

Pharmacists' Perceptions, Needs and Evaluation Methods Towards Continuing Professional Development: a Scoping Review

INPLASY202510027

doi: 10.37766/inplasy2025.1.0027

Received: 8 January 2025

Published: 8 January 2025

Corresponding author:

Yaoting Zhou

mc36257@um.edu.mo

Author Affiliation:

State Key Laboratory of Quality Research in Chinese Medicine, Institute of Chinese Medical Sciences, University of Macau, China.

Zhou, YT; Shi, JN.

ADMINISTRATIVE INFORMATION**Support** - University of Macau.**Review Stage at time of this submission** - Preliminary searches.**Conflicts of interest** - None declared.**INPLASY registration number:** INPLASY202510027**Amendments** - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 8 January 2025 and was last updated on 8 January 2025.**INTRODUCTION**

Review question / Objective To explore pharmacists' perceptions and needs regarding continuing professional development (CPD), and to identify specific CPD programs for pharmacists, along with their implementation processes and evaluation outcomes. The findings of this study will help provide valuable insights for pharmacy educators and policymakers to refine or develop CPD programs that effectively align with pharmacists' professional development.

Background Pharmacists play a critical role in healthcare systems worldwide, acting as frontline providers of medical advice, medication management, and patient care. With the rapid development of innovative therapies and advanced medical products, the capacity of pharmacists to adapt and remain proficient is essential to ensuring optimal healthcare outcomes. Continuing Professional Development (CPD) is widely recognized as an effective approach to enhance

pharmacists' professional capacity. By engaging in CPD, pharmacists stay informed about advancements in medical knowledge, technologies, and practices across various domains. Countries such as Ireland, New Zealand, and the United Kingdom (UK) have implemented CPD practices through various models and frameworks to maintain and enhance pharmacy knowledge and skills, as well as professional competence related to their work environment. However, a comprehensive review regarding the current state of CPD programs for pharmacists is lacking. The research goal is to explore the critical understanding of pharmacists' perceptions, needs, and the effectiveness of existing CPD models to optimize these programs.

Rationale The value of pharmacists' participation in CPD is increasingly recognized. The existing literature focus on the value and importance of CPD and find it challenging to maximize its utility and engagement meaning due to various barriers. By summarizing the current pharmacists' perspectives for CPD and exploring the

development and implementation of the existing CPD programs, the scoping review aims to provide the evidence base to support the professional development for pharmacists.

METHODS

Strategy of data synthesis A search was conducted in four electronic databases of PubMed, Web of Science, Scopus, and ScienceDirect to identify journal articles published from 1st January 2014 to 8th October 2024, allowing for a focus on pharmacists' perception or need towards CPD and evaluation methods of CPD. The search strategy was developed using a combination of keywords and Medical Subject Headings (MeSH) terms. The review used the following search terms to search four databases: pharmacist*; life long learning; continuing professional development; continuing professional education; and Education Pharmacy, Continuing*[MeSH Terms]. Boolean operators (AND, OR) were employed to refine the search and ensure comprehensive coverage of the topic.

Eligibility criteria The inclusion criteria were as follows: 1) studies involving adult hospital or community pharmacists; 2) studies reporting pharmacists' participation in continuing professional development education or training. The exclusion criteria were as follows: 1) systematic reviews or any other type of review, abstracts, or conference recordings; 2) studies about students' pharmaceuticals course; 3) studies not related to continuing professional development or life long learning; 4) studies lacking accessibility in full-text versions or were not presented in English.

Source of evidence screening and selection The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines was archived to conduct and reportin the results of this review.

The initial screening of records was independently conducted by two authors on the basis of titles and abstracts, with a focus on CPD for registered pharmacists and only studies where the pharmacist's perception was clearly reported were included in this scoping review. Any discrepancies were resolved by the two authors.

Data management All records will be exported into Endnote and subsequently transferred to Zotero software for efficient management and organization.

A table format was used to extract and summarise the data. The extraction sheet depicted in the table

that provides an analysis of the general information about each article: the author, year of publication, study country, sample size, method of data collection, the mode used, key findings, and contextual factors. The overview of articles included in this review highlights pharmacists' perceptions, needs and evaluation methods towards continuing professional development.

Reporting results / Analysis of the evidence Our database search returned a total of 2567 articles. After excluding duplicates and articles year less than 2014 removed, two independent reviewwes identified 766 articled related to the research question. Based on the selection criteria, irrelevant articles (that were not relevant for pharmacists or were not related to continuing professional development) were excluded from this scoping review. In the final data synthesis, only eighty one articles were included.

Presentation of the results The current increase in pharmacists' participation in CPD is valuable. Online and face-to-face training modes are common, and articles are often related to specific diseases and medicines. Meanwhile, pre and post surveys are also very effective evaluation method.

Language restriction English.

Country(ies) involved China.

Other relevant information None.

Keywords Pharmacists; Continuing professional development (CPD); Continuing professional education (CPE); Life long Learning.

Contributions of each author

Author 1 - Yaoting Zhou - Zhou Yaoting contributed to concept of the study, data collection, data analysis and management, data synthesis, first draft of manuscript, manuscript writing and review.

Email: mc36257@um.edu.mo

Author 2 - Junnan Shi - The author helped determine the concept of the study and participated in data collection, data analysis and data review.

Email: yc27504@connect.um.edu.mo