

# Use of Compliance Aid Devices

Deborah Cachia, Lilian M. Azzopardi, Anthony Serracino-Inglott

Department of Pharmacy, Faculty of Medicine and Surgery, University of Malta, Msida Malta

Email: dcac0007@um.edu.mt

## Introduction

Many patients suffer from chronic conditions and this sometimes may lead to mismanagement and non-compliance towards their drug therapy.<sup>1</sup> Furthermore medication errors may lead to higher costs, since healthcare services may be needed so as to manage the side-effects and the health repercussions caused by the mismanagement of patient's therapy.<sup>2</sup>

## Aim

To analyse the practicality, rate of compliance and cost-effectiveness of the three devices which were chosen to be studied for this project in a community pharmacy setting. The devices were: the 'Pill Splitter', the 'Multi Dose Pill Box' and the electronic 'Pill Box Reminder'.

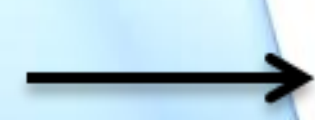
## Method

The study was divided into two phases, where phase 1 analysed the use of the 'Pill Splitter' and the 'Multi Dose Pill Box' devices and phase 2 analysed the use of the electronic 'Pill Box Reminder'.

For phase 1, 50 patients were chosen by convenience sampling from a community pharmacy. The aim of the study was explained to the patients, after which they were shown how to handle such devices. Patients were then asked to complete a questionnaire.

For phase 2, 10 patients were chosen by convenience sampling from the same community pharmacy. The patients were shown how to use this device and were given the device to use at home for one week. Patients were asked to complete a questionnaire before and after using this device.

## Results



### Phase 1

31 patients split a tablet in half during their current therapy.

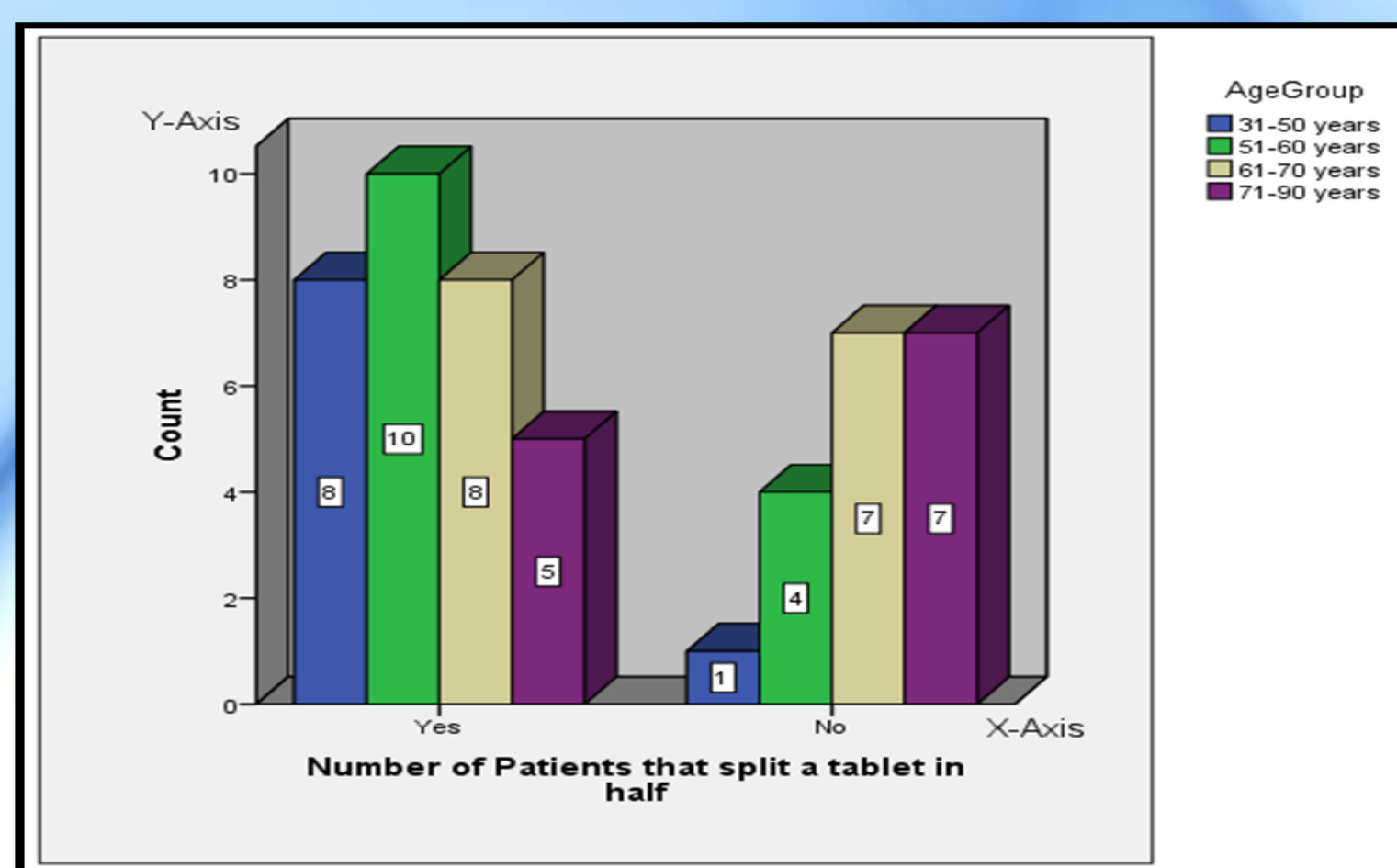


Figure 1: Number of patients that split a tablet in half (n=50)

25 patients take multiple medications daily.

