*Revised manuscript.*

**Patient perceptions of clinical care in complementary medicine:   
a systematic review of the consultation experience**

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**ABSTRACT**

**Objective:** This review aims to describe the prevalence of empathy, empowerment and patient-centred clinical care experienced by patients in complementary medicine (CM) consultations.   
**Methods:** A systematic review was undertaken of original research exploring patient perceptions of CM clinical care. Ten databases were searched: Alt HealthWatch, AMED, CINAHL Plus, MEDLINE Complete, Cochrane Library, PubMed, Proquest Medical Collection, PsycInfo, Social Sciences Citation Index and Psychology Collection. Studies were included which reported patient perceptions of consultation with CM practitioners and were excluded where experimental methods controlled the nature of consultation processes.  
**Results:** Findings of included studies (n=34) were categorised under the *a priori* themes of empathy, empowerment and patient-centred care. This produced a substantial pool of qualitative data detailing patient-reported experiences which consistently confirmed occurrence of these themes in CM consultation. Quantitative data was correlative, yet was insufficient to definitively describe prevalence of such experiences.  
**Conclusion:** While it is evident that CM consultations provide a patient experience of empathy, empowerment and patient-centredness, further research is warranted to quantify this experience before it can be defined as characteristic of CM clinical care.  
**Practice implications:** This review draws attention to the potential role of CM as a resource for patients' psychosocial health needs.

**Keywords**Person-centred medicine; health behaviour; holism; patient-practitioner relationship

**1.0 Introduction and background**  
Complementary medicine (CM) comprises an extensive and varied body of health-care professions generally considered separate to conventional medicine [1]. Commonly accessed CM professions include naturopathy, herbal medicine, acupuncture, homeopathy, chiropractic and massage [2, 3]. CM use amongst the general population has been identified as both prevalent and consistently increasing on an international level [4, 5], including patients with chronic health conditions [6, 7]. It has also been asserted that the integration of CM consultations alongside the provision of conventional primary health-care services can enhance the quality and comprehensiveness of clinical care [8, 9]. In light of these patterns alongside the rising global burden of disease attributed to chronic conditions [10], it is worthwhile considering the role CM practitioners and the clinical care they provide may play in delivery of contemporary health-care services [11].

The process of the clinical consultation is integral to the provision of health-care, with the relationship between patient and practitioner having a demonstrable impact on patients’ health and psychosocial outcomes [12, 13]. The nature of the consultation contributes to the quality of clinical care; practitioner empathy improves patient satisfaction and compliance with treatment [14], while strong communication skills and longer, more in-depth, personalised consultations may promote favourable clinical outcomes [15, 16]. In line with these understandings of the clinical influence of patient-practitioner interactions, there has emerged a recognition of the importance of clinical care processes that allow active patient participation [17].

The paradigm of patient-centred care (PCC) is derived from the person-centred therapy of psychologist Carl Rogers [17] and has been largely embraced by the global health and medical community as a movement toward improved clinical **care [18, 19]**. PCC is a systemic “whole-person” approach accounting for all aspects of the individual's needs, values, environment and available resources; it promotes active patient participation through education and shared decision-making [20]; it involves a patient-practitioner relationship founded in partnership and communication; and it promotes sustainable health generation in a manner applicable to the individual's circumstances [19]. PCC is generally valued and sought-after by patients [21, 22].

The cornerstone of PCC is a patient-practitioner relationship characterised by practitioner empathy and patient empowerment [9]. Empathy is a complex sequential process involving emotive, moral, cognitive and behavioural aspects [23]. It implicates both ability and motivation in the practitioner to identify, consider and understand patients' emotions, experiences and perspectives, requiring a level of emotional engagement in order to authentically reflect this understanding back to the patient [23]. Empowerment denotes an ability to act or choose, which in the context of clinical care is defined as enablement of patients to take an active role in their health-care [24]. This may be seen as a transference of power from practitioner to patient, often through patient education, resulting in greater patient self-efficacy [24].

Previous research has reported that patients expect empathic, empowering, patient-centred care from CM practitioners [25] and seek CM services specifically for clinical care of this nature [26]. While it has been suggested that CM clinical practice is particularly patient-centred in its approach [26-28], this statement must be supported by appropriate evidence. As such, this systematic review examines the currently available evidence exploring the perceptions of patients regarding their experience of CM practitioners’ clinical approach during consultations.

**2.0 Methodology**  
A protocol was developed and implemented using the *Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement* [29]. The protocol was drafted by HF and reviewed and revised by AS.

**2.1 Search strategies & inclusion criteria**  
The following databases were searched: CINAHL (EBSCOhost), MEDLINE Complete (EBSCOhost), PubMed (US National Library of Medicine), Cochrane Library (Wiley Online Library), ProQuest Medical Collection (ProQuest), AMED (EBSCOhost), Alt HealthWatch (EBSCOhost), Social Sciences Citation Index (Web of Science), PsycInfo (EBSCOhost) and Psychology Collection (Gale Cengage). A variety of terms were used to cover two main focal points of the review: the patient experience of empathy, empowerment or patient-centred care and the CM clinical setting. MeSH terms and key words on related papers were explored to guide the process of selecting search terms. Search terms were drafted by HF while AS assessed and contributed to the selection. The list of terms used was as follows: empathy, compassion, empowerment, enablement, patient-centred, person-centred, patient-focused, patient-practitioner relationship, clinical care, consultation, complementary medicine, alternative medicine, complementary therapies, alternative therapies, naturopathy, herbalist, homeopathy, acupuncture and massage. See **Table 1.** for full search protocol details.

During selection, all study designs constituting original research published between **January** 2005 and **March** 2016 were considered. **This date range was selected in order to assess current and recent trends in CM clinical care.** There was no exclusion based on language. Inclusion criteria covered studies whereby participants were patients who had consulted with a CM practitioner in a naturalistic (non-experimental) clinical setting. Studies were included when outcomes involved some assessment of patient perception of empathy, empowerment, patient-centred care or related categories.

