Crises involving Non-State Actors?

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Keywords: terrorism, international organizations, sovereignty, non-state actors, United Nations Security Council, multilateralism

Abstract

The United Nations Security Council (UNSC) and their Security Resolutions have assisted in ending many conflicts worldwide between states. Literature points out the symbolic and historic meaning of UNSC involvement in world affairs. It seems pertinent that the UNSC should have the proper tools to address all international conflicts for the sake of international peace and security as directed by its founding mandate. In order to verify adherence to the organizational mission, we must first look together into the success rate of the global body carrying out its mandate. My question follows as: When does the United Nations Security Council get involved in international crises involving Non-State Actors? (Non-State Actors are individuals who act in no relation to all government offices and posts, essentially civilians.) The problem that exists is that there needs to be international coordination when addressing terrorism as it occurs and trying to prevent it from happening again. Through observing the Security Council's past actions, we can review the attempts of this global authority in their limited response capability and their effectiveness of their actions in relation to duration of conflicts. I also try to address the notion that the P5 is unable to act when it needs to due to internal conflict. This study looked at when the UN got involved and the levels of violence they tended to get involved in with NSA's.

Introduction

There is a fear of terrorism as conflicts and attacks worldwide continue from decentralized terrorist organizations. This leads to questions about the role of the U.S. as a global superpower and how to address terrorism. I find in the existing literature that the U.S. strategies for addressing terrorism needs consensus with other global powers so that it does not continue to overextend its capabilities (Bremmer, 104). The idea that the U.S. should work through international organizations has gained popularity as strategic involvement and attempts of eradicating terrorist groups has been sporadic. This calls for assistance from other countries to minimize collateral damage and indiscriminate use of force, which is necessary because terrorism has been occurring more in Democratic countries with lower levels of legitimacy (Chenoweth, P.2). This is important because we are constantly trying to promote democracy; and these young countries we support are targets of terrorism if we do not ethically address issues. All of this while public opinion supports the notion that the United States should not unilaterally address terrorists as many attempts have failed to resolve the issues. This leads to the importance of the role the Permanent 5 members play in geopolitics. The Permanent 5, of the United Nations Security Council is composed of U.S., England, France, Russia & China - major countries which operate with their own geopolitical interest in mind. One issue that has been raised is that personal politics of each member detract from the P5's ability to act during major crises due to their own vested interests. Lack of consensus which is shown by a veto vote on a security resolution amounts to no action taken by the United Nations General body. This lack of action in turn increases global anger when there is no response to crises, leading some citizens to call for the UN to be disbanded as it is seen to be a waste of money. This research proves the UN is valuable and calls for a deeper understanding of geopolitics at play in future studies.

Literature Review

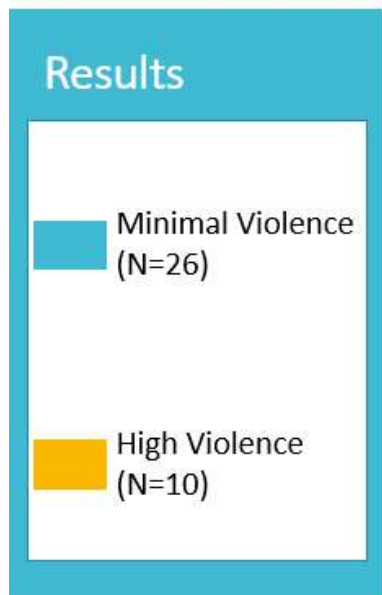
The problem I am trying to address is finding out whether the P5 does act in consensus more times than less. In order to review the efficiency of the UNSC I looked into its historical behavior and actions in regard to conflicts, proposed resolutions - and the outcome of the resolution getting passed. By looking into the prior actions and the results of their interventions we can find trends that are most effective when addressing state actors. By finding the most effective modes of engaging conflict actors, we can try to observe actions taken in response to non-state actors, which would then add to the existing knowledge of counter terrorism response. There are plenty of studies looking into unilateral counter terrorism responses, but as we continue to grow in global political structures, we need to see how existing institutions can be adapted to assist in counterterrorism.

Data & Results

This data showed that with sample size of 44 crises and 69 non-state actors- the violence level in general was 58% low violence conflicts (N=40) and high-level violence was 42% (N=29). As shown in figure 1 below.



Figure 1. Represents the violence composition within sample.



Terrorism Level, No United Nations Involvement

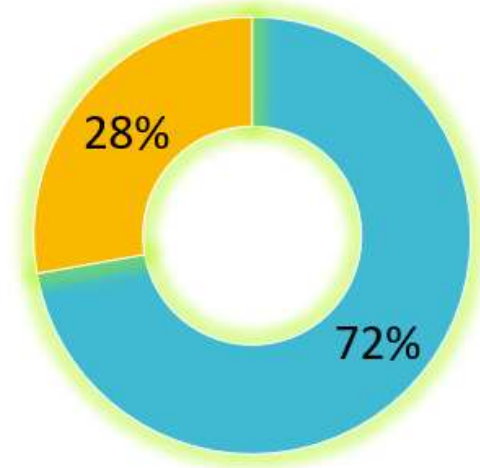
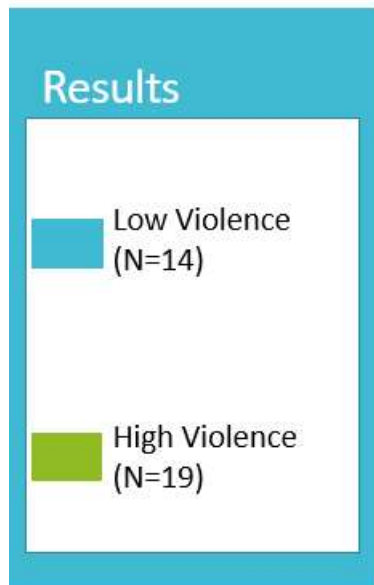


Figure 2. Shows the amount of violence in the sample that the UN did not get involved in, which allows us to understand which type of events get focused on.



Violence Level, With UN Involvement

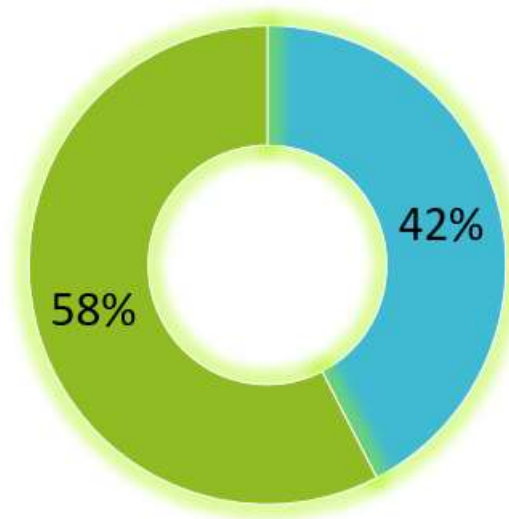


Figure 3. Shows the conflicts with UN involvement -which reveals the tendency to get involved in the most violent crises.

Discussion

This study differs from other studies as it has compared non-state actors and how uniformly the UNSC responds in these conflicts. Which points out that the UN does act in consensus during the most violent crises. In this sample from the International Crisis Behavior Database - Non-State Actor Dataset - the data shows in Figure 1 that there are 42% of crises deemed high violence, what we see is that in Figure 2 the events the UN is not involved in, which is deemed low violence. This is important to keep in mind

that they are adhering to their mandate by not overreaching their functionality. In Figure 3 we see that UNSC authorized involvement the most in the violent conflicts which shows their efficiency of involvement. This is important to note because although the UNSC does have its flaws, I have shown that they are capable of properly categorizing conflict and getting involved when they are needed to help build consensus when responding to NSA's. This research shows that the UNSC is more efficient than we think, I found that although they are involved in the longest and most violent conflicts there is consensus when they get involved. I wanted to see if the Security Council acted in unison on a majority of conflicts, even when they had divergent geopolitical interests. The data shows that they got involved in the longest and most violent conflicts, meaning that they were able to put aside whatever special interests they may have had. The goal of my study was to prove that the Permanent 5 Security Council members has responded in unison when they are addressing terrorism and that they are being mindful about when they get involved. This shows that they can be leaders in addressing terrorism and that states with varying response protocols can and should learn from the international entity. Further studies would look into the United Nations Security Council Counter-Terrorism Committee internal reports about their operations success rate since the committee was founded in 2001.

