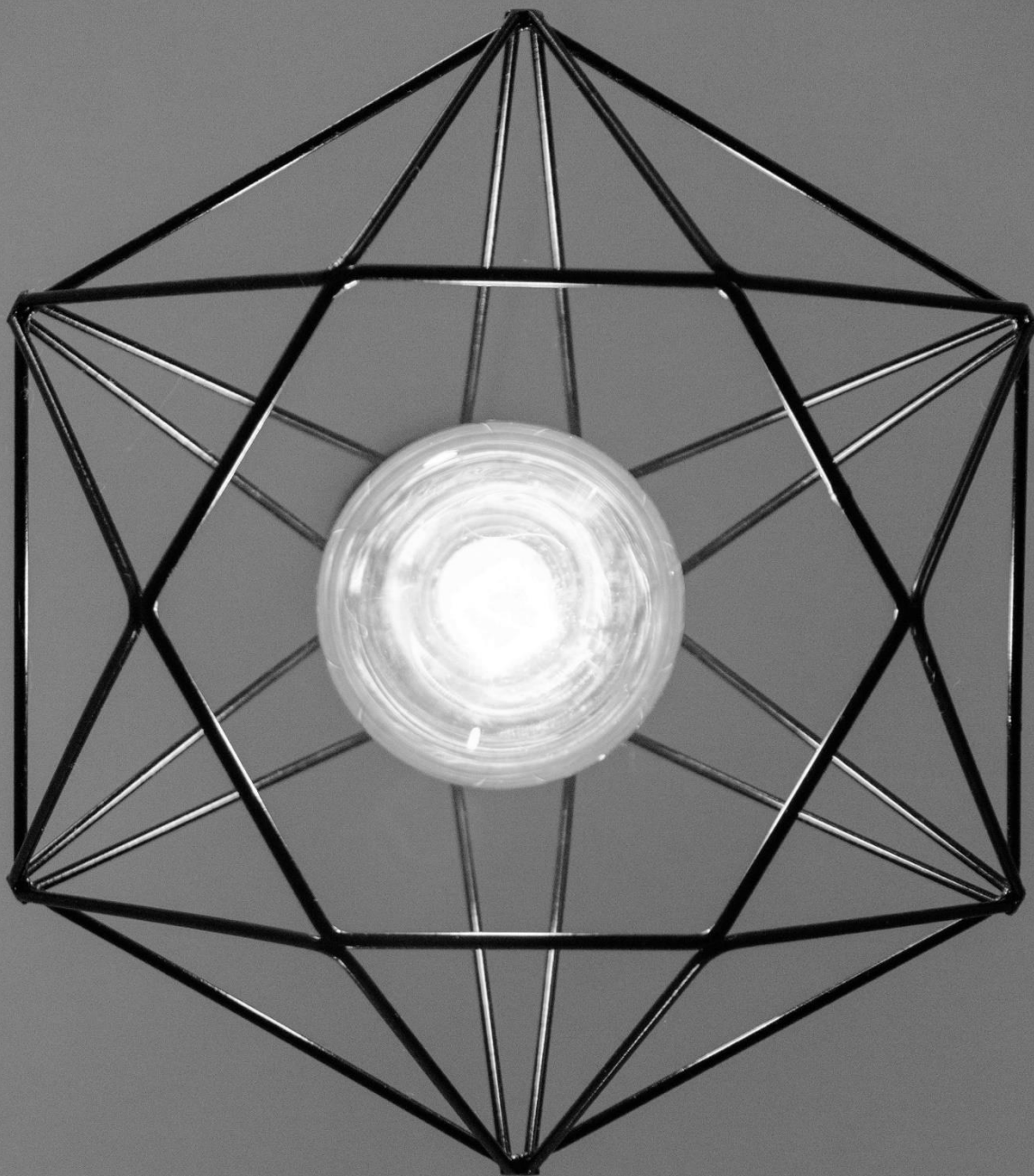


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Letter from the Editors

The AGEP Science Today Bulletin Editorial Team is proud to complete its ninth year of publication. Over the past eight years, the bulletin has strived to contribute to the academic landscape by showcasing the innovative research work and leadership accomplishments of our multidisciplinary and multicultural community of researchers and scholars within and outside Michigan State University.

2021 proved to be a challenging year as the United States and the world continued to confront the consequences of historical events particularly the continued toll of the COVID-19 pandemic, the U.S. presidential election fallout at the Capitol, verdicts in prominent murder trials related to BlackLivesMatter, Ukrainian tensions, extreme climate changes, the Taliban's return to power, and the U.S. military withdrawal from Afghanistan. This year's bulletin represents the persistent commitment of the academic community to advance scholarship and contribute to the production of scientific knowledge even in difficult times.

The 9th edition of the Bulletin features scholarly research that reflects diversity in our identities, culture, conditions, and areas of study. This edition also includes the Alumni Spotlight section featuring conversations with scholars at various stages of their academic careers to broaden our knowledge of the career pathways available to the next generation of scholars.

To our readership and AGEP community, we are grateful for your continued support. Leading the editorial process has been very insightful and rewarding. We are honored for the opportunity to highlight the scholarly pursuits of our members and share this knowledge with the broader academic and non-academic community. We are very confident that the Bulletin will continue to elevate diverse perspectives, backgrounds, and expertise, and inspire future generations of scholars in the humanities and sciences.

Sincerely,

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Plant-Pollinator Interaction Networks in Experimental Prairies

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Keywords: habitat restoration, plant-pollinator interaction networks, insect biodiversity, midwestern prairie, ecology

Introduction

The United Nations' (UN) declaration of the 2020's as the "decade of habitat restoration" is pertinent for reclaiming the world's natural spaces (UN General Assembly, 2019). By reversing detrimental anthropogenic changes to the environment, habitat restoration conserves biodiversity and promotes ecosystem functioning (Suding, 2011). Despite this, restoration outcomes are notoriously unpredictable, and most restorations do not function as well as undisturbed habitats (Benayas *et al.*, 2009). This unpredictability arises from a failure to consider all interacting members of a community together holistically; restoration efforts have historically targeted particular plant species, while mostly ignoring animal communities. This narrow focus is condemning the restoration enterprise because restoration success is reached with ecosystem functioning, which arises through interactions between different members of communities; for example, pollination functions occur when pollinators interact with plants (McCann, 2007). The need to restore ecosystems to promote animal populations, especially pollinators, has never been more important, with documentation—mainly in Europe and North America—demonstrating mass reductions of terrestrial insect species diversity and abundance (Van Klink *et al.*, 2020). In fact, Van Klink *et al.* (2020) conducted a meta-analysis that integrated 166 long-term insect surveys and found a 9% decadal decrease in terrestrial insect abundance. My research is particularly important amidst the Earth's current and ongoing sixth mass extinction. In my dissertation, I will describe plant-pollinator interaction networks in experimentally restored prairies to determine the best restoration technique that confers the most pollination services.

Research Question:

How does restoration strategy influence pollinator communities and plant-pollinator interaction networks?

Experimental Design

The Conservation Lands Experiment (CLE) Prairies consist of twelve different restored sites that are located across the Kellogg Biological Station (KBS) in Michigan; each site was established on former agricultural land. Each site consists of two half-sites, where species diversity was manipulated: the high species half-site was planted with 72 species, while the low species half-site was planted with only 12 species. In addition, genotypic diversity was also manipulated by planting seeds originating from three different US regions: seeds were acquired from Local (i.e., Michigan), Midwestern (not including Michigan), and Southern seed distributors. The twelve sites were sown with seed either sourced exclusively from one region or from all regions, with two sites for every single region (in total six single-sourced sites), and the other six sites included a mix of all three regions. Plants have adapted to climatic and environmental clines specific to their respective regions, and these different genotypes are expected to manifest into different phenotypes such as plant height, flower color, flower number, phenology, and more. The experimental manipulation of species and genotypic diversity across the 24 half-sites of the CLE Prairies have thus led to the development of plant communities that vary in diversity and composition.

Collection Methods

In each of the 24 restored prairie sites across KBS, I collected insects that made direct contact with plant reproductive organs in every month between June-September during optimal pollinator weather (summers) 2020 and 2021. Direct contact was determined through visual confirmation of insect visitation and interaction with floral organs. The surveys occurred twice per month along two 29-meter paths on each half-site, once in the morning and afternoon; in total there were four distinct daily surveys per restoration site. The morning survey occurred between 9AM and 12PM. The afternoon survey occurred between 12PM and 4PM. Insects were collected in vials filled with ethanol that were labeled with the corresponding interacting plant species. I still need to identify the hundreds of insects that I collected. I expect to finish this by the end of Summer 2022.

