

# Maintaining compliance at home: Helping the elderly with their medications

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## Abstract

The elderly population consumes more drugs for their chronic conditions compared to any age group. In this study it was indicated that the average elderly takes two to four drugs per day. The high quantity and wide range of drugs used by the elderly can lead to significant risks. Adding to the risks is the problem of compliance. Areas of concern regarding safety in administering medications to the elderly are the need for increased awareness of the effects of drugs in their systems.

## Introduction

There is an increased likelihood with ageing that anyone can develop a chronic disabling condition. Physiological ageing make the body to be more susceptible to infection and reduce their ability to heal. Many of these conditions can be treated with drugs, allowing the elderly years of comfortable and independent ageing. Age-related changes influence patterns of medication consumption and actions of medications in the body (Nelson & Mayfield, 1994:120). This is the reason that the elderly are prone to adverse effects to normal doses. Obtaining information on use of medication by the elderly can assist in educating them on use and prevent side and toxic effects.

## Research problem

The elderly people take several medications for their chronic conditions. There are problems related to use of medication, these emanates from self-medication with over the counter (OTC) drugs.

These medications are not considered by the elderly as "medication", because their perception of medication is a prescription by their physician. Many elderly do not understand why they are taking a medication, which may lead to non-compliance and misuse (Ringsven & Bond, 1991:140). The elderly also has a tendency of obtaining medications from friends their spouses, neighbours and anybody who they think suffers the same condition as them. Obtaining medication from other sources not prescribed by either the physician or pharmacist can lead to side effects and medication abuse.

During a research done in Mangaung amongst the elderly people 83,9% of them had not been admitted to a hospital for the past two years. This means that the elderly had to take care of their health needs at home. One hundred and ninety six (51.6%) of the respondents were on medication. This is in line with the literature which states that most old people take several medicines for their chronic diseases (Nelson & Mayfield, 1994:120). The respondents obtained their medications from different sources mentioned on Table 1. There is

a critical need to assess the use of medication and to educate the elderly on how to use medication to promote independent and healthy ageing.

## Purpose of the study

The purpose of this study is to determine where the elderly person obtains their medication and whether the elderly take their medication as prescribed.

## Methodology

A survey was chosen to explore the needs of the elderly and the use of medication was one of the areas assessed. A non-experimental method was done where there was no manipulation of the environment. It was conducted in a natural, uncontrolled real life situation (Burns & Grove, 1995:25; Wilson, 1989:145).

## Sampling

A cluster random sample was done. A sample of 340 elderly people living in Mangaung were interviewed of which 196(51.6%) were on medication. All respondents were black elderly who were sixty-five (65) years and above. The females 72.1% outnumbered males 27.9%

## Measuring instrument

Data was collected through a structured interview. A questionnaire which was completed by nine trained fieldworkers all registered nurses trained by the researcher on communication skills and on how to complete the questionnaire.

## Validity of the instrument

Content validity which is important to all instrumentation, assess whether the instrument measures the domain of interest (Pierce, 1995:280-281). Five experts were called to assess

the content of the instrument. Face validity means the researcher looks at the instrument and decides visually that the respondents will agree it measures the domain of interest and it therefore represents an opinion.

To assess face validity the questionnaire was presented to two lay persons, who were both retired persons from the same ethnic and cultural background as the population of the study assessed.

## Reliability of the instrument

A test-retest reliability was done. The researcher administered the instrument to ten (10) respondents as part of pilot study. After two weeks the instrument was administered to the same individuals. The results of the first administration did not differ from those of the second except on a few subjective aspects such as pain which was no longer experienced in the second administration. Conducting a pilot study contributed to the reliability of the instrument.

