SCIENCE-IN-BRIEF
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TURNING SCIENCE INTO ACTION

A Project to Promote Adherence to Blood Pressure Medication Among People Who Use Community Pharmacies in Rural Montana, 2014-2016

The following is a synopsis of an original research article, "A Project to Promote Adherence to Blood Pressure Medication Among People Who Use Community Pharmacies in Rural Montana, 2014–2016," which was published in June 2017 in the journal *Preventing Chronic Disease: Public Health Research, Practice, and Policy*.

What is Already Known on This Topic?

High blood pressure is a leading risk factor for heart disease and stroke. Although there are many medications that can help reduce high blood pressure, failing to adhere to prescribed antihypertensive medications can cause blood pressure to remain uncontrolled or increase even further, putting patients at higher risk for heart disease or stroke. There are many factors that affect medication adherence in the United States, including cost, lack of education, complex medication regimens, and concern about side effects. In 2012, to address the factors associated with heart disease and stroke, the U.S. Department of Health and Human Services, in collaboration with the Centers for Disease Control and Prevention (CDC) and Centers for Medicare & Medicaid Services (CMS), established the Million Hearts® initiative which is intended to prevent 1 million cardiovascular events in 5 years. A component of this is a program called *Team Up. Pressure Down*. (TUPD), which is designed to lower blood pressure and prevent hypertension by improving pharmacists' access to resources and patient education materials to enable more effective pharmacist–patient interactions, and ultimately, improve blood pressure control.

How Was This Study Conducted?

The objective of this study was to demonstrate the effectiveness of engaging community pharmacists to improve medication adherence as a strategy for addressing the shortage of primary care providers in rural areas. Over a 3-year period, the authors recruited 25 pharmacies from rural Montana to evaluate the impact of pharmacist-led interventions on medication adherence. Pharmacists sought to improve adherence by using both patient consultations and educational materials from TUPD. The evaluation involved patients in rural areas of Montana who used blood pressure medications obtained from community pharmacies, a population that had not yet been studied. Inclusion criteria included pharmacies that could recruit 25 to 35 patients who were at least 18 years old, had made at least one pharmaceutical claim within the last year, and had a current prescription for blood pressure medication. Participating pharmacies submitted a final report with information on barriers, lessons learned, sustainable components, suggestions for improvement, types of counseling provided, the usefulness of the TUPD materials, and adherence rates for the study population. Characteristics of the services provided and capability of computer systems used by community pharmacists throughout Montana were also assessed.

What Is Added by This Article?

The results of this study suggest that community pharmacists in rural areas can help improve medication adherence. A comparison of pre- and post-intervention results demonstrated that increasing pharmacist engagement and education and disseminating educational materials to patients are important tools for improving medication adherence in rural areas. The authors reported a 16% improvement in medication adherence and concluded that the use of Million Hearts® TUPD educational materials by community pharmacists is an effective strategy for blood pressure control. Furthermore, the authors stated that engaging community pharmacists is an effective way to increase access to resources and improve blood pressure control in rural areas where there is a shortage of primary care providers.

Some key improvements, barriers, and suggestions from the author include:

1. Medication adherence and patient outcomes improved when providers and patients collaborated and communicated with each other. Pharmacists identified patients who were non-adherent by utilizing a Proportion of Days Covered (PDC) baseline of 80% as an indicator of an adherent patient. Pharmacists received additional educational training and resources such as blood pressure cuffs for on-site measurements, and software that could track patients, interventions and consulting services from other pharmacists. The pharmacists applied this knowledge by educating patients with resources. Patients learned about the importance of blood pressure control, making lifestyle modifications such as incorporating the DASH diet, and utilizing smoking cessation programs. Tangible resources were given to patients which included a blood pressure journal, medication tracker wallet, reminders, and prescription information.

2. The authors reported several barriers such as inadequate staffing, insufficient time for patient interaction, inability to track patients, and lack of patient reciprocation. Approaches to overcome these barriers may include an appointment-based model, medication synchronization, and technician training. Additionally, lack of reimbursement limited the pharmacy's ability to implement all facets of this project into practice. Working with payers, providers, and healthcare technology programs can reduce some of the obstacles.

What are the implications of these findings?

- In rural areas with a shortage of primary care providers, patients' access to care could be improved by engaging pharmacists in chronic disease management.
- Pharmacists could participate in the continuum of care and play a larger role in managing patients' hypertension.
- Using tools from the TUPD initiative has shown to be an effective strategy to improve medication adherence and ultimately help control blood pressure.
- Creating a flexible model that can be tailored to fit community pharmacies in other rural areas could optimize the utilization of this program into practice.

Citation

Oser CS, Fogle CC, Bennett JA. A project to promote adherence to blood pressure medication among people who use community pharmacies in rural Montana, 2014–2016. Prev Chronic Dis 2017;14:160409. doi: 10.5888/pcd14.160409.

Resources

Centers for Disease Control and Prevention
Using the Pharmacists' Patient Care Process to Manage High Blood Pressure: A Resource Guide for Pharmacists
https://www.cdc.gov/dhdsp/pubs/docs/Pharmacist-Resource-Guide.pdf

Million Hearts®
Medication Adherence Tools and Protocols
https://millionhearts.hhs.gov/tools-protocols/medication-adherence.html

Centers for Disease Control and Prevention
Community Pharmacists and Medication Therapy Management
https://www.cdc.gov/dhdsp/pubs/guides/best-practices/pharmacist-mtm.htm