Review

The reporting characteristics and methodological quality of Cochrane reviews about health policy research

Li Xiu-xia [a,b], Zheng Ya [c], Chen Yao-long [a,b], Yang Ke-hu [a,b,*], Zhang Zong-jiu [a,*]

[a] Evidence-Based Medicine Center, School of Basic Medical Sciences, Lanzhou University, Lanzhou 730000, China
[b] Key Laboratory of Evidence Based Medicine and Knowledge Translation of Gansu Province, Lanzhou 730000, China
[c] School of Public Health, Lanzhou University, Lanzhou 730000, China

ARTICLE INFO

ABSTRACT

The systematic review has increasingly become a popular tool for researching health policy. However, due to the complexity and diversity in the health policy research, it has also encountered more challenges. We set out the Cochrane reviews on health policy research as a representative to provide the first examination of epidemiological and descriptive characteristics as well as the compliance of methodological quality with the AMSTAR. 99 reviews were included by inclusion criteria, 73% of which were Implementation Strategies, 15% were Financial Arrangements and 12% were Governance Arrangements; involved Public Health (34%), Theoretical Exploration (18%), Hospital Management (17%), Medical Insurance (12%), Pharmaceutical Policy (9%), Community Health (7%) and Rural Health (2%). Only 39% conducted meta-analysis, and 49% reported being updates, and none was rated low methodological quality. Our research reveals that the quantity and quality of the evidence should be improved, especially Financial Arrangements and Governance Arrangements involved Rural Health, Health Care Reform and Health Equity, etc. And the reliability of AMSTAR needs to be tested in larger range in this field.

© 2014 Elsevier Ireland Ltd. All rights reserved.

1. Introduction

There has been growing international interest in the evidence-based health policy-making that scientific evidence should play an important role in the policy formulation, implementation, and assessment. During the 1990s, evidence-based approaches have become prominent on the national and international agendas for health policy and health systems research [1]. The World Health Organization has been vigorously supporting the process of contextualizing evidence and translating it into policy, especially in the developing countries [2]. The First Global Symposium on Health Systems Research (HSR) – Science to Accelerate Universal Health Coverage has been announced by the World Health Organization and partners, and aiming to improve the scientific evidence needed by health policy-makers and practitioners to inform their decisions related to accelerating universal health coverage [3].

Systematic review (SR), the important tool for Evidence-Based Medicine (EBM), can inform healthcare management and policy making levels by providing research-based responses to important questions about health systems [4–6]. In recent years, more and more SRs on health-systems research have been published in many leading journals such as The Lancet (Lancet) and the World Health Organization Bulletin, etc. [7]. An increasing number of health policy makers and researchers have used SRs to

* Corresponding authors at: Evidence-Based Medicine Center, School of Basic Medical Sciences, Lanzhou University, No. 199, Donggang West Road, Chengguan District, Lanzhou, Gansu 730000, China.
Tel.: +86 13993694673.
E-mail addresses: kehuyangebm2006@126.com (Y. Ke-hu), lzuebm@163.com (Z. Zong-jiu).

synthesize research evidence to deal with health issues at global and national levels. World Health Organization Global Policy Recommendations "Increasing access to health workers in remote and rural areas through improved retention" (2010) [8] is a representative example. However, due to the complexity and diversity of the health policy research, the methodology of SRs has also been facing challenges in this field.

Cochrane reviews are the SRs of primary research on human health care and health policy, and are internationally recognized as the highest standard in evidence-based health care [9]. So far, over 5000 Cochrane Reviews and 2000 protocols for Cochrane reviews are published online in the Cochrane Database of Systematic Reviews (CDSR), which is the database of Cochrane reviews in The Cochrane Library (www.thecochranelibrary.com) and the 2011 ISI Impact Factor is 5.912 [10]. The Cochrane reviews are classified into 31 topics in the CDSR, and the topic "Effective practice/health systems" follows closely health systems research which involves the evidence on health policy research.

Newer assessment tool – Assessment of Multiple Systematic Reviews (AMSTAR) has been to assess the methodological quality of SRs, which is built upon previous tools, empirical evidence and expert consensus [11]. The AMSTAR approach consists of 11 items and is featured by good content validity, wide acceptance, recognized reliability and reproducibility [11–14]. It has been considered the best way to assess methodological quality of SRs by the Canadian Agency for Drugs and Technologies in Health [15].

The purpose of this review is to examine the epidemiological and descriptive characteristics, as well as the methodological quality of Cochrane reviews on health policy research published in the CDSR, which serves as a reference for health policy makers and researchers.

2. Materials and methods

2.1. Inclusion criteria

We included in this review all systematic reviews indexed in CDSR that met the following four criteria: First, the systematic review synthesized evidence on a research question about health policy, such as the policy formulation, implementation or evaluation, or the methodology for health policy research, etc. Second, the review synthesized evidence in one of three categories of health policy research: Implementation Strategies, Financial Arrangements and Governance Arrangements. Third, the review had to be available in the database on 31 March 2013, when we downloaded all studies for selection and extraction. Fourth, the review was published in English. But the protocols for Cochrane reviews and Withdrawn Cochrane reviews were excluded.

2.2. Search strategy

We searched the CDSR by the whole topic on "Effective practice/health systems", and retrieved the Advanced Search by "Title, Abstract and Keywords" as a supplement in March 2013. The search terms included health, policy and strategy.

2.3. Screening

According to predetermined inclusion criteria, two reviewers independently screened all of the search results by title and abstract, and subsequently retrieved and screened the full text of potentially included studies (if one or both reviewers thought it was potentially relevant). Disagreements were resolved by discussion.

2.4. Data collection and analysis

Two reviewers independently extracted data and assessed methodological quality of included studies. Disagreements were resolved by consultations with the third reviewer.

Data extracted included the key reporting characteristics (epidemiological and descriptive Characteristics) as well as the methodological quality assessment items from the AMSTAR checklists. Here we summarized the epidemiological and descriptive characteristics in two subsets (Table 1 and 2). We classified the included Cochrane reviews by their topic categories (e.g., Implementation Strategies) and focused areas (e.g., Hospital Management).

Microsoft Excel 2003 (http://office.microsoft.com/zh-cn/) was applied to design the data form and performed analyses for the collection data. Data was summarized by descriptive statistics (frequency, median, interquartile range [IQR]).

AMSTAR checklists [11] were used to assess the quality of included Cochrane reviews. It assessed the degree to which review methods avoided bias by evaluating the methods against 11 distinct criteria. The 11 criteria and the way they work were described in Table 3. Every AMSTAR criterion could be specified three levels of quality: Yes (clearly done), Unclear (cannot answer or not applicable) and No (clearly not done), based on the published reviews report. Apparently, a review that adequately met all of the 11 criteria was considered to be a review of the highest quality. In this way, if a criterion was rated "Yes", it scoring 1, the included reviews were rated as follows:

- High quality: scores 8–11;
- Medium quality: scores 4–7;
- Low quality: scores 0–3.

3. Results

3.1. Search result

Our search identified 900 publications (Fig. 1). Initial screening by title and abstract excluded 76 duplicate records and 628 records irrelevant to health policy. A further screening by full text excluded 97 articles, including 13 Protocols and 2 Withdrawn Cochrane reviews. Finally, 99 Cochrane reviews about health policy research were included, accounting for about 1.98% of the total Cochrane reviews.