



Quality Appraisal of Systematic Reviews/Meta-analysis on Traditional Chinese Medicine Published in Chinese Journals

Liu JP ^{1,2} Xia Y²

1. National Research Centre for Complementary and Alternative Medicine (NAFKAM), University of Tromsø, NORWAY
2. Centre for Evidence-Based Chinese Medicine, Beijing University of Chinese Medicine, Beijing, CHINA

Background

Systematic review is considered as high level of evidence for evaluating health care interventions. A lack of adequately reported systematic review and meta-analysis have been associated with bias in estimating the effectiveness of interventions. An international consensus on 'improving the quality of reports of meta-analyses of randomised controlled trials (QUOROM) statement' was developed in 1999.¹ A growing number of systematic review/meta-analysis on traditional Chinese medicine (TCM) are published in Chinese journals.

Objectives

To critically appraise the quality of systematic reviews/meta-analysis on traditional Chinese medicine published in Chinese journals.

Methods

We conducted a comprehensive searching on Chinese electronic full-text databases including CNKI, VIP and Wanfang Databases to identify the reports of systematic reviews or meta-analyses on TCM including herbal medicine, acupuncture and moxibustion, as well as integrated traditional and western medicine. We used a self-developed data extraction form based on 18 items from QUOROM Statement plus information on diseases reviewed, databases searched, the journals that published the reviews. The main components extracted were title/abstract, objectives, source of data, quality assessment of the included studies, methods of data extraction and data synthesis.

Results

We identified 82 systematic reviews on TCM which were published in 45 Chinese journals between 1998 and May 2006. Three reviews were published twice, 3 published as protocols, and 76 reviews were included for appraisal. Among them, 10 reviews were registered as Cochrane reviews (The Cochrane Library, Issue 2, 2006). Fifty-one different diseases were reviewed, mainly focusing on cardio-vascular disease (19), metabolic and endocrine diseases (11), gastroenterologic diseases (6), neurologic diseases (6), cancer (5), respiratory disease (4), and others. Almost all reviews included randomised clinical trials mainly targeting on Chinese herbal medicine (50 reviews), acupuncture (9 reviews), and integrative medicine (4 reviews). 27 reviews (34%) searched exclusively Chinese databases and 37 reviews (47%) had additional manual searches for the included studies. 53 reviews (67%) assessed methodological quality of the included studies. There was insufficient description of the study selection, data abstraction and analyses. None of the reviews used flow chart to describe the process of selection, inclusion and exclusion of studies. One review assessed adverse effects of Chinese medicines.

Items	Descriptions	Reported (%)	Items	Descriptions	Reported (%)
Title	[1]	13 (17%)		Study selection [10]	72 (95%)
Abstract	Structured format [2]	63 (82%)		Validity assessment [11]	50 (70%)
	Objectives [3]	34 (45%)		Data abstraction [12]	35 (46%)
	Data sources [4]	49 (64%)		Study characteristics [13]	28 (35%)
	Review methods [5]	17 (21%)		Quantitative data synthesis [14]	71 (93%)
	Results [6]	57 (72%)	Results	Trial flow [15]	0
	Conclusions [7]	62 (78%)		Study characteristics [16]	63 (83%)
Introduction	[8]	76 (100%)		Quantitative data synthesis [17]	55 (69%)
Methods	Searching [9]	73 (96%)	Discussions	[18]	76 (100%)

Conclusions

We found that few reviews reached international standard of reporting of meta-analyses, and the insufficient descriptions of methodology for conducting systematic reviews may bring about biases. Advance training for the reviewers is warranted. Systematic review and meta-analysis should comply with the QUOROM statement to improve quality of their reporting. Adequate reporting ensure readers and reviewers to understand the performance of a review's conduct and ensure the validity of the findings.

References

- 1 Moher D, Cook DJ, Eastwood S, et al. Improving the quality of reports of meta-analyses of randomised controlled trials: the QUOROM statement. Lancet 1999;354:1896-1900.