REVIEW

Prevalence of homeopathy use by the general population worldwide: a systematic review

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Aim: To systematically review surveys of 12-month prevalence of homeopathy use by the general population worldwide.

Methods: Studies were identified via database searches to October 2015. Study quality was assessed using a six-item tool. All estimates were in the context of a survey which also reported prevalence of any complementary and alternative medicine use.

Results: A total of 36 surveys were included. Of these, 67% met four of six quality criteria. Twelve-month prevalence of treatment by a homeopath was reported in 24 surveys of adults (median 1.5%, range 0.2–8.2%). Estimates for children were similar to those for adults. Rates in the USA, UK, Australia and Canada all ranged from 0.2% to 2.9% and remained stable over the years surveyed (1986–2012).

Twelve-month prevalence of all use of homeopathy (purchase of over-the-counter homeopathic medicines and treatment by a homeopath) was reported in 10 surveys of adults (median 3.9%, range 0.7–9.8%) while a further 11 surveys which did not define the type of homeopathy use reported similar data. Rates in the USA and Australia ranged from 1.7% to 4.4% and remained stable over the years surveyed. The highest use was reported by a survey in Switzerland where homeopathy is covered by mandatory health insurance.

Conclusions: This review summarises 12-month prevalence of homeopathy use from surveys conducted in eleven countries (USA, UK, Australia, Israel, Canada, Switzerland, Norway, Germany, South Korea, Japan and Singapore). Each year a small but significant percentage of these general populations use homeopathy. This includes visits to homeopaths as well as purchase of over-the-counter homeopathic medicines. Homeopathy (2017) 106, 69–78.

Keywords: Systematic review; Prevalence; Homeopathy; Treatment by homeopaths; Homeopathic medicines; Over-the-counter medicines; Worldwide

Introduction

The therapeutic system of homeopathy was formulated 200 years ago by the German pharmacist and Samuel Hahnemann. Hahnemann argued that medicine should follow the principle of similitude (like cures like). Hahnemann developed homeopathy by giving medicinal substances to healthy volunteers and studying the symptoms which they suffered (a process known as a ‘proving’ or a Homeopathic Pathogenetic Trial). Hahnemann then applied the medicinal substances in cases of illness which had similar symptoms. Homeopathic medicines are created from a wide variety of substances (e.g. plants, animals, minerals or chemicals). In order to diminish toxicity, the medicinal substances are diluted successively and shaken vigorously between each dilution step.
There is controversy regarding the provision of homeopathy in state-funded healthcare systems, as many claim that the principles on which homeopathy are based are ‘scientifically implausible’. Despite this, treatment by homeopaths and the provision of homeopathic medicines remain popular, and it is provided and/or subsidized and/or endorsed by a number of governments worldwide, including its provision in a number of publicly funded healthcare systems e.g. India which has an estimated 300,000 practitioners of homeopathy with homeopathy part of the Indian Ministry of Health, France where 43.5% of the overall population of healthcare providers prescribe homeopathic medicines (mostly co-prescribed with allopathic medicines) and the UK where homeopathy has been provided by the NHS since its inception in 1948.

This study systematically reviews the data on the prevalence of homeopathy use by the general public worldwide. Our review summarises prevalence data for both treatment by a homeopath and all homeopathy use including purchases of over-the-counter (OTC) homeopathic medicines.

Methods

Search strategy

The systematic review followed the recommendations in the PRISMA statement. The following databases were searched in October 2015: MEDLINE via Ovid, Pubmed, Cochrane Database of Systematic Reviews, Allied and Complementary Medicine Database (AMED), Cumulative Index to Nursing and Allied Health Literature (CINAHL) and Health Management Information Consortium (HMIC). The search strategy combined terms for: i) complementary and alternative medicines, ii) prevalence, surveys or patterns of use, and iii) population-level or societal implausibility. Despite this, treatment by homeopaths and the provision of homeopathic medicines, ii) prevalence, surveys or patterns of use, and iii) population-level or societal implausibility.

