Survey of Community Pharmacy Customers' Medication Storage and Disposal Methods

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Many people store medications in bathrooms, which provide a moist, humid environment that speeds up the breakdown process of medications. The proper way to store medications is in a cool, dry place out of the reach of children. Every year medications are also disposed of improperly presenting a risk to both humans and the environment. About one-third of all sold medications are unused. The most common ways patients dispose of medications in the United States are flushing down the toilet or sink, and throwing them away. Because of this, dispose of medications in the United States are flushing down the toilet or sink, and throwing them away. Because of this, medications have been found in groundwater, and drinking water proves hazardous to both humans and ecosystems.

In Congress today, both the Drug Free Water Act and the Safe Drug Disposal Act have been proposed to limit the disposal of pharmaceuticals in sewage systems, and provide the means of controlled substance disposal through take-back programs.

In February 2007 the White House Office of National Drug Control Policy (ONDCP) established guidelines for the disposal of prescription medications. ONDCP guidelines are: take unused, unneeded or expired medications out of the original container, mix with an undesirable substance (such as coffee grounds), securely seal in impermeable containers, such as sealable bags, and throw into the trash. ONDCP recommends onlyflushing if the label or patient information specifies to do so. Taking advantage of community pharmaceutical take-back programs is highly encouraged.

Objectives: To determine whether patient education regarding medication storage and disposal is necessary in the greater Dayton area by measuring the number of patients with expired or unwanted medicines and assessing patient knowledge and current practice of storage and disposal of medications.

Methods

- A 15-question survey was created to examine possible correlations in patients.
- Survey asked questions pertaining to:
  - Demographics such as age, race, gender, marital status, and level of education.
  - Indication of knowledge for proper medication storage and disposal, using the following questions:
    - Has anyone ever told you the best place to store medications?
    - Has anyone ever told you the right way to get rid of expired, unused, or unwanted medications?
    - Current practice of medication storage and disposal, using the following questions:
      - How often do you check the expiration date on your medications?
      - Where do you store your medications?
      - How do you dispose of expired medications?
      - If there was a local medication drive to properly get rid of medications, would you bring your unused, unwanted, or expired medications to it?
    - Patient surveys were handed out at 3 pharmacies in the Dayton area.
    - The surveys were analyzed for correlations using the program IBM SPSS v. 19.0

Results

Demographic Information:

- A total of 129 customers completed the survey.
- Gender: 29 were male
- 90 were female
- Race: 91% were white
- 6.2% were African American
- 0.8% were either Hispanic, American Indian or Alaskan Native, or other ethnic groups
- The various ages of the participants are represented in Figure 1 (RIGHT).

Indication of Knowledge for Proper Disposal:

- Nearly half of the patients that disposed of medications improperly were not informed of the correct way to dispose of medications.
- There is a need to inform middle aged people of the proper way to dispose of medications due to the large amount of middle aged patients that indicated they were not informed on the correct disposal method.

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References