**2.2 Study selection & data extraction process**After removal of duplicates, the initial pool of results was screened (by HF) by title and abstract and citations were excluded as ineligible for the following reasons: unrelated to CM or to the specified CM professions, unrelated to clinical care, data were not taken from patient's perspectives, outcomes were unrelated to themes of empathy, empowerment and patient-centred care, interventions were deliberately patient-centred, or the article did not present original research. The remaining papers were screened by full-text and again during data extraction, culminating in a final selection of studies found to meet the full inclusion criteria with at least one finding or outcome providing relevant patient perspectives on the experience of CM clinical care. This process is summarised in **Figure 1**.

The selected papers were re-read in order to extract and tabulate applicable data, including characteristics of each study, demographics of participants and details of any outcomes of interest to the review topic. These findings and outcomes were deductively categorised under the *a priori* themes of 'empathy', 'empowerment' and 'patient-centred care'. Study selection and data extraction were performed by HF and checked by AS. During data extraction, each paper was critically appraised for methodological coherence using criteria outlined in the STROBE (Strengthening the Reporting of Observational studies in Epidemiology) [30] and SRQR (Standards for Reporting Qualitative Research) guidelines for quantitative and qualitative studies, respectively [31].

**3.0 Results**

**3.1 Critical Appraisal**  
Appraisal with STROBE indicated all quantitative papers were well structured and provided clear, thorough information in the Title, Abstract, Introduction, Methods, Results and Discussion sections [32-41]. Many of these studies, however, failed to report on measures to control for bias [32, 34-39, 41] and neglected to discuss finer details such as missing data [33, 34, 36-41]. Full details can be seen in **Table 2**. SRQR items which were poorly reported in qualitative studies included researcher characteristics and reflexivity [42-54], considerations of ethical issues [46-48, 52-59] and declaration of interest [45, 47, 48, 53, 56-58, 60, 61]. Full details can be seen in **Table 3**. As a whole, the appraisal suggested a rich source of data within the selected literature, but the nature of poorly-scoring items was considered during the review process in an attempt to account for potential biases in each study.  
  
**3.2 Study characteristics**  
Thirty-six studies were selected for inclusion with twenty-six providing qualitative data, eight providing quantitative data and two providing mixed data relevant to the research question. There was no exclusion based on language, however all papers which met the full inclusion criteria were written in English. While most studies (n = 19) [42, 43, 45, 47, 49, 51-53, 55-67] used interview techniques for data collection, focus groups (n = 4) [44, 48-50] and surveys (n = 11) [33-40, 46, 54, 68] were also common. Quantitative measures included validated tools such as the Consultation and Relational Empathy (CARE) measure [32, 34, 35, 39], Patient Enablement Instrument (PEI) [37-39] and EUROPEP [36] as well as Likert scales [33] and rating scales [40, 41]. The CARE measure [69-71], PEI [72, 73] and EUROPEP [74, 75] have been applied in a wide variety of health-care settings. While the EUROPEP instrument for evaluating patient perceptions of primary care is not a measure for empathy or PCC specifically, it contains some items related to these themes, such as the practitioner’s “interest in your personal situation”, “making it easy for you to tell him or her about your problem”, “listening to you”, “helping to deal with emotional problems related to health status” and “involving you in decisions about your medical care” [36].

Sample sizes varied from 7 to 1887 (average 120) and demographics were diverse, ranging from young children to elderly populations and spanning eleven countries over four continents. Participants were predominantly female (approx. 71.9%), which is reflective of CM users as a population [4]. A majority of studies had observational designs, however one was nested within a randomised controlled trial (RCT) of homeopathy where clinical care was naturalistic and the same between groups [55]; one was quasi-experimental [46]; one was a naturalistic observational RCT comparing two types of acupuncture [34]; and one was nested within a naturalistic observational randomised trial after both groups had received acupuncture treatment [58].

While fourteen of the studies involved a variety of professions under the wider umbrella of CM, a number of them specifically investigated acupuncture (nine) [34, 35, 38, 39, 46, 54, 58, 64, 65], homeopathy (six) [32, 37, 51, 52, 55, 68], naturopathy (three) [48, 49, 59], herbal medicine (two) [36, 62] and chiropractic (two) [66, 67]. Often, the populations under examination in reviewed studies were CM users without further specification. However, many studies assessed CM users with specific health conditions, which were largely chronic in nature, including: multiple sclerosis [40], cancer [45, 53, 65], osteoarthritis [42], rheumatoid arthritis [55], chronic neck or back pain [44, 47], non-insulin dependent diabetes mellitus [49], anorexia nervosa [34], chronic Lyme disease [43], pelvic inflammatory disease [64], difficulty conceiving [50], low back pain during pregnancy [67], medically unexplained symptoms [35, 58] and assorted, unspecified chronic conditions [38, 52, 57]. Full details of study characteristics can be seen in **Table 4.**

**3.1 Characterising experiences of empathy, empowerment and patient-centred care**  
Patient experiences of CM clinical care were diverse and complex. However, emergent categories analogous with the over-arching themes of empathy, empowerment and patient-centred care were reflected across qualitative studies through the use of similar language, emphasis and contextualisation. These categories served to characterise the patient experience. There were few discrepancies in the nature of participant experiences between qualitative studies and qualitative data was generally correlative with that taken from quantitative studies.  
  
***Empathy***Practitioner empathy was frequently represented throughout the literature, being reported to some degree in twenty-seven of the thirty-six papers [32-40, 42, 44, 46-49, 52, 54-60, 64-67]. In four of those studies, practitioner empathy or related categories were reported by all participants as beneficial aspects of their clinical care (n=60 total) [34, 55, 58, 64]. The occurrence of empathy was consistent across all included CM professions and over a variety of geographical locations including the UK, North and Central America, Western Europe, China, Australia and New Zealand (see **Table 4.** for further detail). The experience of practitioner empathy was so prevalent that one participant who experienced poor listening skills from her practitioner still described the clinician as “really kind, really compassionate” [45]. Another referred to empathic practitioner behaviours by stating: “That's what alternative therapists tend to do, I think possibly the ones that aren't any good would still do it” [47].

The occurrence of empathy was not only frequently mentioned in qualitative papers, but also quantified in seven of the survey-based studies [32-36, 39, 40]. Four studies administered the CARE measure to patients of acupuncture [34, 35, 39] and homeopathy [32] with patients reporting consistently high perceptions of empathy from all thirty-two CM practitioners involved across the four studies.

