



EXPLORE & SERVE 2024

Celebrating Research and Service of Pre-medical and Pre-health Students

Hosted by:
Division of Pre-medical and Pre-health Programs

“The Art of Self-Compassion”

Health Sciences Building
Tuesday, April 9, 2024 from 9 a.m. to 3:30 p.m.



DREXEL UNIVERSITY
Graduate School of
**Biomedical Sciences
and Professional Studies**
College of Medicine

Explore & Serve Day 2024



Welcome to the Pre-medical Pre-health Division's 7th "Explore & Serve" Day. We launched this event to take a break from studying and celebrate your contributions to various biomedical and clinical research projects and community service in Philadelphia. These endeavors deserve recognition as they significantly contribute to your development as a competent, compassionate healthcare professional alongside your academic pursuits. Your dedication perpetuates Drexel's spirit of experiential learning and our Division's mission to foster an

empathetic and forward-thinking approach to healthcare.

In previous Explore & Serve Days, we delved into topics related to the COVID-19 pandemic, such as its direct impact on various communities or on Public Health, our focal point in 2023. However, another theme that has emerged amidst the pandemic's challenges and aftermath is the crucial role of mental health and wellness in everyday functioning and quality of life, particularly for healthcare providers.

Therefore, this year, we opted to focus on self-compassion. We will kick off the day with a visit from our beloved Drexel therapy dogs and their coordinator, Janine Erato, to relax and learn about ways in which therapy dogs can support patients. Our keynote speaker, Michelle Rattigan, a board-certified art therapist and Clinical Associate Professor in the CNHP's graduate Art Therapy and Counseling program will enlighten us on the concept of Self-Compassion in higher education and in healthcare. During our lunch break, a panel of art therapy students will offer insights into how art therapy can complement conventional clinical care. Additionally, we'll provide an opportunity to tap into your creativity by contributing to a mural for our Division. Whether you can stay for the entire day or just drop by

briefly, we encourage you to leave your mark by coloring a portion of the mural. We will end the day by assembling the mural and honoring a student with exemplary service commitment with the Douglas Baird Award for Healthcare Equity.

A heartfelt Thank you to Denise Wolf, Associate Clinical Professor Art Therapy and Counseling at CNHP for her invaluable guidance during the planning of this event and for connecting us with Michelle Rattigan and the Art Therapy students. Another big Thank you to Michelle Rattigan, Tori Bulick, Katy McCarthy, and Natalie Cheri for donating their time to enlighten us and to Rosie Morales for designing the mural blueprint. As always, we are indebted to our Dean, Dr. Elisabeth Van Bockstaele, PhD, for her unwavering support of this event and the staff who work behind the scenes and take care of the logistics. Most importantly, we extend our gratitude to all our presenters, mentors, and supervisors. Your efforts make this event possible, and we hope that you will continue to Explore & Serve.

Monika Jost, PhD, Director, Pre-medical and Pre-health Graduate Programs, Graduate School of Biomedical Sciences and Professional Studies

Schedule of Events:

Morning Session: HSB 5W14	
9 – 10 a.m.	Coffee with the Canines Welcome & Introduction: <ul style="list-style-type: none">• Monika Jost, PhD, Associate Professor of Pathology & Laboratory Medicine; Director, Pre-medical and Pre-health Programs• Elisabeth Van Bockstaele, PhD, Professor of Pharmacology & Physiology; Chief Strategy Officer; Senior Vice President for Graduate and Online Education; Dean, Graduate College
10 – 11 a.m.	Oral Presentations: IHS and MBS Students
11 a.m. – 12 p.m.	Keynote Speaker: <ul style="list-style-type: none">• Michelle Rattigan, MA, ATR-BC, NCC, LPC, LPAT, DHS candidate Associate Clinical Professor, Drexel University College of Nursing & Health Professions, Creative Arts Therapies Department, Graduate Art Therapy & Counseling
12 – 1 p.m.	Lunch Art Therapies Graduate Student Panel <ul style="list-style-type: none">• Dance/Movement – Tori Bullock• Art – Katy McCarthy• Music – Natalie Cleri
Poster Session: HSB 12E01	
1 – 3 p.m.	Poster Presentation Sessions 1 & 2
3 – 3:30 p.m.	Art Mural Assembly; Presentation of Doug Baird, PhD Award

ORAL PRESENTATIONS

EMG as a Predictor of 5-FU Injection Efficacy

Trevor DeSilva¹, Katherine Mullen², Omar Ramadan³, Robert T Sataloff³

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Vocal fold (VF) scarring is a primary cause of dysphonia, which affects as many as 1 in 11 Americans and can reduce quality of life (QOL) by impeding communication. In normal VF function, the superficial and deep layers of the VF move independently of one another. VF scarring can couple these layers, impeding VF movement and manifesting as dysphonia. It is therefore worthwhile investigating treatments to reduce VF scarring, thereby alleviating dysphonia symptoms and improving QOL. Dexamethasone injection has been the standard VF scar treatment; however, this treatment has a high failure rate. 5-Fluorouracil (5-FU) injections have shown promise in improving VF scarring at a higher rate than dexamethasone, though failure rate is still significant. Therefore, finding markers to predict patients' reception to 5-FU treatment is worthwhile. Electromyogram (EMG) can assess thyroarytenoid muscle function and is performed as a baseline diagnostic procedure in the clinic at which the research is conducted. Because increased muscle function is expected to generate more movement of the surrounding mucosa, we expect that muscle function could predict degree of VF scarring. We therefore seek to identify a link between EMG results and 5-FU effectiveness to help clinicians predict 5-FU candidacy. We predict a positive correlation between baseline EMG and 5-FU treatment response. In this study, data will be collected from patients who have received 5-FU treatment for VF scarring and will include baseline EMG results, improvement in VF vibratory function (measured via mucosal wave), VF scar size, VF stiffness, and glottic gap.

