Advancements and Challenges in Medication Therapy Management: Improving Patient Outcomes Through Enhanced Pharmacist Interventions

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Abstract

Medication therapy management is a vital service that attempts to improve individual patient treatment outcomes by addressing ineffective, unnecessary drug therapy, and polypharmacy. It increases both the quality of care and the overall satisfaction of patients. However, executing such initiatives can be difficult due to the presence of numerous obstacles. These issues must be recognized, carefully evaluated and understood in order to successfully implement such programs in community pharmacies. This paper identifies various challenges associated during implementation and manage such complex program in the patient care.

Keywords: Community pharmacy, Implementation, Medication therapy management, Patient care.

INTRODUCTION

Medication therapy management (MTM) is a valuable medication benefit program provided by both public and private health care providers and insurance. The term was formally coined in 2003, but it has been in usage since the 1990s. MTM plays a vital role in improving health outcomes for persons with complex medical conditions. The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 officially recognized MTM by requiring sponsors of Medicare Part D prescription drug plans to establish an MTM program for qualified beneficiaries [1, 2].With the introduction of Medicare Part D, MTM became a required component targeted at assisting patients with numerous chronic diseases, high prescription expenditures, and high utilization in improving the safety and effectiveness of their medical therapies [2]. MTM aims to provide the best possible health results for pharmaceutical users. This is accomplished by incorporating five main elements: medication therapy review, assessment of personal prescription records, development of a medication-related action plan, intervention or referral if needed, along with documentation and follow-up [1]. Initially, when initiating the MTM process, a pharmacist, will thoroughly review all of an individual's medicines to confirm that their intended use and dosages are suitable. Then, a thorough assessment of their existing medication record will reveal any concerns with adhering to the specified medical therapy, duplicate therapies, or competing medications. Based on these investigations, a tailored care plan will be created to deal with any potential challenges with adhering to the prescribed treatment. After that, the medical expert will get in touch with the patient's prescribers as appropriate and,

if required, suggest further follow-up care. Lastly, suggested actions will be included in a thorough record of the discussion [1].
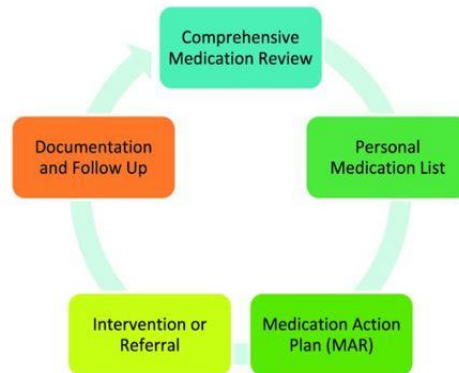
Fig. Schematic representation of Medication Therapy Management [3].

A. Benefits of implementing MTM service in patient care:

MTM services are versatile and can be delivered in various settings, including inpatient facilities, ambulatory care settings (e.g., outpatient clinics, physician practices), retail pharmacies in the community, and long-term care settings such as assisted living or skilled nursing facilities. Furthermore, professional staff, typically pharmacists employed by pharmaceutical benefits management organizations or other commercial health care companies, may provide telephone-based MTM services to community-dwelling adults via centralized call centers.

The setting for MTM delivery is determined by the type of provider offering the service and the goals and scope of the MTM program. Because MTM encompasses a wide range of services, any review of these interventions needs to be limited to ensure that the interventions being reviewed are reasonably comparable. For instance MTM services provided during and shortly after a hospital stay may not be comparable to MTM services provided to outpatients due to differences in therapy goals and patient status acuity. MTM services can be provided as one-time interventions or longitudinally during multiple episodes of care, depending on the specific type of service and care setting [4].

