The medication experience: Preliminary evidence of its value for patient education and counseling on chronic medications

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1. Introduction

Medications are the most common therapeutic intervention used in health care and prescription drugs represent a significant portion of health care expenditures. In 2005, prescription drugs represented about 20.8 percent of all medical expenditures for persons under age 65 in the United States [1]. In 2006, 71 percent of physician office visits involved at least one prescription [2]. Moreover, drug-related morbidity and mortality costs are estimated at almost $200 billion annually, exceeding the amount spent on the medications themselves [3–5]. Studies have found that 32 percent of adverse events leading to hospital admission were attributed to medications [6], and that drug interactions are an important problem in medication use [7]. Studies have estimated that only 33–50 percent of patients with chronic conditions completely adhere to prescribed medications [8,9]. Despite the problems associated with medication use, when well utilized, medications can have a positive impact on the health of individuals and a population.

To ensure medications are used effectively and safely, scholars in pharmacy developed a care model called pharmaceutical care, which utilizes the pharmacotherapeutic expertise of pharmacists [10–13]. Pharmaceutical care is a patient-centered practice model in which the pharmacist works directly with a patient and in conjunction with other practitioners to take responsibility for achieving the intended outcomes of drug therapy. It involves the development of an individualized care plan to guide patient education and counseling on new chronic medications to ultimately prevent DTPs, and valuable for tailoring patient education and counseling on medications to resolve DTPs. Pharmaceutical care was first defined in 1990 and has since been accepted as the mission of the profession of pharmacy throughout the world [16–26]. In the United States, this model, has become known as Patient Education and Counseling xxx (2011) xxx–xxx

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ABSTRACT

Objective: To describe medication therapy management (MTM) pharmacists’ encounters with patients’ medication experiences, to examine the utility of the medication experience in practice, and to explore the value of the medication experience in patient education and counseling on medications.

Methods: A focus group of 10 MTM pharmacists, and 1 pharmacist’s 9-month practice diary were analyzed to reveal patients’ medication experiences and the utility and value of the medication experience in practice.

Results: MTM pharmacists commonly encountered patients’ medication experiences in their practices. The medication experience was often at the root of drug therapy problems (DTPs) the practitioners identified. The pharmacists identified several examples of drug therapy problems with an associated medication experience at the root. The medication experience was a meaningful construct to guide patient education and counseling on new chronic medications to ultimately prevent DTPs, and valuable for tailoring patient education and counseling on medications to resolve DTPs.

Conclusion: Our study provides preliminary evidence of the value of the medication experience for patient education and counseling on chronic medications in practice.

Practice implications: The medication experience is a valuable tool for practitioners to understand patients’ needs, identify and resolve DTPs, and tailor patient education and counseling for chronic medications.

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medication therapy management (MTM), which is a service offered to high-risk beneficiaries under the Medicare prescription drug benefit that began in 2006.

Like clinicians who all use a rational decision-making process to diagnose patients’ conditions, in pharmaceutical care, the pharmacist uses a systematic, rational decision-making process called the pharmacotherapy workup to identify, resolve and prevent drug therapy problems (DTPs) [27–29]. The pharmacotherapy workup includes a taxonomy for assessing medications; that is, in terms of (i) indication, (ii) effectiveness, (iii) safety and (iv) compliance. Therefore, the pharmacist assesses every medication a patient takes (including prescription, nonprescription, complementary or alternative medicines, vitamins, and nutritional supplements) to ensure each is, first, appropriate for the patient (indication), second, effective for the specific medical condition (effectiveness), third, safe given the patient’s co-morbidities and other medications (safety), and, finally (and only after indication, effectiveness and safety have been established), that a patient is able to take the medication as intended (compliance) [29]. As a result, the practitioner identifies and classifies the DTPs into 7 types, which fall within the taxonomy depicted in Table 1.

While pharmaceutical care provided a rational approach to drug therapy, it also posed a new ontological and epistemological approach for pharmacy – focused on patients and not just drugs. As such, pharmacy scholars and practitioners quickly became aware of the importance of expanding pharmacists’ understanding of patients [30–33], including understanding the meaning of chronic medications for patients – The Medication Experience, which was defined by Shoemaker and Ramalho de Oliveira [34]:

“The medication experience is an individual’s subjective experience of taking a medication in his daily life. It begins as an encounter with a chronic medication. It is an encounter that is given meaning before it happens and is often a reaction to the symbol that medication holds. The experience may include positive or negative bodily effects. The unremitting nature of a chronic medication often causes an individual to question the need for the medication. Subsequently, the individual may exert control by altering the way he takes the medication and often in part because of the gained expertise with the medication in his own body.”