Drexel Dragon Claws

Kristofer Lavrich and Ameer Ghaderi¹

¹Division of Pre-medical and Pre-health Programs, College of Medicine, Drexel University

Who We Are:

Drexel Dragon Claws (DDC) is an organization led by graduate students, founded in Spring 2018 by a small group of PMPH students. In Fall 2018, DDC became a recognized chapter of the e-NABLE community, a global network of volunteers dedicated to designing upper limb prosthetic devices. e-NABLE provides access to all their design files on their open-source platform and maintains a matching database of clients in need of these devices. Utilizing these resources, e-NABLE volunteers can identify cases in their local area, assist clients in selecting appropriate prosthetic models, and customize these prosthetics to best suit the clients' needs.

What We Do:

Patients with amputations or limb abnormalities often face barriers in accessing much-needed assistive devices due to their high cost and limited insurance coverage. Pediatric patients, in particular, require frequent prosthetic fitting and resizing, further exacerbating the cost barrier. Drexel Dragon Claws employs 3D-printing to provide free prosthetics, reducing the cost and accessibility barriers for those in need. Since the club's inception, DDC has worked with a number of pediatric cases, supplying them with upper limb assistive devices. When the pandemic struck, DDC pivoted to 3D printing and donating items, such as hands-free door adapters and face shield headbands, to continue supporting the Philly community. During the pandemic, DDC and other e-NABLE volunteers faced limitations in interacting with clients due to COVID restrictions. Consequently, DDC shifted its focus to virtual STEM education, educating grade-schoolers about 3D printing. Now that restrictions have eased, we're gradually expanding our capacity to serve the community's needs. Besides 3D printing upper limb prosthetics, we use our 3D-printing capability to create medical models for the PMPH community, aiding students who are visual and kinesthetic learners. To create our anatomical models, we utilize design files generated from 3D scans of the human body hosted on the NIH's open-source platform, NIH 3D.

Hermani Patel
MS in Biomedical Studies (MBS)

**The Impact of Crisis Intervention on
Risk Prevention and Crisis Management**

Hermani Patel¹

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When discussing overall health and well-being, several factors can significantly impact an individual's life. Among these critical determinants, mental well-being stands out. As part of my volunteer service project, I've had the privilege of serving as a Crisis Counselor for the Crisis Text Line organization for the past three years. This organization operates 24/7, providing vital support to texters facing various crises worldwide. Whether it's dealing with suicidal thoughts, surviving sexual assault, or coping with trauma, Crisis Text Line has been a lifeline for millions. Engaging in conversations with texters involves several stages, from establishing rapport to risk assessment and exploring next steps. Through this experience, I gained invaluable insights into the challenges and disparities that affect a significant portion of our society. In 2020 alone, Crisis Text Line facilitated 1.4 million conversations, highlighting the critical role it plays in providing support during times of crisis. This has underscored the need for better addressing these issues to foster a more inclusive and supportive environment.

**LABORATORY,
CLINICAL AND
INDEPENDENT
RESEARCH POSTERS**

The Effectiveness of a Bitter Blocker

Nina Danko¹, Danielle Reed, PhD², Ha Nguyen, PhD², Amy Huang²

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Some medicines taste extremely bitter, preventing people from taking their medication as prescribed. This bitterness can be reduced if sugars like sucrose are added, but this strategy does not work perfectly. Here, we tested an FDA-approved pain drug (AF-353) that may also be useful in reducing bitterness (by temporarily blocking taste nerves) to see if it could suppress the bitterness of Tenofovir Alafenamide (TAF), a bitter liquid medicine used to treat pediatric HIV/AIDS. In Pilot Test 1, we tested which concentration of AF-353 was most effective in decreasing bitterness, and in Pilot Test 2, we compared the ability of AF-353 to reduce bitterness to sucrose. We learned that AF-353 concentration of 500 μ M was best at reducing the bitterness and that AF-353 was more effective than sucrose at reducing bitterness based off participant data generated from recruits at Monell Chemical Senses Center. However, in both tests, there was person-to-person variation, with some people getting more relief than others from the bitterness of TAF. These studies suggest that those who formulate medicines could add AF-353 to medicines to make it easier for children to take them as prescribed.

Reconstitution of Stress Fibers in Vitro: Towards Understanding Cellular Mechanotransduction

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Stress fibers are large scale structures of the eukaryotic cytoskeleton. They play a central role in cellular adhesion, migration, and mechanotransduction. Stress fibers are contractile structures composed of actin filaments, myosin motor protein assembles, and crosslinking proteins. While stress fiber dynamics are being studied in intact cellular environments, we lack a biochemical reconstitution that would enable quantitative study of assembly and regulatory mechanisms. In this study, we advance a stress fiber reconstitution system that attempts to template actin assembly in a way that replicates the size of focal adhesions. Focal adhesions are a principal anchorage and termination structure for stress fibers, an organizational signal missing in prior reconstitution strategies. The methodology involves creating a chamber with embedded biopolymer nanofilaments that serve to organize actin assembly under conditions where additional components can be added while imaging the resulting structures. By systematically recreating stress fibers in vitro, this research aims to uncover the molecular mechanisms governing their assembly and dynamics, contributing to cell biology and mechanobiology advancements.

