APhA Foundation

2023 Incentive Grant Digest

The Incentive Grant Digest is sponsored by the Community Pharmacy Foundation.

APhA Foundation

Improving people's health through pharmacists' patient care services.

Writer:
Emily Albers, PharmD | APhA Foundation Executive Fellow

The APhA Foundation is nationally recognized as a leader in transforming the health care system. For over 60 years, the APhA Foundation has consistently proven that patient health outcomes are positively impacted by pharmacists.

 The APhA Foundation is a not-for-profit 501(c)(3) organization (EIN: 52-6039142) with headquarters in Washington, DC, and is affiliated with the American Pharmacists Association (APhA), the oldest and largest national professional society of pharmacists in the United States established in 1852. Two immunization incentive grants were funded in part by a collaborative agreement with the Centers for Disease Control and Prevention (CDC) — CoAg number 1 NU50CK000576-01-00. The CDC is an agency within the Department of Health and Human Services (HHS). Contents of this resource do not necessarily represent the CDC or HHS and should not be considered an endorsement by the Federal Government.

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** COVID-19 Vaccine Confidence Grant ** Rothholz Family Immunization Education Grants*

2022–2023 Incentive Grant Recipients

2023 Incentive Grant recipients at APhA Annual Meeting & Exposition in Phoenix, AZ, March 2023, with facilitators Kathryn Marwitz and Susan Ngyuen and Kelly Brock, Community Pharmacy Foundation Executive Director.

Executive Summary

IN THE 2022-2023 INCENTIVE GRANT COHORT, 40 research projects were funded. This cohort of pharmacists and student pharmacists chose to address some of today's most pressing issues through their research. The research serves to both advance the pharmacy profession as well as provide individualized care to patients in the communities. This year's cohort addressed a variety of focus areas, which can be summarized to

- **Immunizations**
- **Patient Care Service Implementation**
- **Diabetes/Cardiovascular Care**
- **Pharmacist–Patient Communication**
- **Social Determinants of Health**
- **Evaluating Pharmacy Services**
- **Substance Abuse**

Along with their research, the Incentive Grant recipients participated in the Incentive Grant Learning Extension. The Learning Extension allowed for real-time guidance from highly experienced pharmacist facilitators, for conducting meaningful community-based research projects.

Recipients of the 2022–2023 Incentive Grants gathered with representatives from APhA Foundation and the Community Pharmacy Foundation for the program's annual networking session during the APhA Annual Meeting & Exposition in Phoenix, AZ on Saturday, March 25, 2023. The session enabled the Incentive Grant recipients to connect in person for the first time and provided the recipients opportunities to network and discuss how to continue practice innovation beyond their practice sites and the conclusion of their project work in July. In addition, 33 Incentive Grant recipients presented their findings during poster sessions at the Annual Meeting & Exposition.

The APhA Foundation produced a video presentation that features the 2022–2023 Incentive Grant recipients, and their project titles which can be viewed by clicking here.

Major findings from the 2022-2023 Incentive Grant Cohort include:

7,800

Patient Care Interventions

1,125

Surveys Assessed

Introduction to the Incentive Grant Program

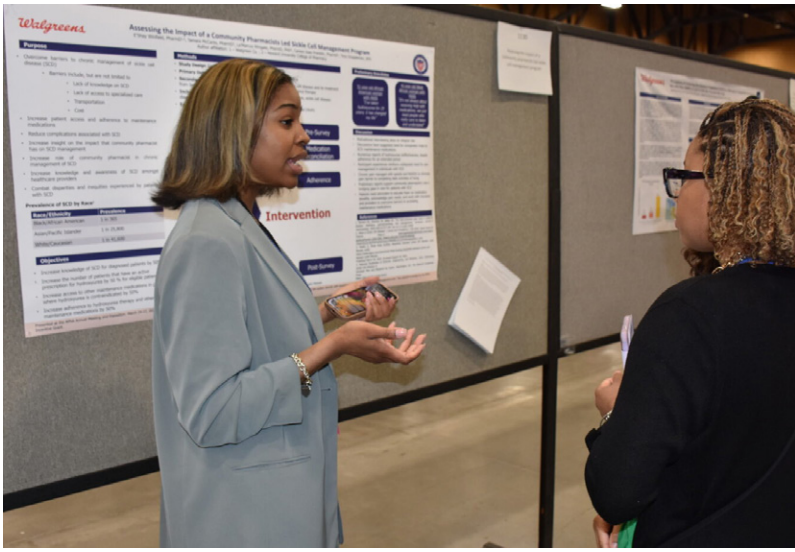
ESTABLISHED IN 1994, the APhA Foundation Incentive Grants for Practitioner Innovation in Pharmaceutical Care is the APhA Foundation's longest-running program. With the generous support of the Community Pharmacy Foundation, the Centers for Disease Control and Prevention (CDC), the Daniel A. Herbert Incentive Grant Endowment, the Rothholz Family Immunization Education Fund, and proceeds from the APhA Foundation Annual Fund, the APhA Foundation Incentive Grants for Practitioner Innovation in Pharmaceutical Care provides seed funds to pharmacists and student pharmacists to support pioneering projects and concepts that advance patient care services.

To date, the APhA Foundation has provided support for more than:

730

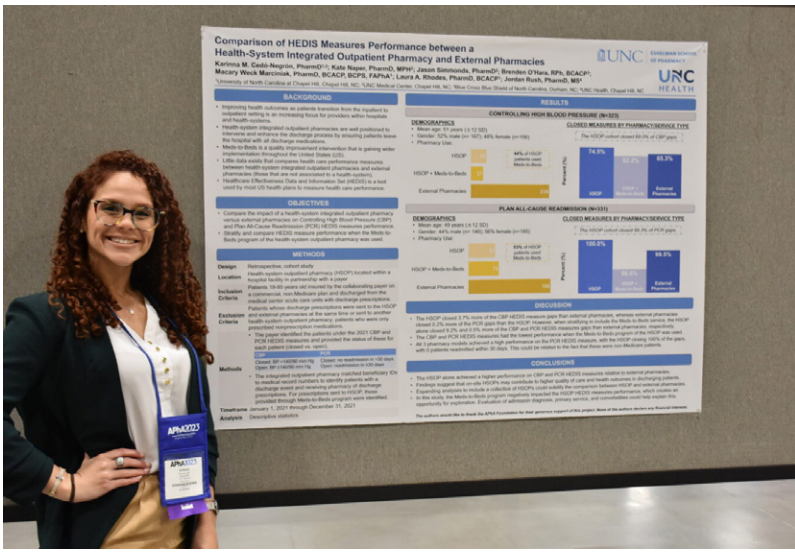
Incentive Grants

In the 2022–2023 Incentive Grant Cohort, 40 research projects were funded.



(top) Incentive Grant Recipient E'shay Winfield speaks about her research, Community Pharmacy Based Sickle Cell Disease Management Program.

(bottom) Incentive Grant Recipient Karinna Cedo-Negron presents her research on Comparison of HEDIS Measures Performance Between a Health-System Integrated Outpatient Pharmacy and External Pharmacies.



Thank You, Reviewers!

The APhA Foundation extends a sincere thank-you
to our 77 reviewers, who evaluated the 2022–2023 Incentive Grant Applications.

Bev Adato
Kandis Backus
Kristen Bessler
Chase Board
KayLynn Bowman
Lauren Branson
Krista Capehart
Linda Carver
Cheryl Chee
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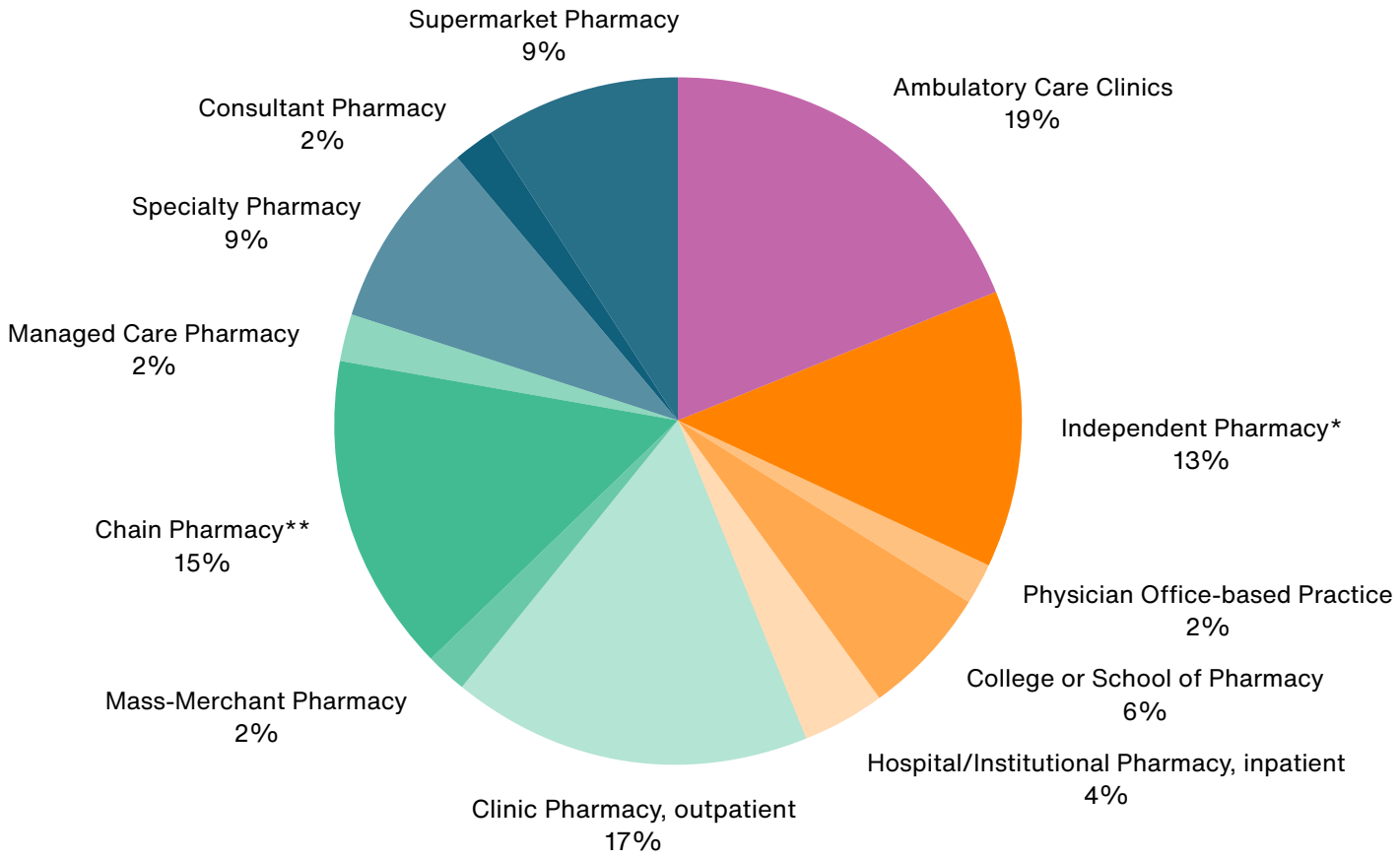
Negin Sazgar
Larry Selkow
Jann Skelton
Dianna Sobieraj
Marci Steele
Randall Udouj
Ann Ungerman
Anthony Vertino
Brian Wall
Eileen Wilbur
Jennifer Wilson
Thomas Worrall

Practice Settings

RECIPIENTS FROM MANY DIFFERENT PHARMACY BACKGROUNDS are involved with the Incentive Grant program, including recent PharmD graduates, experienced pharmacists, pharmacy professors, and student pharmacists. New practice settings were identified in the 2022–2023 Incentive Grant cycle such as managed care and consultant pharmacies. The variety of pharmacy professionals involved provides valuable perspectives and contributes to diverse and creative research projects. As shown in Figure 1 below, this year's program incorporated pharmacists working in every aspect of community pharmacy.

Figure 1



** 1–3 pharmacies*
*** 4+ pharmacies*

Research, Presentations, and Publications

THE INCENTIVE GRANT research projects help recipients to discover the areas of community pharmacy they are passionate about and determine the best next step to take in their careers. Figure 2 shows the Incentive Grant recipients' plans for the year after their research is conducted.

The Incentive Grant program also provides an avenue for pharmacists to learn how to present their research projects, a valuable skill. Furthermore, some pharmacists plan to publish their findings in a peer-reviewed journal. Figure 3 shows statistics on this year's cohort poster presentations. Many recipients presented their research at multiple meetings, giving them opportunities to network and share their work. Figure 4 shows researchers' publication plans.