They identified four main themes with associated sub-themes of the medication experience: (1) a meaningful encounter that can be revealed as (a) sense of losing control, (b) a sign of getting older, (c) cause questioning, and (d) a meeting with stigma; (2) bodily effects, which can reveal (a) negative bodily effects and (b) positive effects (i.e., magic elixir); (3) unremitting nature; and (4) exerting control [34].

The medication experience has become a key component of pharmaceutical care practice [14,15] and medication management in the patient-centered medical home [35]. Because the medication experience is different for each individual patient, it is expected to significantly influence the pharmacist’s approach when working with the patient. Moreover, since it can shape patients’ behaviors regarding their medications, it might lead to the development of DTPs. Thus, the patient’s medication experience can be at the root of the patient’s DTP.

Despite its importance, to date, no study has explored how this concept emerges in a MTM practice, its utilization by pharmacists in their daily practice, and how it could shape the patient education and counseling to optimize their drug therapy. While the medication experience as a pharmacy practice concept was previously uncovered from qualitative research with patients, the existence and value of the medication experience for MTM pharmacists had only been explored anecdotally to date. Therefore, this study describes MTM pharmacists’ encounters with patients’ medication experiences in practice, examines the utility of the medication experience in medication management practice, and explores the value of the medication experience in patient education and counseling on medications for any medication management practice.

2. Methods

We conducted a focus group of 10 MTM pharmacists about their encounters with the medication experience, its utility and value for patient education. Additionally, one MTM pharmacist maintained a diary over 9 months on her patients’ medication experiences, any associated DTPs and how she used that information to tailor her patients’ education and counseling on medications. Each of these data collection methods and the analytic approach are described below.

2.1. Focus group of medication therapy management pharmacists

A focus group was conducted in January 2010 with 10 pharmacists who provide MTM directly to patients across 17 different clinics in a large health care delivery system in Minnesota (USA). The pharmacists had between 1 and 12 years of experience providing MTM, with most having 3 or more years of experience. As a group, from 1998 through 2009, the participants had provided MTM to 10,858 patients and resolved 49,081 DTPs. The MTM practice model of this health system has been previously described and assessed [15,36–39].

Two weeks before the focus group, the participants were asked to reflect on the following: (i) From your perspective, what is the patient’s medication experience; (ii) Think of examples of the medication experience in your practice and bring a story to share; (iii) What is the value of the medication experience for your practice? Additionally, during the focus group, participants were asked whether they had encountered the medication experience in practice, what kinds of experiences, what they did with that information to care for their patients, and if their understanding of the medication experience helped them to identify, address or resolve DTPs.

The focus group lasted 2 h, was conducted by two of the authors (SS, DRO) informed by Krueger and Casey’s [40] approach, taped-recorded and transcribed verbatim. Three of the authors (SS, DRO, MA) conducted a thematic analysis independently, coding to identify stories that described patients’ medication experiences (as encountered by MTM pharmacists), how those experiences were related to or were at the root of DTPs and the strategies pharmacists used to address and resolve these problems. The three authors then compared the themes identified for each of the coding areas, identified commonalities and reconciled differences. Then the three authors examined the extent to which the themes of the medication experience fit the themes identified by Shoemaker and Ramalho de Oliveira [34]; that is (1) a meaningful encounter, (2) bodily effects, (3) unremitting nature and (4) exerting control.

Table 1

<table>
<thead>
<tr>
<th>Drug therapy problems</th>
<th>Indication</th>
<th>Effectiveness</th>
<th>Safety</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unnecessary medication</td>
<td>Need additional drug therapy</td>
<td>Ineffective drug</td>
<td>Dosage too low</td>
<td>Non-adherence</td>
</tr>
<tr>
<td>Adverse drug reaction</td>
<td>Dosage too high</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2
Patients’ medication experiences encountered by MTM pharmacists.