Grant Exler

MS in Interdisciplinary Health Sciences (IHS)

Grant Exler¹

¹Division of Pre-medical and Pre-health Programs, College of Medicine, Drexel University

Every year there are more than 300,000 out of hospital cardiac arrests in the United States, with most patients dying before they can reach the hospital. Although the prognosis is poor for patients, there are treatments that are available, especially for patients with ventricular tachycardia (V-tach) and ventricular fibrillation (V-fib). Cardiopulmonary resuscitation (CPR) and Defibrillation are the most known treatment methods, but for those who do not respond to defibrillation, there are two medications that can be administered, amiodarone and lidocaine. These medications act in different manners, but act on the heart to convert V-fib and V-tach to a sustainable heart rhythm and achieve return of spontaneous circulation (ROSC). It is not known which medication leads to better ROSC rates or higher rates of survivability to discharge. In this research I will review current literature on the pharmacological interventions and attempt to discover which drug leads to better outcomes for patients.

Jack Galbreath

MS in Interdisciplinary Health Sciences (IHS)

Jack Galbreath¹

¹Division of Pre-medical and Pre-health Programs, College of Medicine, Drexel University

Pre-Hospital Care of Trauma Patients

Individuals that suffer major physical trauma represent challenging patients to care for in a 'pre-hospital' setting – that is, on-scene and throughout ambulance transport. This independent literature review focuses on three aspects of pre-hospital care: the equipment available to ambulance crews, the certification level of the responding caregivers, and the amount of time it takes a patient to reach the hospital. Available articles covering these three topics were assessed based on their strength of internal, external, and construct validity. A combination of quantitative and qualitative data from the studies was examined to support the assessments made in this review. Notable findings in the articles included a significant decrease in time between on-scene assessment and surgical treatment when a portable ultrasound device was available to EMS crews. Additionally, crews staffed with physician-level providers were linked to a greater time on-scene, which is then associated with greater trauma patient mortality, not less. For many of the included studies, however, cohort selection was affected by the responding crews, and multiple studies report data from European EMS systems, not from U.S. ambulance companies. Indeed, maintaining internal and external validity respectively appeared to be the primary obstacles that these research teams faced in their work. Despite the judgments made in this review, interesting strategies that may benefit the care of trauma patients remain evident in several studies. With the knowledge obtained from the literature, and a better understanding of study validity, future improvements could be recommended to pre-hospital trauma protocols.

Kelli Jenkins

MS in Interdisciplinary Health Sciences (IHS)

Investigating Racial Disparity: How Inadequate Prenatal/Perinatal Care Contributes to Maternal and Infant Health

Kelli Jenkins¹

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This review highlights the importance of reducing racial disparity in maternal and infant health. Black, Indigenous, and Latina women have been frequently correlated with poor delivery outcomes. Particularly Black women are 3-4 times more likely to die from complications in pregnancy. While disparity statistics have continued to accumulate, little action has been taken to reduce them. The main factor affecting this disconnect is the lack of understanding how mistreatment occurs and its correlation to adverse outcomes. Therefore, we must ask, by which mechanisms and to what degree, inadequate prenatal/perinatal care contributes to maternal and infant mortality and morbidity. Data suggest that women of color face numerous stressors and instances of discrimination that affect their patient care experience. These experiences can be exacerbated within populations struggling with social, economic, or health challenges. Since these populations are already considered high-risk, and are more likely to be discriminated against, they face a double disadvantage. Thus, we conclude that causes of racial disparities in maternity care outcomes are multifactorial. Physical, environmental, and socioeconomic factors have a transgenerational impact on health for minorities, including, but not limited to, the stress of interpersonal and institutional racism, lack of adequate resources, and higher rates of pre-existing and pregnancy related medical conditions. Regarding future efforts to improve hospitalization quality and reduce resulting health risks, some helpful mechanisms may include improving health care access, updating public health policy, restructuring health education, and implementing hospital models promoting health equity.

Diamonte Jones

MS in Interdisciplinary Health Sciences (IHS)

Exploring the Delayed Clinical Response in Antidepressant Drug Therapy

Diamonte Jones¹

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Anti-depressants have become one of the first line treatments for depression. Selective serotonin reuptake inhibitors (SSRIs) are the cornerstone for managing and treating depression, with over 37 million Americans currently being prescribed an anti-depressant medication. While these drugs have been found to be effective at managing depression, there is a noted delay in the clinical response of these drugs. This “lag” period normally last between 4-6 weeks after the start of the medication and can lead to medication cessation before the drug is able to induce its full effect. This review examines the current literature to better understand why there is a delay in the clinical response to anti-depressant drug therapy. This review provides an overview of the pharmacodynamics and pharmacokinetics of SSRIs along with summarizing multiple experiments that addresses this or similar questions. Additionally, the implications of the delayed response for patient management are discussed. The literature suggests that there is a decrease in the serotonin neuron activity in the body due to a feedback mechanism involving the 5-HT1A auto-receptor thus resulting in the delayed clinical response. Further research is needed to better understand these mechanisms to find more efficient ways to decrease the delay in the clinical response to antidepressant therapy.

Perceived Social Support and Depressive Symptoms in Postpartum African American Women

Ahone Koge¹

¹Division of Pre-medical and Pre-health Programs, College of Medicine, Drexel University

Postpartum Depression (PPD) represents a significant mental health concern, affecting approximately 1 in 7 women globally. PPD is characterized by persistent feelings of sadness, anxiety, and despair following childbirth. Women, particularly during their childbearing years, are at heightened risk for depression, with African Americans 1.6 times more likely to develop PPD than their white counterparts. Despite its prevalence, PPD often remains undiagnosed and untreated, particularly among African Americans with rates of PPD symptoms reaching 29-44% in this population. This research explores the relationship between perceived social support—including economic, emotional, and informal support factors—and the symptoms of PPD in African American women within the first year postpartum. By focusing on sociodemographic factors and utilizing self-reported data, this research seeks to understand how social networks and perceived support influence the incidence and severity of PPD symptoms. Using the published literature, the researchers' ability to measure PPD symptoms in African American women will be evaluated through qualitative analysis of internal, external, and construct validities, which will be rated on a scale of "Low", "Medium" or "High" to determine the efficacy of the studies in establishing a correlation between perceived social support and PPD symptoms in this population. Findings revealed a negative correlation between perceived social support and the severity of PPD symptoms, with sociodemographic factors modulating the strength of this relationship. Despite not accounting for all variables, future research calls for larger, culturally diverse samples of African American women to enhance understanding PPD protective factors and develop more targeted support strategies.