Figure 2

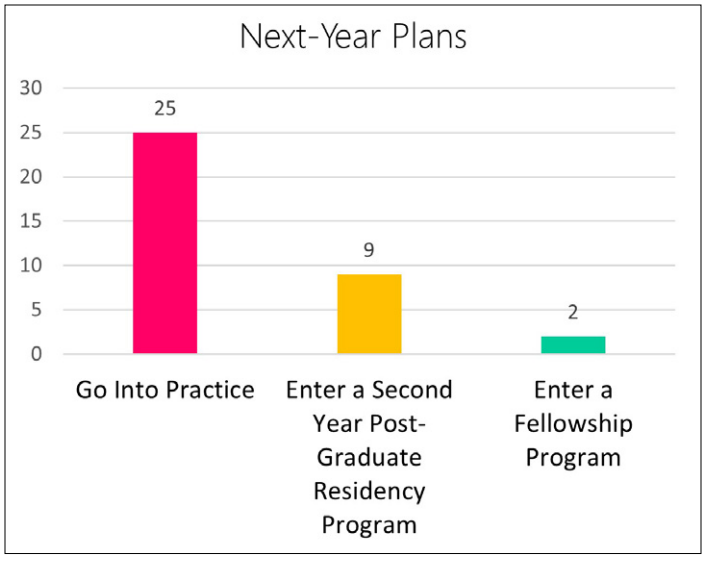


Figure 3

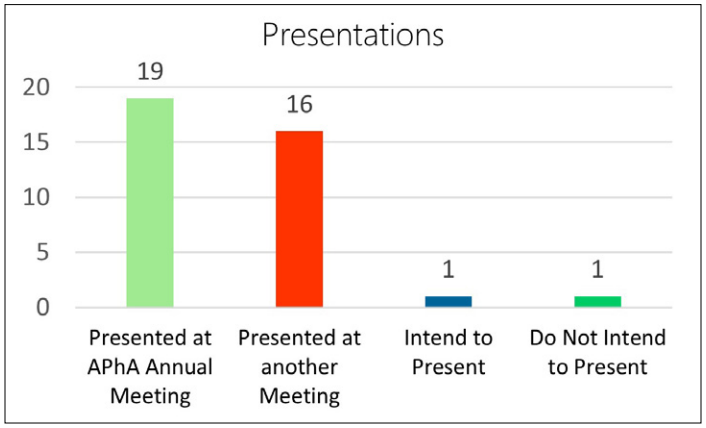
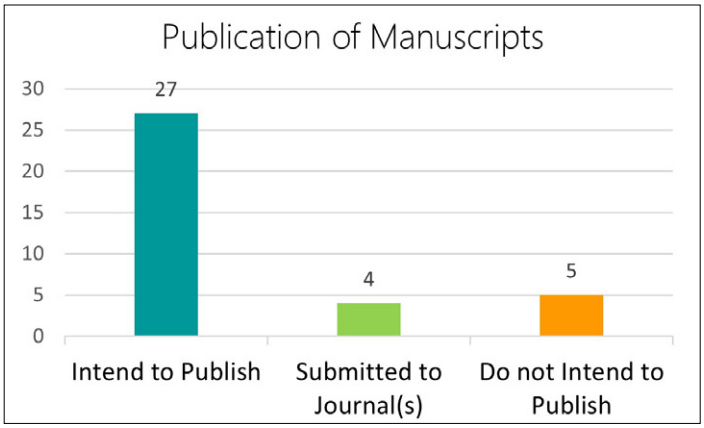


Figure 4



Immunizations

Immunizations

NAME:
Joana Gjidede, PharmD

PRACTICE SITE:
Clark K Sleeth Family Medicine

LOCATION:
Morgantown, WV

"The number of patients who expressed that they were grateful not only to have an appointment related to these topics, but also receive information and handouts to refer back to, was significant and allowed us to feel confident in the work we were doing."

PROJECT TITLE: Impact of A Pharmacist-Led Prenatal and Preconception Specialty Clinic in A Patient Centered Medical Home

DESCRIPTION: The focus of this study was primarily to increase patients' knowledge and comfort through counseling on the safety of both prescription and OTC medications, the importance of vaccinations, and smoking cessation. Patients were recruited if they were planning to become pregnant at any point in the future and would like to discuss the safety of medications and vaccinations during pregnancy.

During the appointment, it was determined whether the patient was pregnant or planning to become pregnant as well as the current dose of their folic acid supplementation, if applicable. The appointment then transitioned to a review of the patient's prescription medications along with recommendations or considerations for therapy adjustment prior to or during pregnancy. The discussion wrapped up with recommendations for vaccination, smoking cessation counseling (if applicable), and addressing any remaining patient questions.

A total of 28 patients were seen for appointments during the study period. Each patient received an explanation of the optional survey portion of the visit. The survey contained questions related to recommended amount of folic acid supplementation, OTC medications safe in pregnancy, recommended vaccinations, and OTC medications safe for infants.

IMPACT: This study demonstrated that within one patient-centered medication home, a pharmacist-run women's health clinic resulted in knowledge that was acquired and retained and a high satisfaction with the information provided. Improvements were seen in almost all questions when comparing the pre- and postsurvey and were sustained in the 1-month follow-up survey. The satisfaction survey demonstrated overall high satisfaction among patients and the education they received.

Immunizations

PROJECT TITLE: Development of a Patient Information Database to Engage in Vaccine Administration and Management

DESCRIPTION: The objective was to engage in a systemwide data collection effort to identify patients with demonstrated need for pneumococcal, zoster, tetanus, and hepatitis B vaccination. This is a pharmacist- and student pharmacist–led program designed to determine overall need and increase immunization rates among the uninsured population in High Point, NC.

Retrospective data was collected to determine the number of patients among overall clinic patients who fit recommended criteria for pneumococcal, zoster, tetanus, and/or hepatitis B vaccination.

IMPACT: This patient population represents a diverse group of people, many of whom have comorbidities associated with poor outcomes from pneumococcal disease and who also stand to benefit from shingles and tetanus vaccination. Over 70% are from minoritized groups, most have not had appropriate preventative vaccines, and most have at least one comorbidity requiring PCV-20 vaccination. Providers also have an easily accessible database detailing all patients over 50 years old at the clinic who can receive pneumococcal, shingles, and tetanus vaccination going forward. The clinic has begun to schedule vaccine appointments for PCV-20.

NAME:
Jordan Smith, PharmD

PRACTICE SITE:
Community Clinic of High Point

LOCATION:
High Point, NC

"This is a testament to the ability of pharmacists to provide public health."

Immunizations

NAME:
Jessica Edgar, PharmD

PRACTICE SITE:
Palm Beach Atlantic University

LOCATION:
Atlantis, FL

"Expanding our expertise will benefit patients in need. Community pharmacists are ideally positioned to be on the front lines of preventative health for children and adults."

PROJECT TITLE: Identifying Pharmacist Reported Barriers to the Administration of Childhood Vaccines

DESCRIPTION: The primary objective of this study was to identify if differences exist regarding vaccine confidence in knowledge and skills when vaccinating adults versus children fewer than 18 years of age as well as if barriers exist among community-based pharmacists when vaccinating children. The secondary objective of this project was to use survey results to create an educational tool for pharmacists related to vaccinating children.

A link to an online survey was emailed out, and individuals were invited to complete the survey if they were a licensed pharmacist in the state of Florida and worked in a community-based pharmacy setting at the time. The survey consisted of 24 questions which assessed various items such as practice location, years of experience, site staffing responsibilities, vaccine administration experience, confidence in providing vaccine services to children, and perceived barriers to pharmacist-administered vaccines to children. The top three reported barriers to the administration of childhood vaccines were time-constraint issues in current pharmacy workflows, calming down nervous patients with parents unwilling to help, and an overall lack of confidence surrounding childhood vaccines.

IMPACT: This study showed that there is a gap in knowledge and confidence among pharmacists regarding the administration of children's vaccines. Additionally, there were many barriers identified that would be limiting factors to pharmacists continuing to provide this service once the PREP Act expires. Participants expressed that a review of the ACIP/CDC vaccine recommendations would be beneficial to increase confidence in administering childhood vaccines. A written handout was the most requested format for educational materials. The barriers identified can now be addressed by creating a written handout to help regain confidence as it relates to vaccinating children.

Immunizations

PROJECT TITLE: **A Collaborative Approach Between Extension and Community Pharmacy to Increase Vaccine Education and Immunization Rates in Diverse Populations**

DESCRIPTION: The primary objective of this study was to assess and compare the uptake of COVID-19 and other adult vaccines during various outreach events across nine Kentucky counties that have been identified for low vaccinations rates, including rural and urban minority communities. The secondary objective was to complete a landscape analysis of pharmacy services in these affected communities in order to develop a resource guide for local extensions to use to link patients to pharmacy health care services.
A total of 483 individuals participated in the 3 community events held in Davies, Fayette, and Wayne Counties, KY. All individuals who received a vaccine at the event (n=114) also received a form of vaccine education ranging from pamphlets to on-site presentations. At these events, 107 participants received a COVID-19 vaccine. Contact was made with 90 community pharmacies, representing 84% of independent or outpatient health pharmacies in the 3 targeted counties.

IMPACT: The impact of this project was a decrease in vaccine hesitancy through offering a variety of educational materials and lectures. By working at local community events, we were able to be a resource for all participants to stop by and ask any question that they may have had about immunizations. We were able to vaccinate those who were at first hesitant. Pharmacies in the planning of these events could assist in better reaching our target populations. We plan to share the resource guide that local extension offices have created with the local pharmacies so that they better assist in meeting patients' social determinants of health (SDOH) needs. Likewise, the pharmacy resource guide will be shared with local extension offices so that they may better serve their communities' health needs.

NAME:
Ja'Nice Smith, PharmD candidate

PRACTICE SITE:
Silver's Hometown Pharmacy

LOCATION:
Monticello, KY

"I was able to witness firsthand how independent pharmacies are able to have deeper, more meaningful connections to the community."

Patient Care Service Implementation

Patient Care Service Implementation

NAME:
Jenny Kim, PharmD

PRACTICE SITE:
CliniCare Pharmacy

LOCATION:
Northridge, CA

"Through these various encounters, I loved that pharmacists have a vital role in managing patients' well-being by educating patients and optimizing their chronic diseases."

PROJECT TITLE: **Internal Medicine Physician Perception on a Clinical Pharmacist in Medical Practice**

DESCRIPTION: The objectives of this program were to understand the clinical pharmacist's role, to identify the types of interventions utilized by pharmacists in an internal medicine practice, and to evaluate the impact of a clinical pharmacist on medication safety by assessing the difference in practice frequency of medication refill authorizations with laboratory monitoring parameters per protocol.
This study was a single-site, retrospective chart review that took place at an independent pharmacy located in Northridge, CA. The study population included 30 patients ages 18 years and older with multiple chronic conditions and a minimum of five medications managed at the clinic with a pharmacy team. The control group included 30 patients from the other site, where a pharmacy team is not involved. Data was collected from visits occurring between 2015 to 2018.

Pharmacists' most common interventions were medication reconciliation, reviewing medication profiles, and identifying potential errors or discrepancies in prescriptions. Overall, there was a significant difference in note-taking behavior between the two groups. The intervention group, in which a pharmacy team was involved presented organized and consistent patient chart notes that ensured accurate medication reconciliation, proper documentation of medication history, clear communication, and medication monitoring and follow-up, while in contrast the control group lacked in proper documentation.

IMPACT: This project explored the role of a clinical pharmacist in the Internal Medicine Clinic and how the responsibilities have resulted in the patient's medication safety due to note-taking behavior compared to other health care providers. Having a pharmacist in an internal medicine clinic will lead to better patient care and optimized treatment outcomes by assessing appropriate laboratory monitoring parameters and medications.

Patient Care Service Implementation

NAME:
Gina Joy, PharmD

PRACTICE SITE:
Walgreens Pharmacy

LOCATION:
Asheville, NC

PROJECT TITLE: Pharmacist Engagement to Improve Medication Access for UNCA Students

DESCRIPTION: The first objective of this project was to identify barriers to health care utilization that may be present in college students. The second objective of the project was to quantify the number of participants who chose to use a resource, what type of resource, and if there was a benefit associated with the resource(s) used.
Students enrolled at The University of North Carolina in Asheville were invited to complete a survey. The survey included three sections: Demographics, Healthcare Experiences, and Resources. The Healthcare Experiences section included items that assessed comfort level with health insurance, use of a primary care provider, scheduling medical appointments, accessing medications, and transportation concerns. The survey included links to download four free, pharmacist-created resources: 1) Pharmacy 101: A Guide on How to Get Your Medications, 2) What Can My Pharmacy Help Me With?, 3) Insurance: Finding a Provider in your Network (but, what does in-network mean?), and 4) Pharmacies: Where to Go + How to Get There. The three most-reported barriers faced this academic year included cost (n=15), feeling overwhelmed trying to manage medications and appointments (n=12), and being unsure how to use insurance (n=11).

