Medication Adherence

Side Effects

Consequences of poor medication adherence include diseases progression, increased morbidity and mortality, reduced effectiveness of certain medications over time, increased healthcare costs, and avoidable hospitalizations and wastage. Based on literature review, RxLive created a platform to assist pharmacist interventions related to six major buckets they classified as the causative factors of medication adherence: cost; side effects; skills; understanding and knowledge; social and behavioral factors; and access to care and burden of regimen. RxLive's strategies can complement the knowledge and tactics of pharmacists to aid their patients in overcoming adherence issues relating to the side effects bucket.

Side effects: influence on medication adherence

Side effects – secondary undesirable effects that occur during medication therapy - can lead to rational nonadherence, where lack of adherence occurs due to adverse effects. Patients can be deterred from medication adherence if the side effects are intolerable, unmanageable, or anticipatorily feared. Adverse effects and side effects can manifest in response to an inappropriate dose, incorrect administration, bodily reaction, destruction of other healthy cells, or interactions with other medications or substances. Patients who experience adverse effects may stop the medications, self-adjust their regimen to counter the side effects, or not start their regimen at all. The National Community Pharmacists Association (NCPA) published in *Medication Adherence in America* that of >1000 survey respondents, three in 10 persons with chronic illnesses experienced unpleasant medication side effects, and 21% reported their medication nonadherence was attributed to concerns about side effects.

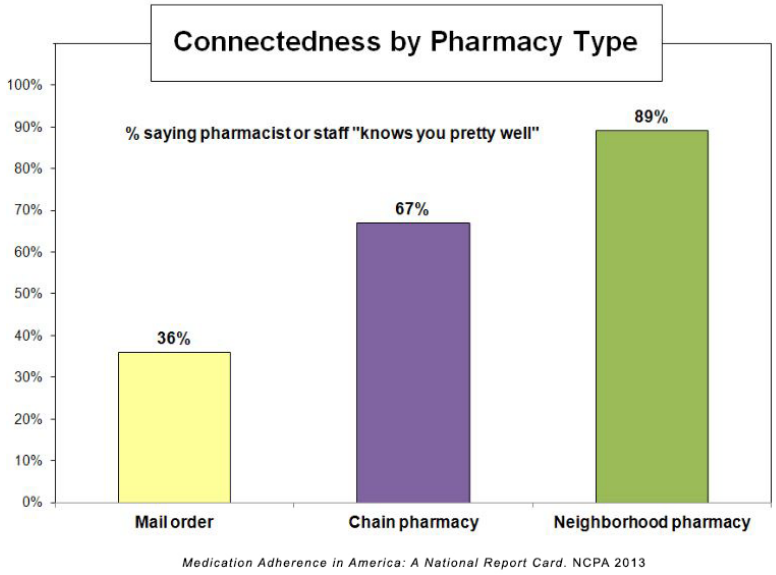
How pharmacists can identify medication adherence in regards to side effects

Pharmacists should be vigilant in assessing and identifying patients in populations that are at greater risk for medication nonadherence due to side effects. Certain populations - older adults, pregnant or breast feeding, those on concomitant therapies or with multiple disease states, infants and young children, or those with certain hereditary factors - are at higher risk for adverse drug reactions due to their capacity to metabolize drugs or by alterations of absorption, elimination or response. Caregivers or patients in these populations have an increased likelihood to experience, or have previously experienced, side effects or adverse events that may affect their medication adherence.

Pharmacists can also identify side effects as a barrier to medication adherence through self-report questionnaires, during counseling sessions, and via structured follow-up interviews that assess for various components of adherence.

How pharmacists can improve medication adherence relating to side effects

- ***Relatedness and connection:***
According to the NCPA 2013 *Medication Adherence in America* survey, patient connectedness with their pharmacist or the pharmacy staff was the strongest individual predictor of medication adherence, with 63% of Americans aged 40+ with chronic conditions reporting a sense of connectedness. Pharmacists are key healthcare professionals that are knowledgeable and accessible to patients, with the opportunity to identify and address side effect concerns during the initial counselling session when medications are dispensed. Information builds confidence, reduces anxiety, and empowers the patient to make informed-decisions relating to their health.



Medication Adherence in America: A National Report Card. NCPA 2013

Establish relatedness through listening, empathy and sharing information. Attempt to extract the root of patient anxiety regarding side effects, and offer explanations and information to address their concerns. Calmly explain to patients that their specific medication was prescribed to make them better or prevent serious illness, focusing on its positive aspects. Describe what side effects could occur so they are fully aware of what to expect, and encourage them to record any occurrences to share on their follow-up consultation with the pharmacist or physician. Also, suggest calming techniques to prevent triggering the nocebo effect, where negative expectations can create adverse effects; comparable to a reverse placebo effect.

- ***The Nudge Theory***:
The Nobel Prize-winning Nudge Theory, can be used by pharmacists to improve medication adherence related to side effects barriers. Nudging is based on the premise that rational choices are not always made due to the influence of emotion or personal needs that can lead to less optimal outcomes. The ENCOURAGE Trial, using the Nudge Theory, showed that congestive heart failure or diabetic patients had six times more positive responses than negative to simple nudges. Nudging can be applied to side effects nonadherence by utilizing informational nudges that provide scientific and rational logic regarding how medications work for specific patient conditions, how side effects can be managed and are temporary, that serious side effects are rare, and that serious effects in regards to a condition can occur without treatment. Informational nudges can encourage rational choices. Nudges are not mandates but rather influential suggestions, allowing the patient to ultimately make their own decision.

- ***Follow-up consultations:***
  Ongoing patient counseling and follow-up by the same pharmacist allows pharmacists to identify whether the patient is experiencing a manageable or unmanageable side effect and if the medication is being taken correctly to minimize any side effects. Administration methods should be examined to determine if the patient is inadvertently taking the medications with certain foods or substances that exacerbate side effects. Recommend Over the Counter (OTC) treatments or other medications that help mitigate side effects to enable the patient to complete the course of medication. If the side effects are unmanageable, the pharmacist should identify acceptable alternatives and coordinate with the patient's provider to change the drug therapy.

Three Prime Questions for Refill Prescriptions

Question	Content Verified
"What do you take this medication for?"	Purpose of the medication
"How do you take it?"	Directions for use, including technique
"What kind of problems are you having?"	Perceived side effects

Indian Health Servie (IHS) pharmacist counseling technique; Table by: U.S. Pharmacist

- ***Medication therapy management (MTM):***
  Pharmacist-provided MTM is another strategy to examine if there are drug interactions with the patient's other prescriptions or OTC medications that could cause side effects or negative outcomes. Coordinate with the physician for alternatives or discontinuance of the medication.

- ***Provide Information Sources:***
  Provide digital references in addition to pharmacy material that the patient can access at home. The National Institutes of Health DailyMed, provide an in-depth consumer drug guide for prescription and OTC medications that has information regarding side effects.

Summary

Patient's perceptions or experiences with side effects contribute to the degree of medication adherence. Rational nonadherence can occur secondary to medication use, leading to suboptimal results. Pharmacists are in a primary position to improve adherence related to side effect concerns. They are equipped with medication knowledge and patient access, enabling them to inform patients of how their medications work, what side effects to look for, the risk-benefit ratio of the regimen, reducing patient anxiety, and suggesting alternative therapy when necessary.

References:

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