

Homeopathic Remedies to Heal Afflicted Persons: A Systematic review

Atif R¹, Saleem Z^{1,2*}, Qureshi MZ³, Asia R³, Gorski GI³ and Yasmeen F³

¹Section of Pharmacy Practice, University College of Pharmacy, University of the Punjab, AllamaIqbal Campus, Lahore, Pakistan

²School of Pharmaceutical Sciences, University Sains Malaysia, Malaysia

³Pakistan Homeopathic College, Hospital and Research Center, Lahore, Pakistan

***Corresponding author:** Saleem Z, Section of Pharmacy Practice, University College of Pharmacy, University of the Punjab, AllamaIqbal Campus, 54000, Lahore, Pakistan and School of Pharmaceutical Sciences, University Sains Malaysia, Malaysia, Tel: +92-322-9801981, E-mail: zikria.pharmacy@pu.edu.pk; xikria@gmail.com

Citation: Atif R, Saleem Z, Qureshi MZ, Asia R, Gorski GI, et al. (2018) Homeopathic Remedies to Heal Afflicted Persons: A Systematic review. SAJ Pharma Pharmacol 5: 201

Article history: Received: 09 April 2018, Accepted: 29 May 2018, Published: 30 May 2018

Abstract

Background: Efficacy of homeopathic remedies is still a topic of discussion because homeopathic remedy has always been a matter of bitter controversy. Now a day's, homeopathy in one of the most recognized and safe form of treatment practiced worldwide, other than many conventional medicines. Recently the issue has been addressed in various ways. In this systematic review we documented the evidence about the efficacy of homeopathic medicines.

Objective: The main objective of the study was to systematically review the evidence supporting efficacy of homeopathic remedies.

Methodology: Extensive computerized literature searches were performed. PubMed, Google scholar, science direct, and Medline were searched. Full length articles of clinical trials of homeopathic medicines were studied. All randomized double blind, placebo-controlled clinical trials and prospective observational studies were including. Human trials related articles were included and articles which were not related to our study were excluded. Animal studies, pilot studies, case series and review articles were not included in this study. We did not impose restrictions according to time of publication, assessed the articles according to predefined criteria.

Results: Total 155 articles were searched through different data bases. Initially, 66 full length articles were screened for our study, out of which 24 articles were excluded because pilot studies, case series and animal trials were not included in this review. Finally, 42 original research articles were assessed for this review.

Conclusion: We concluded that homeopathic remedies are effective to heal afflicted persons but still there is need to conduct more refined research to strengthen this evidence.

Keywords: Homeopathy; Systematic review

Introduction

Homeopathy is a mixture of two Greek words "omoiso" mean similar and "pathos" means disease [1]. Samuel Hahnemann introduced homeopathic system which is based on law of similar. In this system, a drug is selected if in healthy individuals it produces same symptoms of the disease to be treated. This drug is then made more potent, or "potentized" by a combination of dilution and shaking and subsequently given in small amount to the patient [2]. Patient's satisfaction with homeopathic care is increasing in treating acute and chronic conditions and that's why homeopathy widely used as a complementary treatment. According to clinicians, individualized constitutional homeopathic remedies shows benefit in patients having polysymptomatic disorders, for which conventional medicine has limited options [3]. It is a holistic system of medicine that tends to helps the body's own healing mechanism. In many clinical trials it is documented that, Homeopathic treatment is effective in treating many complicated diseases such as fibromyalgia, upper respiratory disease, muscle soreness, kidney stone, acute diarrhea etc, and in many cases conventional medicines are failed to treat the disease [4].