IMPACT: There was overwhelmingly positive feedback regarding the usefulness of the pharmacist-created resources. The result of this survey implies there may be an opportunity for further support and tools for college-aged students that are utilizing health care services for the first time. A lack of understanding and comfortability with medical appointments, insurance, or medications can lead to a gap in care for a patient. College-age students are generally seen as a young and healthy patient population; however, the results suggest that this specific patient population could possibly be a vulnerable population that could benefit from additional monitoring and education. Pharmacists can be a health care resource for medication support and education for college-age students.

"It is my hope to empower the student population by providing resources and support so that they may feel confident in managing their medication regimens."

Patient Care Service Implementation

NAME:
Maddie Urbanek, PharmD, MBA

PRACTICE SITE:
Wheeler Pharmacy

LOCATION:
Lexington, KY

"This study will help to determine pharmacists' perceptions of implementing the colorectal protocol with efforts to help prevent colon cancer and allow patients to have a longer and healthier life by determining the barriers and successes of implementation."

PROJECT TITLE: Community Pharmacists Perceptions of Providing Colorectal Cancer Screening in Community-Based Practice

DESCRIPTION: Primary objectives for this project included evaluating community pharmacists' perceptions of implementation of colorectal screening for patients through the board-authorized protocol and identifying pharmacists' confidence and potential barriers such as cost, staff support, and patients' need for colorectal screening in community pharmacy settings. A 35-item questionnaire looked at pharmacists' interest in implementing the colorectal screening protocol and was distributed to community-based pharmacists across Kentucky over a 2-month span. There were a total of 207 responses; 148 were from community-based pharmacists.
The most common barriers reported were lack of reimbursement, lack of willingness for patients to pay cash, and time or workflow issues. Overwhelmingly, pharmacists stated that lack of trust in pharmacists was not a barrier. The only difference in perceived barriers between community and noncommunity pharmacists was that a lack of trust in pharmacists was higher among noncommunity pharmacists. The most common benefits reported were an impact on the overall health of the community through early CRC detection, increased accessibility to care, enhanced patient relationships, and advancement of the profession.

IMPACT: Overwhelmingly, pharmacists expressed the need for additional training. Although barriers such as reimbursement are critical to success, training is where we need to begin. Increasing pharmacists' confidence in providing these services to patients through training will help to increase the number of pharmacists implementing this protocol. Without this survey, the focus would have continued to be on reimbursement only.

Patient Care Service Implementation

PROJECT TITLE: **Impact of Community Pharmacy Administered Long-Acting Injectable Medications on Adherence and Patient Perceived Barriers to Care**

DESCRIPTION: The primary objective of this study was to determine the impact of long-acting injectable antipsychotics (LAIAs) that are administered in the community pharmacy on patient adherence. Secondary objectives included determining the impact on patients' perceived barriers to care when LAIAs are administered in the community pharmacy setting as well as determining pharmacy staff acceptability, feasibility, and appropriateness of the service.

This is a quasi-experimental pretest-posttest study design. The service was implemented at five pharmacies in one division of a large, community chain pharmacy. A retrospective chart review identified patients, medication name and dose, prescriber, and coverage plan that was filled during the previous year at each pharmacy. Patient adherence was addressed with a chart-review process at each administration visit. After administration, a cross-section post-/presurvey would be administered to the patient to evaluate the impact on perceived barriers to care.

IMPACT: Over 90 individual providers were outreached between February 6 and February 16, 2023, which resulted in a 14% increase in prescriptions for LAIAs in March of the same year. Thirty patients were outreached via phone, and 21 were surveyed for eligibility. Of the 21 patients, 7 were excluded and 5 declined to participate in the study. The reasons for not participating included distance to pharmacy (10%), excluded medication (23%), preference for doctor's office (3%), no longer on medication (10%), unable to contact (30%), and other (10%). In addition, a survey of pharmacy staff using a validated tool was administered to address feasibility, acceptability, and appropriateness of the LAIA administration service.

NAME:
Kaitlyn Kerley, PharmD

PRACTICE SITE:
Kroger Pharmacy

LOCATION:
Memphis, TN

"Community pharmacists are highly qualified clinicians in a unique position to truly connect with and make an impact on patients."

Patient Care Service Implementation

NAME:
E'Shay Winfield, PharmD

PRACTICE SITE:
Walgreens Pharmacy/Howard University

LOCATION:
Washington, DC

"This grant excites me because it shows me that the fight for equality for patients with sickle cell disease is supported by the pharmacy profession."

PROJECT TITLE: Community Pharmacy Based Sickle Cell Disease Management Program

DESCRIPTION: The primary goal of the Community Pharmacy Based Sickle Cell Disease Management Program was to increase access and adherence to hydroxyurea (or other appropriate maintenance therapy) for patients being treated for sickle cell disease (SCD). In addition to directly improving patient outcomes for individuals with an SCD diagnosis, researchers sought to use this platform to advocate for increased provider knowledge and awareness for patients with SCD.

Patients with SCD were recruited at the Walgreens Pharmacy inside the Howard University Hospital to receive an intervention for improvement of chronic management of SCD. Participants' baseline medication adherence was analyzed, and an electronic pre- and postintervention screening survey was administered for analysis of baseline knowledge and perception of access to care and ability to self-manage SCD chronically. The intervention was an educational session, medication counseling, and monthly adherence follow-up.

Of the participants that completed the full intervention, PDC increased from 61% to 75%, and the score for knowledge-based questions increased from 95% to 100%. Changes in perception included increased perception of provider availability during sickle cell crisis, increased knowledge of maintenance medications used in SCD, increased confidence in naloxone administration, and increased confidence in ability to manage SCD long-term.

IMPACT: This program revealed an additional avenue of care for individuals with SCD. Community pharmacists have the potential to interact with patients during acute crises and maintenance medication refills. Insertion of clinical care programs for SCD in already-established systems used to educate and manage adherence to maintenance medications is a great opportunity for pharmacists in the community setting. Patients with SCD will benefit from calls to discuss newly initiated medications, nonadherence, and barriers associated with nonadherence.

Patient Care Service Implementation

PROJECT TITLE: **Patient Perception and Attitudes of Pharmacist Delivered Patient Care Services**

DESCRIPTION: The primary objective of this study was to assess participant-reported awareness and satisfaction of community pharmacist prescribing services. The secondary objectives of this study were to assess the participant-reported likelihood to pursue and refer others for community pharmacist prescribing services, and participants' interest in future community pharmacist prescribing services.

This was a cross-sectional, quality descriptive study using an anonymous electronic questionnaire administered by community pharmacy staff at two supermarket-based community pharmacies in Colorado. Thirteen different community pharmacist prescribing services were assessed within the questionnaire: cystitis treatment, hormonal contraception, tobacco cessation medications, influenza and streptococcal pharyngitis testing and treatment, vulvovaginal candidiasis treatment, migraine treatment, diabetic supplies including glucagon, epinephrine prescribing, prenatal vitamins treatment, asthma rescue inhalers and spacers, acne vulgaris topical medication, herpes labialis (i.e., cold sore) treatment, and motion sickness treatment.

Most participants were not aware of community pharmacists' prescriptive ability. Fewer than a quarter of participants had received a pharmacist prescribing service from either of the study locations. Satisfaction rates (>80%) were high among participants who had received pharmacist prescribing services for all services. Most participants demonstrated support and interest in pursuing community pharmacist prescribing services.

IMPACT: This project's findings display patients' limited awareness of available pharmacist prescribing services within one supermarket-based community pharmacy organization. Although patients' awareness of these services was low, this project directly provided an opportunity to inform patients of available services that may be utilized. The findings of this study may provide industry-specific insight to support the quality improvement of marketing and delivery of community pharmacist prescribing services in order to improve patient care.

NAME:
Arianna Sanchez, PharmD, MBA

PRACTICE SITE:
Safeway Pharmacy

LOCATION:
Denver, CO

"I have had several patients who participated in my research survey who later came back to the pharmacy to discuss the various prescribing services my organization offers."

Patient Care Service Implementation

NAME:
Alexander Wilcox, PharmD

PRACTICE SITE:
HealthLinc, Inc.

LOCATION:
Valparaiso, IN

"It is crucial to focus on implementing pharmacist-led tobacco cessation services and further exploring the impact and effectiveness of such initiatives."

PROJECT TITLE: Clinician Attitudes Toward Referring Patients to Pharmacists for Tobacco Cessation Services

DESCRIPTION: The objective of this study was to assess clinicians' (e.g., that of physicians, nurse practitioners, dentists, and behavioral health counselors) a) current referral patterns to HealthLinc pharmacists for tobacco cessation services, b) intention to refer patients to pharmacists in the future, and c) perceived barriers and motivators to referrals.
A cross-sectional survey was conducted among 64 clinicians working in HealthLinc Community Health Centers, a federally qualified health center system in Indiana. The survey assessed provider-level sociodemographics, interactions with pharmacists and referral practices, and perceived barriers and motivators for patient referrals to pharmacists for tobacco cessation.

Out of the 64 clinicians surveyed, 51 completed the survey (80% response rate). Nearly all expressed a willingness to refer patients to pharmacists in the future. There are several motivating factors for referring patients, including the potential for improved patient quit rates, minimal safety risks, the need for innovation, positive impact on quality measures, convenience for patients, compatibility with workflow, pharmacists' access to patient medical information, and ease of implementation. However, key barriers to referral include concerns about additional workload for clinical staff and potential lack of workload reduction for clinicians themselves. To successfully implement pharmacy-led tobacco cessation services, it is essential to address these barriers.

IMPACT: The findings of this project highlight the support for pharmacists prescribing and the willingness of providers to refer patients for tobacco cessation services within HealthLinc Community Health Centers and potentially other federally qualified centers where pharmacists are actively involved in patient care. This demonstrates the collaborative nature of health care teams and the recognition of pharmacists' role in addressing tobacco cessation.

Patient Care Service Implementation

FPO

NAME:
Aaliyah Dent, PharmD

PRACTICE SITE:
Kroger Pharmacy

LOCATION:
Little Rock, AR

PROJECT TITLE: **Community Pharmacist Led Remote Blood Pressure Monitoring Service: A Qualitative Study of Primary Care Clinic Perceptions**

DESCRIPTION: The primary objective of this study was to conduct a developmental formative evaluation to determine the constructs that may impact the feasibility and design of a community pharmacist–led remote BP monitoring (RBPM) service in collaboration with a primary care clinic.

This study conducted a developmental formative evaluation using semistructured interviews with primary care clinic staff from December 2022 to January 2023. Analysis of the interviews identified eight themes pertaining to the feasibility and design of a RBPM service: 1) service acceptability, 2) service utilization, 3) staff buy-in, 4) perception of leadership, 5) patient referral, 6) preferred patients, 7) online dashboard, and 8) therapy intervention. Intervention characteristics support the overall scope of the service. Most primary care clinic providers and nurses expressed that many of their patients will benefit from RBPM. High utilization of RBPM was a common theme recognized in responses from providers and nurses. Providers and nurses agreed that most of their patients diagnosed with hypertension are not reaching their hypertension goals.

Interviews with clinic managers and quality care coordinators indicated that multiple levels of buy-in are required to initiate a RBPM service. Discussion with clinic staff revealed that leadership is patient oriented and open to new ideas.

IMPACT: Responses from interviews revealed the impact of a community pharmacist's current role and the willingness of the clinic staff to engage pharmacists in more clinical services. Clinical staff overall support the idea of RBPM and provided guidance to assist with the service's implementation. Clinic staff are more likely to be receptive to changes in the workflow when their input can be included. This service will overall help improve patient outcomes by paying more attention to their BP and will help the clinic reach their quality metrics.

"Hypertension has consistently been difficult to manage for patients and providers, so RBPM provides the opportunity for pharmacists to support."

Patient Care Service Implementation

NAME:
Shanon Vartanian, PharmD

PRACTICE SITE:
USC Pharmacies & Clinics

LOCATION:
Los Angeles, CA

"It was really refreshing to hear that patients are becoming more comfortable with pharmacists and that we are finally moving away from our roles as dispensers to a vital and appreciated part of the health care team."

PROJECT TITLE: The Role of the Community Pharmacist: The Perspective of the Community They Serve

DESCRIPTION: The primary objective of this study was to bridge a knowledge gap by facilitating the alignment of patient care services with the needs of the community. The study aimed to assess patients' willingness to receive pharmacist-provided patient care services; explore differences in willingness based on prior services received; and examine variations in requested and accepted services across factors such as age, gender, comorbidities, and socioeconomic status.

This was a cross-sectional survey study conducted at University of Southern California (USC) pharmacies. The survey included the following services with brief descriptions of what the service would include when provided by a pharmacist: rapid STI testing and treatment, when necessary; hormonal contraception screening and dispensing; transitions of care; medication reconciliation and comprehensive medication management; point-of-care testing (e.g., BP, blood sugar, cholesterol, and body fat analysis); smoking cessation; anxiety/depression management; and travel consultation. Out of 44 participants, 43 expressed interest in at least one service. Most respondents reported having previously received care from a pharmacist, and an even higher percentage of respondents were open to receiving patient care services from a pharmacist in the future.