<table>
<thead>
<tr>
<th>The medication experience themes [34]</th>
<th>MTM pharmacists’ descriptions of patients’ medication experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meaningful encounter</td>
<td>“She equates any increase in dose as a failure on her part, like she wasn’t able to [do what she was supposed to do].”</td>
</tr>
<tr>
<td>Sense of losing control</td>
<td>“I feel like an old person. If you are an old person, that’s ok [to take medications chronically], but if you are young, that’s very odd.”</td>
</tr>
<tr>
<td>Sign of getting older</td>
<td>“You’re not supposed to take 12 medicines each day when you’re in your 40s. It’s just wrong.”</td>
</tr>
<tr>
<td>Cause questioning</td>
<td>He is reluctant to take medications; he said “My mom died when she was 88 and all she took was aspirin and a water pill and my dad died at 66 and he took 18 different meds.”</td>
</tr>
<tr>
<td>A meeting with stigma</td>
<td>“I felt that if people found out I was on this medication [antidepressant], they would see me as weak.”</td>
</tr>
<tr>
<td>Bodily effects</td>
<td>“The patient never wants to return to that state of pain and cannot think about trying different therapies.”</td>
</tr>
<tr>
<td>Magic elixir</td>
<td>“I would sort of tolerate the shots if I didn’t gain any weight, but I’m gaining weight so my perception is that insulin is crap and I hate it.”</td>
</tr>
<tr>
<td>Negative effects</td>
<td>“They never take any meds away from me. They just always give me more medicines. I don’t seem to get any better. What are these meds doing for me anyway?”</td>
</tr>
<tr>
<td>Unremitting nature</td>
<td>“If I have to leave the house in the morning, I won’t take my water pill. I just can’t be looking for a bathroom everywhere.”</td>
</tr>
</tbody>
</table>

2.2. A pharmacist’s diary of patients’ medication experiences

From January through September 2010, one MTM pharmacist was solicited to keep a diary in which she recorded her patients’ medication experiences, how the experiences affected the development of DTPs, and how she addressed and used this information to identify/resolve DTP and educate the patient. Participant solicited diaries are a meaningful data source in qualitative research, especially in examining experience [41–43]. The practitioner has over 10 years of experience providing MTM to patients and currently works full time as a MTM provider in 2 clinics in Minnesota metropolitan area. A thematic analysis of the journal was conducted, similar to the focus group approach.

2.3. Meta-synthesis

Three of the authors (SS, DRO, MA) then synthesized the focus group and the pharmacist diary themes using a meta-synthesis approach. Meta-synthesis is an analytic technique that facilitates a fuller understanding of a phenomenon by providing an interpretive integration of qualitative findings and is increasingly seen as essential to enhance the generalizability or transferability of qualitative research [44]. The process began with the review of the themes from the focus group and diary analysis. The researchers then aggregated the themes to identify the overlapping and similar themes to describe patients’ medication experiences from the practitioners’ encounters, how practitioners used the medication experience in practice, and when the medication experience intersected with patient education and counseling on medications.

3. Results

The findings from the focus group and diary are presented for each of the three areas explored in this study: (i) MTM pharmacists’ encounters with patients’ medication experiences in their practices, (ii) the utility of the medication experience in medication management practice, and (iii) the value of the medication experience for patient education and counseling on medications.

3.1. MTM pharmacists’ encounters with patients’ medication experiences

The MTM pharmacists identified several specific examples of patients’ medication experiences that they encountered in their practices. Most practitioners spoke of their patients’ medication experiences in the third person, but some used the first person to repeat the essence of what their patients would say about their medications. Many stories and examples of patients’ medication experiences emerged during the focus group and in the pharmacist’s diary. Table 2 provides several examples of the medication experiences of patients that the MTM pharmacists encountered.

As Table 2 illustrates, pharmacists described stories of patients’ medication experiences that mapped to several of the themes of the medication experience previously identified [34]. For instance, when initially prescribed a chronic medication, patients indicated a sense of losing control over their health and they often doubted and questioned the need for a medication. Patients also associated the use of chronic medications with sickness and ageing. When patients lived with a stigmatized medical condition, that perception was also transferred to the medication used to treat it. Medications altered patients’ bodies positively and negatively, which influenced patients’ perceptions and their willingness to adhere to their medication regimen. The unremitting nature, and often progression, of chronic conditions made patients feel as though their medication was not effective or was worsening their health. Over time a patient might take control over their medications by changing, skipping or stopping them.