1) MTM in Special population care:

In the United States, roughly 4.3 million ambulatory visits have been associated with adverse medication events. Surprisingly, over one-third of these events were serious, life-threatening, or deadly, and more than 40% might have been avoided. Alarmingly, 12 percent of hospitalized patients experienced adverse medication events within three weeks of being discharged. Furthermore, many patients do not receive optimal therapy for chronic illnesses such as high blood pressure and hyperlipidemia, increasing their risk of cardiovascular disease and its complications. Even when provided effective therapy, patient noncompliance with drug regimens might result in unsatisfactory health results [4]. The need to better manage chronic illnesses and drug use in the elderly is driven by the growing geriatric population. Addressing medication-related issues in this group, such as changes in pharmacodynamic and pharmacokinetic characteristics, is vital. Furthermore, the correlation between polypharmacy in senior individuals with various chronic conditions and increased mortality risks highlights the necessity of proactive medication-related problem monitoring and resolution (MRPs). Engaging pharmacists in complete medication evaluations alongside collaborating with physicians on Medication Therapy

Management (MTM) programs can result in significant cost savings and better results for elderly patients [5].

Further, MTM services are now required due to a various factors, including an older population, growing out-of-pocket expenses, a greater reliance on prescription pharmaceuticals, medical improvements, a greater range of accessible medications, and rising drug costs. These services are essential for treating polypharmacy, needless drug therapy, and poor drug therapy. Due to a lack of communication between healthcare providers, patients with various chronic diseases frequently receive fragmented care, which raises expenditures and hospitalization rates. One of the top five preventable causes of death in the elderly is thought to be medication-related issues [1]. Additional rewards of Medication Therapy Management (MTM) include a better understanding of drugs, individualized time with a healthcare expert, advice for alternative therapies, and potential cost savings. Pharmacists and other health care providers can grasp first-hand how MTM integration improves their facilities. For instance, MTM services have the potential to improve overall satisfaction, lower patient out-of-pocket costs, and improve clinical outcomes [1].

2)   MTM in enhancing patient care outcomes:

Medication Therapy Management (MTM) programs have been shown to significantly enhance clinical outcomes by lowering the risk of adverse drug events and encouraging proper medication use. A comprehensive analysis of 31 high-quality systematic reviews in community settings, including 297 unique papers, found adequate evidence to support the positive benefits of MTM therapies. These therapies have shown promising results in the management of illnesses such as blood pressure, cholesterol, diabetes, anticoagulation, asthma, and COPD. Furthermore, MTM has been linked to improved medication adherence, quality of life, patient satisfaction, and drug knowledge. Furthermore, multiple studies have connected MTM services to reduced adverse drug events, fewer hospital readmissions, lower total healthcare costs, and better medication adherence [6].

B. Key challenges in associated with implementing MTM program:

The obstacles in Medication Therapy Management (MTM) identified thus far include pharmacy workflow, the healthcare team, new technology, pharmacist reimbursement, and patient participation.

a)   Challenges linked with Pharmacy Workflow:

The benefits of MTM have sparked widespread interest, yet there are few institutional procedures and personnel structures in community pharmacies to support MTM. Pharmacies must decide whether MTM should be integrated into their usual dispensing workflow or offered as a separate service. Many community pharmacists in the United States have found it challenging to incorporate MTM into their present workflow, regardless of whether they are compensated for it. Challenges include a lack of time, qualified support individuals; an overwhelming workload, and limited space. Pharmacist job descriptions typically lack information on their evolving involvement in MTM [7].

Both pharmacists and patients have expressed concerns about time constraints, which are often connected to limited pharmacy staff and staffing inconsistencies. Pharmacies with resident support have an easier time implementing MTM programs than those without it. An increase in pharmacy technician hours is linked to a higher likelihood of effective MTM deployment; nonetheless, some pharmacists believe that technicians' training is insufficient for participation in MTM. Another difficulty is a lack of pharmacy management support. The lack of administrative support from pharmacy owners, corporate entities, and pharmacy benefit managers has made it challenging to implement MTM delivery. Inadequate space has also had an impact on MTM service delivery. The requirement for enough physical space for pharmaceut-

ical and disease-state management services at community pharmacies is evident [7].

b)   Challenges linked with healthcare teams:

The lack of involvement of community pharmacists in the rest of the healthcare team has created challenges for MTM service around the world. Community pharmacists typically work in locations other than healthcare centers, and the majority of MTM services are provided without the pharmacist being fully integrated into the healthcare team. Communication among community pharmacists, community nurses, and general practitioners is difficult to achieve in a frenetic atmosphere. The lack of a consistent protocol for pharmacists to make recommendations to prescribers and report findings is also a concern. The integration of the pharmacist into the healthcare team is difficult since other team members do not comprehend the community pharmacist's responsibilities beyond dispensing. Resistance from physicians or state medical societies is another impediment to pharmacists providing clinical services. Older physicians have expressed a preference for continuing to utilize their own method of judging things, and worries about pharmacists' clinical skills were unknown [7].