Inclusion and exclusion criteria

Studies were included if they reported 12-month prevalence of treatment by a homeopath and/or OTC use of homeopathy, in addition to the prevalence of overall CAM use and/or visits to CAM practitioners (the latter were inclusion criteria for the broader review). Prevalence had to be reported over a 12-month retrospective period within a random or representative general population sample of a nation or a defined geographical area. Surveys of clearly-defined age groups (such as adults, children or older adults) were included. Studies were excluded if they were not based on representative samples of the general population; for example, surveys of sub-populations with specific clinical conditions or socio-demographic characteristics (other than age). Included studies used survey methods such as structured interviews or self-complete questionnaires. Studies were excluded if they did not report 12-month prevalence or were not written in English. Studies were also excluded if the prevalence of CAM use was not expressed as a percentage of the target population (or with data making calculations of percentage possible).

Study selection and data extraction

Studies identified by the searches were assessed for inclusion by two reviewers. Any ambiguity was discussed between the reviewers. Data were extracted by one reviewer and checked by another. Again, any ambiguity was discussed between reviewers (for example, to discern within each article whether the term ‘homeopathy’ referred to the homeopathic medicines or to visits/consultations with a homeopath).

Definitions of homeopathy

One challenge in data extraction was understanding what was meant by the term ‘homeopathy’ when surveys asked ‘do you use homeopathy?’ The term ‘homeopathy’ has multiple possible meanings: the therapeutic system of homeopathy, the principles of the therapeutic system of homeopathy, homeopathic medicines (also known as homeopathic remedies), or treatment by a homeopath. We addressed this by reporting estimates of ‘homeopathy use’ in three ways:

a) Treatment by a homeopath: includes survey estimates of one or more ‘visits to’ or ‘consultations with’ a homeopath.
b) All homeopathy use (OTC and treatment by homeopath): includes survey estimates of use of homeopathic medicines purchased OTC and treatment by a homeopath.
c) Homeopathy use (not defined): survey does not define the estimate refers to treatment by a homeopath or OTC use or both.

Quality assessment

There is no agreed set of criteria for assessing the quality of health-related surveys. As part of our wider systematic review on prevalence of overall CAM use, we devised a six-item, literature-based quality assessment tool comprising important and assessable criteria of methodological quality. A revised version of this was applied to each of the included studies.

The criteria covered by the quality assessment tool include: 1) whether homeopathy use was clearly defined as referring to treatment by a homeopath or OTC use or both; 2) whether the survey was piloted (piloting was assumed for government sponsored health surveys); 3) whether the sample size was ≥1000 and/or a sample size calculation was reported; 4) whether the reported response rate was ≥60%; 5) whether data were weighted to population characteristics to reduce non-response bias; and 6) whether a 95% confidence interval and/or standard error were reported for the main prevalence estimates.
Results

Number of surveys included
The search for surveys on CAM use identified 3147 unique citations. Of these, 3035 were excluded at the title and abstract stage, while the full texts of 112 references were examined. A total of 41 references were included in this review, reporting data from 36 independent surveys conducted in eleven countries (USA, UK, Australia, Israel, Canada, Switzerland, Norway, Germany, South Korea, Japan and Singapore). There were 33 surveys reporting data on adults, 4 reporting data for children and adolescents, and 5 reporting data for older adults. A PRISMA flow-chart for study selection is provided in Figure 1.

Quality of included survey reports
Based on the information reported, we assessed all survey reports using six quality criteria (Table 1). The quality of survey reports is summarized in Table 2. Of the 39 survey reports listed in Table 1, 26 (67%) of all surveys met at least four of six quality criteria; this was 95% for government sponsored health surveys and 37% for non-government surveys. Around 75% of all surveys defined whether homeopathy use referred to treatment by a homeopath, OTC use or both. A sample size of $\geq 1000$ was achieved in around 90% of all surveys. Government sponsored surveys were more likely than non-government sponsored surveys to report piloting (100% vs. 42%); to achieve a response rate of at least 60% (75% vs. 32%); to weight the data to population characteristics (80% vs. 47%); and to report a confidence interval and/or standard error (65% vs. 42%).