References

- Bremmer, Ian. *Superpower: Three Choices for America's Role in the World*. Portfolio Penguin, 2016.
- Chenoweth, Erica. "Terrorism and Democracy" *Annual Review of Political Science*, 2013, 16:1, pp. 355-378., <https://www.annualreviews.org/doi/10.1146/annurev-polisci-032211-221825>
- Fasulo, Linda. *An Insider's Guide to the UN*. 3rd ed., Yale University Press, 2015.
- Krueger, Alan B. and Maleckova, Jitka. "Education, Poverty and Terrorism: Is There a Causal Connection?" *Journal of Economic Perspectives*, Vol. 17, no. 4, Fall 2003, pp. 119-144
- Kydd, Andrew. H, and Walter, Barbara F. "The Strategies of Terrorism" *International Security*, Vol. 31, No. 1 (Summer 2006), pp.49-80
- Luce, Edward. *The Retreat of Western Liberalism*. Atlantic Monthly Press, 2017.
- Piazza, James A. "Poverty, Minority Economic Discrimination, and Domestic Terrorism" *Journal of Peace Research*, 48(3) 2011, pp. 339-353, DOI: 10.1177/0022343310397404
- Sandler, Todd. "The Analytical Study of Terrorism: Taking Stock." *Journal of Peace Research*, vol. 51, no. 2, 2014, pp. 257–271., www.jstor.org/stable/24557420.
- Thomas, Jakana. "Rewarding Bad Behavior: How Governments Respond to Terrorism in Civil War" *American Journal of Political Science*, Vol. 58, No. 4, October 2014, pp. 804-818, DOI: 10.1111/ajps.12113.

Utilizing Morrison's Rememory to Engage Humanizing Leadership Practice

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Keywords: leadership, multiple stigmatized identity, intersectionality, rememory, urban education

Abstract: Using Toni Morrison's "rememory" as an analytic frame, I call attention to schools as sites of haunting and displacement. More specifically, I illuminate how these moments manifest specifically for youth of color through the act of rememory. Centering the narrative of Anya, a Black undergraduate woman who reflects on her K-12 schooling experience as a youth with multiple stigmatized identity, this paper draws on her K-12 schooling narrative to inform humanizing school leadership practice and perspective.

Introduction

Santamaria & Santamaria (2016) posit that the distance between traditional status quo forms of leadership and more innovative, critically conscious leadership can be measured by the degree to which leaders promote, facilitate, and sustain inclusivity throughout all aspects of their practice. Therefore, this study considers two emerging themes: haunting and displacement in relationship to the K-12 experiences of youth of color. If school leaders are to imbue a critically conscious leadership, this must be done with youth of color knowledge and voice at the center as they are consumers of K-12 schooling. Notions of haunting and displacement in this research are informed by Gordon and Parham's scholarly work that gives name to how abusive systems of power make themselves known (Gordon, 2011) and how we experience the pain of others or, even more specifically, how the pain of others shades our own subjectivities (Parham, p.7, 2009). Further, McCready & Blackburn (2009) found that queer urban youth have voice and seek to use it in environments where adults exacerbate homophobia leaving these youth feeling vulnerable and unsafe thus impacting their academic performance and, in some cases, sparking youth activism.

To that end, I reflect upon where youth of color's knowledge and voices are centered and what the field of educational leadership can learn from those sites of knowledge and rememory. In the final section of this study, I explore the K-12 narrative of Anya, who shares her story of what it means to live between things – between spaces, cultures, consciousness, and identity (Parham, 2009). Anya's act of rememory brings forth her personal narrative of K-12 schooling which complicates addressing identity and those related experiences through a single-axis frame.

Theoretical Framework

Morrison's theory of "rememory" provides a compelling understanding of haunting. In her 1988 novel *Beloved*, Morrison gives language to how memory circulates, how it crosses boundaries between people, and how it haunts (Parham, p.7, 2009). In a sense, she helps us name how we are able to (re)remember instances that have occurred to us and how they are related to experiences that are not our own (intergenerational memory). Further, rememory can be a healing and liberating process. Therefore, in Anya's narrative that emerges from a semi-structured interview, she draws on past experiences evoked by rememory and the ways in which she connects those occurrences to experiences of Black girls and women that have come before and after her in school and social spaces.

Methods

This qualitative study illuminates the individual experience and narrative of Anya, an undergraduate student who identifies as a Black, polyamorous, pansexual woman. She attends an institution in the Midwestern region of the United States and shares her reflections on navigating K-12 schooling with various interlocking identities that shape her experience. Utilizing rememory as a theoretical frame helps make sense of how Anya is able to (re)remember various aspects of her schooling through narrative and storytelling. Narratives are accounts of people's lives that develop over a single or multiple research interviews (Reissman, 2008). In interpreting Anya's narrative, I employed thematic analysis with attention to moments of rememory and the questions that engendered stories from Anya's K-12 schooling experience. These stories were then placed together to identify elements of haunting and displacement in Anya's experience as a student of color.

Results

Anya's narrative is comprised of various elements of haunting and displacement. She shares about the intersectional experiences of her race, income level, sexuality and gender approaching her formative years. Often feeling like the "weird Black girl," Anya names the differential treatment by school authorities and other students due to the intersections of her identities rather than the identities as stand alone. Her narrative illumines her struggles with fitting into 'blackness' because of her queerness and geo-spatial location as a youth from a low socioeconomic background in a school where students like her were not the majority. Additionally, she could not recall school feeling like a place of refuge or a space where should could embody all of her known (at that time) identities. Finally, Anya's encounters of (re)remembering how she navigated her social identities in K-12 schooling seemingly influence her sense of asserting agency over her body and liberation in all spaces.

Conclusion

Anya's narrative highlights what many youth of color experience in K-12 schooling. In addition, these experiences are often overlooked by school leaders who operate under status-quo practices of leadership. Many youth of color are intentionally placed under surveillance and are taught that survival, achievement, and success can only happen if they follow the rules, meet above and beyond the expectations, and perform in specific ways that ultimately other who they are (Kinloch, p.27, 2017). The field of educational leadership must consider how school leaders are developed and prepared to engage in humanizing leadership practice in schools where students like Anya find themselves experiencing what it means to be 'othered' in the school space while also remaining privy to the historical memory of what schooling has been for people who occupy various intersections of identity. For teachers and school leaders that will have students like Anya in their classrooms, it is imperative that the silencing and erasure that school spaces perpetuate is not ignored or minimized. To recognize how haunting and displacement operationalize in schools through rememory is to give justice to the lived experiences of youth who matter. Further, this act of rememory complicates traditional approaches to leadership and demands that the field move towards a humanizing leadership practice that includes, considers, and sustains all marginalized youth.

References

Blackburn, M. V., & McCready, L. T. (2009). Voices of queer youth in urban schools: Possibilities and limitations. *Theory into Practice*, 48(3), 222-230.

Gordon, A. (1997). *Ghostly matters: Haunting and the sociological imagination*. Minneapolis: University of Minnesota Press.

Morrison, T. (1987). *Beloved: A novel* (1st ed.). New York: Knopf.

Parham, M. (2009). *Haunting and displacement in african american literature and culture*. New York: Routledge.

Paris, D., & Winn, M. T. (2014). *Humanizing research: Decolonizing qualitative inquiry with youth and communities*. Thousand Oaks: SAGE Publications.

Santamaría, L., & Santamaría, A. (2016). Toward culturally sustaining leadership: Innovation beyond 'School improvement' promoting equity in diverse contexts. *Education Sciences*, 6(4), 33.

Sustainable Development Goals, Healthcare Delivery, and NGOs in Southern Guatemala

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Keywords: Non-governmental Organizations, Healthcare, Development

Introduction

Since its inclusion in the World Health Organization's Declaration of Alma-Ata in 1978, universal healthcare access has been a laudable, yet unreachable goal in many countries. The recent 2015 United Nations (UN) Sustainable Development Goals (SDGs) continue to encourage nations to achieve this goal, urging them to establish universal coverage and access to essential services by 2030 by focusing on infant mortality, infectious disease, substance abuse, and reproductive health, among others (UN 2015; 2018). Non-governmental organizations (NGOs) may have important roles in achieving this goal. Since the 1980s, development institutions and states have positioned NGOs as a remedy for gaps in healthcare access in increasingly privatized and decentralized healthcare contexts (Pfeiffer & Chapman 2010). Guatemala has seen the largest proliferation of NGOs in Latin America, a significant portion of which are involved in healthcare delivery for marginalized indigenous groups (Chary 2015).

Research Question

With Guatemala as an example, this research explores how NGOs deliver healthcare for groups with limited healthcare equity. I ask, in what ways may the current SDGs influence how NGO workers design and implement their healthcare programs for indigenous communities?

Methods and Analysis

I conducted qualitative research with NGOs in Guatemala in 2014 and 2016 with Institutional Review Board approval from Michigan State University. I interviewed nine representatives from seven healthcare NGOs in southern Guatemala. Participants included NGO directors, program managers, healthcare staff, and board of director members. Semi-structured interviews were conducted in English and Spanish, lasted 1-2 hours, and examined topics including: NGO missions and healthcare programming; the influence of global health agenda on health programs; experiences with funders and donors; and relationships with the state and local government. The goal of this study was to explore the experiences of NGO personnel with these factors, in relation to their roles within the healthcare system. I recorded, transcribed, and summarized these interviews, identifying emerging themes in relation to these broader topics of inquiry.