Herbalists were rated as “excellent” by a majority of respondents in EUROPEP items related to empathy [36]. Quantitative measures assessing practitioner acknowledgement of the patient [33] and practitioner care and concern [40] produced results in favour of CM practitioners compared to conventional medicine. This comparison between CM and conventional practitioner attitudes towards patients was also a common thread through qualitative findings, discussed by participants of five studies who generally found CM practitioners to be more empathic [42, 44, 47, 52, 60].

Few studies sought specifically to explore empathy as a theme; the presence of practitioner empathy in participants' experiences was revealed in the findings of the qualitative literature and subsequently supported by quantitative outcomes. The most commonly perceived characteristic associated with practitioner empathy was listening and understanding with participants from fourteen papers describing CM practitioners with such language [34, 38, 44, 46-49, 52, 55, 59, 60, 64-66]. CM practitioners were also described as “caring”, “supportive”, “kind”, “sensitive” and “concerned” [38, 46-48, 54, 55, 57, 58, 65-67], which were all categorised as perceptions of empathy. Regardless of the language used, participants consistently described consultations whereby practitioners not only asked questions and genuinely listened to their patients, but also made a concerted effort to understand and respond in a manner that made the patient feel heard, cared for and supported. Seven of the studies identified themes or sub-themes explicitly outlining this characteristic engagement by CM practitioners [34, 38, 48, 52, 55, 58, 64].

***The CM consultation as an empowering experience***  
Aspects of the CM consultation categorised under the theme of empowerment were mentioned often throughout the literature, appearing in twenty studies [33, 37-41, 44, 45, 49, 50, 54-58, 60-63, 67], across the full range of included CM professions and a variety of geographical locations including Sweden, the UK, North and Central America, Australia and New Zealand but were not reported in studies conducted in China or Western Europe.

Because the concept of empowerment is defined by a transference of power that enables the recipient to act [24], participant descriptions of such experiences were categorised under the theme of empowerment regardless of the language used. Typically, these experiences described CM clinical care as facilitating a process of “taking control”, “having power” [38, 45, 49, 50, 52, 55, 58, 62, 63], or “taking responsibility” [44, 56, 57, 60, 61, 67] for one's own health. In some studies involving participants with chronic conditions, empowerment was strongly characterised by changing behaviours [38, 44, 55] or shifting to a more positive way of thinking [44, 57] in order to better cope with ongoing health challenges. Education [57, 67] and individualised support provided by CM practitioners [44] were mentioned as contributing to the empowerment process. Two papers identified themes that directly described CM clinical care as an empowering approach [44, 57], while nine others outlined themes or sub-themes analogous with empowerment, describing the CM consultation as facilitating coping [55, 56, 60], promoting self-efficacy and self-control [45, 49, 50, 67], and encouraging more active patient engagement in the healing process [54, 58].

Although patient empowerment was a recurrent theme in the qualitative literature, its consistency as a characteristic of the CM consultation was not wholly supported by quantitative results. One study's participants rated their level of patient empowerment favourably from CM practitioners of acupuncture, naturopathy, herbalism, homeopathy and massage [40]. Another reported ratings of patient empowerment that consistently favoured a range of CM practitioners over conventional medicine practitioners [33]. However, participants rating how enabled they felt to engage in new activities following a consultation with a homeopath reported moderate mean scores [41] and the four studies which used the Patient Enablement Instrument (PEI) all reported only low to moderate mean scores with practitioners of acupuncture, massage and homeopathy [37-39, 44]. The PEI is a validated measure used to assess patients' perceived self-efficacy in coping with health challenges [76]. Three of the studies which used it as an outcome measure did report a slight trend of increased scores over time with prolonged CM care, but not to a statistically significant extent [37-39].

***Patient-centred care***  
CM consultations reflecting the paradigm of patient-centred care were described frequently throughout the literature, with twenty-four papers reporting such experiences [33, 36, 38, 42-44, 47-53, 55-63, 65, 67]. These reports were consistent across all professions and geographical locations with the exception of studies conducted in Mexico and China  
While the phrase “patient-centred care” was rarely used, the experience was evident in descriptions encompassing multiple elements of the paradigm such as active patient participation [57, 61]; patient-practitioner relationships characterised by communication and partnership [58, 60, 65, 67]; and an approach to clinical care that accounts for the whole, individual person [43, 51, 52, 63].

Aside from the above aspects of empowerment, active patient participation was most commonly mentioned in terms of shared decision-making; interviewees commented favourably on being actively included by CM practitioners in making decisions about their clinical care [47, 49], and participants responding to quantitative measures rated their CM practitioners highly in this area [33, 36].

The importance of the patient-practitioner relationship in CM clinical care was a prevalent categorical thread through the theme of patient-centred care, mentioned by participants in seventeen of the studies with qualitative methods [42, 44, 47-53, 55, 57, 58, 60-62, 65]. Nine of these referred to experiences of strong patient-practitioner communication [42, 44, 48, 50, 51, 53, 58, 65, 67] and five characterised the relationship as one between equals or partners [48, 49, 57, 61, 62]. Emphasis on the patient-practitioner relationship was identified as a dominant theme in six papers, defined as a partnership or collaboration and considered important by participants [42, 49, 50, 57, 62, 67].

A whole-person approach by CM practitioners to clinical care was noted in twelve studies [42-44, 49, 51-53, 56, 58-60, 63]. Four of these papers specifically defined this approach as “holistic” [52, 59, 60, 63], while others described the approach with terms such as “whole-person management” [44], “whole-package care” [56] or a “focus on the whole patient” [53]. Participants perceived the experience as a personalised or individualised service [38, 49, 50, 55, 56]. Long consultation duration was frequently mentioned as a facilitating factor of this approach [42, 48, 55, 58].

A particularly well-demonstrated occurrence of patient-centred care was described in a study assessing the suitability of naturopathic medicine in a Canadian Aboriginal community health clinic [59]. In this setting, patient-centred care presented through an approach delineated by cultural sensitivity. Not only did participants of the study describe active participation, a patient-practitioner partnership and an individualised whole-person approach from their practitioners, they also commented on experiences of feeling acknowledged and respected in the context of their cultural and spiritual values [59]. These experiences were described as lacking the degradation, discrimination and condescension that had been present for the participants in other health-care settings [59].