According to critics of homeopathy, there is very little evidence about effectiveness of homeopathy and how homeopathy could possibly work [5]. Now a day's, homeopathy is one of the most recognized and safe form of treatment practiced worldwide, other than many conventional medicines [6]. Although it is extensively used by health practitioners but there is little evidence on efficacy of homeopathy and unfortunately in homeopathic literature as well as in conventional medical journals this matter is not commonly discussed [7]. Thus, the efficacy of a homeopathic remedy has always been a matter of bitter controversy. Recently the issue has

been addressed in various ways [8]. In this systematic review we documented the evidence about the efficacy of homeopathic medicines, and for this purpose we searched extensively for published articles to investigate the clinical evidence.

Methodology

Extensive computerized literature searches were performed. Pub med, Google scholar, science direct, and Medline were searched. Full length articles of clinical trials of homeopathic medicines were studied. Search was carried out by using different words like efficacy of homeopathic medicines, clinical trials of homeopathic medicines in different disease conditions, traditional and conventional medicines. All randomized double blind, placebo-controlled clinical trials and prospective observational studies were including. Only human trials related articles were included. Case series, animal studies, pilot studies and review articles were not included in this study. Irrelevant, abstract or opinion papers without concrete evidence were excluded. We also exclude the articles which were not related to our study. We did not impose restrictions according to time of publication, assessed the articles according to predefined criteria. We started our research in October 2017 which was ended up on March 2018. Two reviewers independently screened the titles of the selected articles according to inclusion and exclusion criteria (Figure 1). In this study, homeopathy is defined as those products in which ailments are treated by minute doses of natural substances that in larger amounts would produce symptoms of the ailment. Homeopathic remedies retain biological activity after repeated dilution and succession even when diluted beyond Avogadro's number. Homeopathic pharmacopoeias are used for the preparations of homeopathic medicines and these medicines are prescribed by trained health professional in high dilution [7,9].

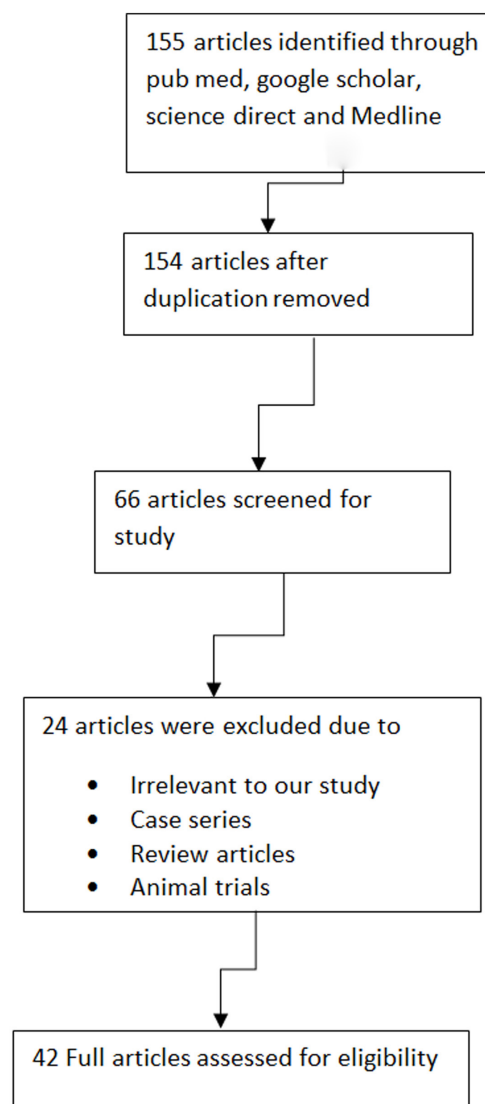


Figure 1: Overview of Study

Results

Total 155 articles were searched through different data bases. Initially, 66 full length articles were screened for our study, out of which 24 articles were excluded because pilot studies, case series and animal trials were not included in this review. Finally, 42 original research articles were assessed for this review. We categorized the homeopathic medicines used for different therapeutic conditions as below.