## Findings

As indicated on Table 1, majority 51% obtained their medication from private hospitals, whereas 9.7% from the shops and 0.5% from family members and neighbours. The latter respondents are those who are at risk of drug intoxication and non-compliance. This is because these drugs are not prescribed by the doctor and their use cannot be ascertained. Old people can also be at risk of non-compliance because of poor understanding, poor eyesight and difficulties in handling bottles due to arthritis (MacGuire, Preston & Pinches, 1987:32-37). Such people need help to comply with their prescription. Majority of the respondents (91.8%) understood the reasons for using their medication see Figure 1. However sixteen (8.2%) of the respondents don't understand the reasons for their use of medication. The respondents were directly asked if they understood the reason for the use of the medication they were using during the research.

These are the elderly who are at risk and needed supervision. Respondents who were on medication mentioned that different people helped or supervised them when taking medica-

**Table 2 : Persons responsible for supervision of medication (N=196)**

SUPERVISOR	Frequency	Percentage
Teh respondent	137	69.4
Spouse of the respondent	11	5.6
Children	35	18.4
Neighbours	2	1.0
Friends	-	-
Clinic sister	3	1.5
Relatives	3	1.5

tion.

As indicated in Table 2, 137 (69,4%) of the respondents took their medications without supervision. It is important to improve their understanding of medication and nurses should ascertain that they indeed comply in taking their medication.

Thirty five (18,4%) had their children supervising their medication. Reasons for being supervised may be due to poor vision, inability to read or write as 53,1% of the respondents in this study were illiterate. The clinic sister visited three in their homes and helped with their medications. Only two (1,0%) were supervised by neighbours and, this support the fact that friends and neighbours do not usually provide personal care (Sampson, 1992:156-158).

## Factors affecting use of medications

### Level of educational

Medications can be misused especially if the elderly do not understand the reasons for their use. In this study 53.1% could not read or write and this can result in the elderly not knowing how to take their medications which may lead to faulty administration.

### None-compliance

Factors that have been identified as contributing to none-compliance with medication regimes include living alone, adverse medication effect, financial consideration, complexity of medication regimen, cognitive and sensory impairments (Miller, 1990:521). A combination of factors were found and these will be discussed below.

### Living alone

Living alone can lead to forgetfulness especially when there is no one to remind the elderly to take their medication. Forgetting may also lead to taking double doses (Barnes, 1987:131-132) This problem can be solved by giving the elderly some aids which will help them remem-

**Table 1 : Supplier of medication (N=196)**

SUPPLIER OF MEDICATION	Frequency	Percentage
Shops	19	9.7
Provincial hospital	100	51.0
Traditional healer	3	1.5
Private doctor	55	28.1
Pharmacy	9	4.6
Clinic	8	4.1
Family members	1	0.5
Neighbours	1	0.5

ber to take their medication.

## Adverse medication effects

It is natural for people to stop taking medication if they experience adverse effects such as nausea and vomiting. The importance of education regard to taking of medications cannot be emphasized. Older people are more likely to be taking several drugs which result from multiple symptoms. Their drug taking habits may make them more vulnerable to adverse reaction to medication (Redfern, 1991:379).

Eight (13.5%) of the respondents complained about nausea caused by their medication. This is not uncommon because some medications have unpleasant side-effects especially when taken before meals (Nelson & Mayfield, 1994:120).

## Financial considerations

Respondents who obtain their medications from pharmacies and private doctors may not be able to pay for their medications. High cost of transport may be a problem for the elderly who go to the health centers to obtain medications (Tibbit, 1992:25-26). In this study 1.8% of the respondents had no source of income and 85.3% were receiving a social grant which they shared with other members of their families who were not employed. Majority 95.2% of the respondents had no medical scheme. This factors indicate the financial hardship which the elderly can face.