While a prevalence of patient-centred care was generally indicated by the literature, this experience was not universal and was not always favoured by patients. One study reported a participant whose experience with a CM practitioner detailed poor communication and harmful advice [45], while a participant from another study found the whole-person approach excessive [48].

**4.0 Discussion and conclusion**

**4.1 Discussion**This is the first review to explore the application of PCC principles by CM practitioners during clinical consultations from the perspective of their patients. This review finds that patients frequently report experiences of CM clinical care which reflect the paradigm of PCC as a whole or distinct elements of PCC such as practitioner empathy and patient empowerment. The nature of clinical care received by CM patients is framed as an important and defining characteristic that distinguishes CM from conventional health-care settings.

Central to the experience of PCC in CM clinical care, as identified through this review, is the dynamic of the patient-practitioner relationship, which operates as a partnership, facilitated by effective communication. The consistent emphasis on the occurrence of practitioner empathy in CM consultations by patients of CM clinicians is noteworthy, particularly with consideration to previous research identifying the desire for an empathic practitioner as a factor which attracts CM patients when seeking CM services [26, 77]. Similarly, the opportunity for patient empowerment through self-efficacy has been identified as a driving influence of CM use [78].

The potentially beneficial influence of the patient-practitioner relationship, practitioner empathy, and patient empowerment on health outcomes has been identified in existing literature [12, 13, 79]. **In light of this research indicating that psychosocial factors affect clinical health outcomes and additional research which suggests that CM patients seek CM services specifically to meet unmet psychosocial health needs [26, 77],** it follows that the importance of addressing such needs should be considered in the greater scope of health-care provision. **Further to this, it would be of interest to future research endeavours to explore the potential link between clinical care and clinical health outcomes in CM clinical settings.**

The importance of considering the psychosocial aspect of clinical care is markedly relevant to the field of chronic disease; patients with chronic conditions have expressed a need in their health-care provision for improved communication, help with self-care, greater emphasis on holistic and continued care, active patient participation and shared decision-making [22, 77]. This is in keeping with assertions that PCC is an effective tool in the management of chronic disease [80, 81]. The high representation of individuals with chronic disease amongst CM users may reflect attempts by this population group to access practitioners who provide patient-centred aspects of clinical care. Existing literature suggests that patients with chronic conditions use CM as a resource of self-care decision-making [82] and seek CM in order to have a more active role in treatment, access more holistic care, and good communication with their practitioner [77].

Based on the findings of this review, it is possible that CM practitioners may be in a position to provide a particularly empathic, empowering, patient-centred health service due to a number of factors. Frequently mentioned in the reviewed literature was the impact of consultation time [42, 48, 55, 58]; CM consultations are generally lengthier than in conventional medicine, providing more opportunity for development of rapport and the comprehensive “whole person” approach of PCC. **Indeed, the factor of lengthier consultation time has been correlated with greater patient satisfaction in conventional medicine also and is likely not a factor limited to CM settings [83]**. The privately-operated, self-regulated environment often common to CM also minimises the impact on comprehensive clinical care that may otherwise be encountered due to limited funding or staff in public-funded services [84, 85]. Conversely, this environment also presents a frequently cited barrier to CM use [48, 63, 86] as financial costs to patients are generally much higher than conventional health-care, which may be subsidised by public health-care systems.

A noteworthy aspect of the literature as identified through this review is the overlap of the paradigm of PCC with that of holism. Characteristics attributed to the two paradigms were conceptually synonymous, with both being mentioned in the context of individualised whole-person care. This lends an implied congruity of patient-centred care with holism. This congruity is consistent with existing literature which draws parallels between the paradigms [20] and attributes contributions of CM to the development of person-centred medicine [87]. Holism is espoused as an integral value by professional organisations and practitioners of the CM professions included in this review, such as acupuncture [88], homeopathy [89], chiropractic [90] and massage [91], as well as being held as a central tenet in WHM [92] and outlined under the naturopathic principle of *Tolle totum* (treat the whole person) [93].

While there is clearly evidence to support the assertion that CM patients experience empathy, empowerment and patient-centred clinical care, this review is limited in its capacity to assert that these experiences are consistently characteristic. The available studies present a wealth of relevant data, but few are specific enough to the research question to provide a comprehensive or reliable exploration of the topic. The occurrence of the characteristics used as *a priori* themes in this review has been confirmed, but due to an insufficiency of quantitative data, the *degree* to which these characteristics prevail in CM clinical care has not. **Additionally, although experiences may differ between CM professions, many of the studies reported findings of various CM professions collectively rather than as discrete profession groups and consequently, did not allow for this review to conduct single profession analysis or inter-profession comparisons.**

While the search protocol for this review was intended to produce a wide pool of literature, the pre-selection of themes may have neglected to acknowledge other important psychosocial aspects of clinical care identified in the literature. Inclusion of only naturalistic clinical settings and observational study designs provides a pragmatic foundation for transferability of findings. However, the scope of this review and the scope of literature available do not exhaustively cover the multitudinous CM professions being practiced around the world, reducing the generalisability of results to the wider, global field of CM as a whole.

Building from this platform, future research quantifying these specific patient experiences would be valuable. While CM may be an existing resource of PCC, further quantitative research is required in order to establish the degree to which the PCC paradigm is reflected in CM. In addition, there is a need to explore whether paradigms of clinical care differ between various CM professions in order to best understand the roles they may play in the contextual landscape of health-care provision.

**4.2 Conclusion**  
This review suggests PCC, practitioner empathy and patient empowerment are experienced by patients as part of the CM consultation process. **However, further research is required in order to confirm such suggestions that these themes are quintessential characteristics of CM clinical care**. While this paper has drawn on the wealth of qualitative research on the topic, it has also uncovered a need for additional quantitative data to determine prevalence of the themes under discussion.

With consideration of the current emphasis on PCC as an objective in the wider community of contemporary health-care, this review draws attention to the CM consultation as a potential existing resource of PCC. This has implications for patients, practitioners of both CM and conventional medicine, and policy-makers seeking to enhance access to and utilisation of PCC.

