

GERIATRIC PHARMACOLOGY EDUCATION FOR HEALTH PROFESSIONALS AND STUDENTS: A SYSTEMATIC REVIEW



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Introduction

Given the reported high rates of medication errors, we hypothesize that the volume and quality of pharmacology education, especially education in geriatric pharmacology, is insufficient. We investigated the current general and geriatric pharmacology education in terms of volume, content and quality in undergraduate and postgraduate health professional's training.

Methods

The databases Pubmed, EMBASE, and PsycINFO were searched (01-01-2000 to 01-11-2011), using the terms pharmacology and education, including synonyms, in combination.

We included articles describing the content or evaluation of pharmacology education for health professionals. The content, quantity, and evaluation of education in geriatric pharmacology were compared with those for general pharmacology education. The Best Evidence Medical Education criteria and the Kirkpatrick model of hierarchy of evaluation were used.

Results

In total, 252 of 5691 articles retrieved were included.

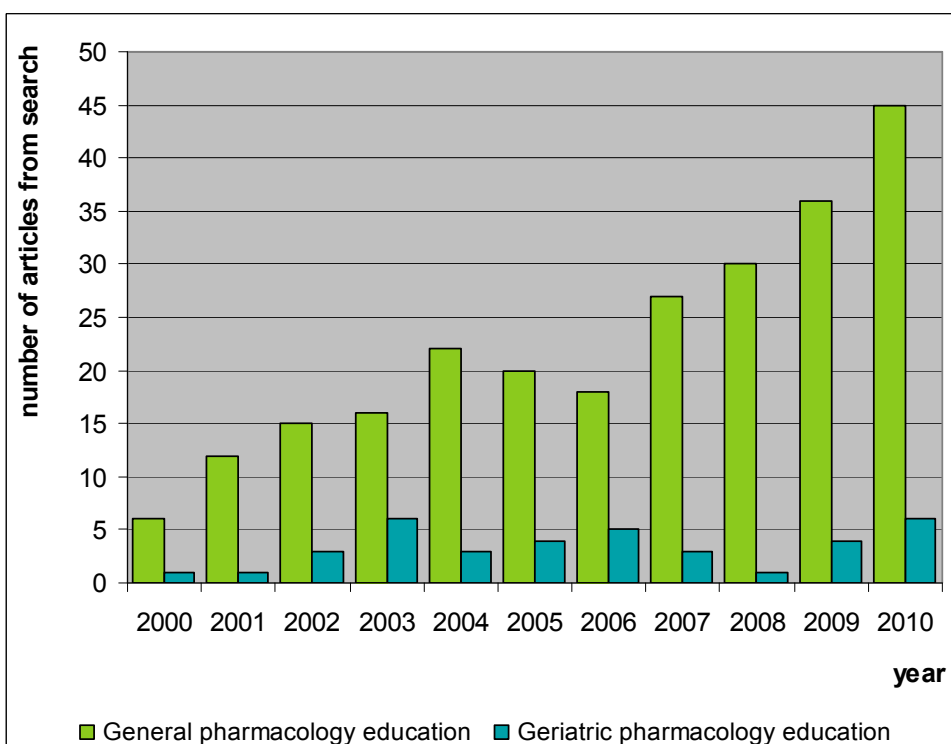


Figure 1: Relevant articles retrieved from search per year

	General pharmacology education	Geriatric pharmacology education	
Health professional	education time median h (range)	education time median h (range)	
Undergraduate	Medical student	80 (1.5-4956)	1.5 (1-23)
	Pharmacy student	20 (1-400)	10 (1-160)
	Nursing student	13 (1.25-85)	na
	Paramedical student	20	na
	Dental student	20	na
	Nurse practitioners stud	na	na
Postgraduate	Physician	8 (0.5-160)	2 (1.25-23)
	Pharmacist	20 (0.25-935)	471 (7-935)
	Nurse	15 (0.25-304)	na
	Physician Assistant	3	na
	Nurse Practitioners	3	na
Other paramedical HP	38	na	
Total	24 (0.25-4965)	2 (1-935)	

Table 1: hours of general and geriatric pharmacology education

Of the articles on geriatric pharmacology education, 61.5% reported data on evaluation, mostly students' satisfaction with the education provided. The strength of findings was low. No similar educational interventions were identified nor were evaluation studies replicated.

Conclusion

Interest in pharmacology education has increased in recent years, possibly because of the high rate of medication errors and the recognized importance of evidence-based medical education. Despite this, courses on geriatric pharmacology have not been evaluated thoroughly and none can be recommended for use in training programmes

