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Survey of prescription medication disposal practices in older patients

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Final Report: UGP Madson 2016-2017

Study Purpose: The purpose of the proposed study was to survey participants on current medication disposal practices, and to gather preliminary data on the types of medications found in the home environment.

Study Objectives:

1. To evaluate participant current medication disposal practices and assess knowledge of safe disposal options;
2. To classify the type of medications (prescription and OTC) found in the home environment;
3. To determine whether medications found in the home are within the expiration date; and
4. To determine the storage location of medications in the home.

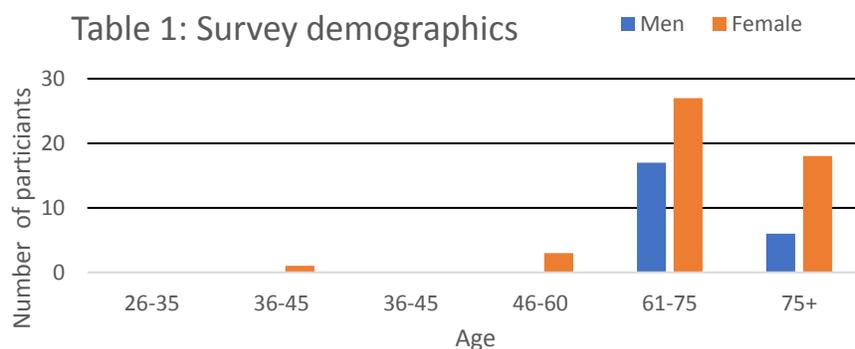
Data Collection:

Objective 1 data was from collected from older adults by pharmacy students in their 1st or 3rd professional year as part of a required intergenerational experience. The course instructor removed all identifiers about the student and community member.

Objectives 2-4 were to be collected by pairs of pharmacy students who were trained in human subjects protection and interviewing techniques. Five students were recruited to perform this function. IRB approval (IRB #202-16) was granted to complete the survey in human subjects.

Results:

Seventy-two drug disposal surveys were completed, mostly by women between 61-75 years of age (see Table 1). About 50% of participants stated they have prescription medications at home they no longer need or use.



The responses for which disposal method they currently use was varied, and the respondents were allowed to reply to more than one method.

- Flush them down the toilet (n = 16)
- Throw away in the garbage (n = 32)
- Mix with undesirable substances (ex. Kitty litter or coffee grounds) (n = 12)
- Keep them locked up (n = 4)
- Give them to a relative or friend (n = 2)
- Other (n = 15)

With regards to the top 2 concerns the respondents had regarding their current disposal method, the most common concern was that medications could contaminate the water supply or environment, or they had no concerns about their current disposal method.

- Contaminate water supply/environment (n = 32)
- No concerns with their method of disposal (n = 33)
- Medication will be ingested by children, or someone other than who it was prescribed (n = 21)
- Medications will be retrieved from the garbage (n = 14)
- Medication may be stolen (n = 5)
- Other concerns (n = 2)

About 50% of participants were aware of prescription drug take-back programs offered locally or in the state, but most did not know the specifics of where to take them for disposal.

- Yes, I use prescription take-back programs (n = 18)
- No, I do not use prescription take-back programs, but would like information to do so (n = 33)
- No, I am comfortable with my current disposal method (n = 21)

The second part of this investigational study, to complete in-home surveys, was unsuccessful due to recruitment issues and will be addressed in the discussion.

Discussion:

The first part of this study, the disposal survey, was successful in determining a few key points. First, about half of the participants admitted to having medications in the home that need proper disposal, and that most individuals try to dispose of them at home in a manner they deem safe. The promising component of the survey is that individuals want to safely dispose of prescription medications, but they may need more information on how and where to dispose of them safely.

In regards to performing assessments of medications in the home environment, the key hindrance was that individuals felt the in-home assessment was an invasion of their privacy. This was elucidated when the students performed the first part of the study and asked their senior partner about participating in the in-home assessment, and only one person was interested but later declined. The students relayed back to me (PI) the primary reason for not doing the in-home assessment was that it made them uncomfortable about having someone scrutinize their private methods of storage of medications. The IRB (#202-16) has been notified about the closure of this study.

Future directions:

There is an opportunity to impact safe medication disposal in our communities by making the options for safe disposal more accessible to individuals. This could be done by pharmacists educating patients when they pick up their prescription, through advertising campaigns, and making disposal options more convenient than just a couple of locations in a community.

In regards to not being able to complete the second part of the study due to privacy issues, it may take time to develop a relationship with a client before they would feel comfortable with allowing pharmacists into their homes to collect the data about medication storage and determining the amount of medication which needs safe disposal.