**4.3 Practice implications**  
The findings presented here highlight the potential role CM practitioners play in meeting the psychosocial health needs of patients. By assessing the nature of CM clinical care, CM and conventional medicine providers, as well as health-care consumers, can take a position to better utilise the strengths of different health-care practitioners and address unmet needs.

**Declaration of interest**  
Conflicts of interest: none.

**Contributions**  
HF designed the review protocol, conducted the review, extracted and synthesised data, and drafted the resulting article. AS developed the research concept, supervised the review process and contributed to synthesis of data and revisions of the resulting article. Both authors have approved the submission of this article for publication.  
  
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| **Table 1. Full Search Protocol in date range 2005-2016** | | | |
| **Discipline** | **Databases** | **Search Details and Limits** | **Search Terms** |
| Social Sciences & Psychology | PsycInfo | Group 1 AND  Group 2 (abstract or key word)  Peer-reviewed only | **Group 1 – search with 'OR'** empath\*  compassion\*  empower\*  enabl\*  patient-centred  person-centred  patient-focused  “patient-practitioner relationship”  “clinical care”  consult\*  **Group 2 – search with 'OR'** “complementary medicine”  “alternative medicine”  “complementary therap\*”  “alternative therap\*”  naturopath\*  herbal\*  homeopath\*  acupunctur\*  massage |
| Psychology Collection |
| Social Sciences Citation Index | Group 1 AND  Group 2 (topic or title) Replaced “therap\*” with “therapy” and “therapies” to suit database. Document type: article. |
| Health & Medical (including CM) | Alt HealthWatch | Group 1 AND  Group 2 (title, subject or abstract) Apply related words  Scholarly (peer-reviewed) journals |
| AMED |
| CINAHL Plus |
| MEDLINE Comp |
| Cochrane Library | Group 1 AND  Group 2 (abstract, title, keyword) Apply related words |
| PubMed | Group 1 AND  Group 2 (title or abstract) Replaced “therap\*” with “therapy” and “therapies” to suit database. |
| Proquest Medical Collection | Group 1 AND  Group 2 (all except full text) Peer-reviewed journals |

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| **Table 2** STROBE critical appraisal tool results for quantitative studies | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Study | Title, abstract & Introduction | | | | Methods | | | | | | | | | | | | | | Results | | | | | | | | | | | Discussion &  other information | | | | | Score |
|  | Title & abstract | | Background | Objectives | Study design | Setting | Participants | | Variables | Data sources | Bias | Study size | Variables | Statistical methods | | | | | Participants | | | Descriptive data | | | Outcome data | Main results | | | Other analyses | Key results | Limitations | Interpretation | Generalisability | Funding | Out of a possible 34 |
|  | 1a | 1b | 2 | 3 | 4 | 5 | 6a | 6b | 7 | 8 | 9 | 10 | 11 | 12a | 12b | 12c | 12d | 12e | 13a | 13b | 13c | 14a | 14b | 14c | 15 | 16a | 16b | 16c | 17 | 18 | 19 | 20 | 21 | 22 |  |
| Bikker et al. 2005 | x | x | x | x | x | x | x | n/a | x | x |  | x | x | x | x | x | x | n/a | x |  |  | x |  | x | x | x |  | n/a | n/a | x | x | x |  |  | 27 |
| Emmerton et al. 2012 | x | x | x | x | x | x | x | n/a | x | x | x | x | x |  | n/a |  |  | n/a | x | x |  | x |  | n/a | x | x |  |  |  | x | x | x | x | x | 26 |
| Fogarty et al. 2013 | x | x | x | x | x | x | x | x | x | x |  |  | x | x |  |  | n/a | n/a | x | x |  | x |  | n/a | x | x | n/a | n/a | n/a | x |  | x | x | x | 27 |
| Fritzsche et al. 2011 | x | x | x | x | x | x | x | n/a | x | x |  | x | x | x | x | x | x | n/a | x |  |  | x | x | n/a | x | x | n/a | n/a | x |  | x | x | x |  | 29 |
| Gaitan-Sierra 2014 |  | x | x | x | x | x | x | n/a | x | x |  | x | x | x | x |  |  | n/a | x |  |  | x |  | n/a | x | x | n/a | n/a | x | x | x | x | x |  | 26 |
| Melzer et al. 2008 | x | x | x | x | x | x | x | n/a | x | x |  |  | x | x | x |  |  |  | x |  |  | x |  | n/a | x | x | n/a | n/a | x | x | x | x | x | x | 26 |
| Mercer et al. 2005 | x | x | x | x | x | x | x | n/a | x | x |  | x | x | x | x |  |  | n/a | x |  |  |  |  | n/a | x | x | n/a | n/a | x | x |  | x |  |  | 24 |
| Paterson et al. 2010 | x | x | x | x | x | x | x | n/a | x | x |  | x | x |  | n/a |  | x | n/a | x |  | x | x | x | x | x | x | n/a | n/a | x | x |  | x |  | x | 29 |
| Price et al. 2006 | x | x | x | x | x | x | x | n/a | x | x |  | x | x | x | x |  |  | n/a | x | x |  | x | x | x | x | x | n/a | n/a | x | x | x | x | x |  | 29 |
| Shinto et al. 2005 | x | x | x | x | x | x | x | n/a | x | x | x |  | x | x | x |  |  | n/a |  |  |  | x |  | n/a | x | x | n/a | n/a | x | x | x | x | x | x | 27 |

