

Impact of Pharmacist Interventions on Drug Related Problems among Geriatric Patient's in Tertiary Care Teaching Hospital

CO77

Ramesh Bhandari¹, Shweta Uday Revankar¹, M. S. Ganachari¹

1-Department of Pharmacy Practice, KLE College of Pharmacy Belagavi, KLE Academy of Higher Education & Research (KAHER) Belagavi, Karnataka, India

INTRODUCTION

Older patients often have multiple diseases, leading them to take multiple medications daily.

The selection of the best pharmacotherapy for older patients is complex due to various geriatric and age-related variability.

Drug-related problems (DRPs), a global concern, substantially impair the efficacy and safety of medication administration for this population.

According to Byrne A et al., DRPs are extremely common among hospitalized elderly patients.

OBJECTIVE

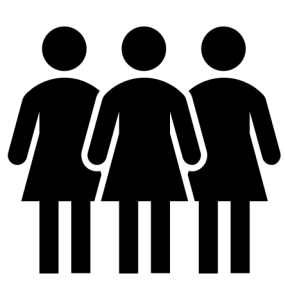
The objective is to identify and resolve the Drug-related problems among elderly patients.

METHOD

- The study protocol was approved by the Institutional Ethics Committee, and written informed consent was obtained from the participants beforehand.



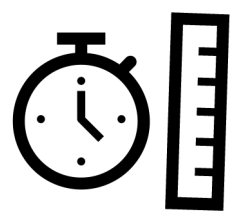
Randomized Controlled Trial at a tertiary care teaching hospital over 8 Months



Patients aged 65 years or older of either gender, admitted to the general medicine ward with chronic diseases and taking more than two drugs, were randomized into two groups: control and intervention.



In both groups, a pharmacist reviewed the patients' medication charts to identify drug-related problems (DRPs). However, only in the intervention group were these DRPs communicated to the physicians and resolved.



Primary outcome: reduction in the number of drug-related problems in the intervention group

RESULTS

- A total of 196 patients were screened and out of which 122 patients were enrolled and randomly divided into a control group and an intervention group, with 55.7% being male and 44.3% female.
- The most common problem in both groups was in the domain of 'Treatment effectiveness' (54%).

Table 1: DRPs Categories
Drug Selection
Inappropriate Dosage Form
Dose Selection
Treatment Duration
Dispensing
Drug Use Process
Patient Related
Others

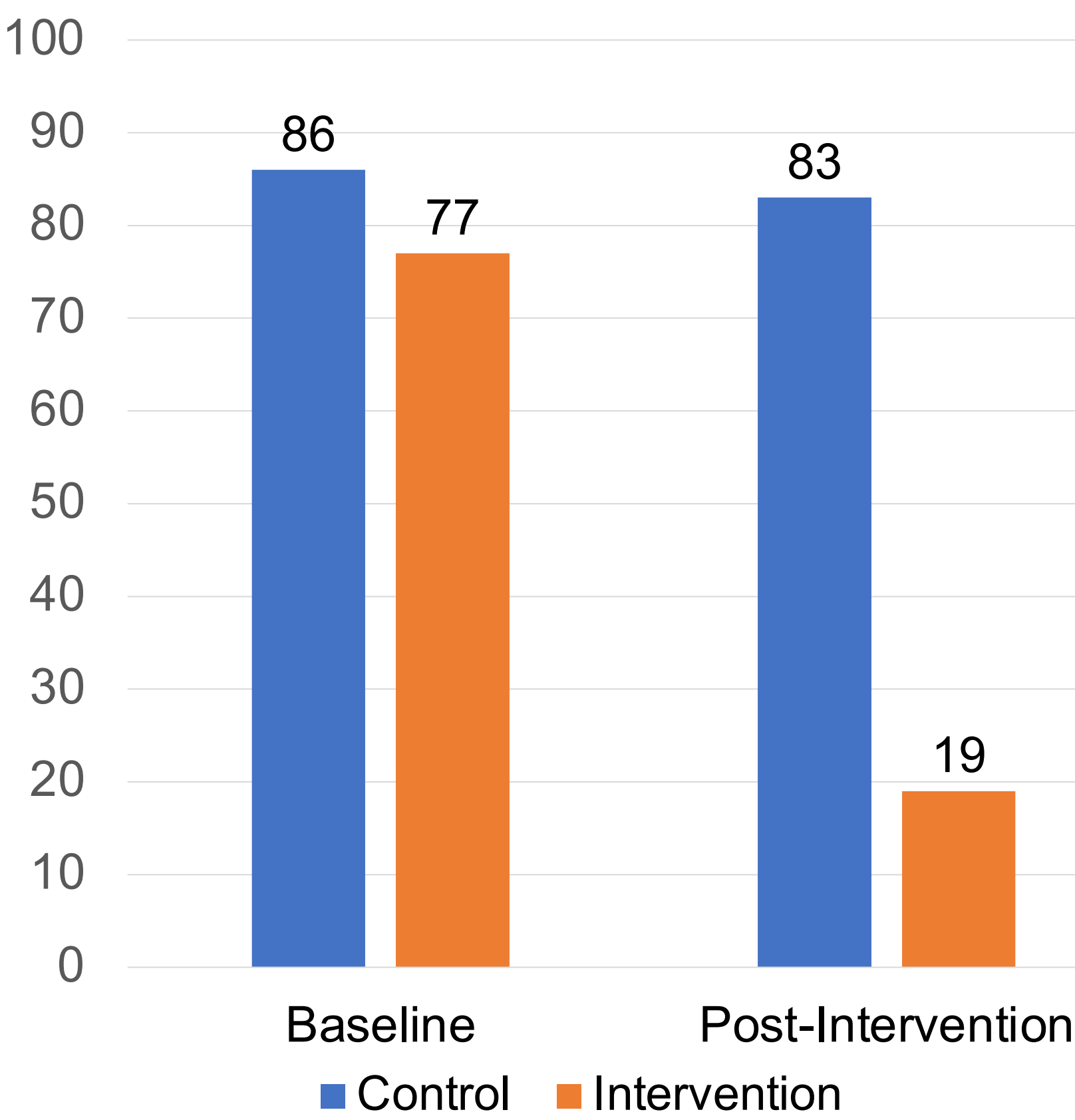
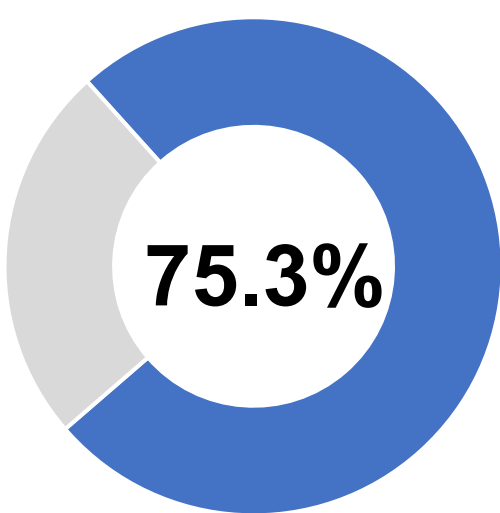