Analysis Plan

After insect identification, I will make plant-pollinator interaction networks in R Studio using the package bipartite (Dormann, 2018). After network construction, I will derive network metrics such as connectance, nestedness, and modularity, while placing a larger emphasis on interaction strengths. These metrics reveal information about the number and structure of interactions, which are important considerations that can be used to evaluate restoration success. For example, interaction diversity describes the number of links within the network and can be measured in terms of connectance; a higher connectance relates to more species interactions and thus may lead to better acquisition of ecosystem functioning and services.

Expected Results

1. Prairie half-sites with higher plant species & genotypic diversity will attract a more diverse pollinator community.
2. Prairie half-sites with lower species & genotypic diversity will attract a more abundant pollinator community that is less diverse.
3. Prairie half-sites with higher plant species & genotypic diversity will have plant-pollinator interaction networks with greater interaction diversity and connectance compared to lower diversity half-sites.

Broader Implications

Determining the best way to restore prairies to optimize pollination function is increasingly becoming more important during the Sixth Mass Extinction, the Anthropocene. Providing habitat to these displaced communities will help promote and conserve biodiversity. Restoring pollinator functioning will also help with food security, as much of the world's diet is dependent on this ecosystem service.

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¿Primero La Familia y Luego Yo?: Three Generations of Latinas Experiences

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Keywords: Latina(s), health, race/ethnicity, well-being, caregiving, narratives

Introduction

Familismo is rooted in a collective ideology that relies on and impacts the individual and family context. Familismo consists of contributing to the overall well-being of the family, being close knit, a sense of obligation to care for family needs and relying on family for support (Ayón et al., 2010; Knight & Sayegh, 2010; Sabogal, 1987). Perhaps utilizing familismo to explore Latinas experiences can lead to a better understanding about this phenomenon and population. Often, the first-born Latina in the household takes on a caregiving role at a young age which may consist of looking after younger siblings, translating documents, cooking, and helping around the house (Sy & Romero, 2008; Longoria et al., 2020). Longoria et al. (2020) found that generally daughters of older Mexican Americans accompanied them to doctor visits or treatment; ensuring treatment or medication regimens were followed; and/or provided emotional or social support. Mendez-Luck et al. (2016) found that older generations do not view caregiving as an obligation but rather as a responsibility as opposed to younger generations.

The present study utilizes narratives to examine three generations of women (i.e., a grandmother, a mother, and a daughter of the same lineage) of Mexican origin who all identify as the eldest sister among their siblings. I aim to explore how their role as the eldest sister has impacted their well-being (i.e., physical and psychological) and how this manifests in their everyday lives.

Methods

This study will utilize narratives to explore the well-being and decision-making of the eldest sister across three generations. The study will aim for a total of 30 participants (3 women per family). Recruitment will consist of snowball sampling methods and recruitment through social media. Snowball sampling relies on recruitment through social networks such that initial participants recruited by the study team are asked to identify other potential participants within their networks that fit the research criteria (Parker & Scott, 2019). Participants must be 18 years or older and identify as the eldest sister of their sibling lineage. Demographic information and consent forms will be collected. Utilizing narratives, the goal is to highlight Latinas' experiences and how their roles are essential to the family across generations. By exploring well-being (i.e., physical and psychological) and decision-making I aim to show the implications this has had on their own health as well as how familismo contributes to their everyday experiences.

Anticipated Results

Longoria et al., (2020) found that daughters are generally a primary source of support for parents. I hypothesize that the eldest daughter will be the main source of support in comparison to other siblings. I anticipate that *familismo* will play a significant role in the women's decision-making strategies, in which they will most likely make decisions that will have immediate benefit for the family (or family members) and/or no direct benefit for themselves. Therefore, if the former is true, it will have significant implications on their physical and/or psychological well-being (e.g., daughters may be more susceptible to self-neglect, which can lead to abuse and depression) as they may consider their own needs to be secondary.

Broader Implications

Exploring the well-being and decision-making of Latinas could inform policy and future research in the areas of health. The study could inform health policy and research to improve the experiences of Latina in receiving health services. The present study may highlight specific barriers and/or challenges that Latina women face when accessing and receiving health care services. This could assist in the development for culturally relevant care.

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Investigation of (001), (010), and (100) Surface Termination and Surface Energies of the Zintl $\text{Ca}_5\text{Ga}_2\text{Sb}_6$

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Keywords: zintl phase, surface energy, surface reconstruction

Notes: The completed research is published in the Surface Science Journal as part of the “Young Investigator Special Issue 2021.” The full article can be found here:

<https://doi.org/10.1016/j.susc.2021.121918>

Introduction

Solid State Chemistry is a constant advancing topic in the scientific realm. There are varying types of materials studied with innovative applications¹⁻⁶. The core of crystalline material structures consists of periodic and infinite elemental arrangements, in the form of polycrystalline, or simply a crystal. In actual observation, there is always a “stopping point” for materials, whether it is grain boundaries in polycrystalline materials, or surfaces (interface) of single crystals. Understanding the properties of surfaces of materials is important for many technologies, such as energy storage, materials synthesis, and catalysis applications⁷⁻⁹.

Surface science is the study of physical and chemical phenomena that occur at the interface of two phases, including solid-liquid interfaces, solid-gas interfaces, solid-vacuum interfaces, and liquid-gas interfaces. The research project falls underneath the subcategory of surface engineering. It is a discipline within materials science that deals with the surface of solid matter. In this concept, solids are composed of a bulk material covered by a surface. The surface which bounds the bulk material is called the surface phase. It acts as an interface between the bulk phase and the surrounding environment. Surface free energy quantifies the disruption of intermolecular bonds that occurs when a surface is created. In the physics of solids, surfaces must be less energetically favorable than the bulk of a material, otherwise, there would not be a driving force for surfaces to be created, rather the solid would simply exist as the bulk material.

In the present study, we are interested in the surfaces of the Zintl compound, $\text{Ca}_5\text{Ga}_2\text{Sb}_6$ (Fig.1), which is important for thermoelectric (conversion of thermal gradient into electrical energy) applications due to its anisotropic properties¹⁰. The structure of $\text{Ca}_5\text{Ga}_2\text{Sb}_6$, and most undoped Zintl structures, are based upon structural neutrality, i.e., electron counting and filled octets. This principle is understood as the Valence Bond Theory. Theoretically, these are structures in which the electron transfer from the cations does not satisfy the octet rule. Consequently, this leads to elemental covalent bond formation, or mathematically as the 8-N rule, where N is the # of valence electrons per anion.

This write-up presents findings from first principles (starting directly at the level of established science and not making assumptions) DFT (density functional theory) calculations (basic interaction of atoms, molecules, macromolecules, and materials solely dependent on basic laws of physics) used to study the “needle-like” growth of $\text{Ca}_5\text{Ga}_2\text{Sb}_6$ crystals. We speculated that surface energies of spatial directions will lend an understanding to crystal growth morphology. The goals of the study were to:

- Determine the relationship between factors such as stoichiometry and surface reconstruction

- Calculate the surface energies of (3) lattice orientations
- Determine whether there is any relationship between surface energy and crystal morphology

The stated goals will ultimately allow synthetic solid-state chemists to control crystal morphology by controlling the growth environment.

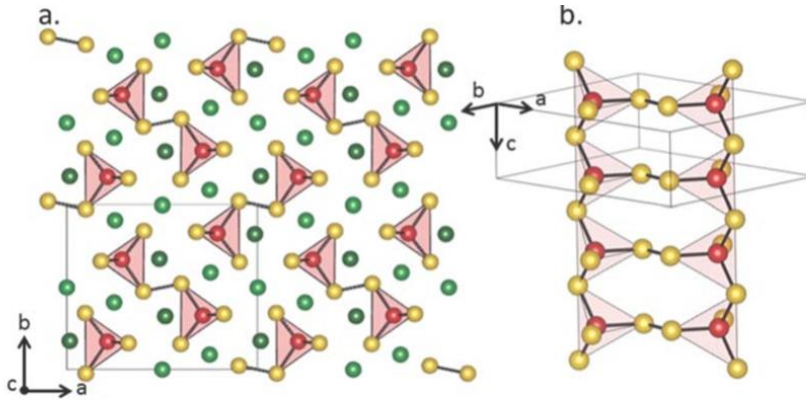


Figure 1: (a) "Looking down" perspective of $\text{Ca}_5\text{Ga}_2\text{Sb}_6$ Zintl structure. (b) "Side" perspective of Sb covalently linked tetrahedra (w/o Ca atoms). Ca atoms are green. Ga atoms are red. Sb atoms are yellow¹¹.

Methodology

Experimental

Material Scientists grew $\text{Ca}_5\text{Ga}_2\text{Sb}_6$ single crystals (Fig. 2) in a mix of rich 73:42 gallium: antimony molten metal flux (supersaturation). After high temperature heating to 823 K (maintained for 10 minutes), the growths were then heated in a box furnace to 1173 K in 12 hours, held at temperature for two hours, and slow cooled to 1000 K with a reflux rate of 3 K/hr (nucleation & crystal nuclei growth). It is the slow cooling process that promotes the production of precipitate. The crystal then went under centrifugation and was observed using Scanning Electron Microscopy (SEM). The observance showed a high anisotropic (different surface planes corresponding to different energies) needle like crystals with a specific [001] preferential growth direction.