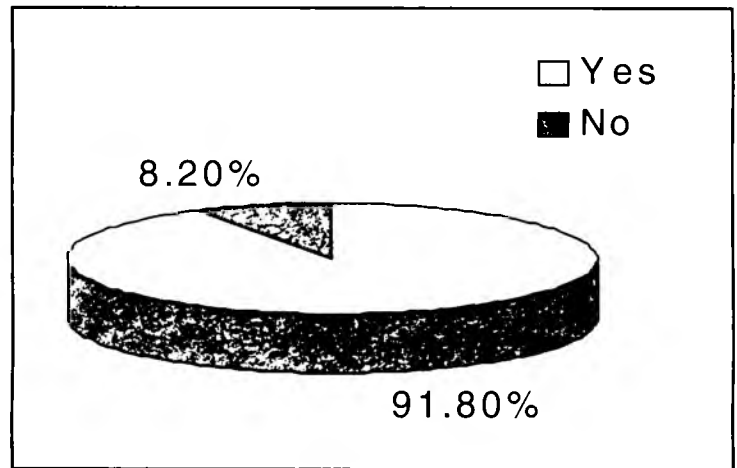
## Cognitive and sensory impairments

Respondents who are cognitively impaired for example those suffering from Alzheimer's disease will not remember to take their medications. In assessing neurological manifestations 45.8% of the respondents mentioned that they suffer from memory loss including those who are on medication. Failing vision may make reading the instructions on the label difficult (Knebl & Graitzer, 1994:196). One hundred and five(28.1%) could not read without their spectacles and 13.1% could not even if they had their spectacles on. These elderly should be referred for a visual test and be helped to obtain visual aids.

## Self-medication

Over the counter medication (OTC) can be purchased without a prescription. They can also be bought from a grocery store. Many elderly don't consider taking these drugs as taking medications. Their perception of medication is a prescription written by their physician (Ringsven, 1991:140). The most common OTC medications used by the elderly are laxatives, analgesics, and vitamins. The respondents were not specifically asked about the medications they were taking. It is possible that those obtained from neighbours and family members as indicated on Table 1 include the afore mentioned. Self-medication may mean taking another persons prescription medication (Ringsven, 1991:140). In a survey conducted in the Free state among black communities it was found that medicines recommended by friends and those advertised were commonly used (Van Zyl-Schalekamp, 1993; 345-346). This

**Figure 1 : Number of respondents who understood their medication (N=196)**



show how easy it is for people to take any kinds of medication without consulting their doctors and registered nurses. There is a need to increase awareness of the effects of medications on elderly body systems.

## Recommendations

### Patient education

- Patient education should reinforce areas of basic information about the purpose of medication. This will help in ensuring that when a patient says "*I do not need any today*", it is as a result of knowing the purpose for which the drug is prescribed (Bradshaw, 1981:40-41).
- The elderly should be enlightened on the effects the medication have on their bodies.
- Specific information about taking medication should be given to avoid side effects. This information should include specific instructions of certain drugs such as taking meals before medications.
- Professionals must verify that the patient has received information about medications by explaining special directions for taking medications.

### Aids used by the physically impaired

Health professionals should assist the elderly in obtaining aids to help them take medications.

**Reading glasses** should be obtained for the far-sighted to enable them to read the labels.

**Large printing** on the labels should be used to compensate for poor eye-sight. The nurses should encourage the pharmacists to use bold or enlarged writing on prescriptions.

**Conventional containers** should be used to dispense drugs. Many adults have difficulty in opening child-proof drug containers (Redfern 1991:383).

*Memory aids* can be used by the elderly as remembering when to take medications is sometimes difficult for them. This problem increases in proportion to the number of drugs to be taken. Simple measures such as linking drug-taking to events in the daily routine such as getting up, washing, or mealtimes may be all that is needed for some elderly

'Dose-boxes' these are compartmentalised boxes which are filled with a supply of drugs (Hatch & Tapley, 1982:1773-1774). Each dose is placed in an individual compartment and the patient can check that the drug has been taken by seeing the compartment empty. Pacing when teaching should be slow, speech when slowed allow the elderly to more adequately integrate information (Kim & Grier, 1981:464-468).

## Conclusion

It is important for nurses involved with the elderly to obtain a complete medication history. Interviews should verify prescription as well as OTC drugs to assess potential problems. Special consideration in patient teaching should be focused on the medication the elderly are taking. Three areas of concern regarding medications for the elderly are the *need for increased patient teaching, monitoring compliance and using of aids in administration*. The nurse has the responsibility of observing for adverse reactions and ensuring safe storage.

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