Results

The influence of the 2015 SDGs on NGO healthcare delivery emerged as a theme related to the broader inquiry on the influence of global health agenda on NGO programming. I anticipated the SDGs may be influential in how NGOs designed particular programs or healthcare goals, as NGOs have long been an integral part of the national healthcare system in Guatemala. However, results indicated that while NGO representatives value the SDGs and the larger goal for universal healthcare access by 2030, the majority of representatives do not view the SDGs as influential in the everyday activities and healthcare programming within their respective organizations. Most reported that the specific health targets do not reflect the health realities of indigenous Guatemalans. Most also reported that the SDGs ignore the social determinants of health and complexities in healthcare access in contexts like Guatemala. Participants frequently cited structural and social barriers to healthcare access, including systemic racism, language barriers, and geographic isolation of indigenous groups, among others. NGO

representatives described the localized context and immediate healthcare needs of the indigenous communities in which they work as most influential in how they design and implement healthcare programs. This community-based approach tailored health programs to contextually pertinent issues such as reducing childhood malnutrition and stunting and improving maternal health and chronic health issues. Overall, NGO missions focused more on attending to the specific needs of beneficiaries as opposed to adhering to specific targets within the SDGs or influencing healthcare policy to meet the goals of the SDGs. While not generalizable, these findings may indicate that despite the popular notion that NGOs represent the answer to achieving universal health care access, in some contexts, the pressing local realities may limit the involvement of NGOs in social policy change or reform. Furthermore, these findings support recent critique of the limited acknowledgement of the social determinants of health in the creation of larger global health agenda like the SDGs (Vega & Frenz 2013).

Future Work

The failure of decades of privatization of social services to accomplish numerous human rights goals, including universal healthcare, is a pressing concern in much of the global South. Since this research, Guatemala has seen the rise of numerous social movements in which healthcare inaccessibility remains a crucial aspect. As my findings have indicated, localized cultural context may be more influential in healthcare delivery than larger targets set by institutions like the UN. My dissertation will explore the ways in which this shifting socio-political context may influence the way NGOs continue to provide healthcare services for indigenous communities.

References

- Chary, Anita, and Peter Rohloff. 2015. *Privatization and the New Medical Pluralism: Shifting Healthcare Landscapes in Maya Guatemala*. Lanham, Maryland: Lexington Books.
- Pfeiffer, James, and Rachel Chapman. 2010. "Anthropological Perspectives on Structural Adjustment and Public Health." *Annual Review of Anthropology* 39:149-165.
- United Nations. 2015. *Transforming Our World: The 2030 Agenda for Sustainable Development*. Resolution 70/1 Adopted by the General Assembly on 25 September 2015.
- United Nations. 2018. "Goal 3: Ensure healthy lives and promote well-being for all at all ages." Accessed September 2018 (<https://www.un.org/sustainabledevelopment/health/>).
- Vega, Jeanette, and Patricia Frenz. 2013. Integrating Social Determinants of Health in the Universal Health Coverage Monitoring Framework. *Rev Panam Salud Publica* 34 (6):468-472.

Beyond Report Cards and Conferences? The Salience of Types of Parent Engagement to Educators

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Keywords: parent engagement, parent involvement, public schools, qualitative analysis

Introduction

U.S. federal educational policies emphasize parent engagement and administer funding based on written parent engagement policies, outreach, programs, and activities (ESSA, 2015). There has been a shift in research and practice from parent involvement to engagement. Parent involvement has been described as a prescriptive school centric process in which school staff direct the nature and extent of parents' involvement. In contrast, parent engagement has been described as an active, reciprocal process in which parents become partners with the school to support students and the school community (Baker, Wise, Kelley, & Skiba, 2016). Parent engagement has been shown to positively impact a broad range of student academic outcomes (Araque, Wietstock, Cova, & Zepeda, 2017; Doctoroff & Arnold, 2017; Dotterer & Wehrspann, 2016; Im, Hughes, & West, 2016; Núñez et al., 2015; Shumow & Schmidt, 2014).

Extant models of parent engagement outline how parents might be engaged (e.g. Epstein, 1995), but the salient types of parent engagement can vary (Barnyak & McNelly, 2009; Deplanty, Coulter-Kern, & Duchane, 2007; Lawson, 2003; Schueler, McIntyre, & Gehlbach, 2017; Young, Austin, & Growe 2013). Investigating variations in the salience of parent engagement for educators is fruitful for understanding educators' decision-making around parent engagement and leveraging resources to enhance parent engagement. The current study aimed to understand what types of parent engagement are salient to public school educators. Drawing on Epstein's (1995) framework of six types of parent involvement (i.e., parenting, communicating, volunteering, learning at home, decision-making, and collaborating with the community) shown in Table 1., educators were interviewed at three levels – county, district, and school – to examine two research questions. First, *to what extent are different types of parent engagement salient to educators?* Second, *does the salience of different types of parent engagement vary among educators at different levels?*

Methods and Analysis

Semi-structured interviews were conducted with 20 county, 24 district, and 35 school level educators in Michigan (N= 79) as part of a larger study. Though the semi-structured interview protocol designed for the larger study did not explicitly inquire about parental or family engagement, initial analyses revealed that educators frequently mentioned parent and family engagement. This presented an opportunity to explore the salience of different types of parent engagement in educators' discussions. Directed content analysis using a priori codes was conducted using Epstein's (1995) Framework of Six Types of Involvement. Each interview was coded for mentions of each type of parent engagement and could receive more than one code. The first and second authors developed gold standard codes based on fifteen interviews. Each interview was independently coded by two coders, who met to resolve any discrepancies. After the directed content analysis was complete, coders then met to identify patterns or subthemes within each type of engagement.

Results

Educators most commonly discussed communicating as a type of parent engagement, mentioning it in 89.8% of all interviews. However, educators were substantially less likely to discuss all other types of parent engagement, in either school-initiated or parent-initiated forms. Educators at the county and district levels were more likely than educators at the school level to mention types of parent engagement that stretch outside the boundaries of the school building (i.e., collaborating with the community, parenting, learning at home). In contrast, educators at the school and district levels were more likely than educators at county level to mention types of parent engagement that involved direct and extended interaction between parents and schools (i.e., volunteering, decision-making).

Broader Implications

Results suggest that educators at all levels discussed educator-initiated and school-initiated efforts to engage parents in communicating. However, given observed variation in the salient types of parent engagement across educator level, there may be ways to leverage the unique role responsibilities and skill sets of educators at the county, district, and school levels to facilitate the other five types of parent engagement in Epstein's (1995) framework. For example, it may be helpful to leverage county- and district-level educators' efforts to coordinate initiatives across multiple buildings or districts to encourage types of parental engagement that extend to the community (i.e., collaborating with the community) or home (i.e., parenting, learning at home). Additionally, it may be helpful to leverage school-level educators' on-the-ground positions in their buildings to encourage additional opportunities to involve parent in volunteering (e.g., help with class activities or safety patrol) or decision-making (e.g., parent liaison on school improvement committee).

Future Work

Future research on parent engagement should build on the limitations of the current study. Expanding the sampling frame to include educators working in other Michigan counties, or other geographically diverse settings with districts of various sizes, and demographic compositions of staff and students could enrich our understanding of the role of context and cultural factors in perceptions of parent engagement. Targeted questions about prioritization of types of parent engagement and use of types of parent engagement would build our work. Triangulating educators' discussions of parent engagement with parents or students could provide information about the consistency of perceptions of parent engagement across stakeholders. Because we observed notable differences in the salience of parent engagement at different educator levels, future studies should attend to the role that level and other organizational features play.

