

Visualization of Evidence Based Medicine Development

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Background: Evidence based medicine (EBM) has a short time history , however had a significant influence in healthcare.

Objectives:To visualize the evolution of EBM and compare characteristics of the development of EBM in China and elsewhere.

Methods:We searched EBM related papers in the Web of Science and Chinese National Knowledge Infrastructure database. We integrated information visualization techniques and citation analysis to built historiographies, themes network structures and chronological themes maps on EBM in China and elsewhere.

Results:The development of EBM was separated into four periods: incubation (1972-1992 outside vs. 1982-1999 inside China), initiation (1992-1993 vs. 1999-2000), rapid development (1993-2000 vs. 2000-2004), and stable distribution (2000 onwards vs. 2004 onwards).The main EBM research topics internationally are “EBM and necessity”, “quality of evidence”, “collaboration and education”, “EBM practice”, “other types of evidence” and “evidence translation”. The main topics for Chinese EBM are “Traditional Chinese Medicine (TCM)”, “methodology”, “evidence-based nursing”, “quality control”, “evidence-based clinical practice” and “clinical guidelines in hepatitis”.

Conclusions:The development of EBM in China and elsewhere has taken place in four phases. Although Chinese EBM began later, its growth appears to have been faster, closing the gap with EBM in countries. However, there are important differences in the research subjects, structure, depth, and speed of Chinese and non-Chinese EBM. The course of EBM outside China shifted from raising awareness and education in EBM to EBM practice, and from evidence quality to evidence translation. In China, the trajectory for EBM shifted from its introduction and awareness raising, to practice; from EBM generally to evidence-based TCM, evidence-based nursing, and evidence-based policy making; and from evidence production to evidence evaluation and translation. This suggests that there is a distinctive model of EBM development in China, reflecting the national conditions and problems in China.

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