IMPACT: While the USC Pharmacies currently offer a range of services to the communities they serve, there is an opportunity to expand their offerings in response to the population's increasing demand for patient-centered care. Although the results did not yield statistically significant differences in the level of interest towards the services provided, the insights obtained from this study serve as a foundation for developing new collaborative practice agreements or integrating innovative business plans. This project serves as the framework for developing new services offered by the pharmacist at USC Medical Plaza Pharmacy and USC Health Center Pharmacy.

Patient Care Service Implementation

NAME:
Ethan Case, PharmD

PRACTICE SITE:
Balls Food Stores—Hen House Pharmacy #32

LOCATION:
Olathe, KS

PROJECT TITLE: Assessing Pharmacist Knowledge, Comfort, and Willingness in Prescribing Smoking Cessation Therapy

DESCRIPTION: The purpose of this study was to evaluate pharmacists' knowledge of prescribing tobacco cessation products before and after completing tobacco cessation-focused continuing education (CE). Additionally, this study evaluated pharmacists' comfort and willingness in prescribing tobacco cessation products. The last objective was to compare pharmacists' knowledge before and after CE between pharmacists who are licensed in Kansas compared to those who are licensed in Missouri.

This study was a prospective intervention with a 38-item pre-/post-CE questionnaire completed within Balls Foods Stores (BFS) Pharmacies. Participants were pharmacists employed by BFS and licensed in the state in which they practice (i.e., Kansas and/or Missouri). The CE was 120 minutes long and consisted of three total modules designed to compare tobacco cessation medications, develop treatment regimens, educate pharmacists on skills for interacting with smoking cessation patients, and describe the services of the National Cancer Institute tobacco quitline.

Pharmacists' knowledge increased from a median score of 10/16 or 63% correct on the pre-CE questionnaire to a median score of 15/16 or 94% correct ($p<0.001$) on the post-CE questionnaire. When comparing the change in knowledge before and after CE from pharmacists licensed in Kansas only to those who were dual-licensed in both Kansas and Missouri, those who were dual-licensed demonstrated saw a greater increase in knowledge (10–15/16 correct) compared to Kansas only pharmacists (11–15/16 correct) ($p<0.001$).

IMPACT: This project shows the ability of targeted CE to increase pharmacists' knowledge of smoking cessation therapy. This will hopefully lead to further studies to also increase comfort and willingness in prescribing smoking cessation therapy, which in the end will hopefully lead to legislation in states that are behind in this respect and have yet to give prescriptive authority to pharmacists for this treatment.

"A community pharmacist is the most accessible health care provider. Smoking cessation therapy should be as easy to access as tobacco products themselves, and I believe pharmacists are capable of filling this role."

Patient Care Service Implementation

NAME:
Logan Hunkus, PharmD

PRACTICE SITE:
The Ohio State University General Internal Medicine—Outpatient Care East

LOCATION:
Columbus, OH

"This will be one of the first projects to implement a systematic HIV PrEP screening process for people of all ages and genders in the primary care setting. We hope this will increase education and access to HIV PrEP medications for various individuals."

PROJECT TITLE: A Systematic Approach to Identifying HIV Pre-Exposure Prophylaxis Candidates in Primary Care

DESCRIPTION: The primary objective of this quality improvement (QI) project was to identify the number of patients eligible for HIV PrEP after administration of a digital screening tool at a scheduled primary care provider visit. The secondary objectives were to 1) identify the percentage of patients who started HIV PrEP therapy as a result of screening, 2) determine the number of eligible patients who have discussed HIV PrEP with their primary care provider in the last year, and 3) compare the rates of HIV PrEP prescribing prior to (phase 1) and after (phase 2) the implementation of the digital screening tool.

During phase 1, 33 patients completed the written screening tool over a 7-week period. During phase 2, 175 patients were offered the digital screening tool. Ninety-five patients (54.3%) completed all questions. Thirty-three patients (34.7%) screened positive as candidates for education on HIV PrEP. One patient was provided a sexual supplies kit and educational material by the pharmacist. Overall, this intervention did increase the number of patients screened for sexual history based on all CDC-recommended indications, and further research should be performed to embed HIV PrEP screening into routine health care for patients of all ages and genders.

IMPACT: The implementation of this new workflow provided further insight into the use of a self-administered HIV PrEP screening tool for both males and females in the primary care setting. Although there were no patients started on HIV PrEP due to this intervention, various limitations could have contributed to these results. In the future, it may be beneficial to provide the screening tool at various clinics for a longer duration to potentially increase the number and diversity of the patients screened. Overall, this intervention did increase the number of patients screened for sexual history based on all CDC-recommended indications, and further research should be performed to embed HIV PrEP screening into routine health care for patients of all ages and genders.

Patient Care Service Implementation

PROJECT TITLE: **Evaluation of a Community Pharmacist-Led Behavioral Health Screening and Intervention**

DESCRIPTION: The objectives of this study were 1) implement mental health screenings and services for general adults, 2) describe drug therapy problems identified, pharmacist interventions, and provider responses, and 3) describe the outcomes of recommendation at follow-up. A 'clinical pharmacist counsel' tag was placed on the prescription bag to let pharmacy staff know the patient needed to be counseled. The patient was offered the mental health screening, which started with a Patient Health Questionnaire (PHQ2) and Generalized Anxiety Disorder (GAD2). If the patient scored 3 or higher on one of those questionnaires, the screening proceeded to the PHQ9 and GAD7. If the patient scored in the at-risk category, defined as a PHQ9 score of 10 or higher or a GAD7 score of 5 or higher, an initial intervention was made.

Most patients (70.7%) were willing to complete the questionnaires, indicating that community pharmacists can be successful in initiating mental health screenings for those who may not be otherwise screened.

Over half of patients approached agreed to be screened and 41% scored high on depression or anxiety screening, suggesting an important public health contribution and role for pharmacists. This study also demonstrated that pharmacists could identify drug therapy problems for patients scoring positive on a depression and anxiety screening and make actionable and accepted recommendations to prescribers.

IMPACT: This project helped to showcase that pharmacists can help close the gap in mental health care. Patients were given local resources for mental health as well as primary care providers. Many were also given educational materials about depression and anxiety. Pharmacists can identify medication-related problems and go on to make recommendations to providers. Many patients were not aware of the other choices for medication.

NAME:
Shelby Reid, PharmD

PRACTICE SITE:
Greenwood Pharmacy and Compounding Center

LOCATION:
Waterloo, IA

"My hope is that this practice will advance the role of the pharmacist by allowing increased access to mental health services and identify drug therapy problems."

Patient Care Service Implementation

NAME:
Julie Feimster, PharmD

PRACTICE SITE:
Campus Health

LOCATION:
Chapel Hill, NC

"I believe information from this project will be useful not only to my residency site but to other college health centers with on-site pharmacies and can be expanded upon in the future to larger patient populations."

PROJECT TITLE: **College Student Perceptions of Pharmacist-Prescribed Hormonal Contraception**

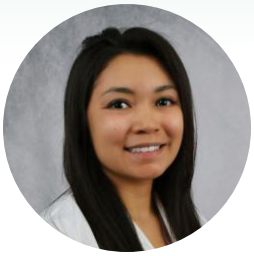
DESCRIPTION: The primary objective of this study was to assess the willingness of students to seek pharmacist-prescribed hormonal contraception and the willingness of students to pay for this service. In 2021, House Bill 96 was approved in North Carolina, giving pharmacists the ability to prescribe hormonal contraception. Many North Carolina pharmacies have already begun offering these services, including the two campus pharmacies at the University of North Carolina at Chapel Hill. To be eligible for the survey, students must have been enrolled at either campus, be 18 years of age or older, and have used hormonal birth control within the last year.

There were 241 total responses, with 158 responses meeting the study criteria. Almost 75% of participants were unaware of this new legislation. Nearly 100% of participants agreed that it would be convenient to get their birth control prescription written and dispensed at the same time and that pharmacist-prescribed birth control increases assess to care. More than 70% of participants reported that they are likely to see a pharmacist for a hormonal contraception prescription. The most prevalent benefits identified were the possibility of saving time (84%) and not needing to make an appointment (87%); the most common barrier identified was privacy at the pharmacy (22%). Most participants (80%) reported that they are willing to pay for this service. About 30% reported willingness to pay between $20 and $29.

IMPACT: This project helped pharmacists at the campus pharmacies to know the needs and perceptions of patients so that the pharmacy can better serve them. The survey helped spread awareness of the service to patients. Responses to the survey will be used to improve this clinical service at both on-campus pharmacies. The pharmacy and staff will work to address concerns with patient privacy and confidence in care.

Diabetes/ Cardiovascular Care

Diabetes/Cardiovascular Care

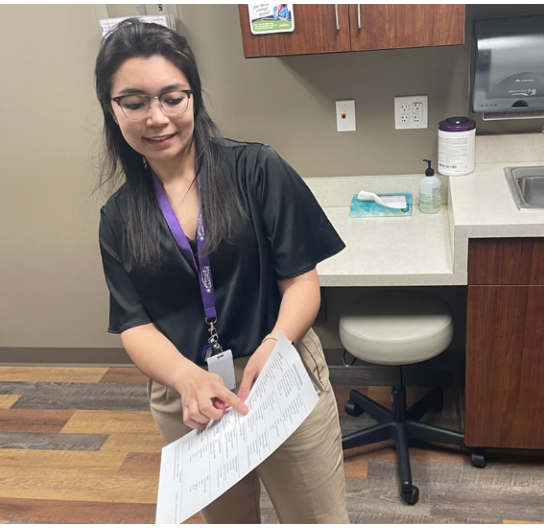


NAME:
Chelsea Herrarte, PharmD

PRACTICE SITE:
HealthLinc, Inc.

LOCATION:
Mishawaka, IN

"I was able to have discussions with practitioners and their personal experiences with prescribing tricyclic antidepressants. I was also able to learn about the benefit and/or potential risk of using the studied agents in our aging populations."



PROJECT TITLE: **Evaluation of Tricyclic Antidepressant (TCA) Prescribing in The Treatment of Diabetic Peripheral Neuropathy (DPN) Within Federally Qualified Health Centers (FQHC)**

DESCRIPTION: The objective of this study was to characterize prescribing patterns of providers when including tricyclic antidepressants (TCAs) as a treatment for diabetic peripheral neuropathy (DPN), with particular attention to concomitant treatments. This study was a cross-sectional analysis via retrospective chart review from EHR data. Data were collected based on a convenience sample of 100 patients who had been prescribed a TCA between the dates of April 1, 2019, and April 1, 2023, who also had an encounter date with a primary care provider between February 1, 2022, and April 1, 2023. Data were collected for each of the three possible TCAs prescribed: amitriptyline, nortriptyline, and doxepin. Data were also collected on the following concomitant therapies: gabapentin, pregabalin, duloxetine, and opiates. The average length of treatment with any TCA was 53.09 months.

The results showed a large proportion of patients being prescribed TCAs are using these therapies for extensive lengths of time and were not likely to be discontinued. Most patients were on a continuation of that therapy without evidence of deprescribing, and the majority held a high 10-year risk of dementia.

IMPACT: The impact of this project was to highlight the need to promote overall brain health and prevent decline in cognition and incidence dementia by the impact that can be made from appropriate prescribing of TCAs. This study reported on the cumulative use of these medications as a potential additional factor in cognitive impairment. At least half our patients above the age of 55 years of age deserve an assessment on whether their use of TCAs is effective and should be continued.

Diabetes/Cardiovascular Care

PROJECT TITLE: **Assessing the Impact of Pharmacist-Led Digital Retina Scan Services on Rates of Annual Eye Exams for Patients with Diabetes at a Federally Qualified Health Center**

DESCRIPTION: This practice innovation evaluation assessed the impact of a pharmacist-led digital retina scan service on rates of annual eye disease screening among patients with diabetes while characterizing patient-identified barriers to following up with an ophthalmologist when indicated. A workflow process was developed to provide digital retina scans by a pharmacist or other trained health care professional in the primary care setting for patients with diabetes who had not had an eye exam in the past 12 months. Eligible patients are scheduled by one of three routes: they were offered an eye exam during their chronic care visit with a pharmacist, referred by another provider to be seen by the pharmacist for an eye exam, or were contacted by the scheduling team to set up an appointment for an eye exam.
A total of 1,431 unique patients, representing 4,052 clinic encounters, were evaluated for diabetic eye exam status. There was a 5.01% increase in the number of patients receiving a diabetic eye exam in the past 12 months when the retina scan service was implemented. During the 6-month implementation phase, there were 68 retina scans completed. Of these, abnormal eye disease was identified in 9 patients. Implementing a pharmacist-led retina scan program in the primary care setting improved the rate of annual diabetic eye exams and demonstrated the benefit that pharmacists can have in enhancing accessibility to preventative care services. Findings from the voluntary survey revealed that patients intend to follow-up on ophthalmology when recommended, but cost concerns are a major barrier for our patients to receive follow-up care.

