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An exploration of Traditional Chinese Medicine practitioners' perceptions of Evidence Based Medicine

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A B S T R A C T

Objectives: To explore understanding of Evidence Based Medicine (EBM) and use of evidence by Traditional Chinese Medicine (TCM) practitioners, practising in Scotland.
Design: Qualitative study incorporating semi-structured interviewing of 12 TCM practitioners practising TCM in Scotland.
Setting: TCM practitioners' premises in an urban area of Scotland, UK.
Results: Few participants were aware of the process of EBM but all reported importance of learning from a range of sources including patients and practice. Participants reported no involvement in the wider demands of the EBM process.
Conclusions: TCM practice here was informed by a range of sources but many barriers to full engagement with the EBM process were evident and the small business model of service delivery seemed important here. Participants' prioritisation of classical books and practice as evidence sources poses some cause for concern at a time of rapid growth in well evidenced western biomedical and TCM knowledge and practice.

1. Introduction

There has been a sharp increase in the use of Complementary and Alternative Medicine (CAM) worldwide with over 20% of American community hospitals offering non-allopathic treatments and 65% of American hospitals offering CAM for pain treatment.[1–3] Approximately 1.5 billion people use some form of CAM[4] and, in Europe, between 20% and 25% of the population have used it.[5] Despite this the fundamental issues of efficacy, safety and cost-benefit have not been resolved[6] and little supporting scientific evidence exists for its effectiveness.[7]

Traditional Chinese Medicine (TCM) is one important modality of CAM, and is "the quintessence of the Chinese cultural heritage" with a very long history.[8 p.4] The Neijing or Inner Classic of the Yellow Emperor – compiled between 300 and 1000BC – forms the source of all Chinese medical theory.[9] TCM is characterised by its unique holistic philosophy, therapeutic theories, and diagnostic methods e.g. hearing, smelling, enquiry and palpation. In the West TCM often describes the practice of zhong yi, or the traditional medicine of China that evolved in the 1950s as a modernised form of traditional Chinese medical practices at the instigation of Mao Tse Tung.[10] Commonly prescribed treatments such as zhong cao yao (herb tea), zhen jiu (acupuncture and moxibustion), tuina or massage, dietary therapies, and Tai Ji and Qi Gong, are tailored to the individual needs of patients.[11] Unsurprisingly TCM has a higher degree of professionalisation in China – where it includes biomedical sciences and enjoys the same registration system as Western Medicine – than in the West.[12] TCM Diagnosis or zhen duan involves the detection of disease states (bian bing) and the application of pattern identification (bian zheng) – employing clinical reasoning – before a treatment principle (zhi ze) is formulated and a treatment method selected (zhi fa).[10]

The syllabus of TCM courses in China: is controlled by the State Administration of TCM, is open to only those who have passed the entry exam, shares its first year of study with students of Western Medicine and those of nursing, and devotes 30% of the five year curriculum to Western Medicine.[9] A 2001 survey in one mainland China province found that 98% of medical practitioners trained in Western Medicine in China had received some university TCM training and 15% had undergone additional training.[13] TCM practitioners in China are more likely to prescribe acupuncture and herbal tea concurrently but only around 33% of acupuncturists in the West use herbs and this may be a result of perceived safety concerns and increasing regulation of herbal medicines.[12]

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Table 1
Arguments for and against application of EBM standards to TCM evaluation.[9]

Arguments for	Arguments against
TCM scholars are more likely than not to support EBM standards & RCT use to evaluate TCM.	Evidence is theory-laden, & no paradigm has universal applicability & all understanding is relative, limited & provisional.
Many TCM practitioners & researchers view RCTs as a way to: advance TCM, provide better treatments, make TCM credible to biomedicine, & promote integration with it.	Evidence underlying EBM standards & RCTs involve assumptions incompatible with theories & practices central to TCM.
TCM has set low standard of evidence & EBM standards may enhance patient health & increase TCM's stature.	Relativist reasoning implies that neither EBM nor TCM paradigm is more objective than the other.
Already a large number of TCM (10,000 in 1997) RCTs although quality is mainly poor.	EBM is biased towards the medical paradigm & against TCM.
TCM practitioners see but do not acknowledge weaknesses of some TCM treatments. Unsubstantiated theory or blind loyalty to TCM should be rejected.	Many RCTs do not take seriously constructs within TCM e.g. diagnostic categories & bodily constructs, with no clear correlates in biomedical anatomy or physiology.
TCM research commonly: reports only positive findings, includes fabricated results, & specious reasoning to make negative results appear positive.	CAM should not casually consent to EBM but should question its possible aim to subjugate CAM disciplines to the biomedical agenda.
EBM standards critical to survival, modernisation, development, & global extension of TCM.	Too much individual variation for aggregated statistical results to be useful in clinical practice.
EBM standards may be applied where appropriate control measures & means of standardisation adopted.	Western scientific research has been used to subordinate TCM & evaluation by EBM may be a manifestation of this.
Pragmatic trials – to evaluate overall effectiveness of treatment – may facilitate application of EBM standards.	Use of individual-sensitive observational studies more appropriate to TCM evaluation than RCT.