Investigating the dose-dependent mediation of THC Dependence

Marc Lewis¹

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Cannabis is the most used illicit drug in the world. The United States categorizes cannabis as a Schedule 1 drug, a designation given to drugs of high abuse potential with no medicinal uses. Despite this designation, cannabis has become legalized in some manner in nearly every American state. Cannabis' main psychoactive ingredient is delta-9-tetrahydrocannabinol (THC). This compound, THC, can lead to drug dependence, specifically, Cannabis Use Disorder (CUD). Additionally, THC proportions in cannabis products have increased drastically over the past 30 years. To investigate a dose-mediated effect on cannabis dependence, five primary research articles were analyzed. I found that THC-potent cannabis preparations are associated with problematic cannabis use. Moreover, THC concentrates, a form of cannabis consumption, feature the highest proportions of THC. While THC concentrates may pose more risk than other means of consumption, this review did not find any unique associations between concentrates and CUD. Rather, all forms of high-THC cannabis exposure lead to CUD. Frequency of exposure and specific THC percent, in any form of consumption, are seemingly the most important factors that mediate cannabis dependence. Ultimately, these findings indicate that public health legislators would benefit from attentively regulating THC proportions in cannabis products for sale. Healthcare providers and personal consumers should be cognizant of the potential health implications of a high THC to overall cannabis ratio.

Clara Motiño

MS in Interdisciplinary Health Sciences (IHS)

Krystal Washington

MS in Interdisciplinary Health Sciences (IHS)

Emergency Department Initiated Buprenorphine for Opioid Use Disorder

Clara Motiño¹

¹Division of Pre-medical and Pre-health Programs, College of Medicine, Drexel University

The incidence of substance related accidents and deaths continues to climb each year, with three-quarters of all overdose deaths involving opioids. In recent years, harm reduction has emerged as a promising method for approaching opioid use. The practice focuses on encouraging individuals to take incremental steps towards reducing the harm associated with their current practices. There is a pressing need to integrate harm reduction principles into treatment innovations, particularly through medication-assisted treatment (MAT), when approaching the opioid crisis. Utilizing specific search methodology and scholarly databases, this review serves as an exploration of buprenorphine and its demonstrated effectiveness in managing opioid cravings and withdrawal symptoms in emergency settings. Recent initiatives have aimed to incorporate buprenorphine into emergency settings, using the emergency department (ED) as an access point and offering support for ongoing treatment post-discharge. However, nationwide utilization of buprenorphine in EDs remains low despite scientific and clinical backing. Efforts to address this disparity include hospital and state incentive programs. As research progresses, establishing a supportive environment in the ED with proper resources is essential for initiating and sustaining recovery during the ever-rampant opioid crisis.

Acne Vulgaris & Post Inflammatory Hyperpigmentation Treatments In Different Skin Types

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Acne Vulgaris is a chronic inflammatory skin disorder of the sebaceous glands, affecting approximately 50 million Americans annually. In melanin rich patients, acne vulgaris is one of the main causes of Post Inflammatory Hyperpigmentation (PIH), the over production in melanin in the dermis or epidermis. , to determine what treatments produce the highest yield of results. I performed a literature review using Google Scholar, ScienceDirect, and PubMed databases that included topical, oral, and cosmetic interventions. As part of my analysis, I abstracted quantitative and qualitative data from these studies and evaluated confounding variables, selection bias, study design, control methods and sample size. Overall, the acne vulgaris and PIH treatments that are most common and effective for non-skin of color is effective in skin of color. Yet, the management of the treatments will differ from non-skin of color. There are not adequate amounts of data comparing treatments between the two skin types. Thus, further inclusive multi-ethnic standards for acne vulgaris and PIH are needed to properly treat patients with skin of color.

**COMMUNITY
SERVICE &
VOLUNTEERING
POSTERS**

Dawn's Place: A Home for Dawn

Chinonye Charles-Obi¹

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Sex trafficking is a pressing global issue that leaves the survivors with incomprehensible amount of trauma. Dawn's Place is Philadelphia's first residential recovery home for women healing from the trauma of sex trafficking. Since its establishment in 2009, Dawn's Place has been steadfast in its mission to combat the consequences of sex trafficking on its residents. These consequences include substance abuse, psychological trauma, legal concerns, and educational setbacks. This recovery home provides intensive therapy and multiple extracurricular activities aimed at building the independence of these women. The residents find solace, strength, and solidarity among themselves throughout their healing journey. For security purposes, Dawn's Place maintains a limited number of volunteers allowed to serve within its facility, with a maximum of two volunteers per shift. I consider myself fortunate to be among the select few with access to this indispensable space. I officially became a volunteer in the beginning of March 2024. My role as a volunteer is to be a resident companion. I have the pleasure of spending quality time with these women for three hours each week. I listen to their stories and have deep conversations with them. On most occasions, we have dinner together, play board games, watch tv, and play with the house cat. We also encourage each other to build stress relieving hobbies like knitting or crocheting. Although I play a small role in their journey, I am honored to witness and be a part of their stories.