IMPACT: This project allowed patients with limited access to care to receive an eye exam at the primary care setting. Of the 68 eye exams, 9 patients had abnormal findings and were able to be connected with treatment due to this service implementation. Additionally, we demonstrated that pharmacists are equipped and uniquely positioned to assist with preventative chronic care screenings.

NAME:
Kristen Mize, PharmD

PRACTICE SITE:
KC CARE Health Center

LOCATION:
Kansas City, MO

"Due to the ability to transmit data through most EHRs directly to an ophthalmologist, it is appropriate and within the scope of a properly trained pharmacist to collect retinal images and provide education about managing diabetes to prevent complications."

Diabetes/Cardiovascular Care

NAME:
Rachel Schneider, PharmD

PRACTICE SITE:
Kroger Pharmacy

LOCATION:
Cincinnati, OH

"The most memorable experience for me was presenting the program to our pharmacy leaders for implementation and being the point of contact for the program across the country."

PROJECT TITLE: Impact of a Community Pharmacist-Led Interventional Diabetes Management Program on Patient Decision Making and Population Health Measures

DESCRIPTION: The purpose of this study was to implement a pharmacist-led interventional diabetes management program to improve the quality of diabetes care. The primary objective of this study was START HERE to assess the impact of a pharmacist-led interventional diabetes management program on the receipt of preventive care services and appropriate use of medications. The secondary objective was to evaluate clinical markers for disease control, including patients' change in A1C and BP and their change in performance on population health measures.

The program was implemented in 2,200 pharmacies across 35 states. The primary objective included interventions for completion of comprehensive medication reviews, initial disease assessment, A1C testing, provider visits, vaccinations, statin therapy initiation, and medication adherence. The secondary objective, clinical markers for disease control, included interventions to perform or document patient's A1C and BP. A total of 6,612 patients who filled medications for diabetes 6 months prior to program implementation were identified.

After identification, 53% (3,493) of the initial disease assessments were completed, with 41.5% (1,449) being accepted by the patient. For the accepted visits, pharmacists identified 1,431 gaps in care for either the patient needing A1C testing (713) or needing a provider visit (718). For patients who completed the initial assessment, 179 interventions were completed for statin initiation, 280 interventions completed for needing a vaccine, 73 comprehensive medication reviews were accepted, and 9,460 adherence assessments were completed.

IMPACT: It is feasible for community pharmacies to implement programs that support population health measures. Community pharmacists can identify care opportunities such as a population health diabetes management program and provide appropriate recommendations for patients to address these gaps in care.

Diabetes/Cardiovascular Care

PROJECT TITLE: **Evaluation of Primary Care Providers' Utilization of GLP-1 Receptor Agonists with Demonstrated ASCVD Benefit in Patients with Type II Diabetes**

DESCRIPTION: The primary objective of this study was to determine the percentage of patients on optimally titrated doses of GLP-1 agonists. The term "optimally titrated doses of GLP-1 agonists" was defined as being on at least 0.5 mg of subcutaneous semaglutide, 1.2 mg of liraglutide, or 1.5 mg of dulaglutide. Secondary objectives included evaluating the real-world mean percent change in A1C, weight, and BMI. Additionally, the percentage of patients who were referred to the clinical pharmacist for medication management under the established CPA, and the total percentage of patients who discontinued their medication along with the specific reason why were assessed.

This study was a single-center, retrospective cohort analysis utilizing medical records accessed via the EHR Patients were identified using ICD-10 codes corresponding to a diagnosis of T2D. After exclusion criteria, a total of 189 patients were included in the study. In regards to the primary objective, 123 patients (68.5%) were on optimally titrated GLP-1 agonists. The mean reduction in A1C was 0.5% over an average of 14.7 months. Mean weight and BMI were reduced by 2.6 kg and 3.3 kg/m2, respectively, over an average of 16.9 months.

IMPACT: This study demonstrated that the titration of GLP-1 agonists can continue to be improved upon in the primary care setting and that the clinical pharmacy team's services were underutilized. A significant proportion of patients also discontinued their medications primarily because they were switched to a different agent, experienced adverse events, or had affordability barriers. Lastly, other key monitoring parameters such as A1C, weight, and BMI were improved over the course of the study period. By providing medication management and education, pharmacists can make a substantial impact on patient care.

NAME:
Savannah Owen, PharmD

PRACTICE SITE:
Trinity Medical Associates

LOCATION:
Knoxville, TN

"I really enjoyed the chance to analyze ways in which our clinic could improve patient care. As the medication expert on the health care team, it is important to identify ways to optimize medication use."

Diabetes/Cardiovascular Care

NAME:
Cody Beldon, PharmD

PRACTICE SITE:
Kroger Health

LOCATION:
Blue Ash, OH

"Patients really appreciate the accountability of having a pharmacist monitor their blood glucose metrics while also knowing they had easy access to a reliable health care professional."

PROJECT TITLE: **Assessment of a Community Pharmacist Remote Monitoring Service in Patients Using Continuous Glucose Monitors (CGMs)**

DESCRIPTION: The primary objective of this study was to evaluate the clinical impact of a community pharmacist's remote patient monitoring service on patient's glycemic control by evaluating the change in glycemic data. Glycemic metrics was evaluated for 14, 30, and 90 days before and after the enrollment visit. The secondary objectives were to assess 1) patients' continuous glucose monitoring (CGM) utilization and adherence, 2) patients' completion of comprehensive diabetes standards of care, and 3) patients' willingness to accept a dietitian referral.
Patients were presented with the study opportunity if they were 18 years of age or older, had filled a prescriptin for a CGM product at either of the two pharmacies in the previous year, and had a previous diagnosis of diabetes. Glycemic metrics were collected for the previous 14, 30, and 90 days at the biweekly remote monitoring from the ambulatory glucose profile found in the appropriate remote monitoring platform. The pharmacist used the changes in glycemic metrics to evaluate and adjust the patient's treatment plan after communication with their primary diabetes care provider. Five of the eight glycemic metrics demonstrated a statistically significant improvement from before pharmacist remote monitoring to 3 months after the patient's participation in the study.

IMPACT: This project demonstrates the significant impact that a remote CGM monitoring service can have on patients and the future of community pharmacy services. This program is feasible and can provide an alternative revenue stream for community pharmacies while giving pharmacists another tool to assist patients with diabetes. Other health care providers may also see benefit from this service, especially given the additional pressure put upon primary care providers. With more insurance companies beginning to cover CGM products, this type of service has the potential to grow to a very large scale.

Diabetes/Cardiovascular Care

PROJECT TITLE: **ASPIRE (Acquisition of Skills for Pharmacists to Identify, Refer, and Educate) to Optimize Diabetes Medications in a Predominantly Hispanic Patient Population**

DESCRIPTION: This pilot project integrated a model of care that consisted of community pharmacists, pharmacy technicians, and primary care providers collaborating in a primary care clinic to improve guideline-directed therapy. The overall purpose of this pilot project was to equip community pharmacists and pharmacy technicians with the skills needed to identify, refer, and educate patients at the pharmacy to improve diabetes health outcomes with injectable therapies, specifically basal insulin and GLP-1 receptor agonists (GLP-1RAs). This patient project aimed to serve patients with diabetes who are predominantly Spanish-speaking and from lower socioeconomic communities surrounding the El Paso, TX, area on the US–Mexico border. To achieve this goal, the project focused on the following objectives: 1) identify patients who are on large doses of basal insulin via a drug use evaluation; 2) refer patients to the community pharmacist for drug regimen review and potential initiation of a GLP-1RA; and 3) document the education, processes, and lessons learned to strengthen patients, providers, and pharmacy staff regarding diabetes education and management.

During this project, 296 basal insulin prescriptions with doses larger than 50 units during the month of August 2022. Of the seven patients that indicated wanting a referral to the pharmacist for GLP-1RA initiation, two were able to be started on GLP-1RA or other intervention. Five diabetes help kits were given out during targeted interventions counseling.

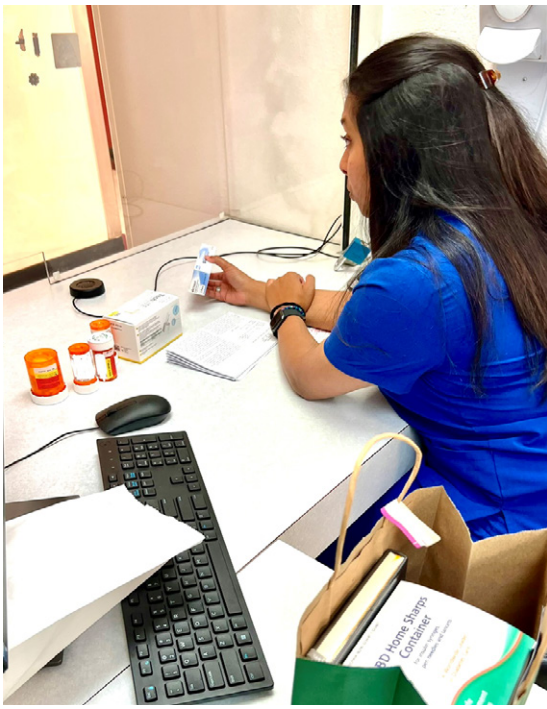
IMPACT: This community-based practice innovation gave pharmacy staff the opportunity to expand their role to optimize diabetes regimens by identifying eligible patients; refer them to a pharmacist for targeted counseling; and educate patients, providers, and staff on the importance of team-based diabetes care.

NAME:
Miriam Easo, PharmD

PRACTICE SITE:
Centro de Salud Familiar La Fe

LOCATION:
El Paso, TX

"Patients are empowered to take active part in managing their diabetes by increasing their medication understanding and adherence."



Diabetes/Cardiovascular Care

NAME:
Brianna Nelson, PharmD

PRACTICE SITE:
Wiggins Family Pharmacy and Medical Center

LOCATION:
Carrollton, GA

"In order to help our patients achieve their health goals, we must first fully understand their perspectives on medications."

PROJECT TITLE: Assessing the Barriers to Medication Adherence in Patients Participating in a Pharmacist-Led Diabetes Management Program with Waived Copays

DESCRIPTION: The objective of this study was to assess barriers to diabetes medication adherence in patients who have regular interactions with health care providers including pharmacists and waived copays.
This was a cross-sectional study of medication adherence data from the pharmacy dispensing system and information collected through a survey of patients in the pharmacist-led A1care program. When patients were asked to identify how they remember to take their medications, over half of the patients, 57.14% (n=8), identified that they developed a routine. Only 7.14% (n=1) of patients reported no adherence barriers. The most frequently reported barriers were running out of medications before requesting a refill (57.14%), forgetting to take medications on nonroutine days (42.86%), and forgetting to take medications (35.71%).

IMPACT: Adherence is a multifactorial issue that places patients' behaviors at the forefront of their outcomes. This study suggests that many of these factors can be mitigated with additional educational efforts provided by a pharmacist. A brief tool such as a questionnaire can streamline identification and assist pharmacists with addressing various reasons for changes in adherence. With use of the survey, pharmacists were able to learn more about barriers that the patients experienced. During the research period, the surveys were anonymous; however, the pharmacists felt that a continued adherence survey was needed. This sparked next steps of creating a workflow that allows for pharmacists to identify adherence barriers and work to problem-solve during the patients' already scheduled appointments.

Diabetes/Cardiovascular Care

PROJECT TITLE: **Assessment of a Community-Based Pharmacist Intervention on Glycemic Control and Lifestyle Knowledge in Patients at Risk for Developing Type 2 Diabetes at a Large Community Pharmacy Chain**

DESCRIPTION: The objectives of this study were 1) to assess the change in participants' glycemic control, 2) to assess the change in participants' knowledge on basic nutrition, and 3) to assess the change in participants' knowledge regarding physical activity.

Participants were contacted to schedule three in-person visits at the pharmacy over the span of 3 months. During the first visit, the pharmacist performed a preintervention A1C test, and the participants completed a preintervention survey. Following the A1C screening and presurvey, the pharmacist educated the participant on nutrition and physical activity. During the second visit, the pharmacist educated the participant on essentials of a food label and how to interpret serving size. During the final visit, the pharmacist performed a postintervention A1C test. The pharmacist provided the participant with resources on reading food labels, physical activity, the Right-Size Portion Plate Method, information on MyPlate, and information on portion distortions when dining at restaurants.