Table 1. Summary of six types of parent involvement

Type of Involvement	Conceptual Definition	Sample Practice(s)	Example Excerpt
Parenting	<p>“Help all families establish home environments to support children as students” (Epstein, 1995, p.704).</p>	<p>“Workshops, videotapes, computerized phone messages on parenting and child rearing... Parent education and other courses... Family support programs to assist families with health, nutrition, and other services” (Epstein, 1995, p.704).</p>	<p>“parents, if they have, you know, a question about, um, you know, what can we do, our kids don't move enough, okay let's look at this[teacher's] got, you know, family activities on her website”</p>
Communicating	<p>"Design effective forms of school-to-home and home-to-school communications about school programs and children's progress" (Epstein, 1995, p.704).</p>	<p>“Conferences with every parent at least once a year, with follow-ups as needed.... Regular schedule of useful notices, memos, phone calls, newsletters, and other communications.... Clear information on all school policies, programs, reforms, and transitions” (Epstein, 1995, p.704).</p>	<p>“...she [parent] was with, she was very very familiar with [institute], and she said, ‘you know [administrator], do you think [district] would be interested [in a program]?’”</p>
Volunteering	<p>"Recruit and organize parent help and support" (Epstein, 1995, p.704).</p>	<p>“School and classroom volunteer program to help teachers, administrators, students, and other parents.... Parent room or family center for volunteer work, meetings, resources for families.... Parent patrols or other activities to aid safety and operation of school programs” (Epstein, 1995, p.704).</p>	<p>“...she has a committee group of administrators, parents, teachers, you know, so a blend of people who are on the committee to help and they meet monthly... and they look at, you know, maybe their kick off class meetings that are weekly, and you know, to help with implementation of the program”</p>

Learning at home	" Provide information and ideas to families about how to help students at home with homework and other curriculum-related activities, decisions, and planning" (Epstein, 1995, p.704).	<p>"Information on how to assist students to improve skills on various class and school assessments....</p> <p>Regular schedule of homework that requires students to discuss and interact with families on what they are learning in class....</p> <p>Calendars with activities for parents and students at home." (Epstein, 1995, p.704)</p>	<p>"We can teach them, but if their parents are teaching them something else, or not listening to what they're learning, you know, and being encouraged to support their child's education by, you know, grabbing some fruits and vegetables, 'cause they just learned about 'em and they wanna try them then, you know, they're at the mercy of their parents."</p>
Decision-making	"Include parents in school decisions, developing parent leaders and representatives" (Epstein, 1995, p.704).	<p>"Active PTA/PTO or other parent organizations, advisory councils, or committees (e.g., curriculum, safety, personnel) for parent leadership and participation....</p> <p>District level councils and committees for family and community involvement....</p> <p>Information on school or local elections for school representatives" (Epstein, 1995, p.704).</p>	<p>"The first year we spent time training people. We trained a core group, which is really per their [program] guidelines of a kind of a cross-sectional group of adults in our building, not just teachers. Also, a couple parents were on the committee and then that group then for the first year took the kind of job of training everyone else"</p>
Collaborating with the Community	"Identify and integrate resources and services from the community to strengthen school programs, family practices, and student learning and development" (Epstein, 1995, p.704).	<p>"Information on community activities that link to learning skills and talents, including summer programs for students....</p> <p>Service integration through partnerships involving school; civic, counseling, cultural, health, recreation, and other agencies and organizations; and businesses....</p> <p>Service to the community by students, families, and schools (e.g., recycling, art, music, drama, and other activities for seniors or others)" (Epstein, 1995, p.704).</p>	<p>"that's [student concern] obviously beyond the scope of the school area and so the hospital did step up and provide like six free sessions to work with the family and then you know kind of were gauging from there if they felt like we needed something more"</p>

~~Table 1. Summary of six types of parent involvement~~

References

- Araque, J.C., Wietstock, C., Cova, H.M., & Zepeda, S. (2017). Impact of Latino parent engagement on student academic achievement: A pilot study. *School Community Journal, 27*(2), 229-250
- Baker, T. L., Wise, J., Kelley, G., & Skiba, R. J. (2016). Identifying barriers: Creating solutions to improve family engagement. *School Community Journal, 26*(2), 161.
- Barnyak, N. C., & McNelly, T. A. (2009). An urban school district's parent involvement: A study of teachers' and administrators' beliefs and practices. *School Community Journal, 19*(1), 33-58.
- Doctoroff, G. L., & Arnold, D. H. (2017). Doing homework together: The relation between parenting strategies, child engagement, and achievement. *Journal of Applied Developmental Psychology, 48*, 103-113. doi: 10.1016/j.appdev.2017.01.001
- Dotterer, A. M., & Wehrspann, E. (2016). Parent involvement and academic outcomes among urban adolescents: Examining the role of school engagement. *Educational Psychology, 36*(4), 812-830.
- DePlanty, J., Coulter-Kern, R., & Duchane, K. A. (2007). Perceptions of parent involvement in academic achievement. *The Journal of Educational Research, 100*(6), 361-368.
- Epstein, J. L. (1995). School/family/community partnerships: Caring for the children we share. *Phi Delta Kappan, 92*(3), 81-96.
- Im, M. H., Hughes, J. N., & West, S. G. (2016). Effect of trajectories of friends' and parents' school involvement on adolescents' engagement and achievement. *Journal of Research on Adolescence, 26*(4), 963-978. doi: 10.1111/jora.12247
- Lawson, M. A. (2003). School-family relations in context: Parent and teacher perceptions of parent involvement. *Urban education, 38*(1), 77-133.
- Núñez, J. C., Suárez, N., Rosário, P., Vallejo, G., Valle, A., & Epstein, J. L. (2015). Relationships between perceived parental involvement in homework, student homework behaviors, and academic achievement: differences among elementary, junior high, and high school students. *Metacognition and learning, 10*(3), 375-406
- Schueler, B. E., McIntyre, J. C., & Gehlbach, H. (2017). Measuring parent perceptions of family–school engagement: The development of new survey tools. *School Community Journal, 27*, 275-301.
- Shumow, L., & Schmidt, J. A. (2014). Parent engagement in science with ninth graders and with students in higher grades. *School Community Journal, 24*(1), 17.

Young, C., Austin, S., & Growe, R. (2013). Defining parental involvement: Perception of school administrators. *Education, 133*(3), 291-297.

Multi-racialized Experiences in Schooling: A Case Study

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Keywords: race, education, racial identity

Introduction and Research Question

Racial identity development is a complex process for adolescents. The educational environment is a salient context in which adolescents must navigate their racialized identities to be successful (Nair, 2012). To foster the likelihood of positive racial identity development, youth are often tasked with negotiating how their identity might promote or hinder their progress, while remaining true to themselves (Phelan et al., 1998; Nakkula & Toshalis, 2006). The purpose of this case study was to understand the educational and racialized experiences of a multiracial high school student. The main research question was: How has race personally influenced this student's academic and social experiences in the school context?

Theoretical Framework

The Factor Model of Multiracial Identity (FMMI; Wijeyesinghe, 2001) explains the identity development of multiracial individuals. According to Wijeyesinghe, (2001) development of a multiracial identity is affected by factors, such as an individual's racial ancestry, early experiences and socialization, cultural attachment, physical appearance, social and historical context(s), political awareness and orientation, and other social identities. The salience of each of these factors influence whether the individual will choose to align with one racial identity more than another or try to incorporate all of their identities.

Methods

This study was conducted with one 16 year-old-female in the 11th grade. Mariana* is a high-achieving student at Foster High School*, which is predominantly White (68%) with some diverse groups represented (17% Asian, 8% Black, 5% Hispanic). However, only two percent of the school identifies as multiracial. A semi-structured interview was conducted to illustrate how she negotiates her multi-racial identity in this school context.

Findings

Although Mariana is multiracial, she mainly identified as Black, which can be common among biracial or multiracial individuals (Wijeyesinghe, 2012). Mariana described that she identifies as Black because, "if you're kind of part Black, most people are just going to see you as black anyways..." Wijeyesinghe's (2001) FMMI framework postulates that physical appearance is one characteristic that multiracial youth use to determine which race(s) to choose. Mariana's chosen Black identity is trying to simplify the complexities that can arise with multiracial identities. Mariana agreed that her racial identity plays a role in her academic achievement. She is often one of few Black students in her advanced classes, but does not believe in negative stereotypes of Black inferiority in education. Being one of few Black students in these classes drives Mariana to succeed: ("I don't wanna be like one of the only Black people in the class doing the worst. I don't wanna be that at all"), although it's not a great feeling ("...I just wish there were more Black people in high levels..."). Mariana also stated that her race affected how her peers viewed her as a high achiever: "I always feel like maybe some people are more expected to do well... in

terms of who [peers] see as their main competition. Like, most people are surprised that I do well.” Mariana’s chosen identity as a high achieving Black student is in contrast to the imposed identity from her peers. Her peers hold stereotypes related to Black inferiority, which lead them to disregard her as an equal academic competitor. These stereotypes might then also be reinforced by the school environment and teacher expectations of Black students. Nasir (2012) notes that schools are socializing agents in which all students learn what is expected of them and their racial group membership. Although schools might practice diversity within the general student body, the segregation that might occur due to tracking can lead students to lean on negative stereotypes to make sense of why few students of color are in advanced courses (e.g., the Black kids must not be as smart).

Implications

Racial identity development during adolescence is complex. Messages and information that youth receive in the school setting can affect their racial identity development, and subsequently, academic performance. Multiracial youth must decide whether and how to mesh their racial identities together. Additionally, although multiracial students may choose to self-identify in a particular way, their peers and teachers may not always view them in the same way and might even impose other identities onto them. Low expectations from peers and teachers based on negative stereotypes may make it difficult for students of color to achieve. It is impossible to separate the influences of racial identity on academic achievement, and vice versa. The experiences of students of color in education will continue to be racialized, and it is necessary to understand and assist these students in navigating these spaces in order to increase their chances for success.