What Volunteering at Prevention Point Means to Me

Andrew Fiorica¹

¹Division of Pre-medical and Pre-health Programs, College of Medicine, Drexel University

According to Prevention Point Philadelphia's (PPP) website, they are a nonprofit public health organization providing harm reduction services to Philadelphia and the surrounding area, but they do so much more. PPP offers many services such as emergency 10-pack of syringes, needle exchange day, wound care, and gender specific nights providing care and showers. PPP positively impacts the community by helping to clean up the HIV/AIDs and Hepatitis. The reason PPP is so important to me is because I lost a grandmother to Hepatitis C after she was given a dirty needle in Italy back in the 1940's. Not only do I get to help stop the spread of blood-borne viruses by giving clean needles, the appreciation and gratefulness that PPP clients give is all I need. My volunteering ties into my desire to help the community since I am from a uniform area lacking diversity. Due to the recent shut downs of nonprofit public health organizations, PPP is one of few remaining syringe exchange programs in the area. Among other tasks, I have had the pleasure of helping package 10- and 100-count syringes and other supplies needed for safe use. My favorite volunteering position is on Fridays when PPP has their mass needle exchange. Everyone who visits PPP is so appreciative and kind. The time that I have spent there is worth so much more than anything else I could be doing, because the clients have changed my views and showed me to never judge a book by its cover.

Do In-Class Volunteers Help with Motivation and Productivity of Students?

Jyothii Kulasingam¹

¹Division of Pre-medical and Pre-health Programs, College of Medicine, Drexel University

Education shapes individuals' economic and social outcomes, with factors such as socioeconomic status, race, and family dynamics influencing educational attainment. Philly Academic Learning Squad (P.A.L.S.) is a club that enhances the educational experience of inner-city elementary school students in Philadelphia by fostering curiosity and academic growth. Club activity is tracked across three schools: Spring Garden Elementary School, Samuel Powel Elementary School (Powel), and Science Leadership Academy middle school (SLAMS). Each school faces unique challenges, such as language barriers and low proficiency levels in math and reading. Volunteers focus on targeted interventions, including small group sessions and individualized support, tailored to each school's needs. This research takes a deeper dive into the benefits of integrating volunteer support within the classroom on motivation and outcomes, particularly among students from low socioeconomic status. I have been volunteering with these schools for over a year and found low student motivation. Initially, it was very hard to keep students engaged, and to promote class participation and assignment completion. However, it was rewarding to see the progress students made as I consistently kept working with them. This study hopes to contribute to educational practices and policies to enhance student learning experience and academic achievements. Using observations and published data, my findings suggest a positive correlation between volunteer support, academic motivation and productivity. This research highlights the benefits of integrating volunteers, based on students successfully answering worksheets on their own, getting higher scores on their standardized tests, and feeling more confident answering questions working with me.

Veronique Myers
MS in Interdisciplinary Health Sciences (IHS)

Volunteering with MANNA: Food Preparation and Protecting the Vulnerable in our Community

Veronique Myers¹

¹Division of Pre-medical and Pre-health Programs, College of Medicine, Drexel University

MANNA (Metropolitan Area Neighborhood Nutrition Alliance) is a non-profit organization whose goal is to provide nutritious meals to members of the community who have a serious illness or disease. MANNA operates by the principle that “food is medicine,” and through their efforts targets and prevents disease-associated malnutrition for those who may not have the energy to cook, or resources to prepare a nourishing diet, following a recent medical diagnosis. MANNA offers clients a selection of 12 diet modifications, including kidney friendly and diabetic/heart healthy. Nutrient-dense meal plans are designed by registered dietitians, prepared by skilled chefs, and packaged and delivered by volunteers from within the community. Kitchen volunteer assignments include food portioning, chopping produce, and other food preparatory-related tasks. Since their founding in the 1990s, MANNA has exclusively relied on volunteers and philanthropic support for funding. The positive results of MANNA are most evident in the improved health and well-being of MANNA clients, who receive 21 meals a week and nutrition education, usually for a few months until they are healthier. The effects of MANNA are apparent, as monthly hospital bills were cut by 31% and increasing numbers of insurance companies are partnering with MANNA. I have truly enjoyed volunteering with MANNA; It is a humble, humanitarian organization that is making a great difference in the community by deterring and ameliorating disease-associated malnutrition.

Chioma Okuagu
MS in Interdisciplinary Health Sciences (IHS)

Meaningful Ministry: A Comprehensive Social Service Addressing the Whole Person

Chioma Okuagu¹

¹Division of Pre-medical and Pre-health Programs, College of Medicine, Drexel University

Broad Street Ministry (BSM) stands as a beacon of contemporary social service in Philadelphia, offering a diverse array of support to the city's impoverished population while cultivating a sense of community among volunteers, staff, and beneficiaries. Founded with a vision of holistic care, its initiatives include a clothing boutique staffed by personal shoppers, a vital mail service assisting over 5400 individuals in obtaining essential documents for securing housing and employment, and a warm meal program devoid of any prerequisites, serving as a gateway to discovering the myriad services available. At the heart of its approach lies the radical hospitality model, embodied by the pillars of affirm, intention, and accountability. Affirmation ensures each person feels acknowledged and nurtured within the BSM environment. Intent underscores the meticulous design of services tailored to alleviate harm and facilitate healing. Accountability drives the dismantling of societal and systemic barriers that perpetuate exclusion.

As a volunteer, I've witnessed the transformative power of community engagement. Through tasks such as clothing sorting and packaging toiletries, I've learned the importance of dignity in aid provision and engaged in meaningful dialogues with Philadelphia's marginalized population. This immersive experience underscores the vital role of community-driven initiatives in fostering empowerment and inclusion.