Computational

First-principles calculations were performed by the Vienna Ab initio Simulation Package (VASP)¹² based on plane-wave DFT. Core-valence electron interaction was treated using projector augmented wave (PAW)¹³ and the semi-local generalized gradient approximation (GGA) of Perdew, Burke, and Emzerhof (PBE)¹⁴ was implemented. The convergence criteria were set to be the energy of 10^{-6} eV and the force of -0.02 eV/Å for the electronic and ionic steps in relaxation, respectively. Electronic occupancies were determined using Gaussian smearing and energy width of 0.2 eV in relaxation. The cutoff energy of 400 eV is enough for the convergence of total energy for both bulk and surface slab structures. The Monkhorst-Pack scheme¹⁵ of $3 \times 3 \times 1$ k-point grids was used for slab structures.

The surface energies of various slab structures were determined according to:

$$\sigma = \frac{1}{2A} (E_{\text{slab}} - n_{\text{formula}} \mu_{\text{bulk}} - \sum n_i \mu_i)$$

where A is the cross-section area, E_{slab} is the total energy of the slab, n_{formula} is the integer number of stoichiometric formula units in the slab, μ_{bulk} is the energy of one formula unit of corresponding bulk structure, n_i is the number of atoms of type i in the slab in excess of the stoichiometric amount, and μ_i is the chemical potential of element i . The values used are from previous computed elemental chemical potentials at standard state conditions¹⁶. The μ_i is representative of the total chemical potential. This parameter is compiled of the standard state DFT calculation, as well as the $\Delta\mu_i$ from elemental to crystalline phase¹⁷.

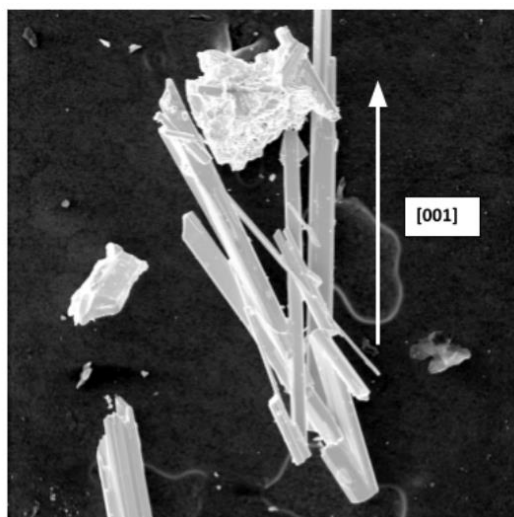


Figure 2: SEM image of Zintl, $\text{Ca}_5\text{Ga}_2\text{Sb}_6$, showing [001] preferential growth direction.

Analysis & Results

Initial observation (Fig. 3) of the relaxed calcium-rich slab proved to have several interesting points in support of hypothesis #1. In comparing the initial and relaxed structure, the surface Sb-Sb distance increases from 2.9 to 3.3 Å, which is clearly too long to be a covalent bond. Theoretically and chemically, this does not seem feasible and leads to the conclusion, a Sb-Sb bond at the surface simply does not exist. How is this so? With further observation, the distance from Ca₅₀ to Sb₃₂ (of GaSb₄ tetra), decreased from 3.5 Å to 3.1 Å, allowing for closer interaction and aid in the dismissal of the Sb-Sb surface bond. Why? As stated earlier, the Zintl follows the 8-N rule in counting valence electrons as it relates to bonding. Due to the calcium-rich nature of the surface, more calcium donates its valence electrons to the anionic antimony. Ultimately, there is no longer a driving force to form an antimony homo-atomic covalent bond. This critical observation highlights the notion of the antimonide Zintl in alignment with traditional valence bond theory rules.

The second goal of the study was to use first-principles calculations to determine surface energies of various growth directions. The assumption, hypothesis #2, postulates that the preferential [001] direction will have the highest energy among its counterpart directions. This assumption was based on the understanding that the preferred direction is the least stable direction and hence will have the highest energy in comparison to others. Although the principle is reasonable, the results have shown the opposite effect. The side planes, (010) and (100) surface energies have slightly higher values than the preferred direction. More so, similarity amongst surface energies for all directions was a surprising observation. Recall that this Zintl is highly anisotropic, so one would expect different directions to have drastic differences in energies.

In observing patterns between surface energy and calcium stoichiometry, the trends are as follows. As the calcium ratio is decreased, there is a dramatic 30% increase in surface energy for the [001] direction. However, the energies of the other growth directions were shown to have the opposite effect. One possible rationale is that for the preferred direction there is a chemical/computation cost in the formation of covalent bonds, rather than the “bulk-like” ionic bonding, at the surface. However, for the side planes, there is a benefit (low energy) for the antimony homo-atomic covalent bond formation.

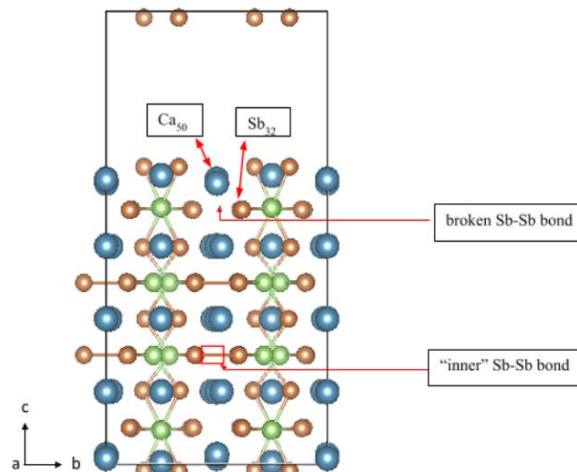


Figure 3: "side view" perspective along the c-direction. Broken surface Sb-Sb bond and bulk like "inner" Sb-Sb bond is highlighted. Ca atoms are blue. Ga atoms are green. Sb atoms are brown.

Future Work

Further studies are needed to probe the pattern mechanisms observed. Possible investigations include:

- Surface diffusion using the simulation package, VASP
- Liquid dynamics using MD simulations. This would entail using the Ga-Sb rich composition of the melt, and then "cooling" the liquid to investigate different types of interactions between neighboring atoms
- This will then become the preface for VASP investigation between molten (solution) and slab (surface) interface. This would help understand how the liquid growth environment interacts with the bulk structure.

These studies will be used as a step forward in understanding the Zintl crystal, $\text{Ca}_5\text{Ga}_2\text{Sb}_6$ growth morphology. The investigation can lead to more efficient growth conditions that could directly affect (and possibly enhance) the thermoelectric properties of the material for various real-world applications.

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The Role of Spirituality in Black Women's Sexual and Reproductive Health Activism

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Keywords: HIV/AIDS, activism, disparities, Black women

Introduction

Black women in the United States continue to be disproportionately affected by Human Immunodeficiency Virus (HIV) and Acquired Immunodeficiency Syndrome (AIDS). At the same time, Black women have also been heavily involved in HIV/AIDS prevention, advocacy, and activism efforts within the United States (Bost, 2019; Mutepa & Chama, 2020; Wilson, 2019). Despite Black women's participation in HIV/AIDS activism, the body of literature in this area has been slow to progress. In addition, much of what is known about Black women and the HIV/AIDS epidemic comes from a deficit point of view. For example, interventions and public health campaigns that target Black women often focus on risks and/or one's negative or harmful behaviors. A recent systematic review of sexual health interventions that target Black women in the United States found that each intervention incorporated a deficit-based approach and primarily focused on the individual level (Ware, Thorpe, & Tanner, 2019). The problem with these types of approaches is that focusing solely on an individual's behavior does not address the larger structural and systemic issues that drive health disparities (Hardee et al., 2014). An examination of factors that empower Black women to engage in activism around the HIV/AIDS epidemic offers a more strengths-based focus and may highlight resources and assets that can contribute to a reduction of HIV/AIDS among Black women. This brief aims to present evidence of spirituality as a source of empowerment for Black women who do HIV/AIDS activism.

Methodology

The current brief is a part of a larger literature review that examines the role of empowerment on Black women's HIV/AIDS activism. I conducted an online literature search using Google Scholar, PubMed, EBSCOhost, and ProQuest for articles in English published between 1980-2021. The search strategy included keywords for Black women: (black women, African American women); HIV/AIDS; and keywords for activism efforts: (political engagement, advocacy, activism, social movements, and community organizing). The studies included in the review were selected following several inclusion criteria. First, the study had to assess some form of HIV/AIDS activism. For the purposes of this review, HIV/AIDS activism includes any intentional social action aimed at stopping the spread of HIV, reducing HIV/AIDS stigma, gaining HIV/AIDS related resources, or supporting effective HIV/AIDS treatment. Second, the study must clearly highlight the experiences of Black women. This means that if a study includes populations other than Black women, the voices and experiences of Black women must be amplified in the work. Third, the study must take place within the United States. Though Black women have led HIV/AIDS efforts globally, this review only focuses on Black women within the United States. Lastly, the study must take place between 1980 and 2021.