3.2. The utility of the medication experience in medication management

Our findings showed that not only did the medication experience shape patients’ attitudes and behaviors, but it also shaped MTM pharmacists’ practice. According to some of the MTM pharmacists, the medication experience represented the context in which they operated. The MTM pharmacists recognized that most of their patients had preconceived ideas about medications; past experiences that shaped their attitudes; or others’ experiences with medications that influenced their ideas about the medications. Hence, the MTM pharmacists believed that they could not be effective providers, or help their patients to get the most benefit from their medications, if they did not attend to these subjective experiences. Interestingly, the MTM pharmacists believed that the medication experience was instrumental in their practices, yet it appeared to be tacit knowledge that was previously ineffable, as one stated:

“There are people around this table that have been doing MTM for 11 years, and there are probably things in us that we know,
but we just can’t put our finger on it yet…We need people like you [researchers] to draw that out.”

Since the medication experience appeared to critically affect their patients’ medication-taking behavior, MTM pharmacists often had to utilize the medication experience effectively to identify and resolve patients’ drug therapy problems. Table 3 provides specific examples of patients’ drug therapy problems and the associated medication experiences that the MTM pharmacists encountered. As illustrated in Table 3, an understanding of the patient’s medication experience allowed the pharmacists to identify the causes of drug therapy problems and, as a result, to resolve them – all part of a pharmacists’ role in MTM.

3.3. The value of the medication experience in patient education and counseling on medications

The value of the medication experience in patient education and counseling was revealed in two ways by MTM pharmacists: (1) the importance of understanding the medication experience and incorporating it in patient education and counseling on medications to prevent drug therapy problems and (2) the value of the medication experience to resolve drug therapy problems when the medication experience is at the root, and then, using tailored patient education and counseling that acknowledges the patient’s medication experience. The findings for each are described below.

3.3.1. The value of the medication experience to guide patient education and counseling on new chronic medications

In MTM practice, pharmacists not only used the pharmacotherapy workflow (drug therapy problem taxonomy) to assess drug therapy, but they also used it to provide education and counseling on medications. When the pharmacists identified a drug therapy problem, such as a need for additional therapy or a different medication, the pharmacists often had to tailor their education and counseling on the new medication by taking into consideration the patient’s medication experience. It was important to take the medication experience into account to prevent any further drug therapy problems. For example, one pharmacist described a situation of having to educate one patient who was frustrated with having tried and needing to take multiple medications for her diabetes:

“I said to the patient let me just explain how all the different medications work and then why typically with type 2 diabetes, especially as you are aging, you can’t be controlled on only one medication.”

Another pharmacist described encounters with several different patients about medications for Parkinson’s disease:

“Patients often say, ‘well I was on this and it worked, it was a miracle drug, we call it the walking pill’. Or another patient will say ‘well my husband was on that and it didn’t work at all. He never took anything that worked.’ So I talked about how everybody is so different and that medications work differently in different people.”

Thus, pharmacists also drew upon the medication experience to guide the education and counseling they provided to patients starting new medications to prevent the development of drug therapy problems and ensuring the desired outcome.

3.3.2. The value of the medication experience to tailor patient education and counseling to resolve DTPs

The MTM pharmacists described how they resolved or could have resolved the DTPs they and their colleagues encountered in practice. By listening for and acknowledging their patients’ medication experience, the pharmacists’ implemented strategies to resolve the DTPs that largely focused on tailored education and counseling on the patient’s medication. Table 4 provides examples of patients’ medication experiences and the educational and counseling strategies the MTM pharmacists used to address and resolve DTPs.

As illustrated in Table 4, by exploring patients’ experiences with medications, the MTM pharmacists came to better understand

<table>
<thead>
<tr>
<th>Drug therapy problems</th>
<th>Patient’s associated medication experience</th>
</tr>
</thead>
</table>
| I. Indication
  Unnecessary drug therapy
  The patient no longer takes indomethacin to treat gout exacerbations; his preventive therapy is likely effective now.
  Needs additional therapy
  The patient needs drug therapy to treat her diabetes. | Afraid to be without the medication: The patient is afraid to be taken off the medication because it “saved” him from the pain he experienced in his first gout exacerbation.
  Adding medication means failure: The patient experiences adding a medication for her diabetes, which was previously managed with lifestyle changes, as meaning she is a failure. |