Prevalence of use of homeopathy
Table 3 presents the 12-month prevalence of homeopathy use as reported in the included surveys. Survey data are ordered by country, then survey type (government sponsored national, other national, or sub-national), then year of survey. Data are grouped by age: adults; children and adolescents; and older adults. Table 4 provides a summary of the median and range for prevalence of treatment by homeopaths and all use of homeopathy for each age group.

Treatment by homeopaths
Adults
Estimates for 12-month prevalence of treatment by a homeopath for adults (24 survey estimates) ranged from 0.2% to 8.2% and the median was 1.5% (Table 4).
| Country       | Survey type       | Year of survey | Name of survey | Reference(s)                  | Survey characteristics | Quality criteria          | Meets ≥ 4 quality criteria |
|--------------|------------------|----------------|----------------|------------------------------|------------------------|---------------------------|---------------------------|
| USA          | Govt. national   | 2012           | NHIS           | Clarke (2015)11              | Yes                    | Yes (govt. survey)        | Yes                       | Yes                       |
| USA          | Govt. national   | 2007           | NHIS           | Barnes (2008)12              | No                     | Yes (govt. survey)        | Yes                       | Yes                       |
| USA          | Govt. national   | 2002           | NHIS           | Barnes (2004)13              | Yes                    | Yes (govt. survey)        | Yes                       | Yes                       |
| USA          | Govt. national   | 1999           | NHIS           | Ni (2002)14                  | No                     | Yes (govt. survey)        | Yes                       | Yes                       |
| USA          | Govt. national   | 1996           | MEPS           | Druss (1999)15               | Yes                    | Yes (govt. survey)        | Yes                       | No                        |
| USA          | Govt. national   | 1995-6         | MIDUS          | Honda (2005)16               | No                     | Yes (govt. survey)        | Yes                       | No                        |
| USA          | Other national   | 1997           | Eisenburg (1998)17 | Yes                         | Yes (piloted)           | Yes (2055; SSC)           | Yes                       | Yes                       |
| USA          | Other national   | 1997           | Landmark Healthcare (1998)18 | No                     | No                     | No (NR)                   | Yes                       | Yes                       |
| USA          | Other national   | 1990           | Eisenberg (1993)19 | Yes                         | Yes (piloted)           | Yes (1539; SSC)           | Yes                       | No                        |
| USA          | Other sub-nat.   | 1999           | Arcury (2004)20 | Yes                         | Yes                    | Yes (1059)                | Yes                       | Yes                       |
| UK           | Govt. national   | 2005           | HSE            | Hunt (2010)21                | Yes                    | Yes (govt. survey)        | Yes                       | No                        |
| UK           | Govt. national   | 2001           | NOS            | Thomas (2004)22              | Yes                    | Yes (govt. survey)        | Yes                       | Yes                       |
| UK           | Other national   | 1999           | Ernst (2000)23 | No                           | No                     | No (NR)                   | Yes                       | Yes                       |
| UK           | Other national   | 1998           | Thomas (2001)24 | Yes                         | Yes (piloted)           | Yes (2669; SSC)           | No                        | No                        |
| UK           | Other national   | 1993           | Thomas (1993)25 | Yes                         | Yes (piloted)           | No (676)                  | Yes                       | Yes                       |
| UK           | Govt. sub-nat.   | 1986           | CHS            | Yung (1988)26                | Yes                    | Yes (govt. survey)        | Yes                       | No                        |
| Australia    | Other national   | 2005           | SAHOS          | Xue (2007)27                 | Yes                    | Yes (piloted)             | Yes                       | Yes                       |
| Australia    | Govt. sub-nat.   | 2004           | SAHOS          | MacLennan (2006)28           | Yes                    | Yes (piloted)             | Yes                       | Yes                       |
| Australia    | Govt. sub-nat.   | 2000           | SAHOS          | MacLennan (2002)29           | Yes                    | Yes (piloted)             | Yes                       | Yes                       |
| Australia    | Govt. sub-nat.   | 1993           | SAHOS          | MacLennan (1996)30           | Yes                    | Yes (piloted)             | Yes                       | Yes                       |
| Australia    | Other sub-nat.   | 2012           | Thomson (2014)31 | Yes                         | Yes                    | Yes (piloted)             | Yes                       | No                        |