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| **Table 3** SRQR critical appraisal tool results for qualitative studies | | | | | | | | | | | | | | | | | | | | | | | |
| Study | Title & abstract | | Introduction | | Methods | | | | | | | | | | | Results/findings | | Discussion | | Other | | Score |
|  | Title | Abstract | Problem formation | Purpose or research question | Qualitative approach & research paradigm | Researcher characteristics & reflexivity | Context | Sampling strategy | Ethics pertaining to human subjects | Data collection methods | Collection instruments & tech | Units of study | Data processing | Data analysis | Techniques to enhance trustworthiness | Synthesis & interpretation | Links to empirical data | Integration with prior work, transferability | Limitations | Conflicts of interest | Funding | Out of a possible 21 |
|  | S1 | S2 | S3 | S4 | S5 | S6 | S7 | S8 | S9 | S10 | S11 | S12 | S13 | S14 | S15 | S16 | S17 | S18 | S19 | S20 | S21 |  |
| Alami et al. 2011 | x | x | x | x | x |  | x | x | x | x | x | x | x | x |  | x | x | x |  | x | x | 18 |
| Ali et al. 2014 | x | x | x | x | x |  | x | x | x | x | x |  | x | x |  | x | x | x | x | x | x | 19 |
| Andersson et al. 2012 | x | x | x | x | x |  | x | x | x | x | x | x | x | x |  | x | x | x | x | x | x | 19 |
| Bishop et al. 2010 | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | 21 |
| Brien et al. 2012 | x | x | x | x | x | x | x | x |  | x | x | x | x | x | x | x | x | x | x | x | x | 20 |
| Broom 2009 | x |  | x | x | x |  | x | x | x | x | x | x | x | x |  | x | x | x |  |  |  | 15 |
| Cartwright & Torr 2005 | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |  |  | 19 |
| Cartwright 2007 | x | x | x | x | x | x | x | x |  | x | x | x | x | x | x | x | x | x | x |  |  | 18 |
| D’Crus & Wilkinson 2005 | x | x | x | x | x | x | x | x | x | x | x |  | x | x | x | x | x | x | x |  |  | 18 |
| Dodds et al. 2014 | x | x | x | x | x | x | x | x |  | x | x | x | x | x | x | x | x | x | x |  |  | 18 |
| Fixler et al. 2012 |  | x | x | x | x |  | x | x |  | x | x | x | x | x | x | x | x | x |  | x | x | 17 |
| Hennius 2013 | x | x | x | x | x | x | x | x | x | x | x | x | x | x |  | x | x |  |  | x |  | 17 |
| Kirby et al. 2015 |  | x | x | x | x |  | x | x |  | x | x | x | x | x |  | x | x | x |  |  | x | 15 |
| Liang & Gong 2014 | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |  | 20 |
| Little 2009 | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |  | x |  | 19 |
| Oberg et al. 2014 | x | x | x | x | x |  | x | x |  | x | x | x | x | x | x | x | x | x | x |  |  | 17 |
| Oberg et al. 2012 | x | x | x | x | x |  | x | x | x | x | x | x | x | x |  | x | x | x | x | x | x | 19 |
| Price et al. 2014 | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |  | 20 |
| Rayner et al. 2009 | x | x | x | x | x |  | x | x | x | x | x | x | x | x |  | x | x | x | x | x |  | 18 |
| Rise & Steinsbekk 2009 | x | x | x | x | x |  | x | x | x | x | x | x | x | x | x | x | x | x | x | x |  | 19 |
| Rugg et al. 2011 | x | x | x | x | x | x | x | x |  | x | x | x | x | x | x | x | x | x | x |  |  | 18 |
| Sadr et al. 2012 | x | x | x | x | x |  | x | x | x | x | x |  | x | x | x | x | x | x | x | x | x | 19 |
| Schmacke et al. 2014 | x | x | x | x | x |  | x | x |  | x | x | x |  |  |  | x | x | x |  | x | x | 15 |
| Steinsbekk & Launso 2005 | x | x | x | x | x |  | x | x |  | x | x | x | x | x | x | x | x | x |  |  |  | 16 |
| Tippens et al. 2013 | x | x | x | x | x |  | x | x |  | x | x | x | x | x |  | x | x | x | x | x | x | 18 |
| Walji et al. 2010 | x | x | x | x | x | x | x | x |  | x | x | x | x | x | x | x | x | x | x | x | x | 20 |

