

Optimizing care transitions: the role of the community pharmacist

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Abstract: Transitions of care (TOC) refer to the movement of patients across institutions, among providers, between different levels of care, and to and from home. Medication errors that occur during TOC have the potential to result in medical complications that are serious for the patient and costly to the health care system. Positive outcomes have been demonstrated when pharmacists are involved in providing TOC services, including reducing preventable adverse drug reactions, medication-related problems, and rehospitalizations, as well as improving the discharge process. This review explores TOC models involving community pharmacy practice, the current impact of pharmacist interventions in TOC, and patient satisfaction with TOC services provided by community pharmacists. Common barriers and potential solutions to TOC services provided in the community pharmacy, such as patient identification, information gathering, standardization of services, administrative support, reimbursement, and time restraints, are also discussed.

Keywords: transitions of care, care transitions, post-discharge, community pharmacy, community pharmacist, community pharmacy services

Background

In addition to the cost of human lives, it was estimated in 2011 that \$25–\$45 billion per year is spent unnecessarily on health care due to inadequate transitions of care (TOC) processes.¹ Current numbers are possibly much greater. Approximately 60% of medication errors occur during TOC.² Environments where people are particularly vulnerable to medication errors include transitions from community to hospitals and from hospitals back to home. These medication errors lead to consequences such as preventable medication side effects, complex hospital stays, extended length of stay, and increased cost to the patient and the institution.³ Implementation of appropriate TOC processes delivered in a coordinated and collaborative manner across settings can prevent such errors.⁴

TOC, also known as care transitions, refer to patients moving across institutions, among providers, between different levels of care, and to and from home.^{4,5} When pharmacists are involved in care transitions, positive outcomes have been demonstrated, including reducing preventable adverse drug reactions, medication-related problems (MRPs), and rehospitalizations, as well as improving the discharge process.^{6–8}

There is limited literature on the utilization of the community pharmacist in the TOC process. The community pharmacist is “at the center of ensuring the appropriate use of a patient’s medications and compiling an accurate and complete list of a patient’s medications.”⁴ To do this in an effective and standardized way, the medication therapy



management (MTM) model as set by American Pharmacists Association and National Association of Chain Drug Stores Foundation was developed.⁹ One of the five core elements of the MTM model includes performing a comprehensive medication review (CMR) to resolve MRPs.^{4,9} There are at least seven major categories of MRPs, which include 1) unnecessary drug therapy, 2) additional therapy, 3) ineffective drug, 4) dosage too low, 5) adverse drug reactions, 6) dosage too high, and 7) adherence.¹⁰ The term MRPs can be used interchangeably with drug therapy problems or medication discrepancies.

Using this standardized approach when completing CMRs allows pharmacists to evaluate medication therapy, resolve identified MRPs, and refer the patient to an appropriate health care professional effectively and efficiently.⁹ Consistent communication of the care plan permits pharmacists to safely transition patients to another health care professional or setting.³ Moreover, using a standardized approach for documentation allows for tracking performance measures, such as improvements in clinical, economic, and humanistic outcomes, showcasing the value of pharmacists' contributions.¹¹

Today's health care system places high priority on quality and gives special attention to initiatives aimed at improving health outcomes and reducing costs. Often, these goals are summarized using the popular term known as the "triple aim" focused on improving the experience of care, improving the health of populations, and reducing per capita costs of health care.¹²

There is a growing emphasis for the whole health care system, including community- and institution-based providers to collaborate and promote overall continuity of patient care. This movement is supported by the Patient Centered Primary Care Collaborative, which published a ten-step resource guide on how best to integrate comprehensive medication management services in patient-centered medical homes.¹¹ This resource not only provides guidance but also highlights the essential role that pharmacists play in all aspects of drug therapy management to ensure safe and effective medication use. The Patient Centered Primary Care Collaborative is a national coalition representing key stakeholders within the health care system, including nursing, physician, other health care provider groups, patient advocacy groups, health information technology companies, health system administrators, and many others.¹¹

Objectives and search strategy

This literature review explores TOC models in community pharmacy practice, the current impact of community pharmacist interventions in TOC, and patient satisfaction with TOC

services provided by community pharmacists. Furthermore, this literature review will provide insight into the barriers and proposed solutions of implementing community pharmacy-based TOC programs.