Table 1 Characteristics and quality assessment of survey reports of homeopathy use
| Country          | Type of survey | Year | Source | Data Source | Prevalence | Homeopathy defined | Homeopathy use defined | Notes |
|------------------|----------------|------|--------|-------------|-------------|--------------------|------------------------|-------|
| Israel           | Govt. national | 2003-4 | INHIS | Niskar (2007) | Yes | Yes (govt. survey) | Yes (2365) | No 58.6% (unadj) | NR | No (NR) | No |
| Israel           | Other sub-nat. | 2000 | | | No (NR) | Yes (2505) | NR | No (NR) | No |
| Israel           | Other sub-nat. | 1993 | | | No (NR) | Yes (2003) | NR | No (NR) | No |
| Canada           | Govt. national | 2001-5 | CCHS | Metcalfe (2010) | Yes | Yes (govt. survey) | Yes (400,055) | NR | Yes (CI) | Yes |
| Canada           | Govt. national | 1994-5 | NPHS | Millar (1997) | Yes | Yes (govt. survey) | Yes (17,626) | NR | Yes (NR) | Yes |
| Switzerland      | Govt. national | 2012 | SHS | Klein (2011) | Yes | Yes (govt. survey) | Yes (18,357) | No 45.0% (unadj) | Yes (CI) | Yes |
| Switzerland      | Govt. national | 2007 | SHS | Klein (2012) | Yes | Yes (govt. survey) | Yes (14,432) | No 51.0% (unadj) | Yes (CI) | Yes |
| Norway           | Other sub-nat. | 2008 | HUNT 3 | Lohre (2012) | Yes | No (NR) | Yes (50,827) | No 54.0% (unadj) | NR | No (NR) | No |
| Norway           | Other sub-nat. | 1995-7 | HUNT 2 | Steinsbekk (2008) | Yes | No (NR) | Yes (40,027) | No 43.1% (unadj) | NR | No (NR) | No |
| Germany          | Other sub-nat. | 1997-2001 | | | | | | |
| South Korea      | Other national | 2006 | | | | | | |
| Japan            | Other national | 2001 | | | | | | |
| USA              | Govt. national | 2007 | NHIS | Barnes (2008) | Yes | Yes (piloted) | Yes (1000) | NR | Yes (CI) | Yes |
| USA              | Govt. national | 1996 | MEPS | Davis (2003), Yussman (2004) | Yes | Yes (govt. survey) | Yes (2622) | Yes 77.7% (NR) | Yes (CI) | Yes |
| Norway           | Other sub-nat. | 1995-7 | HUNT 2 | Steinsbekk (2010) | Yes | No (NR) | Yes (7888) | No 79.4% (unadj) | NR | No (NR) | No |
| Australia        | Govt. sub-nat. | 2004 | SAHOS | Smith (2006) | No | Yes (govt. survey) | No (age <15: 911) | No 71.7% (unadj) | Yes (CI) | Yes |
| Older adults     | USA              | Govt. national | 1995-6 | MIDUS | Honda (2005), McMahan (2004), Astin (2000) | No | No (NR) | No (728) | No 51% (unadj) | NR | No (NR) | No |
| USA              | Other sub-nat. | 1997-8 | | | No (NR) | Yes (piloted) | Yes (445; SSC) | Yes 37% (unadj) | NR | No (NR) | No |
| Singapore        | Govt. national | 2003-4 | NMHSE | Feng (2010) | Yes | Yes (govt. survey) | Yes (1092) | Yes 72.4% (NR) | Yes (NR) | Yes |
| Australia        | Other national | 2005 | | | | | | |

1 Homeopathy use was considered to be defined if the survey specified that data related to over-the-counter use, treatment by a homeopath, or both.

