ADDENDUM:
Medication Matters
CAUSES AND SOLUTIONS TO MEDICATION NON-ADHERENCE DURING TIMES OF DISASTERS
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Predictors and Causes of Medication Non-Adherence – Patterns during disaster situations

Predictors and causes of medication nonadherence are complex and can be exacerbated by disaster situations such as the COVID-19 pandemic. This addendum will use the World Health Organization’s (WHO) four categories of barriers to medication adherence (WHO, 2003).

BARRIERS TO MEDICATION ADHERENCE DURING COVID-19 AND OTHER DISASTERS

Patient Related Factors Impacting Adherence

During disaster situations, such as the COVID-19 pandemic, impaired access and availability of medication may exist due to difficulty, anxiety and/or fear of traveling to the pharmacy; shorter hours of pharmacy availability; and local shortages due to interruptions in distribution channels. Patients who may already have a lack of trust in the provider and/or feel stigmatized by taking medications for their mental health disorder may have a low threshold to traverse the additional barriers to travel or cope with restrictions of medication availability. Feelings of anxiety, fear and the uncertainty of the unknown are common in emergency situations and may add to a sense of mistrust in the provider; the medication; and the pharmacist, pharmacy and/or medication supplier. Decreased access to psychiatric providers during the pandemic, as well as changing from face-to-face contact to telehealth may make it more difficult to identify and intervene with these challenges. During the COVID-19 pandemic, visits to emergency and routine care for chronic conditions decreased, which may restrict assessment of adherence to prescribed medications (Boserup, 2020; Chudasama 2020).
The following factors negatively impact medication adherence:

- Low health literacy.
- Lack of trust in the provider.
- Stigma about having a chronic mental health disorder.
- Negative beliefs about value of medications and/or need for medications.
- Medication side-effects or delay of benefit of the medication seen by the patient.
- **Fear that existing medication will increase susceptibility to COVID-19 virus or result in a worse course if patient is infected with the virus.**
- **Fear of accessing the medication** resulting in avoidance of health care location due to anxiety/worry about places with increased risk of sick individuals. This may be on the part of the patient and/or family influencing the patient.
- **Patient-family disagreements** and conflicts may be exacerbated during the pandemic or crisis situations and can reduce adherence. If the family believes that the prescribed medications are not effective, it can reduce adherence. This is of particular concern as the family may have a larger role in the patient’s decision-making during emergency situations when the patient may be less able to attend activities and treatment outside the home.

**Factors Impacting Adherence Relating to Interaction Between the Patient and the Provider**

Poor communication between the patient and provider, an important predictor of non-adherence (Alleman 2016), can be exacerbated by decreased access and availability of the provider and means of communication with the provider due to limited telephone or other remote connectivity issues. Additionally, poor patient-provider communication may be exacerbated using remote technology with decreased ability to see and read non-verbal cues when remote technology is not optimized. Conversely, no-show rates have been much lower with widespread adoption of remote technology and increasing the frequency of visits in response to signs or concerns of medication nonadherence is much more feasible when transportation is not a barrier.

**Specific Disease and Condition-related Factors Impacting Adherence**

Medication side-effects may be experienced as less tolerable during a disaster situation when patients are experiencing increased stress, anxiety and uncertainty and have increased attention to their bodily functions and potential symptoms. It is important to follow the previously mentioned recommendations to facilitate adherence.

**Health Care System Factors**

The process of obtaining a medication may involve multiple steps between provider, pharmacist and patient that may be exacerbated during a disaster. Reductions in access to the provider may occur and there may be impairments in obtaining or reauthorizing prior authorizations, reduced availability of medication from their suppliers and changes to available medications on the insurance formulary. Additionally, economic stressors may increase difficulty paying for medications. Injectable medications are often a way to increase adherence as dosing is less frequent than oral medication and the provider is certain when the patient receives the medication. During disasters, availability of injectable services may decrease and transportation issues may occur.
Solutions to Improve Medication Adherence During Disasters

ENSURE ACCESS TO PRESCRIBER

Ensure patient access to the provider through remote service provision, including audio-only telephone care and video technology, when available. For patients without any audio or video access, consider outreach through meetings with social distancing and mobile teams or supports from collaterals. Collaterals may include family members, neighbors, case managers internal and external to the agency and other close contacts identified by the patient. When utilizing collaterals, obtain the patient’s release of information and the range of information the patient feels comfortable sharing.

Consider increasing the frequency of remote service interactions between the provider and the patient when there are signs or concerns of medication non-adherence.

Educate the patient and collaterals on any changes in the provider’s access, hours and coverage and the importance of medication follow-up.

IMPROVE PATIENT AND PROVIDER COMMUNICATION

The goal of improved communication is to align the treatment goals of the patient and provider. Remember that medication adherence is a means to an end. From the provider’s view, medication adherence is even more important to help stabilize the patient’s symptoms such as mood, cognition and/or behavior. The provider can help patients remember past benefits of medication stabilizing symptoms, past medication successes especially in times of stress and help the patient see the benefits of medication during the current crisis.