Figure 1: Comparison of DRP in control and intervention group in baseline and post intervention.



58 out of 77 of the drug-related problems were accepted and resolved in the intervention group.

Table 2: Common DRPs (Shown only Top 5) in both the groups

Drug Related Problems	Causes	Number of DRP		Total
		Control	Intervention	
Drug Selection	Inappropriate drug	8 (9.3%)	7 (9.1%)	15 (9.2%)
	Drug use without indication	8 (9.3%)	10 (13.0%)	18 (11.0%)
	Untreated Indication	22 (14.0%)	22 (28.6%)	44 (27.0%)
	Many drugs prescribed for indication	12 (14.0%)	11 (14.3%)	23 (14.1%)
Patient Related	Patient uses or takes less drug than prescribed or does not take the drug at all	13 (15.1%)	11 (14.3%)	24 (14.7%)

Table 3: Pharmacists Interventions

PCNE Classification	Planned Interventions	Number of DRP	Percentage
		Intervention	
At Prescriber-level	Prescriber informed only	8	10.3%
	Prescriber asked for information	24	30.8%
	Intervention proposed to prescriber	12	15.4%
	Intervention discussed with prescriber	4	5.1%
At Patient-level	Patient (drug) counselling	10	12.8%
At Drug-level	Drug changed to	6	7.7%
	Dosage changed to	3	3.8%
	Drug stopped	8	10.3%
Other Intervention or activity	Side effect reported to authorities	3	3.8%

PCNE: Pharmaceutical Care Network Europe

The DRPs identified in the control group were discussed and resolved with the physician before the patient was discharged from the hospital.

CONCLUSIONS

- Many DRPs have been observed in the geriatric population, largely due to polypharmacy.
- These issues can be prevented through the intervention of a pharmacist, who possesses the necessary skills and knowledge to participate in multidisciplinary care.
- An effective tool for enhancing geriatric patients' care is a pharmacist-led comprehensive medication review. By doing so, pharmacists can help optimize drug therapy and reduce DRPs.

REFERENCES

- Byrne A, Byrne S, Dalton K. A pharmacist's unique opportunity within a multidisciplinary team to reduce drug-related problems for older adults in an intermediate care setting. Research in Social and Administrative Pharmacy. 2022 Apr 1;18(4):2625-33.
- www.pcne.org/upload/files/215_PCNE_classification_V8-01.pdf

CONTACT INFORMATION

Ramesh Bhandari, Email: ramesh_2417@yahoo.com