This study shows the need to offer screenings and educational interventions in a state with high rates of undiagnosed diabetes and T2D. According to the preintervention surveys, participants understood nutrition basics but struggled with understanding physical activity goals. The area most participants had difficulty understanding was "movement goal contributions."

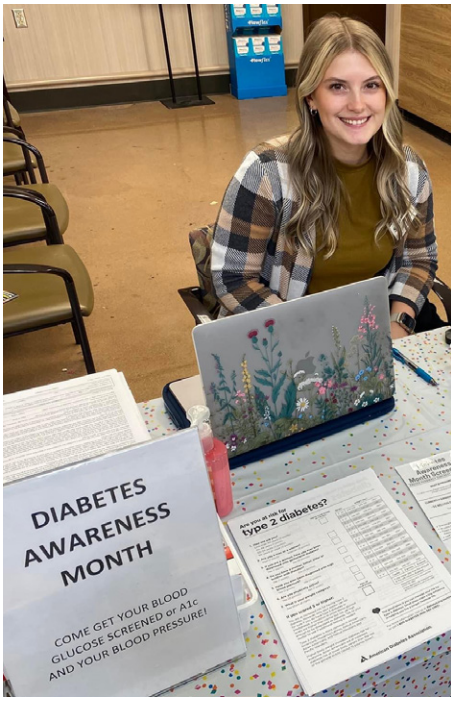
IMPACT: The knowledge gaps identified indicate that there is a need for pharmacists to provide education on lifestyle interventions. Patients stated they gained some useful information from the sessions, whether it be understanding how to measure their food or paying more close attention to reading food labels.

NAME:
Sabrina Koza, PharmD

PRACTICE SITE:
Kroger Pharmacy

LOCATION:
Morgantown, WV

"I hope to be able to show the impact of a brief pharmacist intervention on patients' lives through education on nutrition and physical activity along with glycemic control."



Diabetes/Cardiovascular Care

NAME:
Christen Wilhight, PharmD

PRACTICE SITE:
Walgreens Pharmacy

LOCATION:
Chapel Hill, NC

"Community pharmacists are well-positioned to distribute self-monitoring tools and promote their use to help patients meet their overall health care needs."

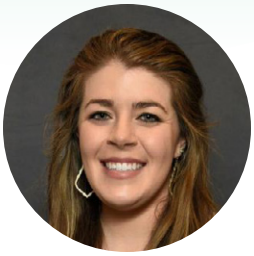
PROJECT TITLE: Community Pharmacy-Distributed Self-Monitoring Tools for Patients with Diabetes

DESCRIPTION: The primary objective of the study was to evaluate patient utilization and the impact of a self-monitoring tool. The goal of a community pharmacy–distributed self-monitoring tool was to enhance overall patient wellness, promote self-efficacy and self-management, and boost patient-provider relationship. This observational cohort study was conducted by a chain community pharmacy located in North Carolina. Individuals were identified by pharmacists by reviewing patients' medication profiles for diabetes medications. Interested individuals were provided a printed self-monitoring tool designed to cover a 2-month timeframe.
During this timeframe, 65 self-monitoring tools were printed, 30 self-monitoring tools were distributed (46%), and 5 questionnaires were completed and received (4/30, 13.3%). Two participants strongly agreed that self-monitoring tools had a positive impact on managing their chronic conditions and behavior changes; one participant agreed, one was indifferent, and one disagreed. Four participants reported that the self-monitoring tool motivated them to make positive changes happen, while one disagreed.

IMPACT: Self-monitoring allows users to take responsibility for their own behavior, while also helping reveal troublesome behaviors. Results, while limited, may suggest that a community pharmacy distributed self-monitoring tool is helpful and makes it easier to monitor and keep track of blood sugars, helpful in creating healthy goals and staying on track to reach them, and motivates users to make positive changes happen. This study shows that community pharmacy–distributed self-monitoring tools have the ability to have a positive impact on patient chronic disease state management. They are easily accessible to the patient, easy to use, and can help motivate patients to better manage their health.

Pharmacist–Patient Communication

Pharmacist–Patient Communication

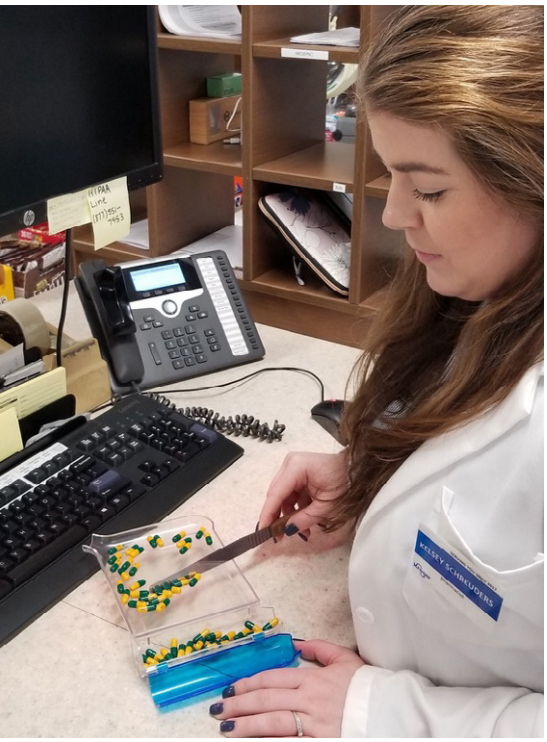


NAME:
Kelsey Schreuders, PharmD

PRACTICE SITE:
Kroger Pharmacy

LOCATION:
Nashville, TN

"Community pharmacists are readily accessible by patients and are in a great position to recommend this vaccine to eligible patients."



PROJECT TITLE: Impact of a Theory-Based Implementation Strategy Focused on Pharmacy Personnel on Increasing Human Papillomavirus (HPV) Vaccination Rates in One Regional Division of a Large Community Pharmacy Chain

DESCRIPTION: The primary objective of the project was to determine the impact of a theory-based implementation strategy to improve HPV vaccination rates in the community pharmacy setting. The secondary objective was to evaluate individual outcomes for each of the implementation strategies. All stores in the chain received a "nudge" in the pharmacy dispensing software as well as one of three strategies. The strategies included coaching, education, and goal-setting.

During the 3-month intervention period, vaccinations for HPV increased significantly across the division ($p<0.05$). An increase in vaccinations administered was seen in all three arms. However, the greatest increase was seen in the coaching and goal setting cohorts. An increase in HPV administration was also seen before and after the nudge intervention; however, because of the nudge intervention rollout preceding the other intervention arms, it is not possible to compare the coaching, education, and goal-setting approaches with the nudge.

IMPACT: This project demonstrates that implementing any of the three implementation strategies may lead to increased HPV vaccination rates. More patients have been vaccinated against HPV, which is a virus that causes cancer. This project not only helps people prevent cancer, but it helped pharmacy teams identify patients who were eligible. While not every patient who was spoken to received a vaccine, it did help bring awareness of this important vaccine to more people.

Pharmacist–Patient Communication

PROJECT TITLE: **Impact of EHR Access In a Specialty Pharmacy on Hepatitis C Virus (HCV) Treatment Outcomes**

DESCRIPTION: The primary objective of this study was to evaluate the impact of a pharmacist's access to EHR on completion rates of a full course of hepatitis C virus (HCV) treatment. The secondary objective of this study was to quantify the scope of a specialty pharmacist's interventions on HCV treatment outcomes. This was a retrospective chart review study looking at patients treated for HCV with oral medications from January 2021 to January 2022 at the St. Matthews Specialty Pharmacy. Patients who were treated over 12 months were stratified by whether their provider's office has EHR access to or not.

At St. Matthews Pharmacy, 729 patients (n=729) were treated for HCV in 2021 and were included in this study. At each medication fill, patients were screened for any adverse effects and, if they were present, calls were triaged to the pharmacist and patients were then counselled for management or referred for therapy change. In the patients with EHR access, 83% of patients completed therapy; meanwhile, in the patients with no EHR access, 90% completed therapy. After manual chart review, there were 165 hepatitis A vaccine recommendations, 157 hepatitis B vaccine recommendations, 105 drug–drug interaction counseling sessions, 26 financial assistances, 11 adverse effect managements, and 3 visual impairment services documented in the patient charts.

The results of this study suggest that EHR access in a specialty pharmacy is not predictive of a patients' completion of a full course of HCV treatment in this population. Future prospective studies would be useful in determining the true impact of EHR access on completion of therapy by carefully designing a study to address as many confounding variables as possible. Results of the secondary exploratory endpoint being a lower-than-expected number of documented interventions display the importance of pharmacists documenting the interventions that are already part of their workflow.

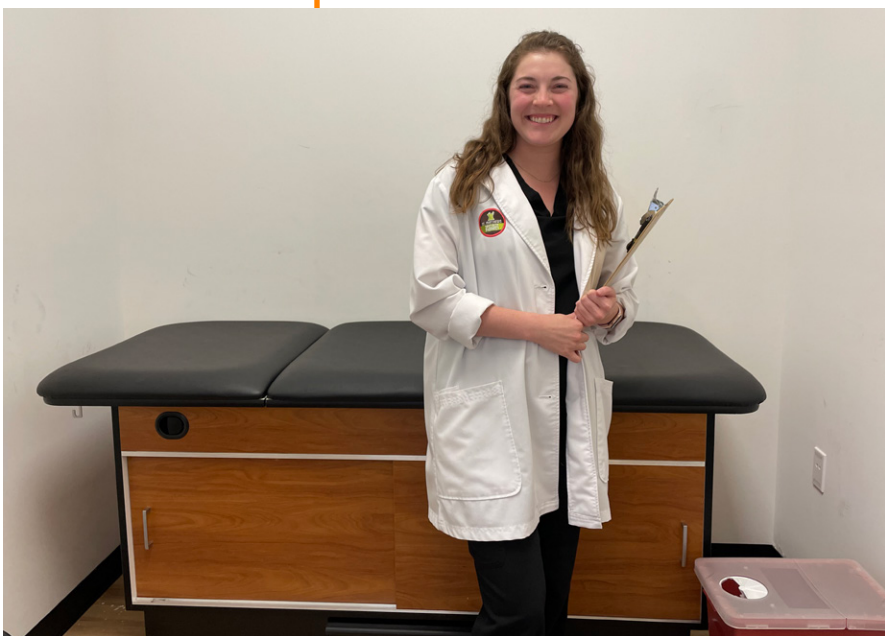
IMPACT: This project is one step further to determining what effects patient, pharmacist, and provider communications with affect hepatitis C treatment outcomes.

NAME:
Melynda Kromsky, PharmD

PRACTICE SITE:
St. Matthews Community and Specialty Pharmacy

LOCATION:
Louisville, KY

"The most memorable project-related patient care experience was during my manual chart review, seeing all of the documented pharmacist interventions for their patients."



Pharmacist–Patient Communication

NAME:
Douglas Choi, PharmD

PRACTICE SITE:
Kroger Pharmacy

LOCATION:
Columbus, OH

"By incorporating the LLM within health screenings in our study, IPPE student pharmacists were provided ample opportunities to develop their skills in measuring and assessing both BP and blood glucose and in providing appropriate counseling points."

PROJECT TITLE: Assessing the Patient Referral Acceptance Rate Following Community Health Screenings Utilizing the Layered Learning Model

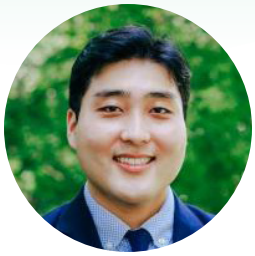
DESCRIPTION: The objective of this study was to assess the perspectives of the student pharmacists participating in community health screenings within a grocery store-based pharmacy utilizing the layered learning model (LLM). Within these screenings, IPPE student pharmacists, APPE student pharmacists, and a pharmacy resident each had respective roles. IPPE and APPE student pharmacists who consented to the survey answered a nine-question Likert survey assessing the following outcomes: understanding of expectations, proper precepting by APPE students, effective communication, and application of didactic knowledge.

From a total of 90 students who received the survey, 11 of 78 IPPE students (14% response rate) and 0 of 12 APPE students (0% response rate) responded to the survey, resulting in 11 out of 90 responses (12% response rate). Of the responses, 78% indicated IPPE participants found the LLM screenings beneficial to their learning experience, and 13% of responses indicated neutral response. The remaining 9% of responses indicated a negative experience, which may be attributed to the variable APPE preceptors providing different experiences to IPPE participants, which may not have met the IPPE particpants' learning expectations and therefore be indicative of room for improvement within the LLM screenings.

IMPACT: The LLM health screenings allow for greater student pharmacist learning experience, which results in improved patient care when each patient encounter is provided by multiple IPPE student pharmacists with oversight of an APPE preceptor. Each patient encounter was handled with care and dedication to ensure patients had their BP and blood glucose assessed while also being provided appropriate counseling points. After each encounter, patients were provided a brochure that documented their screening values and had basic counseling points on maintaining both good BP and blood glucose values.