- Employ shared decision-making and review successes of medications for effectively managing symptoms. The provider can help patients remember prior benefits of medication, especially in times of stress and help the patient make the connection between the benefit the medication during the current crisis.

- Provide ongoing psychoeducation regarding risks and benefits of medication. Inquire and address new concerns the patient may have regarding the interaction of the patient’s medications with the pandemic or other fears related to the effect of the medication on current health and risk.

- If relying on remote or virtual services, assess the patient’s access to the technology, comfort with the technology and comfort with receiving services during the virtual interaction.

- Families and collaterals may support adherence by reminding the patient of the benefit of the medication in improving/stabilizing mood, thoughts and/or behavior and the evidence of this from past medication successes. Encourage collaterals to be supportive in this way.

ASSESS RISK AND MATCH INTERVENTIONS TO NEEDS
Assess the risk of medication non-adherence by considering stressors of the current disaster. This will assist with matching provider interventions and medication regimens to patient needs.

- Minimize number of medications.
- Reduce frequency of medication administration.
- Use blister packs, pill boxes, reminders using alarms and/or smartphone apps.
- Use pharmacy home delivery/courier/mail delivery service if available to reduce or avoid in-person visits to the pharmacy.
- Increase number of refills and/or time to refill when indicated to reduce frequency of going to pharmacy.
- Review patient’s medication routine and daily routine which may have changed during the disaster. Increase the visibility of medication and incorporate the medication administration into new daily routine during the disaster.

**INCREASE UTILIZATION OF LONG-ACTING INJECTABLES (LAI) AND ENSURE ACCESS**

- Offer patients LAIs, including those who were previously not interested. LAIs require less frequent administration which the patient may find more desirable during disasters to reduce daily medication administration burden. Existing frequencies for LAIs include every two weeks, monthly and every three months.
- LAIs have increased efficacy and outcomes and may have decreased side-effects due to more constant serum levels without high spikes associates with side-effects and low troughs associated with loss of efficacy.
  - Alternate medication administration sites may be available in the event the patient is unable to receive LAI at physician’s office. Alternate sites include:
    - Pharmacies – Pharmacists in some states are licensed to administer LAIs.
    - Mobile health/mental health units – Mobile crisis team nurses may travel to the client or set up locations for walk-in or drive-up medication administration.

**MANAGE MEDICATION SIDE-EFFECTS**

- Patients may be more aware of side-effects during a disaster as routines are disrupted, may have less daily activity and may become more aware of bodily changes/side-effects.
- LAIs may decrease side-effects.
- Consider timing of dose and/or medication consolidation to manage side-effects.

**IMPROVE PATIENT ACCESS TO PHARMACY SERVICES**
• Consider pharmacy hours and services may be reduced or changed during the disaster.
• Reassess the patient’s individual process of getting to the pharmacy to obtain medication in the light of current disaster conditions.
• Prescribe adequate refills as indicated to ensure ongoing access in case of lapse of communication between patient and provider.
• Identify patients preferred pharmacy contact information as part of essential patient contact information along with contact information for other treating providers and collaterals.
• Pharmacy benefits include reminder calls and home delivery services.
• **Ensure patient is able to pay for medication' including co-pays during disaster.** Consider patient assistance programs, lower cost pharmacies, some pharmacies may waive co-pays.

**ENSURE MEDICATION IS ADMINISTERED AS ORDERED**

• **Revisit medication regimen with consideration for new daily routine impacted by disaster:** behavioral reminders, blister packs, daily reminders.
• Provide ongoing medication education to patient and with consent, to collaterals.
• Pharmacists can play a role in medication education especially when pharmacist/pharmacy staff may have increased in-person access to patient when patient picks up medication and when the courier drops off medication. Pharmacy staff will provide medication education, and some will provide pill count information and medication administration at time of delivery of medications to patient’s home.

### CONCLUSION

Medication non-adherence to prescribed medications is extremely common, frequently undiagnosed and unaddressed and is a major cause of poor treatment outcomes and increased costs. These challenges may be exacerbated during a disaster such as the COVID-19 pandemic. Prescribers should consider the recommendations within this addendum to facilitate medication adherence despite changes to daily routines, heightened financial stressors and fears related to a novel virus.

Access the full report, [Medication Matters: Causes and Solutions to Medical Non-Adherence](#).
The National Council for Behavioral Health is the unifying voice of America’s health care organizations that deliver mental health and addiction treatment and recovery services. Together with 3,381 member organizations, serving approximately 10 million adults, children and families living with mental health and substance use disorders, the National Council is committed to all Americans having access to comprehensive, high-quality care that affords every opportunity for recovery.

REFERENCES