The World Health Organization's Beijing declaration exhorts the development of TCM 'based on research and innovation'.[14 p. 1] Arguments for the evaluation of TCM using Evidence Based Medicine (EBM) standards recognise; the pragmatic value of this for TCM's credibility, the existing Randomised Clinical Trial evidence base for TCM, scope for improving TCM research quality, and the potential for trials to address overall effectiveness[15] (Table 1). Arguments against are more diverse if less compelling, drawing on research philosophy, suspicion of subordination by EBM and EBM bias against TCM (Table 1).[15] Allopathic medicine's difficulty with diagnostic categories and bodily constructs that have no clear biological correlates e.g. san jiao and shen,[15] illustrates epistemological and ontological differences between East and West. These result in fundamental tensions when EBM is applied to TCM.

Few studies have addressed: the applicability of Evidence Based Medicine (EBM) to TCM, the application of EBM by TCM practitioners, and their understanding of EBM.[16] The purpose of this study was to explore UK TCM practitioners' understanding of EBM and also their understanding of evidence used by them in their practice. EBM may be seen as "the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients".[17 p. 71] EBM marks the present era where valid scientific evidence combined with feedback from patients is expected to guide practice.[18] EBM is practised using five steps; identifying and translating clinical problems into answerable questions, searching for best available evidence with which to answer questions, critical appraisal of the evidence for its validity and reliability, application of evidence in practice, and performance evaluating.[17]

The TCM literature on EBM identified the focus of debate to be on the meaning of the term although most academic articles support the application of the EBM standard and Randomised Control Trial (RCT) use in TCM evaluation.[15] However EBM is not restricted to the higher levels of research evidence i.e. meta analyses and RCTs, and may include practitioners' intuition and experience as sources of evidence.[17]

Many TCM practitioners have long relied on the use of evidence[20] but despite research on TCM effectiveness – with over 10,000 RCTs conducted[15] – its effectiveness has been shown in only a few treatments. With respect to acupuncture, most of the therapies are of unproven effectiveness or have low-level scientific evidence underpinning them.[20] The effectiveness of clinical practice has not been proven[1] and, resultantly, TCM's clinical evidence cannot be regarded generally as reliable.

2. Materials and methods

This study aimed to explore the extent to which TCM practitioners understood EBM and a purposive convenience sample of those practising TCM in the West of Scotland was selected. A qualitative methodology was employed with 12 participants – including five recruited via snowball sampling[21] – from 15 invited to participate (Table 2). The sample was identified via advertising for TCM provision in a business directory and all practitioners in the area were sent an invitation letter and seven practitioners responded. Data on the nature of TCM practised by participants and their related skills repertoire were not collected. Qualitative sample sizes typically range from 1 to 30 participants[22] and while resources did not permit the sample size to be determined by theoretical saturation the purposive selection of information-rich cases[23] was achieved. Several measures were employed to assure the trustworthiness of the data.[24] Credibility of findings was achieved through the regular debriefing of the interviewer in research supervision where results were discussed as they were collected. Confirmability of findings was addressed also in research supervision as the interviewer (NL) was trained in TCM and the supervisor (WS) was not. Data analysis software assisted in ensuring that interpretations were rooted in the data by facilitating audit and transparency where steps in the analytic process were recorded using memos. The detailed understanding of evidence and its use by participants demonstrated a degree of ontological authenticity. The sample was appropriately chosen and the good fit of questions and methods ensured a high degree of methodological coherence.

One-to-one, semi-structured individual interviews were conducted to generate in-depth and broad capture data in a natural setting.[25] Interviews were held in interviewees' respective clinics. Written consent was obtained and audio recorded interviews lasted between 30 and 45 mins. Interviews were conducted in Cantonese and later translated to English for analysis. Ethics approval was granted by the University of Glasgow, Faculty of Medicine research ethics committee.