To gather and assess the most current evidence of pharmacists' involvement in TOC in the community pharmacy setting, we conducted a review of the literature using PubMed and Directory of Open Access Journals using the following example keywords: transitions of care, care transitions, post-discharge, continuous care, community pharmacy, community pharmacist, and community pharmacy services. The search was restricted to the English language from the past 10 years to capture the most recent literature. The authors then reviewed the results for relevance, limiting selected articles to studies conducted in a community pharmacy or by community pharmacists.

Impact on MRPs

Several studies have investigated the impact a community pharmacist can have on identifying and resolving MRPs related to TOC. Paulino et al conducted a study over a 3-month period that aimed to evaluate the type and frequency of MRPs identified among patients recently discharged from a hospital.¹³ The nature of the interventions made by the community pharmacists to resolve or prevent those MRPs was also examined. This study took place at 112 community pharmacies in Europe: Spain (51), Portugal (19), Denmark (16), Germany (11), the Netherlands (9), and Austria (6). Patients who presented to a participating community pharmacy with prescriptions from a hospital discharge were interviewed using a patient questionnaire to identify MRPs. The community pharmacist also conducted a follow-up encounter with the patient either by phone, home visit, or at the community pharmacy and recorded the resolutions of MRPs.

A total of 435 patients were interviewed using a standardized data collection form. Interviews were conducted at the pharmacy (42.5%), over the phone (36.1%), and at the patient's home (7.1%).¹³ Overall, 451 MRPs were identified in 277 of the 435 patients. Uncertainty/lack of knowledge of the aim/function of the drug was the most common MRP identified (29.5%) followed by side effects experienced (23.3%). MRPs categorized as practical problems such as language and difficulty swallowing were identified in 12.4% of patients. Cardiovascular and nervous system medications were associated with a majority of the MRPs. Community pharmacists made 305 interventions in 211 patients. Patient counseling, comprising patient instruction and medication education, accounted for 56.7% of the interventions made by the community pharmacist. The prescriber was contacted

for referral or request for more information in 26.2% of the MRPs. Community pharmacists made a total of 31 recommendations to the prescriber and 87.1% of them were approved.

In a study by Braund et al, the number and type of MRPs identified and the actions taken by community pharmacists in New Zealand were assessed.¹⁴ Any hospital discharge prescription presented to one of the participating pharmacies was reviewed, and any MRPs identified or interventions made were documented using a standardized data collection form.

A total of 1,374 postdischarge prescriptions were presented to the 32 participating pharmacies during the 2-week study period.¹⁴ Of those prescriptions, 344 (25%) required further action to be taken. The most common MRP, identified in 175 prescriptions, was “supply and/or funding.” This category included issues such as medication not available and authorization problems. “Errors,” which included omissions, unnecessary drug therapy, or incorrect doses, accounted for 36% of MRPs. Seventy-four prescriptions required the prescriber to be contacted. Of note, the authors discussed that this study may have underestimated the number of MRPs due to documentation methods relying on the pharmacy to use a data collection sheet, which could lead to missing MRPs during busy times at the community pharmacy.

In 2001, The Association of Amsterdam Community Pharmacists aimed to improve TOC for patients discharged from a hospital with five or more medications.¹⁵ A study was developed to evaluate the effect of the intervention on drug therapy, compliance, patient satisfaction, and mortality. Patients who filled prescriptions at a community pharmacy assigned to the intervention group received extensive medication reconciliation, patient counseling, a medication overview document, a daily medication intake scheme, medication synchronization, and a home visit within 7 days of discharge by the community pharmacist. Daily intake schemes were also sent to the patient’s general physician. Patients who filled prescriptions at a control pharmacy received usual care prescribed by the Dutch Pharmacy Standard, which consisted of a typical dispensing review for allergies and interactions, delivery of drug information leaflets, and patient counseling on new medications only. Intervention pharmacies were asked to include 20 patients discharged from the hospital with five or more medications. Patients who did not understand Dutch, had a mental illness, or were discharged to a nursing home were excluded. Study forms collected MRPs identified between the patient’s medication list before and after hospitalization in addition to other pharmacist’s interventions. A patient satisfaction questionnaire was sent to patients 6–9 months following discharge.