Bankole Onamusi
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Amidst the escalating opioid crisis, community-based organizations like Prevention Point in Philadelphia play a crucial role in mitigating its devastating effects. This project encapsulates a community service project aimed at collaborating with Prevention Point to address the opioid crisis through active engagement and knowledge dissemination. The project methodology involves volunteer participation in Prevention Point's programs, systematic literature review, and dissemination of research findings to enhance program effectiveness and client outcomes. Volunteer activities encompass outreach events, peer support groups, and community workshops, all geared towards supporting Prevention Point's mission of providing comprehensive harm reduction services to individuals who use drugs. Simultaneously, a systematic literature review is conducted to identify relevant articles on harm reduction strategies, opioid overdose prevention, and community-based interventions. Key inclusion criteria include relevance to harm reduction, empirical evidence, alignment with Prevention Point's mission, and publication type.

The dissemination of research findings involves sharing insights from relevant articles with Prevention Point staff and clients through training sessions, educational materials, and collaborative research projects. By integrating evidence-based practices into programmatic activities and fostering collaboration between community-based organizations and academic partners, the project seeks to enhance the effectiveness of harm reduction interventions and contribute to positive health outcomes for individuals affected by substance use disorders. This abstract highlights the importance of community engagement and evidence-based approaches in addressing the opioid crisis and promoting health equity within vulnerable populations.

Hannah Phommachanthone
MS in Biomedical Studies (MBS)

Hannah Phommachanthone¹

¹Division of Pre-medical and Pre-health Programs, College of Medicine, Drexel University

Supporting Physical Therapy at St. Christopher's Hospital

St. Christopher's Hospital for Children is a pediatric hospital dedicated to serving the Greater Philadelphia area. At the hospital, there are numerous volunteer opportunities. When I began volunteering four months ago, I had the choice between being an activity cart volunteer and volunteering in the physical therapy and rehabilitation department. After starting as an activity cart volunteer, I quickly discovered the challenge of not being able to spend a lot of time with sick patients. The patients often had nurses and physicians coming in and out of their rooms, making it difficult for me to spend time with them without being in the way of healthcare personnel. On the other hand, working as a volunteer in the physical therapy department allowed me to get to know the physical therapists, occupational therapists, and patients on a deeper level as I was in a singular location for longer periods of time with recurring patients. As a result, I chose to continue my volunteering in the physical therapy department. While I spent a lot of time organizing and cleaning supplies for the staff, I eventually got to help assist physical therapists with their patient sessions. Spending over 40 hours in this department has not only broadened my knowledge of other fields of medicine in which I may be interested, but has also been incredibly gratifying seeing the department's dedication to helping children recover from their injuries and lessening the impacts of their health conditions.

**Exploring the Impact of Food as Medicine through Volunteerism:
An Analysis MANNA's Mission to Use Nutrition in
Improving Health and Quality of Life**

Arathi Pillai, MPH¹

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Metropolitan Area Neighborhood Nutrition Alliance (MANNA) is a Philadelphia-based non-profit organization providing medically tailored meals and nutrition education to the community free of charge. Through collaboration with dietitians, chefs, volunteers, and community stakeholders, MANNA strives to better the health for people with serious illnesses who need proper nourishment to heal. MANNA has devoted over three decades to empower the Food is Medicine movement through using evidence-based nutrition services. MANNA has profoundly helped clients with more than 100 disease states such as diabetes, HIV/AIDS, cancer, and heart disease. MANNA's impacts were highlighted in the Journal of Primary Care and Community Health. MANNA's services reduced monthly healthcare costs by 31% and hospitalizations by 50% for their clients. Furthermore, MANNA's impacts extend to local and national advocacy efforts by drawing attention to the need for incorporating medically-appropriate meals into standard healthcare delivery models. Volunteerism drives MANNA's mission. In 2023, more than 7,000 volunteers donated 57,915 hours to the cause. From volunteering one to two times a week for two months now at MANNA, I observe the impact of community engagement in addressing nutritional needs. I work with chefs and volunteers to help prepare nutritious meals, package meals, label meals with nutrition facts, and sort meals for delivery. From conversations with long-time volunteers, I have learned about the far-reaching impacts of MANNA's work and advocacy. Ultimately, this project explores the intersection of food and medicine, the significance of volunteerism at MANNA, and how MANNA helps to nourish and heal communities.

**Increasing Access to Equitable, Culturally Responsive, Healthcare for
the Latino Community at Puentes de Salud in South Philly**

Andrea M. Roguer Viteri¹

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In the early 2000s, a surge of the Latino migrant population in South Philadelphia led Dr. Jack Ludmir and Dr. Steve Larson to establish Puentes de Salud (Bridges to Health), a comprehensive health and wellness center. Embracing a community-centered approach, Puentes de Salud prioritizes the delivery of affordable healthcare, education, and community engagement, addressing social determinants of health and advocating for social justice. Recognizing the need to tackle systemic inequities, Puentes de Salud aims to enhance access to healthcare, economic opportunities, and education, especially for marginalized populations. As an Administration/Flow Volunteer, I directly engage with the Latino patient population, guiding them through the clinic, managing records, and supporting both patients and medical personnel. Since last fall, I have intermittently contributed to Puentes de Salud, taking on a more active role this spring where I fill in for other volunteers when needed. Particularly, I have taken on the role of the Vitals/Patient History volunteers, conducting preliminary assessments, and connecting with patients in our shared language, which fosters trust and mutual understanding. Through my involvement, I not only provide practical assistance but also deepen my commitment to Puentes de Salud and the community we serve by recognizing shared experiences with each patient, seeing myself and my family in them.