| II. Effectiveness
  Different drug needed
  The patient needs a different, more effective drug because the one he is currently taking is not as effective and it is making him “groggy.”
  Needs synergistic therapy
  The patient needs another medication to complement her current blood pressure medication.
  Dosage too low
  The patient needs her statin dose increased to reach her goal. | Afraid to be without the medication: The patient had terrible foot pain before taking the medication, such that now he does not want to stop the medication, despite it making him “groggy.”
  Afraid of too many drugs for one condition: The patient is concerned about side effects and taking too many “chemicals” to treat one condition.
  Increasing medication dose means failure: The patient experiences an increase in her dose as meaning she has failed. |

| III. Safety
  Adverse drug reaction
  The patient is having undesirable weight gain.
  Dosage too high
  The patient gives herself a high dose of insulin to compensate for earlier skipped doses. | Does not tolerate side effects: The patient experienced weight gain, an undesirable effect.
  Patient adjusts her medication regimen: Because of her work schedule, the patient skips the first dose of her insulin and when she gets off work she gives herself large doses of rapid acting insulin to bring her elevated glucose down. |

| IV. Compliance
  Prefers not to take medications
  The patient stops her antiplatelet agent post stent because it’s expensive and she would prefer to save the money. | Patient questions the value of the medication: The patient does not perceive a benefit to the medication. She will intermittently stop the medication to see what happens. |
MTM pharmacists' strategies to resolve DTPs with associated medication experiences.

Table 4

<table>
<thead>
<tr>
<th>Patients' DTP and medication experience</th>
<th>Patient education and counseling strategies used by MTM pharmacists to resolve DTPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Indication</td>
<td></td>
</tr>
<tr>
<td>Unnecessary medication</td>
<td>Acknowledge: Agree that it is hard to argue when a medication successfully does what it is supposed to do.</td>
</tr>
<tr>
<td></td>
<td>Help patient to understand that there are other consequences for bad lifestyle choices.</td>
</tr>
<tr>
<td></td>
<td>Find a compromise, encourage small lifestyle changes, which may eventually lead to an opportunity to stop the medication.</td>
</tr>
<tr>
<td></td>
<td>Share safety data related to long-term use of the unnecessary medication, or potential drug interactions that may apply.</td>
</tr>
<tr>
<td>Needs additional therapy</td>
<td>Acknowledge: Agree that it is not acceptable to live with an adverse drug reaction.</td>
</tr>
<tr>
<td></td>
<td>Explain the rationale for treatment.</td>
</tr>
<tr>
<td></td>
<td>Give patient the name of the product, let them think about it.</td>
</tr>
<tr>
<td></td>
<td>Share willingness to stop therapy if an adverse reaction occurs.</td>
</tr>
<tr>
<td></td>
<td>Share that you want to work with the patient, not against her.</td>
</tr>
<tr>
<td>II. Effectiveness</td>
<td></td>
</tr>
<tr>
<td>Needs synergistic drug therapy</td>
<td>Listen to the patient's concerns. Share information on how their current regimen is working, but not producing desired results.</td>
</tr>
<tr>
<td></td>
<td>Share how the health condition is often progressive.</td>
</tr>
<tr>
<td></td>
<td>Explain how the medications complement each other.</td>
</tr>
<tr>
<td></td>
<td>Share how the new medication might enhance the action of the current regimen, and improve her quality of life.</td>
</tr>
<tr>
<td>Dosage too low</td>
<td>Share additional health benefits realized when they reach the goal of therapy – or rationale for that 'goal number'.</td>
</tr>
<tr>
<td>The patient is reluctant to increase the dose of her statin. She feels she should be able to do it with lifestyle changes.</td>
<td>Agree that lifestyle changes are important and offer to work with her on those changes.</td>
</tr>
<tr>
<td></td>
<td>Share additional benefits of those changes.</td>
</tr>
<tr>
<td></td>
<td>Explain basic pathophysiology on why lifestyle changes may not be as effective as we would hope.</td>
</tr>
<tr>
<td></td>
<td>Involve the patient in shared decision – weigh risks/benefits.</td>
</tr>
<tr>
<td>III. Safety</td>
<td></td>
</tr>
<tr>
<td>Dosage too high</td>
<td>Understand the reasons for feelings of burden.</td>
</tr>
<tr>
<td>The patient skips the first dose of the medication and doubles the second in order to simplify his regimen.</td>
<td>Validate patient's feelings of burden.</td>
</tr>
<tr>
<td></td>
<td>Learn about the patient's daily routine.</td>
</tr>
<tr>
<td></td>
<td>Share information on the risks associated with doubling the dose.</td>
</tr>
<tr>
<td></td>
<td>If possible, share once daily medication or simplify regimen.</td>
</tr>
<tr>
<td>IV. Compliance</td>
<td></td>
</tr>
<tr>
<td>Patient forgets to take medications</td>
<td>Help patient to identify things that she does each day at roughly the same time: brush her teeth, drink coffee, bedtime routines.</td>
</tr>
<tr>
<td>The patient has 4 children, and often cares for her sick mother. She maintains the household and gets her kids to various activities. Each day is different, routines, and mealtimes vary. Medications are not a priority in patient's life.</td>
<td>State reasons why taking the medication or improving her health will help her feel better in the short term, become better able to handle stresses associated with current situations.</td>
</tr>
<tr>
<td></td>
<td>Help the patient with some objective measures, home monitoring to allow her to see the numbers. Either blood pressure monitoring or home glucose monitoring can help. Give her a short time frame (2–4 weeks) if possible. Talk about her health goals, let her do the monitoring and realize that the numbers are above goal.</td>
</tr>
<tr>
<td></td>
<td>Educate about the preventive nature of the medication. Agree that she may or may not feel any different without the medication. Explain her increased risk without the medication. Explain how medication can complement each other to provide even better outcomes or risk reduction.</td>
</tr>
<tr>
<td></td>
<td>Involve the patient in shared decision making to weigh risks and benefits of the preventive drug therapy.</td>
</tr>
<tr>
<td></td>
<td>If cost is a barrier, consider a less-expensive alternative if possible.</td>
</tr>
</tbody>
</table>