Results

A total of 12 studies were included in the larger literature review. All studies included in the review are qualitative. Of these 12 studies, spirituality was only reported in two (Harris, 2014; McLane-Davison et al., 2014). McLane-Davison (2014) points out that although eight out of the ten women in her study indicated membership in a church, everyone did not necessarily consider their spirituality to be connected to a religious organization like the church. Participants shared that it was their spirituality that informed and motivated their activism. Many women felt that God called them to do the work and that's what has kept them involved. Harris (2014) had similar results regarding the relationship

between spirituality and Black women's HIV/AIDS activism. Nearly all of the women in her study considered themselves to be spiritual and a significant number of this group reported that their spirituality informed their AIDS activism. In this study, there were three distinguishable domains in which spirituality influenced Black women's HIV/AIDS activism. First, some participants shared that their activism allowed them to fulfill the purpose that God had for their life. Second, many participants indicated that they felt spiritually called or led to engage in HIV/AIDS activism. Lastly, participants reported that their spirituality is what provided them with strength to carry out their AIDS work. They also noted that their spirituality helped them to remain grounded. Selected quotes associated with each domain are provided in Table 1.

Future Work and Broader Implications

The results of this brief provide important information on spirituality as a source of empowerment for Black women who are HIV/AIDS activists. Future work in this area should consider quantitative methods that measure associations between empowerment, spirituality, and HIV/AIDS activism. The results of this brief may inform the development of future activism efforts aimed at addressing the inequalities that continue to drive the transmission of HIV/AIDS among Black women.

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Tables

Table 1. *Domains and Related Quotes*

Domain	Quote
Fulfillment of one's purpose in life	<ul style="list-style-type: none"> • "It's all about service. It's all about I'm doing my purpose that God has for me" (Harris, 2014 p. 194). • "But I do know the why -This is my given purpose, it is what I'm supposed to do with this life that I have as a gift" (McLane Davison, 2014, p. 15).
Spiritually led	<ul style="list-style-type: none"> • "Because it's my calling! That's what God put in my path and it's the only job that I ever engaged in where I still get up and I love what I do, there's always something new; there's always something different" (McLane Davison, 2014, p. 15). • "Yeah, I definitely know that God has called me to do this. I say that because of the impact that I have had on people's lives and the doors that have opened and opportunities I have been given" (Harris, 2014 p. 194).
Strength	<ul style="list-style-type: none"> • "It helps me to be patient ... I think it helps [me] with people in general. To help understand people in general" (Harris, 2014 p. 194) • "I see it as a blessing and opportunity and it's also been such a gift to be in this position to have influence and care of women that I've learned so much about who I am as a woman, who I want to be as a woman and who I don't want to be and how to—I'm always challenged on how to become a better woman regularly. So there's so much I get out of this—in this place since day one" (McLane Davison, 2014, p. 15).

A Qualitative Exploration into the Differential Financial Experiences of Women on Probation and Parole

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Keywords: criminal justice system, correctional system, recidivism, women

Introduction

In the U.S., 75% of women involved in the U.S. correctional system are on probation and parole (Prison Policy Initiative, 2019). There are a variety of different factors that affect women's lawbreaking behaviors, including economic marginalization. The link between economic marginalization and women's lawbreaking behavior is very well established in the literature (Daly, 1992). Heilbrun and colleagues (2008) found that women scored high or very high risk on the financial portion of a risk assessment tool. However, the reasons why women on community supervision's financial situations improve or worsen are largely unexplored. The current study addresses this significant gap by qualitatively exploring how the economic marginalization of women on community supervision changes over time. It is important to understand the reasons for these changes because a previous study by Morash and Kashy (2021) found that for 304 women on probation and parole, increasing financial needs led to higher rates of recidivism and decreasing financial needs led to lower rates of recidivism. The present study will expand upon those findings by answering the research question, "For women on probation and parole, why do financial needs decrease or increase over time?"

Methods and Analysis

In the dataset collected by Morash and Kashy (2021), longitudinal quantitative and qualitative data is included. To answer this study's research question, the qualitative data from 304 women on probation and parole in Michigan was used. The women answered open-ended questions about their barriers and facilitators for change. These questions asked about what types of issues, if any, they had in relation to their education, job(s), living situation, social service benefits, etc. Based on their change in financial need over a period of 6 years, the women were separated into the following groups: *Financial Need Way Down* (Need↓↓), *Financial Need Down* (Need↓), *Financial Need Up* (Need↑), and *Financial Need Way Up* (Need↑↑). For the purposes of this study, the focus is only on the groups at the extremes (i.e., Financial Need Way Down and Financial Need Way Up), which included 43 women per group. When analyzing the data, some themes were developed deductively based on prior literature (i.e., mental health issues, substance abuse issues, or job issues), and others were developed inductively (i.e., getting help or social support or benefit issues) as they emerged in the data. Throughout the coding process, the focus was on the presence of many different themes and content relating to the change in financial need. The results for a few of the themes are presented below.

Results

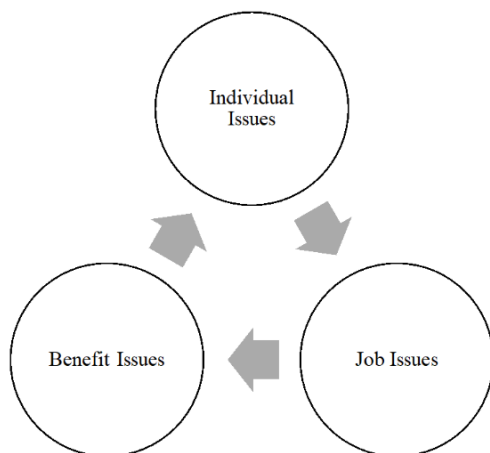
Beginning with individual issues, only 23.3% of women with Need↓↓ experienced poor or worsening physical health compared to 44.2% of women with Need↑↑. Likewise, 30.2% of women with Need↑↑ experienced poor or worsening mental health compared to only 20.9% of women with Need↓↓. A lower proportion of women with Need↓↓ also experienced continuing or worsening drug or alcohol problems. Lastly, 32.6% of women with Need↓↓ got help or social support to get a job or education compared to only 20.9% of women with Need↑↑.

Similar results were found for job and benefit issues. Only 60.5% of women with Need↑↑↑ experienced getting a new or better job compared to 74.4% of women with Need↓↓↓. Likewise, 25.6% of women with Need↑↑↑ lost their medical insurance, but only 14% of women with Need↓↓↓ did. A lower proportion of women with Need↓↓↓ experienced questioning or being unsure of their eligibility for social service benefits as well as planning to apply or waiting for a decision on their benefits.

Broader Implications

The results show that women on community supervision experience a wide variety of issues relating to their financial need whether those needs are improving or worsening. There is potentially a cyclical nature (see Figure 1) between the data's themes, which may be characteristic of cumulative disadvantage. For example, having substance abuse or mental health issues could affect one's ability to get a job. Because of that, an individual may want to apply for disability benefits as a form of income but getting disability benefits is often unsuccessful upon first attempt, which further worsens an individual's financial situation. As for the study's policy implications, more services and resources tailored to the needs of justice-involved women need to be created in Michigan. Many women talked about their inability to get help because existing services were inadequate, no services existed, or they were only for men. This finding is consistent with other research on reentry services for women (see Scroggins & Malley, 2010). Creation of these services may help improve justice-involved women's financial stability as well as reduce recidivism.

Figure 1. Example of Cyclical Nature between Themes



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Supporting the Health of Michigan Tribal Communities through Food Sovereignty

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Keywords: Native American, Michigan, food sovereignty, health, PhotoVoice

Introduction

Since the late 1400s, settler colonization of Turtle Island (currently known as North America) has disrupted traditional and cultural ways practiced by tribal communities. It has led to the oppression and illness of Indigenous peoples (Brave Heart & DeBruyn, 1998), introduced foods which differ from traditional foods (Trigg, 2004), and disrupted Native communities' abilities to control their own food systems (First Nations Development Institute [FNDI], 2014). Many Native communities, including those in Michigan, have sought out the revitalization of traditional foods and practices, as this is essential to reclaiming their health, traditional economy, and culture (FNDI, 2014). Prior to settlers, Indigenous food systems were sustainable and kept all Indigenous communities self-reliant. Investment in Indigenous food systems will increase Indigenous communities' health, economic development, and cultural revitalization (FNDI, 2014). Therefore, Indigenous food sovereignty—a movement which pushes for “an indigenous nation or community to control its own food system and food-producing resources free of control or limitations put on it by an outside power (such as a settler/colonizer government)” (Montana Office of Public Instruction, n.d.)—may further support the health of Native communities.