There were 336 patients in the intervention group and 379 patients in the control group.¹⁵ Female sex composed of 95.3% and 87.6% of the intervention and control groups, respectively. The only statistical difference between the baseline characteristics was that the subjects in the intervention group were younger in age and had a higher mean number of prescribed medications. The following pharmacist interventions were more frequently identified in the intervention group compared to the control group: additional drugs dispensed, drugs not dispensed, quantity changed of drugs dispensed, change of dose, and contact with the physician or Hospital Pharmacy Service Desk. Patients in the intervention group were counseled 60%, 19%, and 14% of the time at home, at the pharmacy, and by telephone, respectively, versus 19% of patients in the control group were counseled. The authors noted that the pharmacists did not fully complete all of the protocol requirements; a “medication intake scheme” was given to 82.7% of patients, but the medication overview and medication synchronization were only given to 38.7% and 11.0% of patients, respectively. The authors pointed out that many pharmacists found the medication overview to be redundant to the medication scheme and hence they skipped it. Seventy-eight percent of daily medication schemes were sent to general practitioners, and superfluous drug supplies were taken by 40% of the home visits.

While a majority of evidence comes from European research, there are a few studies conducted in the United States. Freund et al sought to assess the feasibility of a TOC program in an independent community pharmacy group consisting of three pharmacies in rural Wisconsin.¹⁶ To evaluate this, the weekly number of medication reconciliations performed, the average time spent completing each medication reconciliation, and the MRPs identified were examined. The following workflow changes were made to improve the current TOC program: a discharge medication list was faxed to the pharmacy from the discharging facility, a pharmacy technician presented medication reconciliation forms to the pharmacist before entering and filling the prescriptions, and the pharmacist printed a medication record from the pharmacy management system to perform medication reconciliation as well as to use during the patient consultation.

Sixty patients were included in the study between November 1, 2010, and January 31, 2011.¹⁶ The average age was 69 years, and 62% of participants were females. Each week, one to ten medication reconciliations were performed, which took 27.5 minutes on average to complete. Ninety-five percent of patients had at least one MRP, with 70% of patients having three or more MRPs. To resolve MRPs, the most common intervention was the addition of

new medications (70%), followed by dosing changes (17%) and discontinuation of medications (13%).

Impact on hospitalizations

Previous studies have demonstrated the community pharmacists' role in the identification and resolution of MRPs. However, with the cost burden of avoidable or unnecessary hospitalizations, it is vital to evaluate the impact of community pharmacist interventions on patient outcomes such as medication adherence, hospitalizations, and emergency room (ER) utilization.

A study conducted in Portsmouth, RI, assessed whether having a community pharmacist on a home health service can reduce 30-day congestive heart failure (CHF)-related hospital readmissions and improve medication adherence.¹⁷ Patients in the intervention group received one in-home visit provided by a community pharmacy resident within 1 week of admission to the visiting nursing service, which entailed a medication reconciliation, a CMR, and disease state management education. The patient's baseline medication adherence was also assessed using a validated tool. Additionally, the pharmacist performed two follow-up telephone encounters during weeks 1 and 4 after the initial visit to readminister the adherence questionnaire and to assess whether CHF-related hospital readmission occurred within the 30-day interval. The rate of CHF-related readmissions for patients in the intervention group was compared to the agency's overall CHF-related readmission rates for patients with a primary diagnosis of CHF.

Ten patients, six women and four men, were enrolled. On average, the patients were 81 years old and on 16 medications.¹⁷ In all, 70% and 30% of the patients' CHF were classified as New York Heart Association Class III and Class IV, respectively. Ten percent of patients were readmitted to the hospital for CHF-related conditions compared to 38% of all patients who received the visiting nurse service with a primary diagnosis of CHF. Medication adherence improved by 38% from initial visit to final follow-up.

Additional studies have evaluated the impact of TOC services in patients with other chronic medical conditions aside from CHF. A study conducted in rural West Virginia evaluated the impact of a CMR within 7 days of discharge on 30-day hospital readmission rates and MRPs in patients with a discharge diagnosis of CHF, pneumonia, or myocardial infarction.¹⁸ The intervention group, patients who received a CMR over the phone 2–7 days after discharge and a personal medication record, was compared with a historical group. To assess readmissions in the intervention group, the patient's

electronic health record was reviewed and the patient was called to assess readmission status to outside facilities including ER, urgent care, or unscheduled physician visits at least 30 days post-discharge. Only the patient's electronic medical record was reviewed to assess readmissions for the historical group.