References

- Nasir, N.A. (2012). *Racialized identities: race and achievement among African American youth*. Stanford, CA: Stanford University Press.
- Nakkula, M. J., & Toashalis, R. (2006). *Understanding youth: Adolescent development for educators*. Cambridge: Harvard Education Press.
- Phelan, P., Davidson, A. L., & Yu, H. C. (1998). Introduction: Students’ multiple worlds. In *Adolescents’ worlds: Negotiating family, peers, and school* (pp. 1-23). New York: Teachers College Press.
- Wijeyesinghe, C. (2001). Racial identity in multiracial people: An alternative paradigm. In C. L. Wijeyesinghe & B. W. Jackson III (Eds.), *New perspectives on racial identity development: A theoretical and practical anthology* (pp. 129-152). New York: New York University Press.

Centering Disability within Restorative Justice Practices

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Keywords: restorative justice; special education; urban schools

Purpose

Restorative justice has been the subject of various studies that offer implications for how K-12 schools may better serve youth that are traditionally marginalized and at risk of being excluded from the classroom environment, particularly those in urban schools. (Anyon et al., 2016; Payne & Welch, 2015; Mirsky, 2007). This practice focuses on bringing together people that are harmed and those who have caused harm to work toward reparation or finding ways to make amends (Van Ness & Strong, 2015). Despite the expanding body of work in this area, there is little acknowledgment of students with disabilities and how they are able to participate in restorative justice practices. This gap in the literature exists despite students with disabilities constituting a large proportion of students that receive disciplinary action in the form of suspensions and expulsions (Skiba et al., 2008). It is important that research is conducted to understand the ways that schools are supporting students with disabilities through the use of restorative justice. In order to do so, I will explore the experiences of special education teachers by asking the following research questions:

1. How do special education teachers in an urban school implement restorative justice for students with disabilities?
2. How do these teachers describe their experiences with implementing restorative justice for students with disabilities?
3. What support do these teachers have from other teachers and school administrators for implementing restorative justice?

Methods

My research took place at a charter school in Detroit, MI, where I have previously conducted research on restorative justice practices. It serves approximately 800 middle and high school students. To expand my previous studies, and to add to the gap in literature on restorative justice and students with disabilities, I began work with the school's special education teachers. First, I met with them collectively to determine the direction of the research and how it could benefit the school's special education program. Then, I interviewed each of the teachers individually using a structured interview protocol. An inductive coding approach was used to analyze the interviews. Teachers' responses were initially categorized based on the study's three research questions. From there, codes were also developed based on remarks that were common among the three teachers. This allowed for the development of themes that would help me to understand how restorative justice has benefited students with disabilities and how the program could be implemented in more appropriate ways for these students.

Findings

Working with the school's special education team brought light to many issues that educators face in implementing restorative justice for students with disabilities. Though many of these students could benefit greatly from the practice, it is not always used consistently. For instance, while some students with disabilities were able to participate in restorative circles in order to resolve issues of harm, others

were suspended for similar offenses. Other barriers to implementing restorative justice with fidelity include record keeping, the need for more established relationships between students that receive special education services and their general education teachers, and a need for the implementation of students' accommodations into restorative justice circles.

Limitations

While the teachers provided valuable insight about the school's restorative justice program, there remains a need to understand the perspectives of students with disabilities as well. Additionally, it will be important to observe teachers and students participating in restorative justice circles in order to have a better understanding of what the practice looks like in action. This will help to provide a more complete depiction of the ways that restorative justice is used and also highlight areas that may need to be improved.

Significance

Findings will be used to assist the school with developing and implementing more appropriate strategies for using restorative justice for students with disabilities. Addressing the aforementioned barriers brought up by the school's special education teachers will provide better outcomes for both students and staff. Further, the results of this study could be beneficial for other schools that are seeking to improve their support for the needs of students with disabilities through the use of restorative justice.

References

Anyon, Y., Gregory, A., Stone, S., Farrar, J., Jenson, J. M., McQueen, J., Downing, B., Greer, E., Simmons, J. (2016). Restorative interventions and school discipline sanctions in a large urban school district. *American Educational Research Journal*, 53(6), 1663-1697. doi:<http://dx.doi.org.proxy2.cl.msu.edu/10.3102/0002831216675719>

Mirsky, L. (2007). SaferSanerSchools: Transforming school cultures with restorative practices. *Reclaiming Children and Youth*, 16(2), 5-12. Retrieved from <https://search-proquest-com.proxy1.cl.msu.edu/docview/214192657?accountid=12598>

Payne, A. A., & Welch, K. (2015). Restorative justice in schools: The influence of race on restorative discipline. *Youth & Society*, 47(4), 539-564. doi:<http://dx.doi.org.proxy2.cl.msu.edu/10.1177/0044118X12473125>

Skiba, R. J., Simmons, A. B., Ritter, S., Gibb, A. C., Rausch, M. K., Cuadrado, J., & Chung, C. (2008). Achieving equity in special education: History, status, and current challenges. *Exceptional Children*, 74(3), 264-288. doi:10.1177/001440290807400301

Van Ness, D., & Strong, K. (2014). *Restoring Justice: An Introduction to Restorative Justice*. Retrieved from <https://books.google.com/books?id=wD6PBAAQBAJ&dq=http://dx.doi.org/10.1016B978-1-4557-3139-8.00002-9>.

Host socio-ecological variables shape gut Microbiota diversity in spotted hyenas

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Keywords: microbes, microbiome, gut, 16S rRNA gene sequencing, social dominance rank, diet

Introduction

Microbes typically colonize the exposed surfaces of their hosts and, once established, they form highly regulated communities, termed 'microbiota', which can strongly affect their host's physiology, behavior, and fitness. Of the microbiotas inhabiting the animal body, the gut microbiota has been the most heavily studied due to its critical role in host digestion and its links to health and disease. Resident gut microbes supply their hosts with nutrients and energy, protect them from pathogens, and facilitate immune system development. Thus, symbiotic microbes are functionally important in shaping their hosts' phenotypes. Indeed, alterations to these communities can disrupt the services they provide and be detrimental to their hosts, potentially causing disease. Hence, identifying the environmental and host factors that affect the microbiota, and its reciprocal effects on host phenotype, has been a key line of inquiry in microbial ecology.

A wealth of studies conducted in humans report that host diet, exercise, genetics, shared environments, sex, age, and antibiotic use are all strong predictors of the gut microbiota. However, much less is known about the factors driving variation in the gut microbiota of wild mammals. Prior research in wild primates, squirrels, and frugivorous bats found that host diet, social interactions, and phylogeny, as well as altitude, season and habitat can affect the gut microbiota. Nonetheless, there are additional host physiological, social, and ecological factors that have not yet been considered, especially concerning the gut microbiota of terrestrial carnivores. In this study, we aim to fill in this gap and i) profile the composition of the gut microbiota in a wild social carnivore and ii) inquire whether host factors such as age, reproductive state, social dominance rank, annual dietary changes, and weather influence gut microbiota diversity. We study these questions in spotted hyenas (*Crocuta crocuta*) which are excellent model systems for studying complex social behavior and evaluating how a diversity of host factors affect the gut microbiota.

Hyenas are social carnivores that live in female-dominated, matrilineal, hierarchical societies in which an individual's position in the hierarchy determines its priority of access to resources. Hyenas reach adulthood at around 24 months. They mostly feed on Thomson's gazelle (*Eudorcas thomsonii*) and topi (*Damaliscus korrigum*), but each year from July through October, they feed on large, migratory herds of wildebeest (*Connochaetes gnu*) and zebra (*Equus quagga*). Thus, the annual arrival of the wildebeest represents a dietary change. Here, we use next-generation sequencing technologies to survey the gut microbiota of wild spotted hyenas inhabiting the Masai Mara National Reserve (MMNR), Kenya.

Methods

Fecal samples were collected longitudinally from 12 adult female spotted hyenas inhabiting the MMNR in Kenya from 1993 to 2016 (N=303). Genomic DNA was extracted from these fecal samples using QIAGEN DNeasy PowerSoil Kits (QIAGEN, Valencia, CA). Next-generation sequencing via the Illumina MiSeq platform at the Michigan State University Genomics Core was used to target the V4 region of the 16S rRNA gene, a phylogenetic marker gene in bacteria. Raw sequence reads were processed,

clustered, and characterized using mothur (v.1.36.1). R statistical software (v. 3.4.3) was used to visualize microbiota profiles and conduct alpha-diversity analyses.