4. Discussion and conclusion

4.1. Discussion

The preliminary evidence from our study indicates that the medication experience is a meaningful construct for understanding patients and a potentially valuable tool for providing effective patient-centered medication management and patient education and counseling on chronic medications. Our findings expand the understanding of how to identify, resolve and prevent drug therapy problems in patients with chronic medications for all health care professionals. While the prevalence of clinical drug therapy problems identified in medication management is high, our findings indicate that there are many examples of drug therapy problems for which the medication experience is at the root as well [14].

While the medication experience was only recently introduced in pharmacy; several studies in other disciplines have examined
Gloria is a 56 year old female. She works at fast-paced, stressful accounting job for a large company. She was referred to MTM over 3 years ago. Her physician asked for assistance because Gloria did not seem to tolerate any blood pressure medication, and she would not take anything regularly. In our first visit together, Gloria was very talkative, nervous, and full of ‘excuses’ about how she needed to focus on her job and her family. When I asked about her social history, she shared that she had a demanding job, her husband was seasonally employed, she cared for her aged parents and her two college-aged children were struggling to find their way. I empathized stating, ‘No wonder your blood pressure is high!’

When I asked her what she heard about me or MTM she replied ‘Dr Jones said you would help me find a blood pressure medicine.’ When I asked what she hoped to get out of our visit, she admitted being fearful of uncontrolled blood pressure given how many people depended on her, yet she needs to be functional and productive on a daily basis.

During my early visits with Gloria, I did not understand how to utilize the medication experience to tailor my educational approach, so I made logical clinical medication choices. I selected generally well-tolerated medications, low-dose combination medications, and medications that would benefit her other co-morbidities as well. Several times Gloria came back with unusual reactions or something that was going on in life that required her to be focused and fully functional. For example, she once got in a fender-bender and was certain it was due to the medication – an antihypertensive medication – and she said “it even has the car sticker right on the bottle!” She also did not like urinating frequently at work; also, if she needed to sit through a seminar or conference, she would skip the one medication so she could stay awake.

Each visit I would ask her what she thought we should do: should we change the medication, the dose or the timing? Initially she thought this was strange – that I did not have an answer right away. We would talk through the pros and cons of each option. I would share how the medications worked, some basic pathophysiology and why I thought each was a good option. She made her choices based on the education I provided, and appreciated being engaged in the decision. Her blood pressure has been well controlled for over a year now. She takes one of her medications in the morning, her diuretic before she leaves work and her beta-blocker at bedtime. She has tolerated the regimen and has been very adherent. She was grateful for my perseverance and felt her health was in a safer place now. Now we are working on finding an asthma medicine that may work better than her current regimen.