c)   Challenges linked with use of technology:

The use of technology presents issues for Medication Therapy Management (MTM) delivery in community pharmacies and throughout the healthcare system. Access to medical records is critical for successful MTM, but including community pharmacists into the health information technology framework has proven challenging. As a result, the use of electronic health records systems in community pharmacies has been limited. Certain companies have policies that limit the provision of MTM services through web-based providers because to security concerns. However, this restriction poses a technological barrier. MTM suppliers usually require contracted community pharmacists to utilize their web-based software solutions for invoicing and documentation.

The use of MTM automated web-based software raises additional concerns, such as a lack of uniformity among MTM vendor systems and a lack of information sharing with the pharmacy's management system. Furthermore, pharmacists may find it difficult to handle several billing and documentation systems, as pharmacy management systems may need them to document specific services in various systems. To make this process easier, pharmacists have created automated software systems capable of storing and updating drug claims, sending and receiving faxes to and from physicians and pharmacies, and permitting documentation with patient-specific freeform language. Each profile is complete, allowing the pharmacist to receive all relevant information from a single source [7].

d)   Challenges linked to reimbursement:

In the United States, payers do not provide significant coverage for MTM services beyond Part D. From a payer standpoint, there are significant obstacles to pharmacist-delivered MTM. Although Medicaid programs have acknowledged the advantages of MTM, many commercial payers have failed to identify and compensate for these treatments. Several difficulties, such as pharmacist qualifications, physicians' lack of understanding of pharmacist training, reluctance to collaborate with pharmacists, poorly designed population-health models, and the lack of uniform pricing structures, limit payment to pharmacies. Even when payers cover the services, low financial remuneration remains a significant obstacle to MTM delivery. Typically, the drugstore, not the individual pharmacist, receives the payment. Ambiguity and concern among stakeholders regarding the legitimacy of paying for pharmacist services also exist. Many community pharmacies struggle to build a business case for MTM delivery due to poor volume and reimbursement [7].

e)   Challenges linked with Patient Participation:

Patients, like physicians, provide a further barrier to MTM delivery since they are unaware of the growing role of community pharmacists in healthcare. A lack of awareness with MTM services, not being referred by a physician, and cost concerns have all been identified as significant patient hurdles. Many people believe that pharmacists are simply dispensers of pills, rather than healthcare specialists who work alongside their doctor. As a result, they consider the pharmacist's traditional duty of dispensing and providing brief advice to be enough.

Pharmacists have stated that some patients fear pharmacists are entering their protected patient-provider relationship and undermining or complicating their initial treatment plan. The disparity between pharmacist services and patient expectations is a major reason why patients are uninterested in pharmacist MTM services [7]. Finally, many patients are unaware that the pharmacist works with their doctor to provide prescription recommendations. Patients are also concerned about the expense of MTM services, and their willingness to pay for them varies. Patients' unwillingness to pay does not offset the expense of providing MTM, hence this service is often not financially viable for pharmacies [7].

f)   Challenges in Maintaining MTM Program Quality:

Ensuring high standards in the MTM program is critical to providing consistent care to each patient [8]. Several elements, including the distribution method, frequency, timing, and specific MTM components, can have a substantial impact on the program's performance. Understanding the patient's drug therapy goals and incorporating MTM services into normal care are critical to meeting MTM objectives. Effective communication with patients and prescribers, as well as quick access to medical records, are critical components of incorporating MTM services into routine treatment. Furthermore, healthcare reimbursement systems can have an impact on the provision of MTM services [4].

CONCLUSION:

Despite the existence of numerous challenges associated with the implementation of Medication Therapy Management programs in pharmacies, it is important to recognize that the implementation of these programs yields substantial rewards in terms of improving patient health outcomes and safety.

However, challenges like technology integration, workflow optimization, and pharmacist reimbursement hinder its full realization. To improve MTM, improvements in health IT systems, improved communication, and appropriate remuneration frameworks are needed.

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