Results

The gut microbiota of wild spotted hyenas was dominated by the bacterial families *Clostridiaceae* (9% relative abundance), *Planococcaceae* (10%), *Lachnospiraceae* (20%), *Micrococcaceae* (7%), and *Enterococcaceae* (5%), which collectively represented > 50% of the community and is a typical gut microbial profile of carnivores. These bacteria are common gut symbionts of mammals and are known to ferment the dietary carbohydrates consumed by their hosts; in the process they synthesize short-chain fatty acids that the host can then utilize as energy. Furthermore, hyena age, social hierarchy rank, wildebeest migration, and weather all affected gut microbiota diversity (Wald Chi. Sq tests $p < 0.05$), while reproductive state did not ($p > 0.05$). Specifically, younger hyenas (<6 years of age) and hyenas of lower social status harbored more diverse communities. Younger hyenas associate with more individuals than older hyenas and low-ranking hyenas eat both meat and bone which might expose them to a greater variety of microbes and lead to more diverse gut communities. Additionally, community diversity also appeared to increase with the arrival of the migratory wildebeest, and the onset of the rainy season, suggesting that host ecology also influences the gut microbiome in spotted hyenas. Our results are consistent with what has been found in mammals: age, diet, and season have all been shown to drive variation in gut microbial diversity. However, this is the first study to show that host social dominance rank is also an important predictor of the gut microbiota.

Future Work and Broader Impacts

Our data suggests that host social dominance rank shapes the gut microbiome of spotted hyenas and future studies should evaluate if hyena *social interactions* also influence the microbiome. Furthermore, additional studies should determine the specific metabolic functions gut microbes are performing for their hosts as this will illustrate how microbes are directly affecting their hosts' physiology. Our study was conducted in hyenas but the host factors examined here have analogs in human systems and thus, our study also illustrates the ways humans may be affecting their own microbiota and health. Like in hyenas, their microbiomes might be sensitive to host social rank (i.e. socioeconomic status), age, weather, and dietary changes, which may have consequences for the human host.

References

- Archie EA, Theis KR. Animal behaviour meets microbial ecology. *Anim Behav.* 2011; 82:425–436.
- Cooper SM, Holekamp KE, Smale LA. Seasonal feast: long-term analysis of feeding behaviour in the spotted hyaena (*Crocuta crocuta*). *African Journal of Ecology.* 1999; 37(2): 149-160.
- Dethlefsen L, Relman DA. Incomplete recovery and individualized responses of the human distal gut microbiota to repeated antibiotic perturbation. *Proc. Natl. Acad. Sci.* 2011; 108: 4554–4561.
- Goodrich JK. et al. Human genetics shape the gut microbiome. *Cell.* 2014; 159: 789–799.
- Holekamp KE, Smale L, Szkman M. Rank and reproduction in the female spotted hyaena. *Journal of Reproduction and Fertility.* 1996; 108, 229–237.
- Holekamp KE, Smith JE, Van Horn R, Watts HE. Society, demography and genetic structure in the spotted hyena. *Molecular Ecology.* 2012; 21(3): 613-632.
- Jovel J, Dieleman L, Kao D, Mason AL, Wine E. The Human Gut Microbiome in Health and Disease. *Metagenomics.* 2018; 197-213.

Kruuk, H. *The spotted hyaena: a study of predation and social behavior*. Chicago: University of Chicago Press; 1972.

Moeller AH, Foerster S, Wilson ML, Pusey AE, Hahn BH, Ochman H. Social behavior shapes the chimpanzee pan-microbiome. *Sci Adv*. 2016; 2:e1500997.

Rothschild D et al. Environment dominates over host genetics in shaping human gut microbiota. *Nature*. 2018; 555: 210-215.

Susuki TA. Links between Natural Variation in the Microbiome and Host Fitness in Wild Mammals. *Integrative and Comparative Biology*. 2017; 1-14.

Senghor B, Sokhna C, Ruimy R, Lagier JC. Gut microbiota diversity according to dietary habits and geographical provenance. *Human Microbiome Journal* 2018; 31: 1-33.

Trosvik et al. Multilevel social structure and diet shape the gut microbiota of the gelada monkey, the only grazing primate. *Microbiome*. 2018; 6:84.

Tung J, Barreiro LB, Burns MB, Grenier JC, Lynch J, Grieneisen LE, Altmann J, Alberts SC, Blekhman R, Archie EA. Social networks predict gut microbiome composition in wild baboons. *elife*. 2015;4.

Monitoring Colon Cancer progression through the Underglycosylated Mucin 1 Tumor Antigen targeted magnetic resonance imaging

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Keywords: underglycosylated mucin 1, biomarker, tumor antigen, colon cancer

Introduction

Cancer is a prevalent topic that stands on the forefront of current research investigation due to the indiscriminate and deadly nature of the disease. In combating this disease, patients who undergo early therapeutic intervention have the best longitudinal positive health outcomes compared to patients who identify the disease at late stages (Ferlay, 2012). Additional problems arise in treating cancer as patients who are diagnosed with the same type of cancer and said to be at the same stage of cancer, when treated, experience different therapeutic outcomes (Sudhakar, 2010). To improve current methodologies for treating patients, it is essential we begin to deliver personalized medical care suited toward the individual patient. Through the personalized medicinal approach, we are able to analyze and treat patients based on unique genetic variations (Meric-Bernstam, 2013).

Research Questions

Underglycosylated mucin 1 (uMUC1) is an antigen expressed by colon cancer cells. How can we utilize underglycosylated mucin 1 as a biomarker to monitor colon cancer progression? How can we utilize molecular imaging in monitoring chemotherapeutic response in colon cancer?

Theoretical Framework

Our research is centered around identifying a biomarker for cancer progression. Through the utilization of the underglycosylated mucin 1 biomarker, the cellular modifications cancer cells undergo during metastasis can be monitored. This would be beneficial as the cellular modifications that cancer cells undergo are observable prior to observable changes being present in the physiology of the tumor itself. Through monitoring these cellular modifications, we would be able to better understand how a patient is responding to their current medical care, and tailor therapeutic intervention towards the individual patient (Wang, 2016).

Methods

To develop a means of monitoring underglycosylated mucin 1 expression as a biomarker to monitor colon cancer progression, a nanoparticle was synthesized. The experimental nanoparticle (MN-EPPT) consisted of an iron core, dextran coating, Cy5.5 fluorescent label, and the EPPT peptide whose binding is uMUC1 specific. The control nanoparticle (MN-SCR) contained a scrambled peptide MN-SCR whose binding was nonspecific for uMUC1.

Nanoparticle accumulation was tested against a uMUC1 containing cell line (MC38 MUC1) and a control cell line (MC38 Neo). IVIS imaging modality monitored Cy5.5 radiant intensity which directly correlated with the nanoparticle accumulation on the cell lines. In vivo the orthotopic colon cancer experimental mice underwent chemotherapy with 5-fluorouracil while the control mice were saline treated. The expression of uMUC1 was monitored through magnetic resonance imaging which was able to detect iron concentration through low intensity signals on delta T2 imaging. Fluorescent imaging was utilized to monitor uMUC1 accumulation in ex vivo studies.

Table 1: ➤ = days of IVIS pre-contrast & postcontrast imaging. ❖ = days of MRI pre-contrast & postcontrast imaging.

Timeline for chemotherapy and in vivo imaging experiments

Days	0	7	14	21	28	30
Chemo		✓	✓	✓	✓	
MRI	❖			❖		❖
IVIS	➤			➤		➤

Findings:

In vitro optical imaging demonstrated that the MN-EPPT probe accumulated more than the MN-SCR probe in the MC38 muc1 cell line; The MN-EPPT nanoparticle accumulated more in the MC38 muc1 cell line than the MC38 neo. In vivo MRI studies showed that the tumor lesion of mice that underwent chemotherapy had a reduced uMUC1 expression compared to the untreated mice. Ex vivo fluorescence imaging supported the findings of in vivo MRI study. These findings demonstrate the applicability of uMUC1 as a biomarker for colon cancer progression post chemotherapy.

Implications:

Through developing a methodology to monitor cancer progression after treatment, we move closer towards our ultimate goal of delivering medical care that is personalized toward the individual patient. The broader research implications for this research project involve utilizing this methodology in clinical trials in order to better understand how monitoring uMUC1 expression improves the ability to deliver efficient therapeutic intervention. Additional implications include evaluating the plausibility of utilizing uMUC1 in order to monitor various forms of cancers.

Future Work:

Future work on this research topic includes the utilization of the Magnetic Particle Imaging Modality which would allow for greater sensitivity and better quantification.

