

Medication Safety for Older Adults

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INTRODUCTION

Adults over the age of 65 only make up 13% of the American population. However, this group consumes up to 30% of all prescription medications in the United States each year. In addition to prescription medications, about 40% of elderly Americans have used some form of dietary supplement or herbal medication within the last year (Williams, 2002). Managing a multiple-drug prescription regimen in addition to supplements and over-the-counter drugs places this age group at risk for noncompliance and adverse reactions due to medication interactions. In fact, one study found that 28.2% of elderly hospitalizations were related to either noncompliance with a therapeutic drug regimen or an adverse drug reaction (Col, et. al, 1990). A variety of demographic characteristics (poor health literacy, hearing/vision impairment, or limited access to regular caregiver visits) may be responsible for these medication safety issues in the elderly population. For this reason, medications should be carefully discussed with elderly patients at each caregiver interaction. A systemic review of studies aimed at increasing safety through patient involvement found that outcomes were significantly better in patients receiving education regarding self medication than in control populations (Hall, et. al, 2010). While this literature review is limited in the number of studies found, it supports the notion that the elderly population does benefit from education regarding medication safety.

With a goal of ‘promoting a healthy future for all’ and a primary focus on the elderly population in the area, we felt that promoting medication safety was a priority. We decided to partner with The Lowcountry Senior Center and The James Island Recreation Center. They agreed that medication safety was a topic of concern for their seniors.

METHODS

SC Poison Control initiated a project to educate seniors on medication safety. We collaborated with them to extend this project to lower income seniors. We contacted senior playgrounds in the Charleston area to set up site visits. At each site we presented information regarding medication safety. Topics included:

- What is a medicine
- Benefits and risks of medicine
- Incorrect medication usage
- Drug interactions
- Herbal medications
- How to avoid problems
- Questions to ask
- Reading a drug label

Data was collected using a self-report questionnaire, administered to each participant after the information was presented.

RESULTS

Data was collected from 17 participants and is included in the table below. For yes/no questions, the data represents the number or portion of participants that answered yes to the question.

All information is confidential, it will not be linked to you or your Senior Center/Church. We are collecting data to get a better idea of medication mishaps occurring in the senior population. This information will be used to provide education programs for seniors to keep them safe. We appreciate your willingness to help in this important effort.

1. Your age _____
2. How many prescription medications do you take daily? _____
3. How many over-the-counter medications do you take daily (ex Tylenol, Benadryl)? _____
4. How many herbal medications do you take daily (ex St Johns Wort, Glucosamine)? _____
5. Have you ever been treated by a doctor for a medication side effect? (circle all that apply)

a. By a doctor over the phone	YES	NO
b. In the doctor's office	YES	NO
c. In the hospital emergency department	YES	NO
d. Had to stay overnight in the hospital	YES	NO

If YES to any, what was the name of the medication? _____
6. Have you ever been treated by a doctor for a drug interaction? (circle all that apply)

a. By a doctor over the phone	YES	NO
b. In the doctor's office	YES	NO
c. In the hospital emergency department	YES	NO
d. Had to stay overnight in the hospital	YES	NO

If YES to any, what were the name of the medications? _____
7. When the doctor gives you a new prescription medication, do you:

a. always understand what it is used for	YES	NO
b. know what the dose is	YES	NO
c. know how many times a day to take	YES	NO
d. know whether or not to take with food	YES	NO
e. know what side effects to expect	YES	NO
8. Does your pharmacist talk to you one-on-one when you pick up a new prescription medication (one you have never taken before)?

YES	NO	SOMETIMES
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AVERAGES

Age	68
# prescriptions	4.12
# over the counter	1.12
# herbals	0.53
Treated for medication side effects	24% (4/17)
Treated for drug interactions	12% (2/17)
Understand use	100% (17/17)
Know the dosage	94% (16/17)
Know how many pills to take daily	88% (15/17)
Knowledge of food requirement	82% (14/17)
Knowledge of side effects	71% (12/17)
Speak with pharmacist one-on-one	71% (12/17)

DISCUSSION

This project would not have been possible without an inter-professional approach. Input from various medical professionals formed the basis of our work.

Our community partners were supportive of our efforts to educate the elderly and invited us to lead teaching sessions with their senior groups. Through these teaching sessions, we sought to improve patient understanding of the following: types of medications (prescription, herbals, and over the counter), benefits/risks of taking medications, how to avoid problems, how to read a medication label, and questions to ask a care provider about a new medication.

• Our research correlates well with established literature as we found the average number of medications in our population to be four. Further, we found that 24% of individuals in our study had been treated for either a medication side effect and 12% had been treated for a drug interaction. This data solidifies the need for improved medication education in the senior population

• The main barrier which we encountered in our project is developing an efficient way to disseminate information to the seniors. We were only able to survey seventeen individuals which prevents us from drawing any statistically significant conclusions about our population. Further, determining a means of assessing the knowledge of seniors regarding their medicines as self assessment of knowledge may not be an appropriate way to determine if individuals truly understand his or her medications.

RECOMMENDATIONS

- Based on the initial audience response and current research, we feel that interactive educational presentations have the potential to greatly increase knowledge of medication safety.
- In the future, this project would be successful with increased audience interaction.
- We also feel that this work should be expanded to a greater number of senior playgrounds in order to reach a needier population.

REFERENCES

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