1 Piloting was assumed for government surveys. Abbreviations: adj = adjusted; CCHS = Canadian Community Health Survey; CI = confidence interval; HSE = Health Survey for England; MEPS = Medical Expenditure Panel Survey; MIDUS = Midlife Development in the US; NHIS = National Health Interview Survey; NMHSE = National Mental Health Survey of the Elderly; NOS = National Omnibus Survey; NPHS = National Population Health Survey; NR = not reported; OTC = over-the-counter purchase; SAHOS = South Australian Health Omnibus Survey; SE = standard error; SHS = Swiss Health Survey; SSC = sample size calculation; unadj = unadjusted.
The highest estimates (6.4% and 8.2%) were reported by surveys in Switzerland where homeopathy is covered by mandatory health insurance. Estimates from the USA in 1990–1999 ranged from 0.2 to 0.7 (four surveys). Rates for UK surveys were similar: 0.4–1.9% (five surveys in 1986–2005). Rates for Australia were also similar (0.5–2.9%; five surveys in 1993–2012) as well as rates for Canada (2.0–2.3%, two surveys in 1994–2005). In most countries, rates remained stable over the years surveyed.

Children

Estimates of treatment by a homeopath for children and adolescents (2 surveys) were 0.03% in a USA 1996 survey of ages 0–17 years and 2.6% in a Norway survey of ages 13–19 years.

Older adults

There were no estimates of treatment by a homeopath specifically relating to older adults.

All homeopathy use (treatment by homeopaths and OTC use)

Adults

Estimates for 12-month prevalence of all homeopathy use by adults (treatment by homeopaths and OTC use) was reported in 10 surveys and ranged from 0.7% to 9.8% with a median of 3.9%. A further 8 surveys did not specify type of homeopathy use; estimates ranged from 0.1% to 5.0% (median 2.1%) (Table 2).

The highest prevalence (9.8%) was reported by a 1998 survey in England, which was the only included survey to report separate estimates for treatment by a homeopath (1.2%) and OTC use (8.6%) (Table 4). Two further UK surveys reported rates of 3.1% (all homeopathy use) and 3.5% (use not defined) (Table 3).

Five USA government sponsored health surveys estimated that between 1.7% and 3.1% of the adult population had used homeopathy in the last 12 months. Rates were similar over the years surveyed (1995–2012). Although homeopathy use was not consistently defined in these USA surveys, the most recent report specified that estimates covered both treatment by a homeopath and OTC use, so this can probably be assumed for earlier surveys. Rates for Australian government sponsored surveys were similar: 4.4% (1993), 4.3% (2000) and 2.2% (2004). Rates were lower in East Asian countries: Japan (0.3% in 2001) and South Korea (0.1% in 2006).

Older adults

For older adults (3 surveys), estimates of the 12-month prevalence of all homeopathy use were 0.0% in Singapore, 2.5% in the USA and 4.6% in Australia with a median of 2.5%.

Children

Two surveys in children reported estimates of 1.3% (USA) and 2.0% (Australia), though type of homeopathy use was not defined.

Discussion

This report provides a comprehensive and systematic review of surveys reporting 12-month prevalence of use of homeopathy. This complements our previous reports which systematically reviewed prevalence of any CAM use and visits to any CAM practitioners, visits to five specific types of CAM practitioner (acupuncturists, homeopaths, chiropractors, osteopaths and medical herbalists), and visits to massage therapists. The data reported here includes estimates from 36 surveys across eleven countries.

Our analysis covers both the prevalence of treatment by a homeopath and also the prevalence of all use of homeopathy (over the counter use or treatment by a homeopath), and all estimates were in the context of a survey or survey subsection relating to health and healthcare which also reported prevalence of any complementary and alternative medicine use. The survey data indicated that the percentage of the adult general population using homeopathy over the previous 12 months was in the range of 0.7–9.8%, with a median estimate of 3.9%, and the percentage accessing treatment by a homeopath over the previous 12 months was in the range of 0.2–8.2%, with a median estimate of 1.5%.
### Table 3  Twelve-month prevalence of homeopathy use (treatment by homeopath and all use) by the general population across eleven countries