ENT complaints and Respiratory tract infections

Out of forty two articles, twelve articles were based on ENT complaints and Respiratory tract infections. White Slade conducted a clinical trial on asthmatic patients but showed no significant results [10]. Alessandro zanasi worked on newly formulated homeopathic syrup for the patients suffering from acute cough in upper respiratory tract infections and acute bronchitis and methodology used was randomized double blind placebo controlled and this syrup helps in reducing the symptoms of cough severity and sputum viscosity [11]. Zabolotnyi studied on acute maxillary sinusitis and methodology used was prospective double blind placebo controlled and showed significant results [12]. Siqueira homsani dealt with the patients suffering from influenza and acute respiratory tract infections in children and the study design was randomized placebo controlled and he concluded that homeopathic medication minimize the recurrence of flu and acute respiratory tract infections in children [13]. Kusum S Chand worked on the patients of pulmonary tuberculosis and the methodology used was randomized double blind placebo controlled and he gave individual homeopathic medicine along with standard regimen and finally good results shown [14]. Karl hanz Friese studied on adenoid vegetation and design was randomized prospective double blind but no efficient results had been shown and at the end patient need surgery for adenoids [15]. Morag A Taylor concluded that homeopathic dilutions are differing from placebo in case of patient suffering from perennial allergic rhinitis [16]. Comparative study was built up under the supervision of Max haidvogel and he deals with patients suffering from acute respiratory and ear problems and he concluded that homeopathic treatment was equally effective as conventional treatment [17].

Paper Ref	Drug	Patient no	Disease	Disease Research Methodology	Major Findings
Zanasi, <i>et al.</i> 2014 [11]	Homeopathic syrup	80	Acute cough in upper respiratory tract infection and acute bronchitis	A randomized, double-blind, placebo-controlled trial	This syrup helps in reducing the symptoms of cough severity and sputum viscosity
Zabolotnyi, <i>et al.</i> 2007 [12]	Homeopathic medication (sinfronal)	113	Acute maxillary sinusitis	Prospective, randomized, double-blind, placebo-controlled trial	Homeopathic treatment was safe and appeared to be effective
White Slade, <i>et al.</i> 2003 [10]	Individualized homeopathic remedy	96	Asthma	A randomized placebo controlled	Homeopathic medicines are superior in improving asthma as compared to placebo
Siqueira, <i>et al.</i> 2016 [13]	Homeopathic complex, Influbio placebo	600	Influenza and acute respiratory tract infections in children	Blind, randomized placebo controlled clinical trial	Homeopathic medication reducing the episodic symptoms
Chand, <i>et al.</i> 2014 [14]	Standard regimen and individualized homeopathy	120	Pulmonary tuberculosis	A randomized double blind, placebo controlled clinical trial	In addition to standard therapy, homeopathic medicines appeared to improve outcome
KH Friese, <i>et al.</i> 2001 [15]	Nux vomica D200, Okoubaka D3, Tuberculinum D200, Barium iodatum D4 and Barium iodatum D6 or with placebo	97	Adenoid vegetations	Randomized prospective double-blind clinical trial	Homeopathic treatment was not able to replace the surgical procedure.
Taylor, <i>et al.</i> 2000 [16]	Homeopathy and placebo	51	Perennial allergic rhinitis	Randomized, doubleblind, placebocontrolled, parallelgroup, multicenter study	Homeopathic dilutions different from placebo
Haidvogel, <i>et al.</i> 2007 [17]	Heparsulphuris, Lycopodium clavatum, Belladonna, Sulphur, Bryonia alba, Mercurius solubilis, Phytolacca decandra, Phosphorus, Pulstilla, Calcarea carbonica, Kaliumbi chromicum, Allium cepa, Gelsemium sempervirens, causticum	1,577	Acute respiratory and ear complaint	Comparative study	Homeopathic treatment was equally effective to conventional treatment
Palm, <i>et al.</i> 2017 [19]	Silatrol-5-90	256	Recurrent tonsillitis	An international, pragmatic, controlled clinical trial.	It may bring therapeutic effect to the patients suffering from recurrent tonsillitis