![Fig. 1. Example case of tailored education and counseling in MTM practice.](image)

the meaning that patients ascribe to their medications, often as part of the illness experience [45–53]. However, most of that literature examined the medication experience from patients' perspectives, whereas our results revealed pharmacists' encounters with their patients' experiences, further confirming the existence of the medication experience.

Based on a synthesis of qualitative studies, Pound et al. [48] found that patients tend to resist the use of medications and have considerable reluctance to take medications. Other studies have found that patients constantly make decisions about their treatments, altering their medication regimens or not following their practitioner's recommendations [34,49,53]. The literature has provided examples of essentially DTPs resulting from patients' experiences, though they have largely focused on compliance; whereas this study provides numerous examples of the medication experience at the root of all types of DTPs.

While counseling has long been a part of pharmacy practice in the United States under the Omnibus Reconciliation Act of 1990 [54], the regulations did not recognize the autonomy or individuality of a patient or his/her experience. For this reason, some authors have labeled traditional pharmacy counseling as “information dumping” [33]. Moreover, now that patient care practices are pervasive in pharmacy, little research has examined how best to provide education and counseling in MTM, except to acknowledge it as a technique [55]. The results of this study illustrated how the medication experience can be incorporated into the education and counseling on new chronic medications to resolve DTPs. Similarly, the results also indicated how the MTM pharmacists effectively used the medication experience to select or tailor specific education and counseling strategies based on an understanding of the DTP and the medication experience that was at its root. If the medication experience is in fact a part of patients' lifeworlds with chronic conditions and medications, as Shoemaker and Ramalho de Oliveira [34] suggested and the MTM pharmacists in this study verified, then in order to effectively collaborate with patients to manage medications, health care professionals must acknowledge patients' unique experiences to be authentically patient-centered.

As the profession of pharmacy evolves to more patient-centered models, patient education would be expected to gain new momentum, especially since research has recognized that patients ultimately manage their medications [8,45,56]. As such,
approaches to patient education have been evolving to a more participative role in which the decision-making about treatments is shared between the patient and practitioners [57–61]. Moreover, patient education becomes even more crucial with the high prevalence of chronic conditions in which patients need to self-manage their conditions and make lifestyle changes in order to improve their health [62]. For these reasons, strategies like motivational interviewing have been used across practice settings and practitioners with the intent to increase patients’ adherence to behavior changes [63,64], and is seen as a more focused and goal-oriented intervention than traditional counseling. In order to ensure effective, patient-centered medication management, the practitioner should acknowledge and attend to a patient’s medication experience and use it to guide or tailor patient education and counseling on medications to prevent or resolve drug therapy problems.

The findings of this study should be interpreted in light of the study’s limitations. The study used a purposive sampling approach, which provided depth by utilizing MTM pharmacists familiar with the medication experience. Nonetheless it consisted of only one focus group and the diary of one MTM pharmacist, all from the same health care system, which cannot be considered representative of the landscape of health systems, MTM practices or practitioners. This study was exploratory and involved qualitative methods to solicit MTM pharmacists’ encounters with patients’ medication experiences, though the experiences were not independently verified.

4.2. Conclusion

The medication experience is a valid experience of many patients, and an experience that MTM pharmacists encounter regularly in practice. The medication experience is a pervasive construct in the lives of patients’ taking chronic medications, suggesting that it can be a valuable concept for medication management provided by any practitioner. The medication experience appears to be at the root of many DTPs and can serve to guide patient education and counseling to prevent and resolve DTPs. Our study provides preliminary evidence of the value of the medication experience for patient education and counseling on chronic medications in medication management practice. Additional research is needed to more rigorously assess the outcomes of incorporating the medication experience in medication management practice.

4.3. Practice implications

The medication experience is a valid construct in the lives of patients and should be identified and acknowledged in any patient-centered medication management practice. In identifying DTPs practitioners should examine whether the medication experience is at the root, in order to best determine how to resolve the problem. The medication experience is a valuable tool for practitioners to understand patients’ lifeworlds to identify and resolve DTPs, and to tailor patient education and counseling for chronic medications. With the growing emphasis on patient-centeredness in health care and the increasing prevalence of chronic co-morbidities and complex medication regimens, the medication experience will be a vital construct for any practitioner caring for a patient with chronic medications in the future.

Conflicts of interest

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