

Background

While medication adherence is a well-studied problem, medication storage practices in the home is an understudied area of research. Fragmentation of medication storage in the home may impact patients' ability to remain adherent, especially for those subjected to polypharmacy. With digital aids, maintaining the necessary medication treatment plan may become easier.



Photo courtesy of Ellie Grid

Objectives

The goal of this research is to explore medication management practices in the home. A survey was designed to gather data about medication storage locations, the use of digital and non-digital reminders, and willingness to use digital aids to adherence. A survey was designed to gather data about medication storage practices in the home, use of digital and non-digital reminders, and willingness to use digital aids.

Methods

We developed a survey to collect data about medication management in the home and to explore use of aids to adherence. The survey was distributed via an email list from the Tufts University Osher Institute for Lifelong Learning and was posted on social media, including Twitter, Facebook, and LinkedIn.

Results

- There were **1,482 responses**
- On average, participants stored their medications in **2.4 locations**
- The most common locations
 - The bedroom nightstand
 - Kitchen cabinet
 - Bathroom medicine cabinet
- Almost **1/3 of respondents** have used non-digital reminders, the most common being pill boxes, written notes, and calendars.
- Digital aids were underutilized with only **8%** of respondents indicating that they used an app, voice assistant, or smart pill bottle.

2.4

Average number of medication storage locations

1/3

Portion of respondents who use non-digital reminders

8%

Portion of respondents who use digital aids

Conclusions

The results of the survey found that the medication storage locations in the home are fragmented. Although only 8% of survey respondents utilized digital aids to aid with adherence, 88.2% expressed interest in using a digital aid. Our future research will investigate if there is a relationship between fragmentation of storage locations and poor adherence; if changing practices for obtaining medications reduces advice about both storage and adherence; and if the effectiveness of reminder aids is impacted by storage location, since many digital aids rely on visual or auditory cues. By understanding which factors lead to fragmentation of medications and how that impacts adherence, we hope to design innovative digital solutions that may promote better medication habits.

