The impact of hospital pharmacy specialization on the patients' outcome – a literature review

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Background: One of the strategic projects of the European Association of Hospital Pharmacy (EAHP) is the creation of a Common Training Framework (CTF) for the hospital pharmacy profession in Europe. For this purpose, CTF working group 2 has performed a comprehensive literature review. It concluded that education and training of health personnel improves patient-outcome and that the benefit of a CTF is lacking. Nevertheless it was not reported unequivocal whether the pharmacists were specialised or not (1).

Purpose: To find relevant publications that confirm that hospital pharmacists' postgraduate education can improve patients' outcome and patients' care, in order to support a hospital pharmacy CTF legislation process in the European Union.

<u>Methods</u>: Seventy publications were identified based on data until 2010 from our previous study (1) and were evaluated with in-depth assessment regarding to pharmacists' qualification.

<u>Results:</u> Forty (57%) publications had sufficient information on the qualification of the pharmacists, additional 7 (10%) papers had partial. Out of the papers having detailed information on pharmacists' qualifications, 30 (43%) papers defined the pharmacists as "clinical pharmacists" having additional training. Other qualifications were mentioned such as intensive care-, pain-, oncology-, paediatric-, internal medicine and infectious diseases- specialised pharmacists that has also verified the importance of postgraduate training. Further information on the qualification of the pharmacists were also included on additional trainings in order to highlight their competency in clinical services. The publications gave a large evidence on the positive effect of pharmaceutical interventions for patients' outcomes in many fields including internal and acute care medicine, oncology, paediatrics and surgery; furthermore demonstrating economic benefits of interventions.

PubMed, CINAHL, MEDLINE, EBSCOHost and

Cochrane Libary were used.

The following **key words** and their combinations were used: **hospital**, **pharmacist**, **staff**, **education**, **level**, **disease**, **outcome**, **training**, **and impact**.

+ Boolean operators

cc. 10 000 hits

To narrow results, the selection and assessment of results based on the title first

207 articles

Selection by abstract and duplicates were removed.

70 articles were



<u>Conclusion</u>: Clear evidence was confirmed that only qualified pharmacists with postgraduate education can provide the right services to the patients and consequently, improve their outcomes, similarly to other professions (physicians and nurses) in the health care system.



1. West LM, Vetter-Kerkhoff C, Miljkovic N, Frontini R. Is there a need for a hospital pharmacy common training framework? Review of the literature on the impact of educational interventions on health outcome. Eur J Hosp Pharm. 2018;25(1):6-9.

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