Paper Ref	Drug	Patient no	Disease	Disease Research Methodology	Major Findings
Jacobs & Taylor, 2016 [18]	Hyland's Cold 'n' Cough for kids"	261	Cold symptoms in young children	Randomized double blind, placebo controlled	This syrup shown significant results in minimizing the symptom severity
Robertson, <i>et al.</i> 2007 [20]	Arnica Montana	190	Post Tonsillectomy Analgesia	Double blind randomized, a placebo controlled trial	Homeopathic medicine provides a small but statistically significant reduction
Friese, Kruse <i>et al.</i> 1997 [21]	Group A(Acotinum napellus, Apis mellifica, Belladonna, Capsicum, Chamomilla, Kalium bichromicum, Lachesis, Lycopodium, Mercurius solubilis) Group B (nasal drops, antibiotics, secretolytics and antipyretic)	131	Acute pediatric otitis media	A Prospective observational study	There was a reduction in the recurrence of reported complaints

Table 1: Published clinical studies related to ENT complaints and Respiratory tract infections

Jennifer Jacobs studied on newly formulated homeopathic syrup for cold symptoms in young children and appeared to be very effective in reducing the cold symptoms [18]. Jurgen palm studied on recurrent tonsillitis and methodology used was pragmatic, randomized, controlled clinical trial and it may bring therapeutic benefit to patients suffering from recurrent tonsillitis [19]. Robertson conducted clinical trial on post tonsillectomy analgesia and the methodology used was randomized, double blind placebo controlled with Arnica Montana and shown reduction in symptoms severity [20]. Friese studied on acute pediatric otitis media and he divided patients into two categories, GROUP A (received homeopathic medicines) and GROUP B (received allopathic medicines) and both groups showed a significant results [21].

Joint pain

Six articles were based on Joints pain Van haselen study on Osteoarthritis of knee and the study showed that homeopathy was effective and safe treatment [22]. P.Fisher study on rheumatoid arthritis with no significant results [23]. R. Bell studied on fibromyalgia and methodology was double-blind, randomized, parallel-group, placebo-controlled trial, this study demonstrated that individualized homeopathic medicine was more effective than placebo in reducing joint pain and also improved the quality of life of patients with fibromyalgia [3]. Sarah brien studied on rheumatoid arthritis and methodology used was randomized, double blind placebo controlled and showed interesting results that homeopathic consultations can effect but not homeopathic remedies [24]. Michael Shipley worked on osteoarthritis and showed that Rhustox 6x did not differ from placebo [25]. G Nahler also studied on osteoarthritis and at the end side effects were reported [26].

Paper Ref	Drug	Patient no	Disease	Disease Research Methodology	Major Findings
Van Haselen& Fisher, 2000 [22]	Homeopathic gel	184	Osteoarthritis of knee	Randomized clinical trial	Homeopathic gel was equally as effective as NSAIDS
Fisher & Scott, 2001 [23]	42 homeopathic remedies	58	Rheumatoid arthritis	A randomized controlled trial	Found no evidence that the active homeopathy improves the stable R A
Brien, Lachance, Prescott, McDermott, &Lewith, 2010 [24]	Individualized Homeopathy, complex homeopathy and placebo.	83	Rheumatoid arthritis	Double-blind, randomized placebo-controlled trial	Homeopathic consultation was relatively more beneficial than homeopathic medicine
NahlerMetelmann <i>et al.</i> 1998 [26]	Zeel Compositum and Hylarat	121	Osteoarthritis	Randomized, Controlled Clinical trial in Comparison of Hyaluronic	In both treatment groups, the most reported side effects were signs of local inflammation or irritation after intra-articular injection
Shipley Berry <i>et al.</i> 1983 [25]	Rhustox. 6X with fenoprofen	36	Osteoarthritis	A Double-blind, placebo controlled cross over study	Both Rhustox 6x and placebo shown insignificant results
Bell Lewis <i>et al.</i> 2004 [3]	Individualized homeopathic remedies versus placebo	62	Fibromyalgia	A double-blind, randomized, parallel-group, placebo-controlled trial	Individualized homeopathic medicine was more effective than placebo