Social Determinants of Health

Social Determinants of Health



NAME:
Justin Han, PharmD

PRACTICE SITE:
The University of North Carolina Health Care System (UNC Health) Shared Services Center Retail Pharmacy

LOCATION:
Durham, NC

"Approaching patient care with a holistic mindset often means looking beyond the clinical issues, and I am excited to see how we can improve upon existing specialty pharmacy practice models by honing in on this key focus area of health care."

PROJECT TITLE: Incorporating Social Determinants of Health into Workflows within a Specialty Pharmacy

DESCRIPTION: The objectives of this project were to design, implement, and evaluate a standardized method that allows specialty pharmacists at the University of North Carolina Health Care System (UNC Health) Shared Services Center Pharmacy to routinely identify and address social determinants of health (SDOH) that may be negatively impacting patients. Specialty pharmacists screened patients for SDOH issues during initial and follow-up telephone-based clinical assessments. Initial clinical assessments were conducted when patients started new specialty medication(s) and follow-up clinical assessments occured every 6 to 12 months depending on the disease state.

From December 5, 2022, through May 31, 2023, 69 patients identified having at least one SDOH concern and were referred to the Community Health Team for further management. Housing/utilities was the most frequently identified domain, being identified as a concern 34 times, followed by transportation and food insecurity (24 times), and lastly financial resource strain (4 times). It is significant that these core aspects of patients' lives are being affected as they can play major part in health outcomes and the success of clinical care. It was also notable that patients were open and willing to discuss these issues with their specialty pharmacist.

IMPACT: This project provides a practical example of the successful integration of SDOH screening and referral methods within a specialty pharmacy practice setting. It supports the idea that pharmacists within the specialty pharmacy setting can play a crucial role in helping to address SDOH concerns for patients and may be well-positioned to do so. Health systems and other organizations should consider utilizing their integrated specialty pharmacies in playing a role in addressing SDOH for their patients.

Social Determinants of Health

PROJECT TITLE: **Comparing the Ability of Community Pharmacists to Screen for Food Insecurity and Educate Qualifying Patients on Available Resources During In-Person and Telephonic Patient Encounters**

DESCRIPTION: The objective of the practice innovation was to determine the most efficient method for community pharmacists to best identify patients experiencing food insecurity (FI). Patients were surveyed in-person or telephonically with the validated Hunger Vital SignsTM two-question screening and eight additional demographics questions.

For patients that participated in-person, 56 (45.9%) screened as at-risk for FI, 5 patients (4.1%) preferred not to screen, and 61 (50.0%) screened as not at risk for FI. In the telephone group, 4 (26.7%) patients screened as at-risk for FI, and 11 (73.3%) screened as not at risk for FI. Overall, personnel were more comfortable offering screenings and education in-person than compared to the telephone group.

The data collected during this time confirms that, as previous studies have found, pharmacists can screen, assess, and recommend positive interventions with social determinants of health. The study found that pharmacy patients in both groups screened as at risk for FI at a higher rate than is reported in their counties and statewide. It also found that many patients agreed to accept education on available resources even if they themselves did not screen as at-risk for FI. It was found that there was better success in collecting survey responses in person compared to by telephone, but further research is needed to determine the root cause of why this is the case. Based on the qualitative companion information that was collected, pharmacists and technicians believed that education on food access resources was beneficial for patients.

IMPACT: This project impacted patients by educating them on resources which can increase their access to healthy foods. It impacted health care providers by educating them about resources that can help their patients. It changed how many participating pharmacists perceive patient openness to education in this area and altered how they will counsel patients going forward.

NAME:
Jasmine Bazinet, PharmD

PRACTICE SITE:
Albertsons Companies

LOCATION:
Boise, ID

"My most memorable experience during the project was educating patients on food access resources at the community sites. It not only opened conversations about the various programs, but also which foods are inexpensive yet nutritious."

Social Determinants of Health

NAME:
Durdana Iqbal, PharmD

PRACTICE SITE:
Community Pharmacy Enhanced Services Network of New York State

LOCATION:
Buffalo, NY

"My motivation for this project was the opportunity to work with pharmacies, staff, and the program champions so that we can continue to improve the program and ultimately expand it throughout New York State."

PROJECT TITLE: Perceptions and Attitudes of Social Determinants of Health (SDOH) Program Champions within CPESN Community

DESCRIPTION: The purpose of this project was to 1) assess the perceptions of pharmacy program champions on barriers and facilitators for implementing a social determinants of health (SDOH) pharmacy program within community pharmacy and 2) evaluate qualitative elements for developing and implementing SDOH programs through surveys and focus groups including relevant stakeholders.

The program has been implemented in 17 community pharmacies in January 2023. An electronic survey and a live webinar focus group was designed to evaluate the perception of SDOH program champions on the implementation of SDOH pharmacy programs. The survey featured questions on perception as a pharmacy champion on the training, education, resources, leadership engagement, staffing and workflow, and level of comfort in performing SDOH tasks. After the survey, a live webinar focus group was held. The focus group expanded on the survey questions and pharmacy champions were given the opportunity to share their experiences on the implementation of a SDOH Pharmacy Program within community pharmacies.

IMPACT: With the perceptions of patients and pharmacy champions, project researchers hope to improve SDOH program implementation in the future. The information collected from the survey and focus group will ensure program champions are receiving the necessary training, support, and operational systems to sustain the social needs program. Understanding facilitating factors and best practices for implementation will ultimately decrease the overall cost of health care.

Evaluating Pharmacy Services

Evaluating Pharmacy Services

NAME:
Karinna Cedo-Negron, PharmD

PRACTICE SITE:
The University of North Carolina (UNC) Hospitals Central Outpatient Pharmacy

LOCATION:
Chapel Hill, NC

"Collaborating with a payer and better understanding how prescription claims work (from the other side) was very interesting for me."

PROJECT TITLE: Comparison of HEDIS Measures Performance Between a Health-System Integrated Outpatient Pharmacy and External Pharmacies

DESCRIPTION: The first objective of this study was to compare the impact of a health system integrated outpatient pharmacy versus external pharmacies on Controlling High Blood Pressure (CBP) and Plan All-Cause Readmission (PCR) HEDIS performance measures. The second objective was to stratify and compare CBP and PCR HEDIS performance measure between the health system integrated outpatient pharmacy and external pharmacies when the bedside delivery program of the health system outpatient pharmacy was used.
This was a retrospective cohort study conducted by the central outpatient pharmacy (COP) in partnership with the payer Blue Cross Blue Shield. The CBP HEDIS measure data were comprised of 258 patients in total. Of the 258 patients, 190 had their discharge prescriptions sent to an external pharmacy and 68 to the COP. Of the patients whose prescriptions were sent to external pharmacies, 65.8% had a closed status for the year 2021, meaning they had a BP of less than 140/90 mmHg, whereas 72.1% of the patients whose prescriptions were sent to the COP had a closed status. The PCR HEDIS measure data were comprised of 266 patients in total. Of the patients whose prescriptions were sent to external pharmacies, 99.4% had a closed status in 2021, whereas 99.1% of the patients whose prescriptions were sent to the COP had a closed status.

The COP closed 6.3% more of the CBP HEDIS measure gaps than external pharmacies, whereas external pharmacies closed 0.3% more of the PCR gaps than the COP. The bedside delivery cohort was associated with lower performance for both CBP and PCR HEDIS measures.

IMPACT: These findings may encourage other health care systems' pharmacists and leaders to advocate for and support the development and implementation of outpatient pharmacies in their sites. Also, at a UNC Medical Center level, the findings may help identify opportunities for improvement for the COP and its bedside delivery program and develop strategies to better align the quality of care between both.

Evaluating Pharmacy Services

PROJECT TITLE: **Evaluation of a Vaccination Program in a Specialty Pharmacy for Patients with Multiple Sclerosis**

DESCRIPTION: The objectives of this study were to evaluate the impact of a specialty pharmacy vaccination program based on the calculated acceptance rate of referrals to patients with multiple sclerosis (MS) for vaccination when immunizations are completed by patients at their pharmacy of choice, and also to evaluate the role of a pharmacist-led program in achieving successful vaccinations among patients with multiple sclerosis at the specialty pharmacy.

Starting in September 2022, a new vaccination program was implemented in which a clinical pharmacist screened patients receiving MS medications from the specialty pharmacy through a chart review of the electronic medical record, California Immunization Registry, and the pharmacy dispensing system. Active patients were also screened for vaccination records, specifically those for hepatitis B, herpes zoster, and influenza. Patients who were not found to be up-to-date on these routine vaccinations were flagged and referred for necessary vaccines.

Prior to the vaccination program, only 25 patients were vaccinated against influenza. After the program, a total of 33 patients were vaccinated (p=0.01). Prior to the vaccination program, only two patients were vaccinated against shingles in the age group of people 19 to fewer than 50 years old. After the program, a total of seven patients were vaccinated (p=0.02) Prior to the vaccination program for the people who were 50 years and older, only eight patients were vaccinated against shingles. After the program, a total of 13 patients were vaccinated (p=0.02). Prior to the vaccination program for the 19- to 50-year age group, only 12 patients were vaccinated against hepatitis B. After the program, a total of 16 total patients were vaccinated (p=0.06).

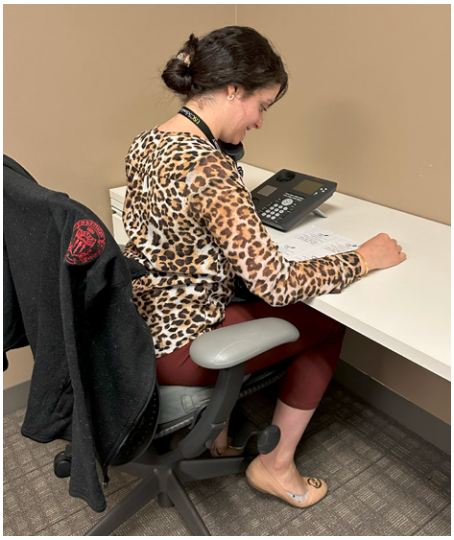
IMPACT: The pharmacists in this program played an impactful role in educating patients and ensuring each one of their concerns were addressed, especially regarding vaccine safety and efficacy. These pharmacists also made sure to touch on how the vaccines will allow the patients to lead a healthier and safer life as well.

NAME:
Nora Garabedian, PharmD

PRACTICE SITE:
Keck Medicine of USC Specialty Pharmacy

LOCATION:
Alhambra, CA

"Patient experience is something I cherish working on along with having the opportunity to make a difference. It feels so rewarding to educate patients on different vaccines that can potentially be lifesaving for them."



Evaluating Pharmacy Services

NAME:
Yelim Joung, PharmD

PRACTICE SITE:
USC Medical Plaza Pharmacy

LOCATION:
Los Angeles, CA

"By streamlining the process and ensuring a smooth and expedited delivery, we were able to make a significant impact on the patients' treatment and management of COVID19 infection."

PROJECT TITLE: A Time and Motion Study of Community Pharmacists Prescribing Paxlovid

DESCRIPTION: The objective of this study was to establish the duration of time associated with each step of performing patient assessments associated with pharmacists' prescribing of nirmatrelvir/ritonavir. Data was collected through observation and recording live timestamps for each step involved in the process of prescribing nirmatrelvir/ritonavir.
During the study, it was observed that the median total time from the initial engagement with the pharmacist to the completion of a written prescription for nirmatrelvir/ritonavir or the referral to another health care provider was 21.8 minutes and 5.0 minutes, respectively. However, there were instances when pharmacists had to perform additional tasks beyond the official workflow, which resulted in additional time consumption. The study revealed that the time required for pharmacists to prescribe nirmatrelvir/ritonavir for patients was found to be comparable to other time-motion studies focusing on pharmacists providing clinical services. This indicates that the process of prescribing nirmatrelvir/ritonavir falls within a similar timeframe as other clinical activities carried out by pharmacists.

IMPACT: The service took comparable time as other pharmacist-led services such as hormonal contraceptives and rapid tastings. Further research and ongoing evaluation of workflow optimization strategies are warranted to continually refine the prescribing process for nirmatrelvir/ritonavir and identify additional opportunities for time savings. By continuously improving and adapting these strategies, pharmacists can ensure that patients receive timely access to critical medications while maintaining a high standard of care.

Evaluating Pharmacy Services

PROJECT TITLE: **Retaining Technician Talent: Impact of Pharmacist Management Style on Pharmacy Technician Resilience in One Regional Division of a Large Community Pharmacy Chain**

DESCRIPTION: The primary objective of this study was to determine the impact of pharmacist leadership style on pharmacy technicians' resilience scores. The secondary objective was to determine which pharmacy management behaviors positively or negatively influence pharmacy technicians' resilience. This study was of a cross-sectional design, using a self-administered questionnaire survey.