Current Study

The current study aims to explore Michigan tribal community members' perspectives of how colonization has disrupted Native food systems, how these disruptions have contributed to socioeconomic health, and how policy could support a return to locally produced traditional foods. To do this, we will be collaborating with Michigan tribal community members who are located across the state. We have three initial questions that guide our work:

1. What does health mean for Native communities in Michigan?
2. How do traditional foods and cultural customs relate to health?
3. How do economic and food sovereignty relate to health?

Method

PhotoVoice is a participatory action research method that uses photography and critical group discussions to examine individuals' lives and communities (Wang & Burris, 1997). This method gives participants autonomy of what knowledge they contribute and how that knowledge is interpreted and shared. The PhotoVoice research method requires that the research questions being answered are established with the participants. Given this, we will begin our work with the questions listed above, but our final research questions will be established with our participants.

Expected Results

We anticipate that community members will share photographs attesting to the importance of Native cultural customs and traditional foods. Specifically, we anticipate receiving pictures of local community farms, such as Ziibimijwang Farm located in Carp Lake, Michigan; traditional foods, such as the three sisters—beans, squash, and wild rice; ceremonies, especially highlighting the foods consumed at the

ceremonies and why they are consumed; and individuals working together to achieve a common goal, as food sovereignty efforts are usually sustained by groups of individuals.

Future Work & Implications

With the permission of our participants, we hope this work may be communicated with Michigan state or tribal policymakers. We believe policymakers can increase their support for local & Indigenous-owned farms. Allocating funds for local-farm infrastructure is highly needed for farmers to restore community accessibility to local and indigenous foods. [Ziibimijwang Farm](#) is an example of a local farm that travels to different communities across Michigan. Although, as Ziibimijwang Farm becomes better known, there is an increased need for funding for transportation, employment, and distribution to big Michigan cities such as Lansing and Detroit. This work is important to support Indigenous food systems, as this enhances community economic health and culture revitalization.

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The Effect of Time and Consultation on Provider Perceptions of a Parent Coaching Intervention for Autism Spectrum Disorder

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Keywords: autism spectrum disorder, parent coaching, consultation

Introduction

Improving services for autism spectrum disorder (ASD) is an important public health problem. ASD is a lifelong neurodevelopmental disability that affects 1 in 54 children in the United States (Maenner et al., 2020) and is characterized by deficits in social communication and restricted and/or repetitive behaviors (American Psychiatric Association, 2013). The annual cost of treating ASD in the United States is \$137 billion (Buescher et al., 2014).

Naturalistic Developmental Behavioral Interventions (NDBIs) utilize behavioral strategies and are effective at increasing skills in autistic children (Schreibman et al., 2015). A recent meta-analysis of early interventions for autistic children found that NDBIs outperform other behavioral interventions for autism (Sandbank et al., 2020). Yet most applied behavior analysis (ABA) providers report limited training on NDBI approaches and little is known about how their perceptions of NDBIs change over time with increased intervention use. Moreover, receiving expert consultation in the use of NDBIs may also improve provider perceptions of these interventions. We investigated the effect of time and consultation on perceptions of Project ImPACT, an empirically supported parent coaching NDBI intervention. Project ImPACT is a parent-mediated NDBI in which a provider coaches a caregiver to help them learn strategies to improve social engagement, communication, imitation, and play skills in their young autistic children.

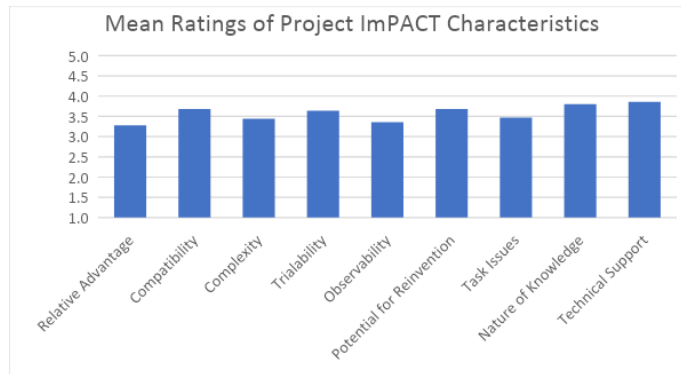
Methods

In this multiple baseline, single-case design, groups of 2-5 ABA providers across 4 agencies utilized Project ImPACT for the first time. We report preliminary analyses from 9 providers across 4 agencies. Agencies were randomized to the baseline period (3-6 weeks) in which they delivered Project ImPACT without consultation; providers followed the manual but were not given additional support. Providers then received 12 weeks of group consultation with a certified Project ImPACT master trainer. Each week, providers rated their perceptions of Project ImPACT using the Perceived Characteristics of Intervention Scale (PCIS) on a 5-point Likert scale. Providers responded to items such as “It is easy to try out Project ImPACT and see how it performs” (trialability) and “Project ImPACT improves the quality of the work that I do” (task issues). We fit 9 two-level multilevel models. See Figure 1 for model equations.

Analysis & Results

Perceptions of Project ImPACT were moderately high (see Figure 1). See Table 1 for model parameters.

Figure 1. Mean ratings of perceived characteristics of Project ImPACT.



There was an effect of time on trialability and task issues; regardless of whether providers were receiving consultation, each week, providers rated Project ImPACT as .14 units easier to try out (trialability) and .08 units more helpful at improving the quality of their work (task issues). There was also an effect of the condition by time interaction for trialability, meaning that the effect of time varied depending on condition – the average provider rating of trialability in the baseline period was 3.04 and the rating increased in the baseline period by .11 units per week, while the average provider rating in the consultation period was 3.33 and the rating did not significantly change from week to week.

Though marginal, there was an effect of time on observability; each week, providers rated client improvements from ImPACT to be .08 units more observable than the previous week. There was no effect of consultation. There were no effects of time, condition, or the interaction of time and condition for relative advantage, compatibility, complexity, potential for reinvention, and nature of knowledge.

Broader Implications

Provider perceptions of the trialability, observability, and task issues were rated more favorably each week as providers had more experience using Project ImPACT. However, consultation did not affect provider perceptions of Project ImPACT. These results suggest that increased use of NDBIs leads to more favorable perceptions of these interventions. Additionally, though consultation may improve provider fidelity to NDBIs, it does not appear to make providers' perceptions of NDBIs more favorable. Favorable perceptions of an evidence-based practice make it more likely that a provider will continue using the intervention with their autistic clients, thus improving quality of care for clients on the provider's caseload. Results suggest that consultants should express to trainees that perceptions about the intervention are likely to improve with increased use, even if they feel it is difficult to use the intervention at first. Future work will investigate the extent to which consultation and time affect provider's fidelity to Project ImPACT.

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Tables

Table 1. Two-level model parameters for trialability, observability, and task issues models

Trialability				
Fixed Effects	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Intercept	3.28	0.18	17.98	<.001
Week	0.14	0.04	3.57	<.001
Condition (Baseline Period vs. Consultation Period)	0.31	0.27	1.15	.2
Week*Condition	-0.12	0.04	-2.92	.004
Random Effects	<i>SD</i>			
Intercept	0.44			
Condition (Baseline Period vs. Consultation Period)	0.60			
Residual	0.41			
Observability				
Fixed Effects	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Intercept	3.00	0.23	13.02	<.001
Week	0.08	0.05	1.73	.08
Condition (Baseline Period vs. Consultation Period)	0.26	0.36	0.73	.4
Week*Condition	-0.05	0.05	-1.10	.2
Random Effects	<i>SD</i>			
Intercept	0.57			
Condition (Baseline Period vs. Consultation Period)	0.88			
Residual	0.48			
Task Issues				
Fixed Effects	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Intercept	3.30	0.24	13.77	<.001
Week	0.08	0.04	1.95	.05
Condition (Baseline Period vs. Consultation Period)	0.26	0.25	1.07	.2
Week*Condition	-0.07	0.04	-1.61	.1
Random Effects	<i>SD</i>			
Intercept	0.63			
Condition (Baseline Period vs. Consultation Period)	0.47			
Residual	0.43			

The Effects of Exercise and Third Person Self-Talk on Emotional Wellbeing During the COVID-19 Pandemic: A Proof of Principle Study

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Keywords: Exercise, Emotion Regulation, COVID-19, Emotional Wellbeing

Introduction

Research has shown that experiencing a major disaster such as the COVID-19 pandemic is associated with high levels of psychological distress (Lee et al., 2007; Rajkumar, 2020). Due to the increased demand for mental health services during the current pandemic, alternative, easy-to-implement treatments are needed to help reduce the global mental health burden.

Two particularly promising alternative interventions include exercise and psychological distancing techniques (i.e., third person self-talk). There is a wealth of research that suggests that exercise is effective for reducing mental health symptoms such as PTSD, depression, and anxiety (Manger & Motta, 2005; Morres et al., 2019; Rebar et al., 2015) and improving emotional wellbeing (Bernstein & McNally, 2018), which has led to research into the integration of exercise and therapy (Powers et al., 2015).