Table 2: Published clinical studies related to Joint pain complaints

Obstetrics and gynecological complaints

Four studies on Gynecology and Obstetrics were included. Subranilsaha worked on case series with 122 different medicines and he concluded that homeopathic medicine play a significant role in treating obstetrics and gynecological problems [27]. Emma Del Carmen Macías studied on most displeasing condition of women who suffered from moderate to severe depression in peri- and postmenopausal women and he treat patients with individual homeopathic remedy plus fluoxetine.. It is an attempt to deal with the hurdles of homeopathic medicine [28]. Menachem oberbaum found valuable results for the treatment of mild postpartum bleeding with the help of homeopathic medicines, Arnica Montana and bellis perennis [29]. And finally he concluded that homeopathic medicines was superior than placebo in reducing post-partum bleeding. Hart Mullee studied on pain and infection after total abdominal hysterectomy and used Arnica Montana for treatment and concluded that it showed no effect [30].

Paper Ref	Drug	Patient no	Disease	Disease Research Methodology	Major Findings
Saha <i>et al.</i> , 2016[27]	122 different medicines	429	Obstetrics and gynecology troubles	A Prospective research targeted study	Homeopathic medicine play a significant role in treating obstetrics and gynecological problems
del Carmen Macias-Cortes, Lianes-Gonzalez, Aguilar-Faisal, &AsbunBojalil, [28]	Individualized homeopathic treatment plus fluoxetine	189	Moderate to severe depression in peri- and postmenopausal women	Randomized, double-dummy, double-blind, placebo-controlled trial	This study assesses the effectiveness of individualized homeopathic medicine
Oberbaum, <i>et al.</i> 2005 [29]	Arnica Montana and Bellis perennis	40	Mild postpartum bleeding	Double blind, randomized, placebo controlled clinical trial	Homeopathic medicines was superior than placebo in reducing post-partum bleeding
Hart Mullee, <i>et al.</i> 1997 [30]	Homeopathic arnica C30	93	Pain and infection After total Abdominal Hysterectomy	Double-blind, placebo-controlled, randomized clinical trial	Arnica Montana shows no significant result

Table 3:Published clinical studies related to Obstetrics and gynecological complaints

Skin complaints

Five articles were based on Skin complaints. J.T.kainz studied on skin complaint of children with warts on hands but homeopathic remedies and placebo apparently showed no difference [2]. CM witt worked on psoriasis and he revealed that patient improved in symptoms [31]. Jose Enrique Eizayaga studied on atopic dermatitis and concluded that homeopathy was an additional therapy only [32]. M Frass study on severe sepsis and he also revealed that homeopathy was an additional therapy [33]. T.keil conducted a clinical trial to investigate the homeopathic and allopathic medicines of eczema in children. He concluded that both treatment groups showed positive results regarding eczema symptoms and also improved quality of life (disease-related) [34].

Paper Ref	Drug	Patient no	Disease	Disease Research Methodology	Major Findings
FrassLinkesch, <i>et al.</i> 2005 [33]	Apis mellifica Arsenicum album Belladonna Baptisia Broynia Crotales horidus Carbo vegetabilis Lycopodium clavatum Pyrogenium Phosphorus Lachesis muta	70	Severe sepsis	A randomized, double-blind, placebo-controlled trial	Homeopathic treatment may be a fruitful addition with other therapeutic measures
Keil, <i>et al.</i> 2008 [34]	Homeopathic treatment and conventional treatment	118	Eczema	A prospective multi-centre cohort study	Both treatment groups showed positive results regarding eczema symptoms and also improved quality of life
C.Witt, Ludtke, &Willich, 2009 [31]	Phos, puls, sil, calc, nux-v Lach, sulph, Nat-m, sep, lyc	82	Psoriasis	A prospective observational study with 2 years follow-up	Homeopathic medicines showed significant improvement in symptoms