After the distribution of the 175 surveys, 85 were returned to completion, resulting in a response rate of 48.6%. Of the 22 pharmacies included in the survey, responses represented at least one technician in 19 participating pharmacies.

Pharmacy technicians whose pharmacy managers were described as having a transformative leadership style were more likely to have a higher resilience score than those whose pharmacy managers exhibited a transactional leadership style. Themes of transformational leadership included a focus on developing the strengths of technicians and utilizing teaching coaching to do so. Respondents reporting to be very likely to remain with their current employer for the next 12 months was close to 69%. While just over 42% indicated they felt good about this line of work and hope to make a career of it for some time in spite of challenges or shortcomings, nearly 24% of respondents reported feeling completely committed to the career and to be in it for their entire work life.

IMPACT: This project has shown us how pharmacy technician resilience scores connect to pharmacist management behaviors within an organization. The health of our workforce in pharmacy is of grave importance. Showing that how we manage and interact with pharmacy technicians can affect resilience and commitment leads to highlighting this as an important topic for future professional development as a profession.

NAME:
Dakota Raines, PharmD, MBA

PRACTICE SITE:
Kroger Pharmacy

LOCATION:
Knoxville, TN

"Pharmacists have a unique position to impact their pharmacy technicians' workplace experiences through the leadership and management behaviors they exhibit every day."

Substance Abuse

Substance Abuse

NAME:
Savannah Correll, PharmD

PRACTICE SITE:
Safeway Pharmacy

LOCATION:
Washougal, WA

"The most memorable stage of this project was having a project and manuscript we could all be proud of and thanking my supporters for all their efforts throughout the residency year."

PROJECT TITLE: Providing Community Pharmacists with the Tools to Identify "Red Flags" in Stimulant Prescribing Behaviors

DESCRIPTION: The primary objective of this study was to evaluate the effectiveness of a stimulant prescribing "red flags" training to community pharmacists. Effectiveness was defined as correct responses to knowledge-based questions regarding "red flags." The secondary objective of this study was to identify barriers to pharmacists addressing stimulant misuse and abuse, such as lack of time, interest, resources, accountability, prescriber pushback, or conflict avoidance.
This prospective quasi-experimental study was conducted among community pharmacists in Oregon and southwest Washington between March 2023 and June 2023 to evaluate the effectiveness of a training on stimulant "red flags." A PowerPoint presentation with recorded audio narration was created for phase 2 of the research project. The training included a review of stimulant prescribing red flags, steps to making an appropriate intervention if necessary, and a case study for participants to evaluate. Completion of the stimulant red flag training may have slightly improved respondents' self-assessed ability to identify red flags for potentially inappropriate stimulant prescribing, but did not affect respondents' confidence in clarifying discrepancies with the patient or provider and documenting in the chart.

IMPACT: The focus was to provide tools to pharmacists to be able to assess their comfort level and previous knowledge (for preintervention questionnaire) by identifying red flags of stimulant prescribing. This project should encourage interprofessional communication between the pharmacist and other health care providers to provide patients with the highest quality care possible and increase patient safety. The stimulant red flag training should be further piloted until a larger sample is achieved prior to making a decision regarding full-scale implementation throughout the company.

Substance Abuse

PROJECT TITLE: **Evaluation of Patient Acquisition Rates of Naloxone in a Rural Independent Community Pharmacy**

DESCRIPTION: The primary objective of this study was to compare patient acquisition of naloxone between automatic dispensing versus automatic education in patients at risk of opioid-related emergencies. The secondary objective was to determine reasons why naloxone prescriptions are denied in the automatic dispensing group. Patients included in the trial were greater than 18 years old, had filled a Schedule II opioid prescription or any schedule opioid plus a benzodiazepine within the month prior to the patient report being generated.

When any opioid prescription was being filled in the pharmacy these patients received an informational flyer regarding naloxone alongside their prescription. The automatic dispensing group had naloxone prescriptions filled for them prior to coming to the pharmacy to pick up their opioid medications. As patients reported to the pharmacy to pick up their opioid prescriptions, documentation occurred if the patient denied naloxone and the reason for the denial.

For the study, there were a total of 244 patients that were randomized to either the intervention (i.e., automatic dispensing) group or the control (i.e., automatic education) group. The intervention group (n=124) resulted in a higher number of naloxone acquisitions as compared to the control group (n=120). The intervention group had 54 patients to successfully acquire naloxone as compared to only 6 patients in the control group. The percentage of acquisition in the intervention group is 43.5% and the control group is 5%.

IMPACT: Automatic dispensing of naloxone in states that can dispense under a standing order results in a higher number of naloxone acquisitions as compared to education alone. Filling naloxone for patients before they presented to the pharmacy saved time when the patient was there and provided the perfect opportunity to discuss naloxone with patients. This project gave the pharmacist an opportunity to showcase how we can increase awareness about important life-saving medications.

NAME:
Sarah Bridges, PharmD, MBA

PRACTICE SITE:
Eden Drug

LOCATION:
Eden, NC

"This project was all about increasing access and awareness and because of patient stories, I know that I did what I set out to do with this project."

Substance Abuse

NAME:
Emma Piehl, PharmD

PRACTICE SITE:
MercyOne Dubuque Medical Center Pharmacy

LOCATION:
Dubuque, IA

"Being in the clinic with the physician allows for more timely conversations, better response with prior authorizations, and overall, a greater patient satisfaction and outcome."

PROJECT TITLE: Patient Satisfaction with The Implementation of a Mobile Pharmacist in a Medication-Assisted Therapy Clinic

DESCRIPTION: The objectives of this program were to implement a more streamlined approach for medication-assisted treatment distribution for the patient population of the Turning Point Treatment Center (TPTC) and assess clinic satisfaction with new service to implement a provider–pharmacist collaboration for the patient population of the TPTC and increase access to treatment.

Surveys were distributed to patients while in the clinic. The patients were surveyed on their satisfaction with the previous service, their satisfaction with this new service, and questions relating to social determinants of health. Providers were given surveys about the effectiveness of having a pharmacist in the clinic and workflow enhancements.

Patients were satisfied with being able to pick up their prescriptions within the clinic and being able to have a personal conversation with the pharmacist about their medications. Provider surveys reflected similar feelings for the new service.

IMPACT: This project has been approved to continue with dedicated resources for pharmacist time. With dedicated pharmacist time for TPTC patients, more prescription claims are approved by commercial insurance plans and state-issued insurance providers through prior authorizations. Costs decreased over a 16-week period by 43%.

Learning Extension

Learning Extension

THE INCENTIVE GRANT LEARNING EXTENSION, funded by the Community Pharmacy Foundation, was initiated in 2021 to provide Incentive Grant recipients with the tools they need to conduct a successful research project and gain appropriate recognition for their work. The Learning Extension enables access to additional practice mentors who can guide these young practitioners in making an impact in community-based patient care and enhanced distribution and exposure of the Incentive Grant work they have undertaken. Incentive Grant recipients also benefited by participating in planned roundtable events, in-person networking, Q&A sessions, and other collaborative activities.

A major update for the 2022–2023 cycle was the addition of making activities for the Learning Extension available to student pharmacists to encourage and facilitate interest and engagement in community pharmacy practice research and as a professional career path. Themes for activities included

- **Strategies for enrolling patients in community-based research**
- **Poster presentation development and delivery**
- **Tips for high-quality publishing**
- **Leveraging results**

Learners received real-time guidance on conducting meaningful community-based research projects be experienced pharmacists. The APhA Foundation is unique in that it maintains relationships with established pharmacists with decades of experience conducting community-based research. Through leveraging the Foundation's network, knowledge can be passed on and true investments into the future of pharmacy occur.

Recipients of Incentive Grants continue to rate the Learning Extension activities favorably. According to responses from an evaluation completed by the 2022–2023 recipients:

100% rate having a facilitator as part of the program as "very valuable" or "somewhat valuable."

"It was helpful to have another point of view on how to conduct research with someone other than my direct preceptor."

90% rate connecting with other Incentive Grant Recipients as "very valuable" or "somewhat valuable."

"Connecting with the other grant recipients allowed me the opportunity to build a valuable network of community pharmacy practitioners... meeting with upcoming innovators in this space was inspiring and mind-opening."

85% rate having virtual learning sessions as "very valuable" or "somewhat valuable."

"Because this is my first major research project, the virtual speaker topics have given me plenty of advice and insight that I plan to use. I looked forward to each session!"

Learning Extension Schedule

Date	Method and Activity Description
SEPTEMBER	**Recorded session** • ***IRB Insights & Strategies for Statistics***
OCTOBER	**Virtual meeting** • **Introductory meeting** • ***Considerations for conducting research in the community*** with Kelly Goode, PharmD, FAPhA, FCCP, and William Doucette, PhD, FAPhA, RPh
NOVEMBER	**Virtual meeting** • ***Strategies for enrolling patients in community-based research***
JANUARY	**Virtual meeting** • ***Poster presentation development & delivery*** with Jenny Bingham, PharmD, FAzPA, FNAP
FEBRUARY	**Virtual meeting** • ***Tips for high-quality publishing*** with Bella Mehta, PharmD, FAPhA, and Marie Smith, PharmD
MARCH	**In-person Meeting** • **The American Pharmacists Association Foundation & The Community Pharmacy Foundation Networking Event** with recipients and facilitators to discuss how to continue practice innovation beyond this program
APRIL	**Virtual meeting** • **Roundtable** follow-up from the APhA Foundation Innovators Forum on how to build upon current research to transform patient care and ideas for future projects
MAY	**Virtual meeting** • ***Residency transitions: maintaining your project's impact*** with Brigid Groves, PharmD, MS
JUNE	**Virtual meeting open for student attendance** • ***Leveraging Results*** with Melissa Somma McGivney, PharmD, FCCP, FAPhA
JULY	**Digital product** • **Incentive Grant Digest:** Results found among the cohort **Scaled demonstration** • Recipients of the top two research projects will expand on their previous work. These two recipients will leverage their work over the past year to train other pharmacies to perpetuate the practice expansion. (To be reported on in the 2023–2024 Digest)

Learning Extension Comments and Feedback

How valuable has it been to have a facilitator as part of this program?

"This is the first time a lot of us pharmacists have conducted research from beginning to end. Having someone facilitate group discussion and provide helpful feedback has proved really beneficial throughout this research process. Our facilitator gave us the ability to share wins, strengths, and challenges. Having this resource helped our group to appropriately share all of these components."

"Having someone that is there to talk with and offer advice has been really impactful. I appreciate that [our facilitator] takes the time to hear from each of us in the group and offers feedback in real time. She offered us solutions to drawbacks that we have been facing in our project and really made me feel like my efforts were being seen."

How valuable has it been to connect with other grant recipients through this program?

"It has been helpful to connect with other recipients to address barriers and identify solutions to common issues with our projects. It also provides an additional support system for residents in terms of completing things in a timely and efficient manner. Knowing that fellow residents are undergoing similar situations provides comfort and assurance that everything will be completed soon!"

"I feel that it has been very valuable to connect with other grant recipients. It has been a good networking opportunity to connect with PGY1 residents across the country. I have also enjoyed getting the chance to discuss my research successes and roadblocks with people who are going through the same struggles. I have enjoyed the sense of community."

What challenges have you encountered during your research thus far?

"One of my biggest challenges was a delay in IRB approval. Because my research happens during a scheduled appointment that contains HIPAA information, I had to complete an additional section that neither I nor my site had experience with."

"The main challenges have been related to scheduling conflicts. My research involved interviewing clinic staff. Since I was in the clinic once per week, it took a while to get everyone scheduled for an interview. Also, implementation has been delayed due delays in meetings."

Learning Extension Comments and Feedback

How valuable have the virtual speaker sessions been?

"It provided me with valuable insights into how to design and conduct research. I also learned how to effectively analyze and present my data to the viewers."

"The virtual speakers all have great ideas or feedback. It has been very helpful because you can get more insight into the project other than your preceptor. I always learn something new!"

What insights have you gained from engagement with this Learning Extension that helped you with your project?

"I have learned how small the world of pharmacy is! I love connecting with other pharmacists across the country and learning from each other. It has been valuable to have another mentor to help with research—I plan to reach out with manuscript questions."

"One of the most valuable insights I have gained from this Learning Extension so far has been the value of differing opinions from those with varying experiences."

Please provide general feedback on the Incentive Grants program as a whole.

"The Incentive Grant program has provided me with a valuable opportunity to not only expand the impact of my research but also to expand my knowledge and network as a pharmacist."

"This Incentive Grant has truly supported my ability to gather more information from survey respondents compared to if I had not received this grant. Because I have been able to use this grant to incentive participants to complete my research survey, it has truly allowed me to have more responses than I would have anticipated without receiving this grant. Also, the learning extension presentations have supported expanding my knowledge on implementing research."

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