Complementary Therapies in Medicine (2013) 21, 224—231

Available online at www.sciencedirect.com

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REVIEW

Prevalence of complementary and alternative medicine (CAM)-use in UK paediatric patients: A systematic review of surveys

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Available online 9 January 2013

KEYWORDS
Paediatrics;
Complementary and alternative medicine;
Survey;
Systematic review

Summary
Aim: This systematic review is aimed at estimating the prevalence of complementary and alternative medicine (CAM)-use by paediatric populations in the United Kingdom (UK).
Method: AMED, CINAHL, COCHRANE, EMBASE and MEDLINE were searched for English language peer-reviewed surveys published between 01 January 2000 and September 2011. Additionally, relevant book chapters and our own departmental files were searched manually.
Results: Eleven surveys were included with a total of 17,631 paediatric patients. The majority were of poor methodological quality. Due to significant heterogeneity of the data, a formal meta-analysis was deemed inappropriate. Ten surveys related to CAM in general, while one was specifically on homeopathy. Across all surveys on CAM in general, the average one-year prevalence rate was 34% and the average lifetime prevalence was 42%. In surveys with a sample size of more than 500, the prevalence rates were considerably lower than in surveys with the sample size of lower than 500. Herbal medicine was the most popular CAM modality, followed by homeopathy and aromatherapy.
Conclusions: Many paediatric patients in the UK seem to use CAM. Paediatricians should therefore have sufficient knowledge about CAM to issue responsible advice.

Contents

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http://dx.doi.org/10.1016/j.ctim.2012.11.006

Introduction

Complementary and alternative medicine (CAM) can be defined as ''diagnosis, treatment and/or prevention which complements mainstream medicine by contributing to a common whole, satisfying a demand not met by orthodoxy, or diversifying the conceptual framework of medicine''.[1]

The use of CAM among children seems to be high,[2] despite the conflicting evidence regarding the effectiveness and safety of CAM.[1,3] Therefore it would seem crucial to provide reliable prevalence data which could assist in prioritising a research agenda, informing policy or defining educational needs.

The objective of this systematic review was to summarise and critically evaluate all recently published surveys monitoring the prevalence of CAM use by UK paediatric patients and to identify those CAM modalities which currently are the most popular ones.

Method

Systematic literature searches were conducted for all English language references using 5 electronic databases (AMED, CINAHL, COCHRANE, EMBASE and MEDLINE) for surveys published over the past decade (between 01 January 2000 and September 2011). Details of the search strategy for MEDLINE are available in the appendix. In addition, relevant book chapters, review articles and our own extensive departmental files were hand-searched for further relevant papers. Only surveys which examined the prevalence of CAM use by UK paediatric patients providing quantitative prevalence data were included. Surveys reporting only qualitative data were excluded. Information from the included surveys was extracted according to pre-defined criteria using a custom-made data extraction form. The data was then assessed descriptively by the first reviewer (PP) and validated be the second (AA). Any discrepancies were settled through discussion.We considered all of the following modalities as CAM: acupuncture/acupressure, Alexander Technique, aromatherapy, autogenic training, Ayurveda, (Bach) flower remedies, biofeedback, chelation therapy, chiropractic, Feldenkrais, herbal medicine, homeopathy, hypnotherapy, imagery, kinesiology, massage of any form, meditation, naturopathy, neural therapy, osteopathy, qi gong, reflexology, relaxation therapy, shiatsu, spiritual healing, static magnets, tai chi, and yoga. Non-herbal dietary supplements and vitamins, psychotherapy, physical exercises, electrotherapy or ultrasound therapy are not typically considered as CAM and therefore were excluded from our analyses.

We ranked the top 3 CAM modalities (1 = most popular) from each survey and then averaged the rank numbers across the surveys to generate an overall ranking. We also provided the total number of surveys in which a particular CAM modality was the most prevalent/popular one and then calculated the averages of those figures. Where feasible, we calculated the average of the % of responders who stated they experienced benefit or were satisfied with CAM as well as those who reported adverse effects after using CAM and their cost for purchasing CAM. For clarity we only calculated the average one-year-prevalence and the average life-time-prevalence rates.

Results

Our searches generated 20,600 hits, of which 20,589 articles were excluded (Fig. 1). Eleven surveys met our eligibility criteria.[4–14] Five surveys originated from England, two from Scotland, two from Wales and one from the whole of the UK. Tables 1 and 2 present detailed characteristics of all included surveys.

The total number of patients was 17,631. Sample sizes varied from 49[10] to 13,988.[14] Ten surveys were on CAM in general,[4–13] and one was on homeopathy.[14] The participants included paediatric patients with irritable bowel disease[6,7] cancer,[10] dermatologic conditions[8] or various clinical conditions.[4,5,9,11–14] One survey mentioned the use of a random sampling method.[13] The response rates ranged between 25% and 100% (average = 67.1%).

Across all surveys on CAM in general, the average one-year-prevalence rate was 34% (range: 20—41) and the average life-time-prevalence was 42% (range: 29—61). Perceived effectiveness of CAM was mentioned in 7 (63.6%) surveys[5–8,10–12] and indicated that 48.3% (range: 14—61) of patients/parents felt CAM was beneficial. Adverse effects were reported in two (18.1%) surveys[5,7] and their incidence was 17.5% (range: 5—30). The costs of CAM were provided in three (27.2%) surveys.[5,11,13] However, calculating the average cost of CAM-use per person per month was deemed inappropriate due to differences in reporting. Predictors of CAM-use were mentioned in 7 surveys.[4–9,11] Being highly educated was predictor of CAM-use in the majority of those surveys. In 5 (out of 9) surveys that mentioned this, friends and family were the most common source of advice.[4,5,8,11,12]

Table 3 summarizes the prevalence rates according to sample size, response rate and survey design. In surveys with sample size of more than 500, the average one-year prevalence rate was 30.5% (range: 20—41) and the average lifetime prevalence was 29% (range: 29—29). In surveys with sample size of less than 500 these estimates were 41% (range: 41—41) and 49% (range: 37—61) respectively. In the survey with the lowest sample size, the prevalence rate was 32.7% (since the diagnosis of cancer).[10] In the survey with the