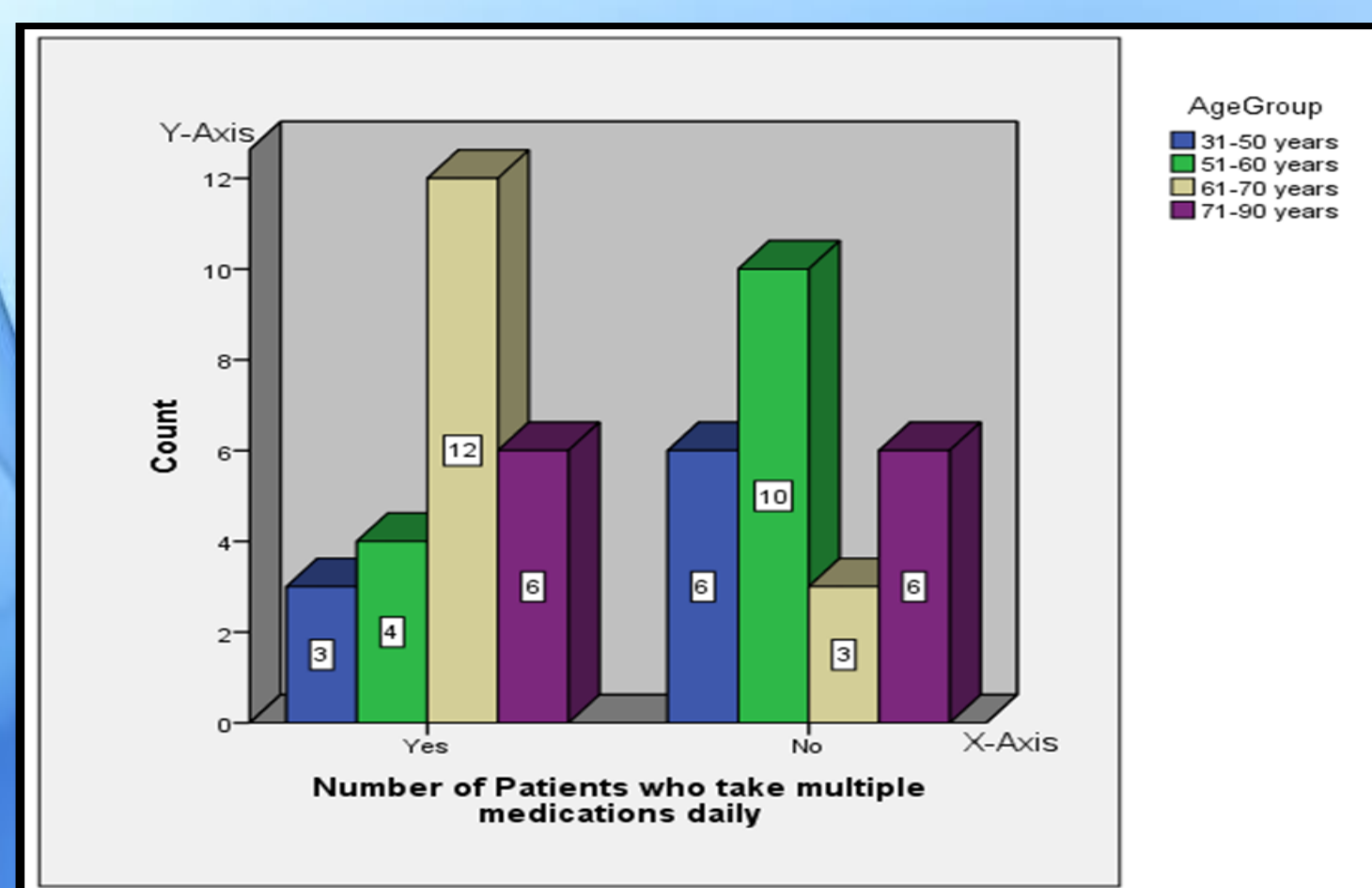


Figure 2: Number of patients that take multiple medications daily (n=50)

Devices used in the study	Practicality	Increase Compliance	Worth Buying
Pill Splitter	46 Yes	24 Yes	45 Yes
	4 No	26 No	5 No
Multi Dose Pill Box	47 Yes	48 Yes	48 Yes
	3 No	2 No	2 No

Table 1: Results showing the practicality, compliance and cost-effectiveness of the devices used for phase 1 (n=50)

### Phase 2

Before using the electronic device, 6 patients said that they tend to forget to take their medication, have no compliance aid devices and no knowledge about the availability of such devices, 7 patients think it is worth buying.

After using the electronic device for 7 days, 7 patients said that the device was practical to use and 5 patients said it is worth buying since it may help them to be more compliant towards their medication therapy.

## Conclusion

Compliance aid devices may be useful to lower the chance of medication errors and help increase compliance towards medication therapy. Pharmacists can identify patients who would benefit from these devices. Such an intervention will contribute towards cost-effective health care and improvement of patient's quality of life.

## References

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2. Lundell J, Kimel J, Dishongh T, Hayes T, Pavel M, Kaye J. Why elders forget to take their meds: A probe study to inform a smart reminding system. IOS Press, 2006, pp. 71-78