Christine Ukubiwe
MS in Interdisciplinary Health Sciences (IHS)

Prevention Point Philadelphia

Christine Ukubiwe¹

¹Division of Pre-medical and Pre-health Programs, College of Medicine, Drexel University

Over the years, Kensington has faced a growing epidemic, the opioid crisis. Which prompted the establishment of Prevention Point in the late 1990s in North Philadelphia. It was initiated to facilitate safe syringe exchanges, addressing the illegality of syringes in Philadelphia. Prevention Point offers a safe place to combat the transmission of infectious diseases such as HIV/AIDS and hepatitis C, stemming from the sharing of unhygienic needles. Since Prevention Point's start up in 1992, the services provided to the community have expanded to encompass case management, medical care, overdose prevention education, medication-assisted treatment, naloxone distribution, mail services, housing, and meals. Additionally, it adopts a harm reduction-based approach to medicine with every service. Harm reduction-based approaches focus on policies, programs, and practices aimed at mitigating harm associated with substance abuse, including disease and mortality. As a volunteer, I can contribute to the syringe service program and the mailroom, reducing harm by assembling and distributing syringe kits and organizing mail for collection. Through these endeavors, I engage with the community and listen to their stories. Despite societal stigma, it is crucial to remember that these individuals are human beings navigating life's challenges as well. In every conversation, I am adding to the safety net that Prevention Point provides them.

Additional Service Organizations & Student Volunteering

Organization	Student Volunteers	Program
American Red Cross	Chinonye Charles-Obi	IHS
11th Street Health Center & Dornsife Community Dinners	Krystal Washington	IHS
Action Wellness	Benjamin Thomas	MBS
Angel's Protection, Inc.	Tsneem Younis	IHS
Cancer Support Community	Alexis Giron	IHS
Center for Nonviolence and Social Justice	Jessica Daniel	IHS
Children's Hospital of Philadelphia (CHOP)	Saara Safeer	IHS
Church of Pentecost	Sarah Owusu-Afriyie	MBS
Core Revitalizing Center	Imran Alam	MBS
Crisis Text Line	Hermani Patel	MBS
Dawn's Place	Chinonye Charles-Obi	IHS
Drexel Dragon Claws	Ameer Ghaderi Kristofer Lavrich	IHS
Hebrew Immigrant Aid Society (HIAS) Pennsylvania	Joy Onyekachi	IHS
Metropolitan Area Neighborhood Nutrition Alliance (MANNA)	Arathi Pillai	IHS
Parents Helping Parents	Neeta Ghanekar Sree Korivi	IHS IHS
Penn Medicine	Jordan Downtin-Dorsey	MBS
Penn Presbyterian Medical Center	Jean Camacho Averie Florschutz	MBS MBS
Puentes de Salud	Andrea Roguer	IHS
Prevention Point Philadelphia	Bankole Onamusi Christine Ukubiwe	IHS IHS
Philly Academic Learning Squad (PALS)/ Science Leadership Academy Middle School (SLAM)	John Montilla Emanuel Gonzalez Faba Malik	IHS MBS MBS
Red Cross	Becca Harding	MBS
St. Christopher's Hospital for Children	Blessing Adeyemo Alyssa Brown Hannah Phommachanthone	MBS MBS MBS
St. John's Hospice	Sujit Anumukonda	MBS

COLLABORATORS & SPEAKERS

Denise R. Wolf, MA, ATR-BC, ATCS, LPC, LPAT

Denise R. Wolf, ATR-BC, ATCS, LPC, LPAT, is an associate clinical professor at Drexel University in the graduate art therapy and counseling program. She is the owner and practitioner/therapist of Mångata Services. Wolf is a licensed professional counselor, licensed professional art therapist, as well as a registered, board certified and an art therapy certified supervisor through the Art Therapy Credentials Board. For over 20 years, Wolf has been practicing as a therapist treating adolescents and adults with histories of complex interpersonal trauma. She works as a consultant for many Philadelphia organizations including The Philadelphia Art Museum providing clinical supervision and programming related to trauma-sensitive care across settings.



Wolf has presented at city, state, national and international conferences in the areas of trauma informed care, trauma and neurobiology, pedagogy and clinical supervision. She has several articles published in peer reviewed journals and has contributed chapters to seminal texts on her clinical work.

**Michele Rattigan, MA, ATR-BC, NCC, LPC, LPAT,
DHSc candidate**

Janine Erato, Coordinator, Drexel Therapy Dogs

Michele Rattigan (she/her) is a registered, board-certified art therapist, nationally certified/licensed professional counselor and clinical associate professor in the graduate Art Therapy and Counseling program of the Creative Arts Therapies Department. After graduating from Drexel's art therapy program in 1996, Michele worked with individuals across the lifespan in a variety of settings including psychiatric, medical, rehabilitative and educational; 15 years in private practice; and three years as the creative arts therapies' clinical coordinator at Drexel's Parkway Health and Wellness. Rattigan began teaching art therapy courses in 1999. Her teaching philosophy focuses on the dynamic teacher-student relationship and presence as pedagogy to support student growth that is trauma-informed, compassionate, socially mindful and grounded in cultural humility. The intersections of daily arts practices, everyday creativity, well-being, mindfulness, self-compassion, community compassion, interdisciplinary collaboration and equity in mental healthcare influence her work as a clinician, artist, writer, volunteer and educator. Rattigan is currently a doctoral student in Drexel's Health Sciences program where she is studying self-compassion and cultural humility in clinical education.



Drexel currently has three dogs on campus; Espresso, Java, and Mocha Latte, who is in training. At Drexel, we understand the transition to college can be difficult for some, as they are leaving what they know as home, friends and family often for the first time. The therapy dogs are on campus 20 plus hours a week to help students feel like this is home away from home, complete with the family dogs. The dogs are here to pet and spend time with because college can be stressful, not just during midterms and finals but throughout the year. We also want you to get involved in campus activities so you will often find the dogs at events on campus.