| Country   | Survey type          | Year of survey | Name of survey | Sample size | Sample ages (% males) | Meets ≥ 4 quality criteria | Defines homeopathy use | Treatment by homeopath | All homeopathy use (treatment by homeopath + OTC) | Homeopathy use (not defined) | Reference(s)       |
|-----------|----------------------|----------------|----------------|-------------|-----------------------|----------------------------|------------------------|------------------------|-----------------------------------------------|--------------------------------|----------------------|
| Adults    | Government national  | 2012           | NHIS           | 34,525      | 18+ (NR)             | Yes                        | Yes                    | 2.2                    |                                |                                | Clarke (2015)          |
|           |                      | 2007           | NHIS           | 23,393      | 18+ (NR)             | Yes                        | No                     | 1.8                    |                                |                                | Barnes (2008)          |
|           |                      | 2002           | NHIS           | 31,044      | 18+ (NR)             | Yes                        | No                     | 1.7                    |                                |                                | Barnes (2004)          |
|           |                      | 1999           | NHIS           | 30,801      | 18+ (NR)             | Yes                        | No                     | 3.1                    |                                |                                | Ni (2002)              |
|           |                      | 1996           | MEPS           | 16,068      | 18+ (47)             | Yes                        | Yes                    | 0.4                    |                                |                                | Druss (1999)           |
|           | Other national       | 1995–6         | MIDUS          | 4242        | 25–74 (43)           | Yes                        | No                     | 2.4                    |                                |                                | Honda (2005)           |
|           |                      | 1997           | 2055           | 18+ (48)    | Yes                   | Yes                        | 0.6                    | 3.4                    |                                |                                | Eisenburg (1998)       |
|           |                      | 1997           | 1500           | 18+ (NR)    | No                     | No                        |                        |                        |                                |                                | Landmark (1998)        |
|           |                      | 1990           | 1539           | 18+ (52)    | Yes                    | Yes                        | 0.2                    | 0.7                    |                                |                                | Eisenberg (1993, 1998) |
| USA Other sub-national | 1999           | HSE            | 7630          | 16+ (55)    | Yes                    | Yes                        | 0.7                    |                        |                                |                                | Campion (2010)         |
|           | Other sub-national   | 2001           | NOS            | 1794        | 16+ (45)              | Yes                        | Yes                    | 1.9                    |                                |                                | Thomas (2004)          |
|           | Other national       | 1999           | 1204           | 18+ (45)    | No                     | No                        |                        |                        |                                |                                | Ernst (2000)           |
|           |                      | 1998           | 2669           | 18+ (43)    | Yes                    | Yes                        | 1.2                    | 9.8                    |                                |                                | Thomas (2001)          |
|           |                      | 1993           | 676            | 18+ (47)    | Yes                    | Yes                        | 1.7                    |                        |                                |                                | Thomas (1993)          |
| UK Government national | 1986           | CHS            | 4268          | 18+ (NR)    | Yes                    | Yes                        | 0.4                    |                        |                                |                                | Yung (1988)            |
|           | Other sub-national   | 2005           | 1067           | 18+ (49)    | Yes                    | Yes                        | 2.9                    | 6.0                    |                                |                                | Xue (2007)             |
| Australia Other national | 2004        | SAHOS          | 3015          | 15+ (49)    | Yes                     | Yes                     | 0.5                    | 2.2                    |                                |                                | MacLennan (2006)       |
|           |                      | 2000           | SAHOS          | 3027        | 15+ (49)              | Yes                     | Yes                     | 1.2                    | 4.3                    |                                |                                | MacLennan (2002)       |
|           |                      | 1993           | SAHOS          | 3004        | 15+ (49)              | Yes                     | Yes                     | 1.2                    | 4.4                    |                                |                                | MacLennan (1996)       |
| Australia Other sub-national | 2012        | INHIS          | 2365          | 21+ (44)    | No                      | Yes                     | 2.7                    | 4.3                    |                                |                                | Thomson (2014)         |
|           | Other sub-national   | 2003–4         | INHIS          | 2365        | 21+ (44)              | No                      | Yes                     | 1.3                    |                        |                                | Niskar (2007)          |
|           | Other sub-national   | 2000           | INHIS          | 2365        | 21+ (44)              | No                      | Yes                     | 2.8                    |                        |                                | Shmuiel (2004a)        |
|           | Other sub-national   | 2003–4         | INHIS          | 2365        | 21+ (44)              | No                      | Yes                     | 2.8                    |                        |                                | Shmuiel (2004b)        |
| Canada Government national | 2001–5       | CCHS           | 400,055       | 18+ (49)    | Yes                    | Yes                     | 2.3                    |                        |                                | McTavish (2010)        |
|           | Other national       | 1994–5         | NPHS           | 17,662      | 15+ (NR)              | Yes                     | Yes                     | 2.0                    |                        |                                | Milar (1997)           |
| Switzerland Government national | 2012        | SHS            | 18,357        | 15+ (48)    | Yes                    | Yes                     | 8.2                    |                        |                                | Klein (2015)           |
|           | Other sub-national   | 2007           | SHS            | 14,432      | 15+ (48)              | Yes                     | Yes                     | 6.4                    |                        |                                | Klein (2012)           |
| Norway Other sub-national | 2008        | HUNT 3         | 50,827        | 20+ (45)    | No                      | Yes                     | 1.3                    |                        |                                | Lohre (2012)           |
|           |                      | 1995–7         | HUNT 2         | 40,027      | 20+ (47)              | No                      | Yes                     | 4.3                    |                        |                                | Steinsbekk (2008)      |
| Germany Other sub-national | 1997–01      | 4291           | 20–79 (49)    | Yes                      | No                     | 1.0                    |                        |                        |                                | Schwarz (2008)         |
| South Korea Other sub-national | 2006        | 3000           | 30–69 (50)    | No                      | No                     | 0.1                    |                        |                        |                                | Ock (2009)            |
| Japan Other national | 2001         | 1000           | 20–79 (49)    | Yes                      | No                     | -                      |                        |                        |                                | Yamashita (2002)       |
| Children and adolescents | Government national | 2007        | NHIS           | 9417        | 0–17 (NR)             | Yes                     | No                     | 1.3                    |                        |                                | Barnes (2008)          |
|           |                      | 1996           | MEPS           | 6262        | 0–17 (52)             | Yes                     | Yes                    | 0.03                   |                        |                                | Davis (2003)           |
|           | Other sub-national   | 1995–7         | HUNT 2         | 7888        | 13–19 (NR)            | No                      | Yes                    | 2.6                    |                        |                                | Steinsbekk (2010)      |
| Australia Government sub-national | 2004        | SAHOS          | 911           | 0–15 (46)   | Yes                     | No                     |                        |                        |                                | Smith (2006)           |