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| **Table 4. Study characteristics. (Theme I = Empathy, Theme II = Empowerment, Theme III = Patient-centred care.)** | | | | | | | | | | | | |
| **Author** | **Year** | **Study design** | **Profession/s** | **Sample** | | **Location & Setting** | **Population/ condition** | **Outcomes/findings of interest** | **Data collection measures/instruments** | **Themes** | | |
| **Size** | **Demo-graphics** | **I** | **II** | **III** |
| **Bikker et al.** | 2005 | Cohort, pilot. Quantitative. | Homeopathy. | N = 187 | 139 F,  34 M. 12-80 yrs, 47 mean. | Glasgow, UK | Homeopathic hospital out-patients >12yrs old. | Empathy. Enablement. | CARE. PEI. | **\*** | **\*** |  |
| **Cartwright & Torr** | 2005 | Phenomonological, interview. Qualitative. | ‘CM’ including acupuncture, homeopathy. | N = 11 | 10 F, 1 M. 23-66 yrs. | Southwest region of UK | Frequent, current users of CM. | Perceptions of therapeutic relationship: Relationship of equals, being heard. Holistic approach. Empowerment. | Semi-structured interviews, 30-90min, face-to-face.  Interpretive (IPA) analysis. | **\*** | **\*** | **\*** |
| **D'Crus & Wilkinson** | 2005 | In-house study, interview. Qualitative. | ‘CM’, predominantly naturopathy, homeopathy. | N = 8 | Not given | Norwood, Australia | Patients of a suburban CM clinic. | Empowerment. PCC. | Semi-structured interviews, 45mins, face-to-face. |  | **\*** | **\*** |
| **Mercer et al.** | 2005 | Cross-sectional survey. Quantitative. | Homeopathy. | N = 174 | Not given | Glasgow, UKl | Consecutive out-patients >16 yrs old. | Empathy. Enablement. | PEI. Burns empathy measure. | **\*** | **\*** |  |
| **Shinto et al.** | 2005 | Cross-sectional survey. Quantitative. | ‘CM’ including naturopathy, massage, herbal med, acupuncture, homeopathy, chiropractic | N = 1887 | 1478 F,  432 M. 51.6 mean,  11.7 yrs SD | Oregon, USA | Patients with MS | Listening skills.  Care and concern. Patient empowerment. | Survey of 4-point scales. | **\*** | **\*** |  |
| **Steinsbekk & Launso** | 2005 | Exploratory, interview. Qualitative. | ‘CM’ including acupuncture, homeopathy, chiropractic. | N = 17 | 12 F, 5 M. 36-69 yrs. | Trondheim, Norway | Patients with cancer who use both CM and conventional medicine. | Focus on the whole patient. | Semi-structured, in-depth interviews, 1-2.5hrs, face-to-face. Open and relational coding, categorisation of themes. |  |  | **\*** |
| **Price et al.** | 2006 | Prospective cohort. Quantitative. | Acupuncture. | N = 52 | 36 F, 16 M. 49 yrs mean. | UK | Consecutive patients of participating acupuncturists. | Empathy. Enablement. | CARE. PEI. | **\*** | **\*** |  |
| **Cartwright** | 2007 | Phenomonological, interview. Qualitative. | ‘CM’ including acupuncture, herbal med, homeopathy. | N = 17 | 13F, 4 M. 63-84 yrs, 70.1 mean. | London, UK | CM users >60 yrs old. | Sense of control. Getting on with life. Whole-package personalised care. | Semi-structured interviews, 30-90mins, face-to-face. Interpretive (IPA) analysis. | **\*** | **\*** | **\*** |
| **Melzer et al.** | 2008 | Cross-sectional survey (sub-group analysis). Quantitative. | Herbal medicine. | N = 616 | 380 F,  236 M. Children: 8.8 yrs Adults: 50.9 yrs (mean) | Switzerland | Patients at participating clinics. | Relationship and communication. Information and support. | EUROPEP. | **\*** |  | **\*** |
| **Broom et al.** | 2009 | Interview. Qualitative. | ‘CM’ including homeopathy, acupuncture, naturopathy, herbal med, massage. | N = 20 | 14 F, 6 M.  30-70 yrs. | Australia, state capital | Oncology out-patients who use CM intensively. | Experiences of CM: Empowerment, control, self-responsibility, redefining identity, self-actualisation. | In depth interviews, face-to-face. Thematic social analysis. |  | **\*** | **\*** |
| **Little** | 2009 | Interpretive phenomonological interview. Qualitative. | Herbal medicine. | N = 19 | 13 F, 6 M. | Southern England, UK | Patients of local medical herbalists. | Dealing with illness causation. Patient-practitioner collaboration. | Semi-structured interviews, 60min.  Thematic analysis. |  | **\*** | **\*** |
| **Rayner et al.** | 2009 | Exploratory, focus group. Qualitative. | ‘CM’, predominantly acupuncture, herbal med, naturopathy | N = 7 | 7 F 34-44 yrs, 40 yrs median. | Melbourne, Australia | Women using CM with assisted reproductive technology. | Comfort and control. Individualised approach. | 2 x Focus groups, thematic analysis. |  | **\*** | **\*** |
| **Rise & Steinsbekk** | 2009 | Comparative, interview. Qualitative. | Homeopathy. | (parents of) 16 children | 8 girls,  8 boys. 1-10 yrs. | Central Norway | Parents of children who use both homeopath and physician. | Whole-person approach. Interaction with patient/child. | Semi-structured, in-depth interviews. Grounded theory analysis. |  |  | **\*** |
| **Bishop et al.** | 2010 | Ethnographic, grounded theory, part cross-sectional, part longitudinal. Qualitative. | ‘CM’ including massage, herbal med, homeopathy, chiropractic. | N = 46 | Not given | Southern England, UK | CM consumers. | Interpersonal dimension. Affective dimension. | Semi-structured interviews, face-to-face. Thematic analysis. |  | **\*** | **\*** |
| **Paterson et al.** | 2010 | Cohort. Mixed methods. | Acupuncture. | N = 116 | 74 F, 42 M. 23-87 yrs, 48 mean. | London, UK | Patients with chronic conditions. | Enablement. | PEI. MYMOP-Qual. | **\*** | **\*** | **\*** |
| **Walji et al.** | 2010 | Exploratory, descriptive, interview. Qualitative. | Naturopathy. | N = 7 | 4 F, 3 M. 30-70 yrs | Toronto, Canada | Aboriginal patients. | Holistic; fits with Aboriginal philosophy. Cultural sensitivity; respect. | Semi-structured interviews, 20-60min, face-to-face. Thematic analysis. | **\*** |  | **\*** |
| **Alami et al.** | 2011 | Cross-sectional stratified interview. Qualitative. | ‘Alternative therapy’ incl acupuncture, homeopathy, herbal med, naturopathy. | N = 81 | 59 F, 22 M. >45 yrs | Paris, France | Patients with osteoarthritis of the knee. | Experience of care from CM practitioners. | Semi-structured interviews, 90min, face-to-face. Thematic analysis. | **\*** |  | **\*** |
| **Fritzsche et al.** | 2011 | Cross-sectional survey. Quantitative. | Acupuncture/ TCM. | N = 96 | 75 F, 21 M. 42.9 yrs mean,  14.2 yrs SD | Shanghai, China | Patients with medically unexplained symptoms. | Empathy. | CARE. | **\*** |  |  |