References

1. Sudhakar, a. (2010). History of Cancer, Ancient and Modern Treatment Methods Akulapalli. J Cancer Sci Ther., 1(2), 1,Äì4. <https://doi.org/10.4172/1948-5956.100000e2.History>
2. Ferlay, J., Soerjomataram, I., Dikshit, R., Eser, S., Mathers, C., Rebelo, M., ,Ä¶ Bray, F. (2015). Cancer incidence and mortality worldwide: Sources, methods and major patterns in GLOBOCAN 2012. International Journal of Cancer, 136(5), E359,ÄìE386. <https://doi.org/10.1002/ijc.29210>
3. Meric-Bernstam, F., Farhangfar, C., Mendelsohn, J., & Mills, G. B. (2013). Building a personalized medicine infrastructure at a major cancer center. Journal of Clinical Oncology, 31(15), 1849,Äì1857. <https://doi.org/10.1200/JCO.2012.45.3043>
4. Wang, P., Yoo, B., Sherman, S., Mukherjee, P., Ross, A., Pantazopoulos, P., ,Ä¶ Moore, A. (2016). Predictive imaging of chemotherapeutic response in a transgenic mouse model of pancreatic cancer. International Journal of Cancer. <https://doi.org/10.1002/ijc.30098>

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AGEP Alumni Spotlight

Conversation with Dr. Ashlee R. Barnes

By Funmi Ayeni

Dr. Ashlee R. Barnes is an Assistant Professor of Criminal Justice in the L. Douglas Wilder School of Government and Public Affairs at Virginia Commonwealth University. She completed her Ph.D. in Ecological-Community Psychology at MSU and a member of AGEP from 2011-2017.

<u>Speaker</u>	<u>Text</u>
Funmi Ayeni	Please share any current significant event you would like us to showcase.
Dr. Ashlee R. Barnes	I was recently selected as a recipient of a \$5,000 internal grant that will help address an important social issue. The research aims to identify strategies that reduce racial disparities in Black American students' school suspensions and juvenile justice system referrals by understanding the racial socialization practices of Black American parents. Virginia leads the nation for school suspensions and referrals to law enforcement (Powell, 2016). Alarming, Black Americans represented 24% of the student population, yet 38% of those referred to law enforcement (Zubak-Skees & Wieder, 2015). Consequently, a key legislative priority in the 2018 General Assembly session was to dismantle Virginia's school-to-prison pipeline (STPP) (Gilbreath, 2018). Nationally, schools have implemented interventions that target system-level variables (school climate, code of conduct modifications, restorative justice practices, etc.) that result in reductions in out-of-school suspensions and arrests for minor disciplinary infractions (Contractor & Staats, 2014). Although these results are promising, racial disparities in disciplinary outcomes persist (Contractor & Staats, 2014), suggesting the need to identify additional strategies to mitigate disparities. Very few STPP interventions incorporate family level components in addressing these disparities. Racial socialization—the process by which parents transmit and instill information about perspectives on race—has not yet been applied to this context. Understanding the relationship between parents' racial socialization practices and their children's educational and legal outcomes could inform the development of more effective interventions and policies to dismantle the STPP and promote equity in the educational and justice systems' treatment of Black American youth. I am excited about this research as I am committed to engage in scholarship that creates solutions, eliminates disparities and promotes advocacy for youth in marginalized communities.
Funmi	Describe your teaching— what is your role and your students' role in the classroom?
Dr. Barnes	In my teaching, I promote an inclusive and interactive learning environment. My goal is for students to recognize the value of their perspectives--that they are not only learning from me, but also drawing from the diverse perspectives of others in the classroom. Given that I value diversity, equity and promoting a safe and inclusive learning community, I encourage active learning and attempt to assuage feelings of isolation by using a range of pedagogical tools that students with multiple learning styles,

	backgrounds and experiences can connect to. For example, I complement lectures with in-class activities that encourage positive student dialogue, such as role-playing and small group discussion. Moreover, I highlight real-world applications by providing examples from my experiences as a juvenile justice practitioner, enabling students to think critically about key concepts, develop their own connections to the social world, and share their thoughts with the class. Finally, I facilitate classroom discussions that encourage students to think about how social identity may influence the way justice system actors respond to perpetrators and victims of violence.
Funmi	What do you remember most vividly about your time at MSU-AGEP?
Dr. Barnes	One of my most vivid memories was the year (Spring 2014) that over 50 members of the AGEP Learning Community graduated. As a member of the Steering Committee, I helped brainstorm ways that we could best celebrate such a large cohort of graduates. While I knew that the following year at AGEP would not be the same, I was excited to witness so many black and brown scholars accomplish a goal that our ancestors were once denied. I remember feeling deeply honored, privileged, and energized to continue the legacy of such amazing scholars.
Funmi	What are did you learned at MSU-AGEP that has served you well in your career path?
Dr. Barnes	I joined the AGEP Learning Community early in my graduate student career which gave me the chance to build relationships with more experienced students. The Learning Community offered endless opportunities to learn lessons ranging from managing conflicts with advisors, to writing cover letters for manuscript submissions. I also learned valuable skills that have served me well in my career path from the outstanding Fall Conference workshops (e.g., applying for funding, work-life balance, navigating the job market)!
Funmi	What does the future look like for you?
Dr. Barnes	The future is bright! I earned a doctorate degree and acquired valuable skills that has afforded me the privilege to pursue positive, systemic change for disenfranchised communities. I plan to continue working to identify, design, and evaluate strategies that will lead to sustainable criminal and juvenile justice system reform.
Funmi	What advice do you have for current AGEP members?
Dr. Barnes	Keep pushing. The path you have chosen is not easy, but it is also not an untraveled path—you CAN do this. View every challenge as an opportunity to grow and focus on what matters most. Stay present on the journey, and don't forget where you are headed. "Let your destination guide your decisions." (Dr. Myles Munroe).

Faculty Spotlight

Conversation with Dr. Beronda Montgomery

By Lauren Johnson and John Tran

Dr. Beronda Montgomery is an MSU Foundation Professor who works in both the Department of Biochemistry and Molecular Biology and Department of Microbiology and Molecular Genetics. Her research group studies photosynthetic organisms that take light and convert it to chemical energy. In this interview, we cover early moments in her life that piqued her interest in science, the decision to pursue a research career over patent law, academic training, and her scholarly approach to mentoring and outreach.

Speaker	Text
John Tran	How did you get started in science? Could you recall an early research experience that resonated with you?
Dr. Beronda Montgomery	It's kind of complex. I've always had an interest in science from very young. In fact, when I was six, I almost set the family's bathroom on fire doing an experiment.
John	(Laughs) I can relate. Something similar happened with me.
Dr. Montgomery	I had my older sister, who was supposed to be my research assistant, gather different kinds of paper--toilet paper, paper towel, writing paper--and set them on fire at the same time to see which one could burn most quickly.
John	Was this for a science project?
Dr. Montgomery	--Nope. It was just me. I did these kinds of things all the time, but then started to participate in science fairs in middle school, and I started taking math and science at the local university in seventh grade. Up until that point, I wanted to be a lawyer but really was drawn to math and science. So it kind of evolved into wanting to be a biological patent lawyer and I stuck with that through high school and into undergrad. So as an undergrad, I was Pre-Law and majored in Biology with a minor in Math and Psychology and was going to go to Law School. [I] got accepted and everything.
John	What experiences led you to transition away from Law School and into research?
Dr. Montgomery	In my senior year at Washington University in St. Louis, I took some lab classes and decided to work in a lab with the idea of wanting to understand the biological and experimental process behind the patents - I really fell in love with science at that point. And [I] was drawn to the fact that you could do a job where you could be creative and ask questions and pursue those questions. So I decided at that point as a senior that I was not going to Law School but I really hadn't been preparing for graduate school at that point. So I worked in a lab while I decided what focus I wanted to have in graduate school. After graduating I worked in a lab and by chance the first lab that I worked in, the person was doing ecological experiments that had focus on both plants and animals. And as a

	<p>part of that I decided to take two classes, an ecology class and plant physiology. And the plant physiology just changed my life. I fell in love with plants.</p> <p>At that point I decided to look for graduate programs and here I am. (Laughs)</p>
John	<p>And you did your Ph.D. at the University of California, Davis, where I went for undergrad?</p>
Dr. Montgomery	<p>Yes. The way that came about was once I decided I was interested in plants, I hadn't really done any research on good schools. And so, the professor that I was working with in his lab at the time was doing basically plant ecology, looking at U.V. responses in trees. And he said the American Society for Plant Biology is one of the preeminent plant biology societies and we should look in their directory and see where there are lots of plant biologists and those are probably good schools with active plant biologists. And so at that time there was still a printed directory, so I took it home and I looked through and I made a list of the schools that had, you know, lots of plant biologists. And at that point it was pretty clear I wanted to do molecular work. And so Davis was one of six or seven schools--and that's how I ultimately ended up going to Davis.</p>
John	<p>At an AGEP meeting last year, a faculty panel member shared that prior to becoming faculty, there was no "magical meeting" that takes place for learning how to run a lab or manage a research team.</p> <p>What experiences helped prepare you for your duties as a faculty member?</p>
Dr. Montgomery	<p>I went to graduate school kind of knowing that I wanted to be a faculty member So, once I decided I wanted to do research I did kind of a personal assessment of different research careers. And at that point, I basically did an assessment of the things I loved to do first and then looked at careers and asked which career would allow me to do what I loved to do the majority of the time. So, I love writing. I love speaking--this is the lawyer part of me, right-- so, I like writing. I like speaking. I like teaching and mentoring. And so for me, academia seemed like a good place to do those things.</p> <p>And so when I went to graduate school at Davis, one of the first things I said to people when I introduced myself to them, I said, "I'm a new graduate student and I plan to be a faculty member. So, any experiences that I can get while I'm here in addition to research that would help prepare me for that I would appreciate." By doing that during the course of my graduate studies if faculty members were traveling to conferences and there was a lecture that they thought I could give, I got opportunities to give lectures. I joined P.I.'s lab who agreed that I would be able to have a team of undergraduates so that I could start figuring out how to manage a team.</p> <p>I asked myself what kind of skill set will I need to prepare for that. I wrote a lot--so, I was part of a training grant and didn't really need the funding but I still applied for a lot of fellowships so that I could have the experience of writing a research project, getting feedback on whether it was fundable. And I really started trying to put together this skill set that I thought would prepare me for being a faculty member and also have lots of discussions with faculty members about things that they had learned, things they wish they had learned, things that were helpful.</p>