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Data from our previous systematic reviews and our more recent findings suggests that the general public (adult or all ages) of the countries surveyed were similarly likely to consult a homeopath (median 1.5%) as an acupuncturist (median 1.4%), medical herbalist (median 0.9%) or osteopath (median 1.9%), while massage therapists (median 5.5%) and chiropractors (median 7.5%) were visited slightly more often than homeopaths.7

There were various limitations in conducting this literature review. A limitation is that only studies reported in the English language were included, although we included English language reports of surveys from any country. In 10 of 39 reports it was unclear whether a definition of homeopathy was provided to the individuals before participation in the survey. This may have created discrepancies in the data collected. Data was only obtained from surveys which also reported overall 12-month prevalence of any CAM use and/or visits to any CAM practitioner. Therefore, surveys only reporting use of homeopathy but not reporting overall CAM use or visits were not included in this review. This is a potential strength of this review, as data from the types of survey included here (many of which were government sponsored health surveys or large population surveys) may be expected to be of higher quality, and potentially more representative of the general population, than data from surveys of a single therapy.

A number of countries include homeopathy in their publicly funded healthcare systems (UK, France, Italy, Germany, Switzerland, India, Pakistan, Brazil, and Mexico53), yet our review identified estimates from only two of these countries—Switzerland (which has the highest estimate of treatment by a homeopath) and the UK (which had the highest estimate of all homeopathy use). No published English language surveys were identified in India, where homeopathy is a popular treatment modality54 and considered part of mainstream medicine. We recommend that a further review is conducted which includes all languages.