| **Rugg et al.** | 2011 | Longitudinal, interview, nested in randomised trial. Qualitative. | Acupuncture. | N = 20 | 16 F, 4 M. 29-79 yrs, 56 mean. | London, UK | Patients with medically unexplained physical symptoms. | Practitioner who listened and responded. Whole-person approach. Psychosocial changes. | Semi-structured interviews at start and end of 6mth treatment, 45-60min, face-to-face. Analysis: thematic and by vignette. | **\*** | **\*** | **\*** |
| **Andersson et al.** | 2012 | Focus group. Qualitative. | ‘Integrative care’ including massage, acupuncture, chiropractic. | N = 15 | 10 F, 5 M. 43.7 yrs mean,  8.4 yrs SD | Stockholm, Sweden | Patients with >2wks neck and back pain. | Empowering self-help strategies. Management. Individual support, empowerment, self-care. | Focus groups, 60min. Content analysis. | **\*** | **\*** | **\*** |
| **Brien et al.** | 2012 | Phenomenological interview (nested within RCT). Qualitative. | Homeopathy. | N = 16 | 12 F, 4 M. 43-76 yrs. | UK | Patients with rheumatoid arthritis. | Experience of homeopathic consults. Empathy. Empowerment/ Enablement. PCC. | Interviews, 60min, face-to-face. Interpretive (IPA) analysis. | **\*** | **\*** | **\*** |
| **Emmerton et al.** | 2012 | Problem-detecting, observational. Mixed methods. | ‘CM’, open to participant's interpretation. | N = 83 | 58 F, 25 M | Brisbane, Australia | CM users, self-selected. | Harmonious partnerships. Empowerment through information. | Questionnaire: 32 questions, 7 themes, 5-point Likert scales. |  | **\*** | **\*** |
| **Fixler et al.** | 2012 | Survey, quasi-experimental. Mixed methods. | Acupuncture. | N = 42 | 22-86 yrs, 50 mean,  17 yrs SD. | North London, UK | Patients from the GP clinic. | Practitioner qualities from patient perspective. | Qualitative survey, content analysis. | **\*** |  |  |
| **Oberg et al.** | 2012 | Interview nested in prospective cohort. Qualitative. | Naturopathy. | N = 22 | 11 F, 11 M. 57.1 mean, 7.6 yrs SD. | Seattle, USA | First time patients with sub-optimally controlled type 2 diabetes mellitus. | Patient-centredness. Holism. Collaborative. Empowerment. | Focus groups, 3 x 90min.  Telephone interviews, 5 x 25-60min.  Content analysis. | **\*** | **\*** | **\*** |
| **Sadr, Pourkiani-Allah-Abad & Stuber 2012** | 2012 | Interview. Qualitative. | Chiropractic. | N = 11 | 11 F. 24-36 yrs | Toronto, Canada | Low back pain during pregnancy | Communication. Education. Self-responsibility. Emotional support. | Semi-structured interviews, 15-20min, face-to-face and telephone. Grounded theory. | **\*** | **\*** | **\*** |
| **Fogarty et al.** | 2013 | RCT, naturalistic observational, pilot. Mixed methods. | Acupuncture, acupressure massage | N = 26 total,  9 for qual data | 25 F, 1 M. 21.9 mean, 4.9 yrs SD. | Sydney, Australia | Anorexia nervosa inpatients  >15 yrs old. | Experience of clinical care. Perception of practitioner empathy. Therapeutic relationship. | CARE. Open-ended questionnaire. | **\*** |  |  |
| **Hennius** | 2013 | Field study. Qualitative | Chiropractic. | N = 17 | 12 F, 5 M. 26-46 yrs 39.2 mean. | Western Great Britain, UK | Patients from participating clinic | Empathy | Semi-structured interviews, up to 20min, face-to-face. | **\*** |  |  |
| **Tippens et al.** | 2013 | Cross-sectional open-ended survey. Qualitative. | Acupuncture. | N = 478 | 265 F,  213 M. (265 surveys) | Portland, USA | Patients from participating community clinics. | Patient engagement in health care. Empathy. | Qualitative survey, open-ended question. Thematic analysis. | **\*** | **\*** |  |
| **Ali et al.** | 2014 | Phenomenological interview. Qualitative. | ‘Unconventional therapies’ including naturopathy, acupuncture, chiropractic | N = 12 | 9 F, 3 M. 21-69 yrs, 41 mean. | Connecticut, USA | Patients with chronic Lyme disease. | Patient perceptions of CM practitioners. | Semi-structured in-depth interviews 60-90min, face-to-face. Thematic analysis. |  |  | **\*** |
| **Dodds, Bulmer & Murphy** | 2014 | Interpretive, “multiple case study” interviews. Qualitative. | ‘CM’ including massage, herbal med, acupuncture, naturopathy, homeopathy, chiropractic. | N = 12 | 12 F. >20 yrs | Auckland, New Zealand | Female CM users >20yrs with “lifestyle complaints”. | Partnership. Empowering approach. Education. Supportive, empathic and caring manner. | Semi-structured interviews, 40-90min, face-to-face. Thematic analysis. | **\*** | **\*** | **\*** |
| **Gaitan-Sierra & Hyland** | 2014 | Cross-sectional survey. Quantitative. | Homeopathy. | N = 31 | 23 F, 8 M. 18-68 yrs, 46.8 mean, 16.9 SD. | Mexico | First time clients  >18 yrs old. | Empowerment. | One item scale 0-3. |  | **\*** |  |
| **Liang & Gong** | 2014 | Interview. Qualitative. | Acupuncture. | N = 15 | 15 F 32 yrs mean. | Guangzhou, China | Patients with PID after >3mth course treatment. | Perceived attitude of acupuncturist toward patients. | Semi-structured interviews, 30mins, face-to-face. Systematic text condensation analysis. | **\*** |  |  |
| **Oberg et al.** | 2014 | Phenomonological focus group. Qualitative. | Naturopathy. | N = 47 | 58-100 yrs. | Seattle, USA | Patients from participating clinics. | Active listening/ communication. Empathy. | Semi-structured focus groups, 90min, 8-16 participants each. Inductive content analysis. | **\*** |  | **\*** |
| **Price et al.** | 2014 | Longitudinal, interview. Qualitative. | Acupuncture. | N = 14 | 14 F. 41-76 yrs,  54 mean. | UK | Women with early breast cancer. | Patient perceptions of process of care. | Semi-structured, in-depth interviews,  50-120min, face-to-face. Grounded theory analysis. | **\*** |  | **\*** |
| **Schmacke et al.** | 2014 | Exploratory, interview. Qualitative. | Homeopathy. | N = 26 | 21 F, 5 M. 29-75 yrs. | Germany | Patients with chronic cond, >12mth Tx by Homeopath. | Contact with the practitioner. | Semi-structured interviews, 60-90min, face-to-face.  Content analysis. | **\*** |  | **\*** |
| **Kirby et al.** | 2015 | Interview, emergent/inductive. Qualitative. | ‘CM’, not otherwise defined. | N = 50 | 50 F 60-65 yrs. | South-east Queensland, Australia | Women 60-65 with chronic back pain from ALSWH survey. | Affective recognition. | Semi-structured interviews, 1-2hrs, face-to-face.  Thematic analysis. | **\*** |  | **\*** |

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