Eighteen patients received the intervention and 24 patients were assigned to the control group.¹⁸ Within 30 days of discharge, only two patients in the intervention group had readmissions related to the initial diagnosis. In the control group, eight patients were readmitted for the same diagnosis. The authors noted that, since there was not a 30-day follow-up phone call to patients in the control group, this readmission rate could potentially be even higher. Twenty-two MRPs were identified in the intervention group and the most common problems were needs additional therapy (9), adverse drug reactions (3), and patient nonadherence (3).

Similarly, another study sought to determine whether MTM services delivered in a community pharmacy-based TOC program decreased hospital readmissions, resolved MRPs, and increased patient satisfaction.¹⁹ Nine supermarket chain pharmacies collaborated with two hospitals in western Cincinnati for this study. Of note, both of the hospitals participated in a care transitions intervention before this study, which consisted of nursing home visits. Either intervention or control groups could receive the care transitions intervention to determine the supplemental benefit of the MTM services.

A nurse case manager called patients discharged from the participating hospitals with a diagnosis of CHF, chronic obstructive pulmonary disease, or pneumonia within 72 hours of discharge to opt into the intervention group.¹⁹ Pertinent discharge information for consenting patients was faxed to the pharmacy for the pharmacist to schedule the MTM visit within 7 days of discharge. The MTM visit included medication reconciliation, a CMR, disease state education, patient counseling on new medications, self-management education, and a 2-week follow-up phone call. Patients were provided with a personal medication list, a health action plan, appropriate self-monitoring logs, and educational materials at the end of the MTM visit, and a visit summary was sent to the patient's physician. Patients who could not be reached by the pharmacy staff or patients who did not show up for their appointment were placed in the usual care group. The MRPs, actions made by the pharmacists, and the results of the interventions were documented on a standardized tool. A blinded research assistant called patients 30 days post-discharge to measure

hospital readmissions, ER visits, and complete a validated patient satisfaction survey.

Ninety patients, 30 in the intervention group and 60 in the usual care group, were analyzed.¹⁹ Differences in baseline characteristics were noted between the two groups with more men and chronic conditions in the intervention group. Furthermore, the intervention group had a larger percentage of patients who had private insurance and a smaller percentage of self-pay patients. A statistically significant reduction in 30-day hospitalizations was seen in the intervention group (7%) versus the usual care group (20%). Although not statistically significant, the number of ER visits and the composite of readmissions and ER visits in the intervention group were also reduced. Pharmacists made 210 interventions for patients in the intervention group, resulting in seven interventions per patient. Self-care modifications (22%) were identified as the most common intervention followed by the need to add additional therapy (20%). Forty-one percent of the interventions required prescriber consultation, of which, 46% were accepted. Patients accepted 72% of the pharmacists' recommendations.¹⁹

Reported barriers and proposed solutions

An examination of existing TOC programs and prior research provides insight into the barriers and proposed solutions of implementing community pharmacy-based TOC programs as well as the perceptions of key stakeholders, such as pharmacists, patients, providers, and payers. The following discussion of implementation barriers will include proposed solutions as described by available literature.

Patient identification

Community pharmacists are positioned to greatly impact the care of patients undergoing a care transition due to their accessibility to the patient. Unfortunately, this positioning in the community setting often leaves the pharmacist unable to identify eligible patients without collaborative relationships with stakeholders including third party insurers and institutions.²⁰ Kelling et al describe a partnership between a supermarket chain and a third party insurer to identify patients.²⁰ The utilization of claims data to identify recently discharged patients and to obtain contact information for those patients proved beneficial. Another method for the identification of patients may involve a partnership between a community pharmacy and a hospital. Pharmacies may be alerted of patients who will be discharged and picking up prescriptions at the pharmacy. Some national chains have

begun implementing this type of model and may even include prescription delivery services to the bedside or home.²¹ Kennelty et al describe a process where care coordinators located in the hospital provide the community pharmacy with a discharge medication list and a direct phone number to address prescription issues via facsimile.²² While a formal partnership is not necessary to provide adequate TOC services, community pharmacists may benefit from establishing working relationships with local hospitals, primary care offices, and third party insurers.