Since we can be spotted everywhere on campus you can find out where to find us on our social media:

Facebook: Drexel's Therapy Dogs
Instagram: drexels_therapy_dogs
Snapchat: Drexel Therapy Dogs
X: @drexelsdogs
Be Real: drexels_therapy_dogs
TikTok: @drexeltherapydogs



Douglas Baird, PhD

After undergraduate studies at M.I.T., graduate work at Yale, and postdoctoral studies at Columbia and Rockefeller Univ., Douglas Baird, Ph.D. began his teaching and research career at Medical College of Pennsylvania, and then Drexel Univ. College of Medicine. Dr. Baird conducted research on axon guidance and taught histology, cell biology and neuroscience to medical and PhD students. After a stint at Temple University where he served as associate Dean for Graduate Studies, taught biology, and helped found and co-directed a science and math teach preparation program, Dr. Baird returned to Drexel in 2016 to direct the Pre-med Pre-health Division for two years. He became course director of the Community Dimensions of Medicine course and developed many new partnerships with service organizations where students could volunteer and also partnered with Drexel's Lindy Center of Civic Engagement. During the pandemic, he developed successful approaches to online teaching of medical histology that were applied in PMPH courses. In 2023, he retired from full time service, but still teaches as an adjunct in Community Dimensions of Medicine. Dr. Baird is particularly proud of his mentoring of faculty, and the accomplishments of his students both academically and in serving our community.



Art Therapies Graduate Student Panel

Tori Bulick (They/Them)

Tori Bulick is currently pursuing a Master of Science in Dance/Movement Therapy and Counseling at Drexel University in the Creative Arts Therapy Program. Tori currently serves as the Dance/Movement Therapy Student Representative and Co-Leader of BRAVE CATS. Previously, Tori graduated with a Bachelor of Science in Dance and Counseling at Ball State University. Tori is currently at a practicum at Be Well Center at Girard Street and previously was at Renfrew Center for Eating Disorders in Philadelphia Center City. Tori wishes to continue their current research on eating disorders at the Children's Hospital of Philadelphia.



Katy McCarthy

Katy McCarthy is a first-year Art Therapy and Counseling graduate student in the Creative Arts Therapies Department. She completed her undergraduate degree in Art Therapy at Temple University in the Spring of 2023. Katy is currently completing her practicum placement at Young Scholars Charter in North Philadelphia and hopes to continue her education in a medical art therapy setting for her 2024-2025 internship.



Natalie Cleri

Natalie Cleri is a 1st year graduate student in the Creative Arts Therapies Department for Music Therapy & Counseling. She went to Drexel for her undergraduate degree as well, where she received a bachelor's degree of Science in Psychology and minored in Music. In her time throughout higher education, she has been involved in Division I Athletics, extracurriculars, and a wide range of job opportunities related to the fields of psychology and music. Currently, Natalie is highly interested in using music therapy and counseling in an anti-oppressive and culturally informed practice. She is passionate about learning ways to use music therapy to aid in communication, rehabilitation, healing, and other needs for marginalized populations of people.



Douglas Baird Award for Healthcare Equity

The Douglas Baird Award for Healthcare Equity was created in recognition of the outstanding efforts put forth by Dr. Douglas Baird, as Course Director of the PMPH Community Dimensions of Medicine (CDM) course. By introducing students to the “community dimensions of medicine,” Dr. Baird provided them with the skills and insights needed to expand their cultural competence as they progress towards their careers in healthcare. Dr. Baird designed his curriculum to integrate key principles of health, and healthcare inequities, with hands-on experiences volunteering with local health service sites. He challenged students to reflect deeply on their individual experiences, as well as on societal and institutional factors, which contributed to their own health, and to the health of the communities in which they live and work. The Douglas Baird Award for Healthcare Equity was thus created by the Division of Pre-medical and Pre-health Programs in 2023, at the time of his retirement, to recognize his outstanding accomplishments as an instructor, and as a positive role model for those who plan to dedicate themselves to a service career in healthcare.

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Keith Kalbach, CRCE-I

Tameka Jackson-Leung, PhD
Matt Sanuck, MSED
Christy Oldham
Martha Kaplan
Thelicia Hill
Rosie Morales
All student volunteers, and
participating mentors & supervisors
at Drexel and other partnering
institutions

In the spirit of the community service aspect of Explore & Serve Day, The Graduate Student Association has initiated collections for two worthwhile organizations:

Maternity Care Coalition

Maternity Care Coalition (MCC) is a nonprofit organization, serving families throughout Southeastern Pennsylvania, whose mission is “to improve the health and well-being of pregnant women and parenting families, and enhance school readiness for children 0-3.” This organization is dedicated to helping empower parents and guardians to care for themselves and for their children, such that all families are healthy and connected, and children thrive, and are prepared to learn. MCC is dedicated to creating a future wherein parents affected by racial and social inequities can experience childbirth with dignity, exercise autonomy in parenting, and nurture babies who thrive in health and growth. Learn more at maternitycarecoalition.org/about-us. Make a [monetary donation](#) or contact them at giving@maternitycarecoalition.org to learn of other ways to help.

Prevention Point

Prevention Point (PPP) is a nonprofit public health organization providing harm reduction services to Philadelphia and the surrounding area. The mission of PPP is to promote health, empowerment, and safety for communities affected by drug use and poverty. This organization is dedicated to working toward a world in which there will be social and economic justice for disenfranchised people, and support to reduce the harm associated with risky behavior will be readily available through social service and public health systems that are welcoming, nonjudgemental, and non-criminalized. Learn more at ppponline.org/about-us or make a [monetary donation](#).



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