Our stringent review methods meant that rigorously conducted single studies which reported homeopathy prevalence data (without CAM prevalence data) were excluded even if they would have met our quality criteria. An example of this is a high quality study of data from the French national health insurance database (SNIIRAM).55 This study reported that 10.2% of the overall French population and 18% of children aged 0–4 years in France received at least one prescription for a homeopathic medicine during a 12-month period. Both figures are significantly higher than those found in the studies included in our review.

This review summarises 12-month prevalence of homeopathy use from studies in eleven countries (USA, UK, Australia, Israel, Canada, Switzerland, Norway, Germany, South Korea, Japan and Singapore). Each year a small but significant percentage of these general populations use homeopathy. This includes visits to homeopaths as well as purchase of over-the-counter homeopathic medicines.

| Table 3 (continued) |
|---------------------|
| Survey characteristics | Estimates for prevalence of homeopathy use (%) |
| Country | Year of survey | Name of survey | Sample size | Sample ages | Sample size (% males) | Meets ≥4 quality criteria | Defines homeopathy use | Treatment by homeopath (homeopathy + OTC) | All homeopathy use (not defined) | Reference(s) |
| Older adults | USA | 1995–6 | MIDUS | 335 | 65–74 (46) | Yes | No | 1.5 | Honda (2005), McMahan (2004) |
| | USA | 1997–8 | NHIS | 728 | 65+ (46) | No | No | 5.8 | Astin (2000) |
| | Singapore | 2000 | NHIMSE | 445 | 65+ (45) | Yes | Yes | 2.5 | Cheung (2007) |
| | Australia | 2005 | NOS | 178 | 65+ (43) | Yes | Yes | 4.6 | Cheung (2007) |
| | Switzerland | 1992 | CCHS | 1092 | 60+ (44) | Yes | Yes | 0.0 | Feng (2010) |
| | Australia | 2005 | SHS | 178 | 65+ (43) | Yes | Yes | 4.6 | Cheung (2007) |

Abbreviations: CCHS = Canadian Community Health Survey; HSE = Health Survey for England; MEPS = Medical Expenditure Panel Survey; MIDUS = Midlife Development in the US; NHIS = National Health Interview Survey; NMHSE = National Mental Health Survey of the Elderly; NOS = National Omnibus Survey; NPHS = National Population Health Survey; OTC = over-the-counter purchase; SAHOS = South Australian Health Omnibus Survey; SHS = Swiss Health Survey.* One estimate includes ages 12 years and over.
Table 4  Summary of twelve-month prevalence of homeopathy use

| Age group          | Treatment by a homeopath | All homeopathy use (treatment by homeopath + OTC) | Homeopathy use (not defined) |
|--------------------|--------------------------|-----------------------------------------------|------------------------------|
|                    | N survey estimates       | Median % (range)                             | N survey estimates           | Median % (range)               |
| Adults             | 24                       | 1.5 (0.2–8.2)                                | 10                           | 3.9 (0.7–9.8)                  |
| Children + adolescents | 2                       | 1.3 (0.03–2.6)                               | 0                            | ---                           |
| Older adults       | 0                        | ---                                           | 3                            | 2.5 (0.0–4.6)                 |
| All age groups*    | 26                       | 1.5 (0.03–8.2)                               | 12                           | 3.3 (0.0–9.8)                 |

* All age groups excludes “older adults” data for Honda 2005 and Xue 2007 to avoid double-counting as these participants are included within estimates for adults.

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Author contributions

CR, KT and KC conceived the idea for the review and contributed to the design of the review. All authors contributed to data extraction and compiling of the data, and drafting and critical revision of the manuscript.

Disclosures

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Review criteria

Studies were identified via database searches to October 2015. All estimates were in the context of a survey which also reported prevalence of any complementary and alternative medicine use. Studies were excluded if they did not report 12-month prevalence or were not written in English.

Message for the clinic

This study systematically reviews what is known about the prevalence of homeopathy use by the general public worldwide. This review highlights that globally there is significant and stable use of treatment by a homeopath and over-the-counter purchase of homeopathic medicines.

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