A novel emotion regulation technique, third-person self-talk (TPST), has shown promise as a potential strategy to be integrated with exercise. TPST is a psychological distancing technique that involves using one's name to refer to oneself when reflecting on thoughts and feelings instead of first-person pronouns such as "I" or "me" (Kross et al., 2014). Research findings have indicated that TPST is effective at reducing negative emotions (Kross et al., 2014; Moser et al., 2017) and has shown to be an effective technique for managing stress and anxiety during a previous virus outbreak in 2014, the Ebola virus (Kross et al., 2017). Given the effectiveness of this relatively easy-to-implement psychological technique during a previous virus outbreak, third-person self-talk may be an ideal emotion regulation strategy to use in conjunction with exercise as an alternative mental health intervention for individuals experiencing COVID-19 related stress and anxiety. Therefore, the goal of this proof of principle study (Schmidt, 2006) was to examine the effects of a telehealth-administered intervention that combines an single bout of strength training exercise with TPST on emotional wellbeing among individuals who are experiencing stress and anxiety related to the COVID-19 pandemic.

Methods

In this study, 51 participants participated in a two-week study in which they were instructed to participate in two counterbalanced conditions via Zoom video call: the exercise + third-person self-talk (EX+TPST) condition and an attentional control condition (silent reading). In the EX+TPST condition, participants were guided through a single bout of exercise for 30-minutes by an undergraduate research assistant. During the exercise session, participants performed exercises while using TPST to reflect on their thoughts and feelings related to their negative experiences during the COVID-19 pandemic. During the silent reading condition, participants were instructed to read a non-fiction book of their choice quietly for 30-minutes.

Participants completed pre and post questionnaires during both the EX-TPST and silent reading conditions. Primary outcome measures included the State Trait Anxiety Inventory (STAI-Y), Positive and Negative Affect Schedule (PANAS), and General Self-Efficacy Scale (GSE). Implementation outcomes included the Feasibility of intervention Measure (FIM), Acceptability of Intervention Measure (AIM), Intervention Appropriateness Measure (IAM) (Weiner et al., 2017). All primary analyses were

conducted using a 2 (Condition: exercise + distanced self-talk, silent reading) × 2 (Time: pre-test, post-test) univariate repeated measures multi-level model.

Results

Results indicated that when participants engaged in a single bout of EX+TPST, they experienced a significant reduction in state anxiety and negative affect relative to pre-intervention, but these reductions were not significantly different from the silent reading condition (Figure 1 and 3). Additionally, when participants engaged in EX+TPST, they experienced a significant increase in positive affect and self-efficacy relative to pre-intervention. The increase in positive affect in the EX+TPST condition was significantly greater than in the silent reading condition (Figure 2). However, there was no significant difference in the increase in self-efficacy between both conditions (Figure 4). Lastly, participants reported the EX+TPST intervention to be highly feasible, acceptable, and appropriate.

Discussion

The findings from this proof of principle provide evidence to suggest that the combination of exercise and third-person self-talk may be a promising and favorable intervention for individuals experiencing stress and anxiety from a long-term potentially traumatic event such as the COVID-19 pandemic. Given that this study only examined the effect of a single bout of EX+TPST, future research should examine the effects of a long-term intervention that integrates exercise and third-person self-talk. Additionally, future studies should aim to explore the effects of this intervention in other clinical populations.

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Figures

Figure 1: Anxiety Symptoms

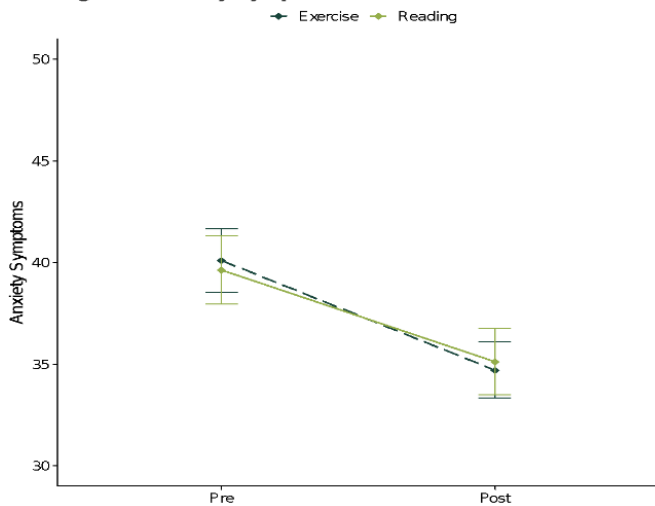


Figure 2: Positive Affect

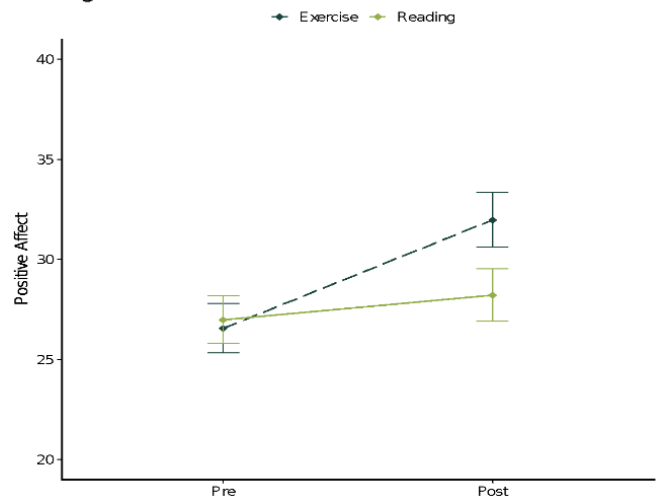


Figure 3: Negative Affect

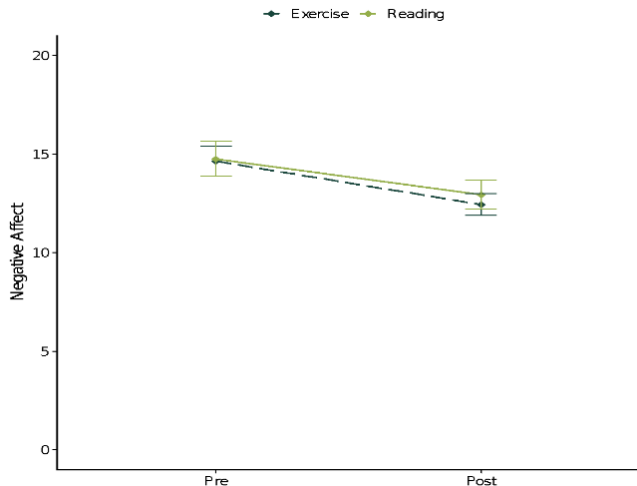
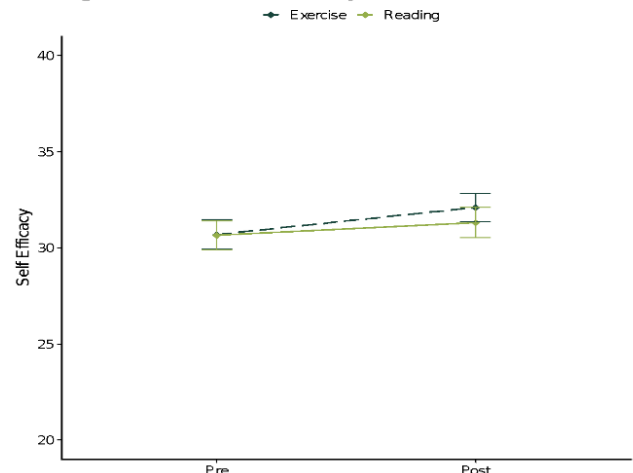


Figure 4: General Self-Efficacy



AGEP Alumni Spotlight A Conversation with Dr. Davia Downey

**By Antonia Gordon
Department of Political Science, Michigan State University**

Dr. Davia Downey is the Director of the Ph.D. program in Urban Affairs at the University of Memphis. Prior to taking this position, she was the Program Coordinator for the NASPAA accredited Master of Public Administration (MPA) program at Grand Valley State University (GVSU) in the School of Public, Nonprofit and Health Administration where she was promoted to Associate Professor of Public Administration in 2017. At GVSU, Dr. Downey taught undergraduate and graduate courses in local politics, public policy, and public administration, and a course in international and comparative administration for the University's general education Globalization theme cognate. Dr. Downey's research looks at the impacts of natural and man-made disasters on economic development in cities and states. She also conducts research on tax increment financing and its impact on economic development, the interplay of party capability theory in judicial systems cross-nationally and explores the interrelationships between nonprofit organizations and local governments as they navigate long-term collaborative partnerships.



Question 1: Tell us about your time with AGEP and how AGEP influenced your transition from MSU to other experiences at Grand Valley State University and in your role at your current institution.