Patient no shows

One of the many cited barriers with providing clinical pharmacy services, including TOC services, is reaching the patient to provide the service, whether via telephone or in-person.^{18,22,23} Anderson et al found that patients who were successfully reached through their telephonic TOC program had higher rates of attendance at scheduled follow-up appointments and lower rates of 30-day readmissions.²³ A potential solution to this barrier may be to provide TOC services through home visits.¹⁷ A partnership with a local visiting nursing service could facilitate the creation of such a program but could present additional barriers to implementation.¹⁷

Information gathering

Another barrier to implementation of TOC services in the community pharmacy setting is the lack of information available to community pharmacists. Pharmacists cite frustrations with not having access to patients' clinical notes, which contain valuable information such as the discharge instructions, medication changes and indications, and relevant laboratory data.^{20,22,24} Electronic information sharing via e-prescribing and access to electronic medical records appears to be pharmacists' desired mode of communication, followed by facsimile and phone.²² These resources may not be easy to obtain in the community pharmacy setting due to financial and informatics limitations.

Strategies to overcome these barriers may include the use of care coordinators as previously described by Kennelty et al, or the use of an electronic medication information transfer tool, designed by Cesta et al for the transfer of patients from one pharmacist to another in the inpatient setting.^{22,25} This tool highlights medication stoppages and additions and provides an opportunity to provide specific information for the rationale of each medication change. While the tool was designed for electronic transfer of information, the documentation may be printed and faxed. Community phar-

macists may advocate for the documentation from this tool to be included with the written, faxed, or electronic orders received at the pharmacy to assist in TOC services and proper medication dispensing.

Standardization of services

In a study conducted by Gibson et al, only 53.7% of surveyed pharmacists expressed a clear idea of the role of the community pharmacist in TOC services.²⁶ While it may be difficult to standardize the procedural aspects of TOC services as practice settings, organizational structure, and partnerships with hospitals and third parties may differ, it is integral that the fundamental components of TOC services remain the same.^{22,23,27} Many pharmacy organizations, quality initiatives, and coalitions have put forth resource centers, toolkits, and publications to aid in the implementation of quality services and increase TOC program success.^{3,28–32}

Pharmacists should attempt to reconcile all discharge medications and assess the appropriateness of therapy based on indication, efficacy, safety, and adherence to identify and resolve MRPs as is done in a CMR.³³ TOC services should also include disease state education, patient counseling regarding the medication regimen (indication, administration instructions, prevention, and/or management of adverse drug events), any necessary device training, and instructions for the disposal of old medications upon returning home. Community pharmacists may assist in reminding patients to schedule and attend necessary follow-up appointments with other providers, which has been shown to be successful in reducing readmissions.²³ Offering standardized training regarding processes and procedures for all individuals involved in TOC has shown to be a facilitator for successful program implementation.²⁷

Administrative support

While community pharmacists may be eager to deliver patient-care programs such as TOC, medication dispensing remains a fundamental component for most community pharmacy business models.²⁶ Pharmacists express a perceived lack of support from upper management in terms of the importance of performing medication reconciliation and rather a focus on prescription numbers and costs.²² By advertising short wait times for prescriptions, pharmacists believe that there is not adequate time to perform all duties of a medication reconciliation while dispensing medications for a patient who has been discharged.²³ In addition, the use of gift cards and coupons incentivizing the transfer of prescriptions has been viewed poorly by community pharmacists for its promotion of polypharmacy, which may

interfere with TOC efforts.²² Studies have demonstrated that providing a quality service can increase patient satisfaction and customer loyalty, potentially reducing the amount of incentivized prescription transfer programs and increase prescription volumes.^{15,18,19}

Reimbursement

Greater involvement by community pharmacists in TOC is constrained by the scarcity of reimbursement models and limited financial resources.³ While transitional care management codes became popular for physicians providing TOC services to Medicare patients, many community pharmacists do not have an accessible means of billing for cognitive services related to TOC. Reimbursement differs between hospital-based outpatient, long-term care, and community-based settings. Additionally, the lack of provider status under Medicare remains a barrier. Currently, pharmacists may utilize web-based platforms for documentation and billing of services for those patients who are already eligible for MTM services. Some of these platforms even ask whether the services were conducted as part of TOC services. The disadvantage of relying on these web-based platforms is that the company may hold contracts with only certain insurers.^{34,35} Pherson et al note that their TOC service was designed to incorporate all components of an MTM encounter; however, many of the local insurers were not contracted with the web-based platforms and the hospital billing department did not have the infrastructure to bill Part D plans.²⁷ Kelling et al presented a solution to this problem in that the pharmacy contracted with one local insurer and with one of the MTM vendors to be reimbursed for the CMR and additional MRPs.²⁰ Although pharmacist-provided MTM current procedural terminology codes exist, pharmacists and administrators should continue to explore reimbursement avenues separate from the provision of drug products to include newer models such as pay for performance, patient centered medical home, accountable care organizations, and hospital shared savings due to readmission reductions.^{2,10} These examples do not link payment to a specific provider but instead connect payment to a team of collaborative and coordinated patient care providers.⁴