	<p>As a Post-Doc, I actually took a couple of classes and nonprofit management because at that time I was helping set up a nonprofit in Africa for a different reason, but a lot of the things I've learned in the nonprofit management classrooms were really helpful in terms of managing a group.</p>
John	<p>You are involved in scholarly mentoring and outreach. Can you share what the scholarly components entails, and your approach to academic service?</p>
Dr. Montgomery	<p>For me, I had to make a decision about how I was going to approach my interest in outreach and still maintain a robust research program. So, after graduate school I was a Post-Doc for three years and came here to start a lab. Clearly the focus at a place like Michigan State is to have a robust research program. Then I joined a research center, the Plant Research Laboratory, which is even more research focused than a normal department, and so I really had to think about how I was going to strategically engage in outreach without it being perceived as a distraction.</p> <p>And so, the truth is I'm impatient. And I have this thing that if I'm going to put my time into something, I need to know that it's worth it. So, because I wanted it to be really strategic, but also because I wanted to be clear that I was investing time in something that was worthwhile, I decided to, as much as possible, take a scholarly approach to outreach just as I take a scholarly approach to research.</p> <p>So, how can I ask questions, gather data, and get a sense of the time I put into it has been helpful. I decided to use outreach as kind of a third leg of my scholarly research. We talk about research, teaching, and service, and so a lot of times people think of service as volunteerism, but there's no reason why you can't think of it as a real central part of work that you do.</p> <p>And so the issue then became that I didn't really have any experience in taking a scholarly approach to outreach, and so I started looking for communities that could facilitate that. A lot of my work, most of my work in fact, is funded by the National Science Foundation which encourages the development of broader impacts and outreach initiatives. A lot of people do those and report them. I decided to do them in collaboration with people in the College of Education who did know how to-- so, I knew how to ask questions, of course, but then how do you gather data on outreach? I worked together with people who are from more of an Education background and could really facilitate gathering data and assessing data. And so, two of the first outreach projects I did were with a College of Education professor who was using rapid-cycling Brassica rapa plants in elementary schools. I simply went about doing outreach that way. Because it was part of her research, we published. Once I started to then have a publication or two it became clear to the administration here that I was taking a different approach to outreach and so then I was able to get their support for that. I also leveraged relationships I had with disciplinary societies. And so one of the disciplinary societies I'm active in as well is the American Society for Microbiology and I had joined their Minority Affairs Committee on minority education initiatives.</p> <p>And they said they were thinking about doing something in terms of outreach and mentoring and perhaps getting a grant at NSF. And so, I volunteered to be the co-PI on</p>

	<p>that. And so, then I was able to say, “Okay, I have grant funding and I'm starting to publish.” And people really did start to recognize, “Okay, she's taking outreach as not just volunteer but as a scholarly focus. And so because it was a scholarly focus, and because if you're going to try to take what I call a “left of center approach”, you have to still understand what the currencies are that people recognize. And so the currencies here are publications and grants, and so I was able to say to this administration, “Yes, I'm spending time on that, but here are the publications and grants that you require is evidence that you're doing something from that perspective.” So I really try to be strategic about being able to do it, but also doing it in ways that protect the time that I need to do it effectively.</p>
John	<p>How did you navigate grad school --and up to now—as an underrepresented minority?</p>
Dr. Montgomery	<p>I think for me it's been really important that I nurtured my whole self. And so, as a graduate student at Davis, I know for sure that I was the only African American. I was the only Woman of Color. And that meant for me that I was a scientist first, so I certainly had connections to graduate students in my cohort, in the years before and after me, but I also reached out to other communities. There was a program at Davis that was for undergraduates: the BUSP (Biology Undergraduate Scholars Program). I reached out to them and asked if they were ever looking for graduate mentors, so I tried to reach out to places on campus where there would be other students of Color, whether they were other graduate students or not, to make that connection. I've always been also very proactive even here at Michigan State about reaching outside of the department. Some of my greatest mentors have been people who don't look like me, majority men, but there have always been issues I felt that I wanted to discuss with someone who had a similar background in whatever way that meant, whether it was a woman, or Person of Color, or someone from the South.</p> <p>As a graduate student, I was a Ford Fellow and when I was on the job market we have a listserv where all the fellows -- I think there are about eleven hundred of us now in different places across the U.S. I reached out and said are there any Ford Fellows at this institution that I'm applying to. And so during the interview process I would meet with them and once I came to campus here I actually connected with several Ford Fellows. So there are some in different departments and one of them had a mentoring program for students in the humanities, and so I would make connections so that if I ever felt that I needed to have a question for this particular woman who was an African-American full professor, I felt that in some ways the questions I needed to ask about how to rise through the ranks, even though she was in a different department in the humanities, she could answer those questions. And so I think that, I, for me, I've always tried to be strategic about making deep connections in the department and discipline that I'm in because those are the people who can help me progress, but also to look outside of that if I need others to give me more nuanced or additional information to help navigate. And I think sometimes there are questions that people who looks like you or are in your similar position whatever that is and you just have to be willing to get outside of the lab and make those connections.</p>

What is MSU SROP?



The Summer Research Opportunities Program (SROP) is a gateway to graduate education at Big Ten Academic Alliance universities. The goal of the program is to increase the number of underrepresented students who pursue graduate study and research careers. SROP helps prepare undergraduates for graduate study through intensive research experiences with faculty mentors and enrichment activities.

The MSU SROP Program provides an opportunity to combine professional development with applied work experience in your career field. This is also an opportunity for Michigan State University faculty to evaluate you as a potential graduate student. MSU SROP typically convenes the third weekend of May and ends the last weekend of July.

Program Benefits

- An opportunity to conduct research at one of the country's largest and most scenic academic research universities
- A generous stipend for the summer
- Free room and board on MSU campus
- Paid travel to/from East Lansing
- Opportunities to present research locally and regional
- An opportunity to interact with successful role models who have earned advanced degrees

Eligibility and How to Apply

- U.S. citizen or permanent resident
- Enrolled in a degree-granting program at a college/university in the U.S.
- Cumulative GPA of 3.0 or higher
- Have completed at least 2 semesters of undergraduate education
- Have at least 1 semester of undergraduate education remaining after completing MSU SROP
- Demonstrate a strong interest in graduate study (Masters or Ph.D.)

For more information,

Please write to us at: msusrop@grd.msu.edu

What is MSU AGEP?



The Alliances for Graduate Education and the Professoriate (AGEP) at Michigan State University (MSU) is a National Science Foundation program that supports recruitment, retention, and graduation of U. S. students in doctoral programs of the natural and social sciences, mathematics, and engineering. The focus of AGEP places special emphasis on a fully inclusive recruitment and development of students from U.S. population groups historically underrepresented in fields of the sciences, technology, engineering and mathematics (STEM); and the social, behavioral, and economic (SBE) sciences.

A goal of AGEP is to promote changes that transform U.S. universities to embrace the responsibility of substantially increasing the number of underrepresented U.S. minorities who will enter the professoriate in STEM and SBE disciplines. Graduate students, post-docs and faculty who participate in building the AGEP Community at MSU will provide a key to changing the culture of U.S. colleges and universities to embrace building world-class STEM and SBE faculty members who fully reflect the diversity in race, gender, culture and intellectual talent of the U.S. population. We have a series of events throughout the year, including monthly community meetings, Fall/Spring Conferences, and student outreach activities. You can follow us on LinkedIn and Facebook and request to be added to our list-serve by emailing the MSU AGEP Program manager, Steven Thomas at msuagep@grad.msu.edu.

For more information about MSU AGEP, feel free to visit us at:

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For more information, visit us at:

MSU AGEP website: <https://grad.msu.edu/AGEP/>
Bulletin website: <https://grad.msu.edu/agep/bulletin>

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