DD: When I began my studies at MSU in 2005, AGEP was a good resource for questions I had about professionalization which was great. Additionally, AGEP has continued to be a resource that I share with my students to this day. In some institutions I have been a part of, these intentional communities did not exist, so I had to make do and create them myself. At the University of Memphis, I have already found many opportunities to connect with organizations and groups which have aided the transition from Michigan to Tennessee.

Question 2: What has it been like to navigate academia as a minoritized identity, particularly during this time?

DD: This is a hard question to answer because every institution is different. However, the ways in which women and minorities navigate these spaces should always be oriented towards knowing your value to the institutions you serve and being prepared to stand up and show that value when discrimination rears its ugly head. The advice that I have given to a lot of students over the years is what my graduate advisor once told me, "Keep your head down and your elbows out." What this quote has always meant to me is that there are a lot of distractions that can keep you from your research, your teaching responsibilities, and your service responsibilities, and that it is important to stay focused on what it is that you are supposed to be doing which is being a good colleague and a productive scholar.

Academia is a long game, not a short one. Those that survive in the academy understand this because burnout is pervasive when everyone is trying to achieve “the most” right out of the gate. At the same, it is also important to speak up and speak out when issues of racism and sexism come up. Every single time. I find that the more I do it, the easier it gets, but we do not have to be militant or bombastic. And remember that even when you speak up, you might be disappointed with the solution proposed but that does not mean you stop speaking your truth. My advice to doctoral students is to make sure to lead with your value—you add something important! Remember that your discomfort in discriminatory situations should not be yours to hold on to.

Make sure you understand the procedures of reporting offenses when they occur at your respective institutions. Documentation is important (I never delete an email). Finally, finding allies is also important—both inside and outside of your institutions, so networking is key. These three things can help to manage the many responsibilities we have as minority faculty members to our students and our institutions. We also have an added responsibility to help other minorities to find safe spaces in the academy too. The bigger your safe spaces are, the better you feel so try to enlarge the tent when and where you can. And please remember, if you are not being valued, exiting an institution that does not see your worth is also an admirable solution.

Question 3: Now that you are in an administrative role, how are you creating space for others to succeed?

DD: My new position at the University of Memphis is both internal and external. Internally, I am working diligently to train the next generation of scholars and that has always been my favorite part of my job. Memphis is a predominantly black city in the mid-South and the events of the past few years have brought a renewal for calls for justice and racial reconciliation, the reduction (elimination) of sexism, and the development of policies to fight the most egregious of crimes against the vulnerable—it is an exciting, but emotionally exhausting time. Most of my students are women or first-generation scholars like I was, and many of them have been sometimes explicitly and sometimes subversively told that they are “not good enough” to be PhDs. So, I take my role very seriously. I act as a coach when needed, I am a cheerleader when students face challenges, I work to set clear expectations about classwork, and provide feedback at every critical juncture of the program. I also try to give frank assessments about what it means to be an academic. Again, getting a Ph.D. is a marathon, not a sprint. The only thing you “win” by going through your program quickly is more work getting tenure! So, it is important to me that my students and advisees understand that they are building a career, and not focus so much on a singular achievement (i.e., the successful defense of a dissertation, the passing of comprehensive exams, or finishing their degree, writing their first journal article, etc.). I advise them to take the little wins and celebrate them, but to always stay focused on the long game.

Externally, I act as an ambassador. The academy, in my opinion, has suffered because of its blind spots around race, racism, sexism, and all the other “isms” that exist. Social science and, more importantly, theory have suffered because of this. In recent years there has been so much more and better scholarship now around these issues because journal editors and department chairs began to give support and weight to the reorientation of the importance of understanding these issues as they have significant secondary and tertiary effects in the world. Our work helps the world “see” things more clearly, I deeply believe this.

The belief that some types of research are not “rigorous” enough because they focus on exploring the deep problems that racism, classism, and discrimination have caused is a problem and it is our job to

rectify this false assumption now before it is too late. I firmly believe that race is not a dichotomy, it is a learned behavior that has powerful ramifications in society. If students want to study those ramifications it is my job to make sure that everyone knows the program that I direct is a home for that type of research. I take my external role seriously. I do a tremendous amount of outreach to the community, the region, and beyond because we need people like us to succeed.

Question 4: In what ways are you mentoring/helping others?

DD: Oh, I do a lot of handholding! I give a lot of high fives. At the same time, I sometimes have hard conversations about progress and expectations, but I always lead with a lot of love and respect for my students. I do not seek to be friends with all my students, and some do not like me much, but I respect every one of them because going to college as a minority is a miraculous achievement in many cases. If you have had me in a class or as a mentor, I would hope that my students know that I think of you even once you have left my classroom and that I hope you continue to do your absolute best no matter what challenges come up. I still act as your cheerleader even if you do not hear me in the background!

Question 5: How are you balancing expectations to have high-quality research alongside with diversity advocacy work?

DD: I do a lot of yoga. Seriously. And I come back to the same mantra that my graduate advisor told me, *"Keep your head down and your elbows out."* In times of doubt, I remember that my career is a marathon, not a sprint. I may not be as productive as I would like, but every project I have put my name on I am deeply proud of. Finally, I remember that comparison is the thief of joy, so I try hard to guard myself against those feelings. Being in the trenches fighting racism and discrimination can hurt your heart at times, but if we do not have faith that things can change, we are lost.

Question 6: Finally, what did you take away from AGEF? Did AGEF inspire you to create similar communities at your institution?

DD: Humans are social beings, and we need fellowship. If this pandemic has taught us anything, it is that fellowship, wherever you can find it, can help you through the darkest of times. Community-building must be intentional, value-centered, and focused on common goals, so wherever I have been employed, I have tried to create a community of people (in the academy and outside) that have supported me in my career marathon. I have found this strategy very helpful, and I am thankful that AGEF, by virtue of its existence, showed me how.

AGEP Alumni Spotlight A Conversation with Dr. Jamil Scott

By Erika Lee Vallejo
Department of Political Science, Michigan State University

Dr. Jamil Scott is an Assistant Professor at Georgetown University in the Department of Government. She completed her Ph.D. in Political Science at MSU and is a former SROP student and member of AGEP from 2013 to 2018. Her research interests lie in the areas of political behavior, political representation, race and ethnicity politics, and gender politics.



Note: this piece is an abbreviated version of the interview.

Question 1: Please think back to when you were a doctoral student at MSU. Tell us about your time with SROP and AGEP and how they influenced your transition from MSU to other experiences at Georgetown.

JS: The AGEP community and working with SROP students were helpful more generally and thinking about the processes necessary to do this work. AGEP already had me thinking about grant opportunities [and] fellowships. I was already in the practice of applying for the AGEP scholar awards. Being in the practice of talking about yourself and your work in a complementary way is really important, and sometimes it can feel very difficult to say, *“I am doing something amazing,”* but in order to get a grant, you have to talk up your work and say *“hey I am doing something really amazing and this is why you need to fund me,”* and that can be a really uncomfortable process. I think my work is important, so it was helpful to think about how best to talk about my work and not just have my elevator pitch but also have a clear description of what I was doing.

I will also say that AGEP really helped me to be in community with other folks who were outside of the political science discipline. It helped me to get an understanding of norms and get an idea of what felt normal and what didn't. Sometimes I think academia can make you feel like some of the ways in which people are behaving are normal and it is not. But it also reminded me of the importance of building spaces outside of my department when I got to Georgetown because sometimes you need just need folks to commiserate with. It is not because things are terrible but because you need somebody to say, *“this is what is happening”* and somebody could say, *“well it could be worse.”* Just having somebody outside of the department to give perspective is always helpful. When I got to Georgetown, being a part of AGEP reminded me that I needed to find people who are outside of my department but can still be helpful allies to me.

Question 2: What has it been like to navigate as a professor as a woman of color, particularly during this time?

JS: I think that often what I encounter [are] students who are not being directly disrespectful. However, it can be the little things like microaggression. I have students that put my first and last name on their

assignment but leave out my honorific – so they will write “Jamil Scott” and not “Dr. Scott” or something like that, or question my expertise on things – and those are the moments that are really tough because it is easy to deal with students who are just outrightly disrespectful because it is really easy to say, *“okay, this is what is happening in my classroom”* and I can get the University involved because it is something outright egregious and even your colleagues who do not look like you can say, *“okay, I see this is bad.”* But there are little things that can feel insidious where you know something a student has done is bad, and there are committee members or folks who are in your department that can see that they are bad too. But it sometimes feels like those will be the times where most people in the department will be like, *“oh yeah, it's not so bad. I mean, I have my students call me professor, but sometimes they also call me by my first name”* or things like that. Those are the insidious things that feel bad, and they are meaningful to your experience, but they are not something that someone can easily identify and get behind like, *“oh, this is so terrible and egregious,”* and it often feels like sometimes it must be a big egregious act for people to jump up and take notice. Whereas it is the insidious things that build up and can have an impact on your mental health. Those tiny insidious moments make you question yourself. Those are the moments that can be meaningful for your experience to make you feel supported or not supported because not all your colleagues understand that it is those tiny insidious moments that can have an impact on you, how you are feeling about the institution, and how you are feeling as a professor.