Time

Possibly the biggest concern of community pharmacists is the time required to provide TOC services.^{20,22,24,26} Implementing workflow changes to incorporate the components of a TOC program that suit the needs of the pharmacy can improve efficiency and decrease disruptions in the workflow process.¹⁶ Community pharmacists should become comfortable delegating tasks to the appropriate personnel, including pharmacy

technicians, student pharmacists, and pharmacy residents based on the level of clinical judgment required.¹⁶ There is limited published information regarding the role of pharmacy technicians and student pharmacists in providing TOC services in the community setting, however, the success of inpatient programs has been highlighted.^{3,36} Many postgraduate year 1 and 2 pharmacy residency programs include exposure to TOC programs. In addition to providing a learning experience for the resident, the resident can serve as a resource for the implementation and provision of TOC services.

Perceptions

Previous research has documented the perspective of pharmacists, physicians, and consumers on pharmacist-provided MTM services. Generally, results describe limited awareness by consumers and primary care physicians of pharmacists practicing in a nondispensing role and reluctance by pharmacists to participate in new services due to insufficient time, manpower, resources, and lack of reimbursement.³⁷ Although research examining pharmacists' perceptions with TOC is scarce, we can assume similarities exist with perceptions related to implementation of new patient care services.³⁸ Despite all of the barriers to implementation, both pharmacists' and patients' perceptions of these services remain positive.²² Many pharmacists express that postdischarge medication reconciliation is a standard of care and part of their job and many are willing to participate if given the opportunity.^{22,24} Pharmacists believe that these services improve patients' understanding of medications, decrease medication errors, and enhance relationships with patients.²⁶ Pharmacist comfort increases with practice and standardization of workflow procedures for providing TOC services.¹⁶

Studies of patients suggest a positive perception by those who have received TOC services. While some studies found no change in patient satisfaction scores between intervention groups and usual care,¹⁹ others indicate high satisfaction with medication delivery and counseling, CMRs, and self-management education.^{20,25} Patients shared that their medication knowledge improved and they felt more comfortable speaking to other providers about their medications in subsequent encounters.^{22,24} Highlighting these successes may increase patients' initial acceptance of TOC services and reduce rates of patients who are lost to follow-up.

Considerations

There were limitations with the search strategy by restricting the selected articles to full text in the English language, published in the last 10 years. As a result, there may be more examples of published TOC programs currently operating in

the community pharmacy setting. Additionally, there may be TOC programs that exist that are not published due to proprietary reasons, or lack of interest, ability, or willingness to publish. Of note, many institutions have research in progress that may contribute to the outcomes discussed in this review.³⁹⁻⁴³

Conclusion

The significant economic burden of poor TOC has resulted in new government initiatives such as the Affordable Care Act to place a greater financial accountability on health care institutions to reduce 30-day rehospitalization rates.⁴⁴ This in turn has led to the development of TOC programs focused on optimizing collaboration and coordination of care delivered by providers to patients transitioning between settings.

Community pharmacists, often the first member of the health care team that interacts with the patient post-discharge, can identify potential medication errors that may have occurred and therefore are in an ideal position to positively impact TOC. Evidence, although limited, supports that community pharmacists can identify and resolve MRPs and reduce 30-day rehospitalization rates and ED utilization.

Several TOC models described in this review discuss successes and challenges, which can be used as examples or lessons learned for future development and implementation of TOC services in the community setting. As with the implementation of any new service, pharmacists should be able to identify the needs of the service, request the resources necessary, continually assess and improve, and document the measured outcomes of the service. Toolkits and resource centers cited in this review can assist in the development and implementation of TOC programs. Published program outcomes can emphasize the necessity of TOC programs and justify the need for financial support. However, the breadth of available literature on TOC programs in the community setting remains limited. For this reason, further research is needed in the areas of economic and health outcomes, implementation barriers, and strategies for success.

Disclosure

The authors report no conflicts of interest in this work.

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