Question 3: Now that you are a professor, in a different position of power, how are you creating space for others to succeed?

JS: Although it can be a little difficult because not all the students want to be political scientists, I do try to create opportunities for students to engage in research with me. For one of the students that I did a research project with over the summer, I used a lot of tools that I got as a SROP facilitator to structure their summer experience and I truly believe that was one of the reasons why the student was able to get her grant-funded research opportunity through the University because they wanted something very structured. I think knowing those structures and how to create a structured experience for students is very helpful. It was one student, but I think sometimes it is not about the number of students that you are working with, it is about creating impactful experiences.

I do try to push students to think critically. In many of my classes, I have an assignment where I am asking students to not only engage with the materials from the class but also relate them to the real world [because] I do not want students to think that these two things are separate – that the practice of science is thinking about phenomena that we see in the world and how we understand the causal mechanisms that are behind the phenomena. Sometimes they see those two things as separate and I want them to understand that some of the discoveries that have come about, or some of the things that we understand as a theoretical phenomenon are because somebody saw something in the real world. I want them to be able to understand that these things should be related to how we think about real-world politics

Question 4: In what ways are you mentoring/helping others?

JS: I try to mentor students by creating opportunities for research for them but also, I think you can be pivotal, particularly students of color, to see folks who look like them as professors in the classroom. I do try to be intentional when students want to talk about what it means to be where I am and make time to talk through it with them. I am also intentional about reaching out to students who do not seem like they are doing okay. I had a student [and] she is someone who just always looked put together. I was walking through the class as they were doing group work and I stopped to ask her, *“are you okay?”*

She said, *"yeah, I am okay"* and I was like *"okay, I just wanted to make sure,"* but she came to my office hours and said to me, *"you were the only one who asked me, and I really was not okay."* I think those moments of being intentional and noticing students can be important to them, even saying "hi." I have had students who find it hard to reach out – in the university environment it can be hard to build relationships with professors, and I do not think that they realize that we know their names. So, just the practice of knowing students' names and saying *"hey, how are you doing? I thought your assignment was really great,"* or *"you are a great writer,"* can be impactful for students because sometimes they can feel invisible in the university environment, especially in a big classroom.

Question 5: How are you balancing expectations to have high-quality research alongside teaching, service and other tasks that are required of you?

JS: I think all of us try to find some level of balance but one of the things I have had to come to terms with is that my research is what is going to get me tenured. That does not mean that I do not care about teaching, but it means that I must be cognizant about how I am spending my time. I am big about planning my time outright. You really need to have a structured time. We go through school with all these points of structure around our time and then we get to the dissertation where time is unstructured. There are more pulls on your time when you get a job, but it still is not very structured. I try to be mindful of planning my time such that I am spending the most time on my writing and my research because I recognize those are the things that are going to be meaningful for tenure. It does not mean that I do not care about teaching – I do very much care very much about teaching, but it means the difference between working hard to make sure my slides are interactive versus coming into the class with good questions, and engaging students in the readings. So, my prep time looks like an hour or two hours before class as opposed to spending a solid 3 – 4 hours on my research which is a trade-off that must be made because tenure is based on my research.

As it pertains to service, there are always going to be pulls and everyone says *"you should be able to say no"* or *"you should say no"* but there are going to be things you do not want to say no to because they can have impacts on students at the undergraduate and graduate level and those things can be really rewarding and sometimes, they do not feel like service. However, I try to be mindful about how I am spending my time and planning my time out can be helpful for saying *"you know, I spent this much time on service,"* and I feel more empowered to say no because I can say, *"I did this and this for the department already, please find somebody else."* Everybody always says, *"you should be able to say no,"* or *"you should feel empowered to say no"* but they never say that after you say no, sometimes people can come back and say *"well, please...because you have done this and that."* So having the planning structure allows me to say, *"I did this and this and it took up this much of my time, so please ask someone else."* It is helpful to tie in the service or the additional things I am doing to my research. So, I can take on students to do research projects because they are working on research projects with me and there is some element where I am carving out a piece for them, but it also means that I am one step further to getting something else. I am not cutting students out of the process, but I am working with the student to get something out. So, it is a service activity, yes, but it also means that I am being conscious of myself and setting boundaries for what serves me and what does not.

Question 6: Finally, what did you take away from SROP and AGEF? Did SROP and AGEF inspire you to create similar communities at your institution?

JS: What I took away was the importance of community and creating opportunities for both undergraduate and graduate students to be able to build a source for resources but also to have a sounding board outside of people they know. I did not know about [the] Pomodoro [technique] until I

met my friends in Education and that started me on the path of thinking about how I am structuring my time. I gained so many tools in thoughtful ways of thinking about writing and writing groups. My writing groups came from folks that were outside of my department. I finished my dissertation with [a friend]. We were writing together working on our dissertations because we were determined to get it done. So, there was something about building space and resources and strategies that was meaningful and important for my experience in SROP and AGEP. So, one of the things I do in my graduate classes is to lay out the strategies and be real about how we think about resources and time. I was a notorious crunch-time writer in graduate school but that does not work when you get to be a professor. It can work sometimes, but as you get older, there are only so many times you can pull an all-nighter. It does not work as well, and you cannot recover as well anymore. I am not calling myself old, but the recovery time is terrible. So, for me what that means is, in the classroom, I tell students to think about creating a practice in writing and building best practices because if you do not do it now, it is hard to do it later. I build in professionalization time into my classes. I build in assignments I think are meaningful for them. One of my assignments is a grant-funded proposal because they will need it and we spend so much time talking about survey measurements because they will need it as well. Those should be important parts of your experience. You should get those and not just talk about the literature because they are meaningful.

As a political scientist, I can also say that one of the things that are meaningful is institutional structures and support. One of the things I have found is that replicating AGEP is not easy, and I would love to have that type of support for the graduate students that I work with because some things I had to be concerned about as a graduate student were a lot less of a daunting undertaking because of the support available such as – the AGEP scholar award, resources, and professionalization – those were tools I had access to that did not necessarily have to come from someone in my department. But because institutional structures look different, those are some of the resources that graduate students in my institution do not have. So, it means being intentional about making sure they get those resources in the classroom, but I recognize that the things that are at MSU and the AGEP resource and SROP itself are not replicable because of the institutional structures at my institution.

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 in 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's campus
- Paid travel to/from East Lansing
- Opportunities to present research locally and regionally
- An opportunity to interact with successful role models who have earned advanced degrees

In the scenario that the program cannot occur in person, all research and professional development activities are adapted to a virtual environment.

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

Visit us online at: <http://www.grad.msu.edu/SROP>

Discussion Notes:



MSU AGEPE: MSU's premier graduate education learning community for diversity, equity and inclusion

Are you a student or faculty member at MSU and want to join the AGEPE Learning Community?



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MSU GRADUATE
SCHOOL

What is AGEP?

The Alliances for Graduate Education and the Professoriate (**AGEP**) is a National Science Foundation program that supports recruitment, retention, and graduation of underrepresented U. S. minorities in doctoral programs of the natural and social sciences, mathematics, and engineering. Undergraduates, graduate students, post-docs, and faculty who participate in building the AGEP Community at MSU rise to meet the challenge of Diversity, Equity & Inclusion (DEI) at U. S. colleges and universities, by nurturing and developing world-class STEM and Social, Behavioral and Economic (SBE) sciences faculty members who fully reflect the diversity in race, gender, culture and intellectual talent of the U. S. population.

National Need

The United States faces a growing demand for a highly educated science and engineering workforce. The annual number of Black, Hispanic, and American Indian citizens earning a PhD must quadruple in order to contribute the science and engineering talent necessary for the U.S. to become self-reliant.

AGEP at Michigan State University – Impact

The MSU AGEP Community represents 75% of doctoral students at MSU who are Black, Hispanic or American Indian citizens that in NSF sponsored departments. Ninety percent of the AGEP Community graduate student participants complete an advanced degree. Over the past 10 years, the AGEP Community has grown from six graduate students in 2006 and faculty to over **250** participants annually with over **400** alumni nation-wide.

The MSU AGEP Learning Community began with support from NSF, and AGEP has become a self-sustaining component of the matrix of graduate student support provided by the MSU Graduate School. A cross-disciplinary AGEP Learning Community of graduate students and faculty meets monthly; discusses active research by participants using everyday language; and considers current topics of regional and national importance for public policy. AGEP is a proven strategy for diverse recruitment, retention, and persistence in graduate education.

For more information, visit us at:

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

MSU AGEP Program Director: Steven Thomas, des Shawn@grd.msu.edu

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