Paper Ref	Drug	Patient no	Disease	Disease Research Methodology	Major Findings
Kainz, Kozel, Haidvogel, & Smolle, 1996 [2]	Individually selected homoeopathic preparation	60	Children with warts on hands	A randomized double blind clinical trial	Homoeopathic remedies and placebo apparently showed no difference
Eizayaga & Eizayaga, 2012 [32]	Sulph. Lyc. Sil. Merc. Calc. Graph. Morg-p Ars Psor. Puls. Nat-m. Phos. Phos. + Psor. Sulph. + Psor. Sulph. + Morg-p.	42	Atopic dermatitis	Prospective observational	Homeopathic medicine may be an effective treatment for atopic dermatitis

Table 4: Published clinical studies related to Skin complaints

Miscellaneous Conditions

Roberto queirozpadilha studied on lead poisoning and study design was double blind randomized. The homoeopathic preparation plumbum metallicum had no effect on workers exposed to lead [35]. Fahimeh Mousavi studied on Minor aphthous ulcer and he concluded that homoeopathic treatment is safe and effective method [36]. Michael Emmans Dean studied on mental fatigue and the design used was randomized triple blind placebo controlled cross over clinical trial but homoeopathic medicine used for mental fatigue was not as such effective [37]. Michael weiser studied the patients who was suffered from Vertigo and treated them with homoeopathic remedy and betahistine. He concluded that both remedies efficiently reduced the recurrence of vertigo attacks [38]. Juliane Hellhammer studied on Acute stress response and at the end homoeopathic medicines shown a relief in symptoms [39]. Claudia M. Witt studied on Migraine and in that study homoeopathic medicine showed a mild change in symptoms [40]. Iris R Bell study on Polysomnographic sleep of young adults with histories of coffee related insomnia but no significant results had been shown [41]. M Van Wassen hoven worked on diseases of all Major organ system and physician and patients both were satisfied with homoeopathic treatment [42]. Prospective open label study was built under the supervision of Rostock and he worked on Cancer and at the end he observed an improvement in quality of life [43]. Weatherly studied on chronic fatigue syndrome and concluded that homoeopathic remedies were superior to placebo [44]. Kaziro studied on Post-surgical tonsillectomy and methodology used was comparative placebo controlled clinical trial and showed non-significant results [45].

Two studies on Gastric problems also included according to our eligibility criteria. Emily J Peckham studied on irritable bowel syndrome. This study revealed that homoeopathic treatment showed a significant change in symptom severity score [46]. Jennifer Jacobs studied on acute childhood diarrhea and the methodology was randomized double blind placebo controlled. Author concluded that individualized homoeopathic treatment reduced the frequency of diarrhea [47].

Two studies was conducted on diabetes, one was diabetes type 2 and other was on Diabetic distal symmetric polyneuropathy and in both trials homoeopathic medicine showed significant results [48,49].

Paper Ref	Drug	Patient no	Disease	Disease Research Methodology	Major Findings
Mousavi Mojave, et al. 2009 [36]	Borax Mercurius solubilis Natrium muriaticum Phosphor Acidum sulphuricum Acidum nitricum Arsenicum album Nux vomica Lycopodium	100	Minor aphthous ulcer	Randomized placebo controlled clinical trials	Homoeopathic treatment is safe and effective method
Padilha, Riera & Atallah, 2011 [35]	Plumbum metallicum	131	Lead poisoning	Double blind randomized clinical trial	The homoeopathic preparation had no effect on the workers exposed to lead

Paper Ref	Drug	Patient no	Disease	Disease Research Methodology	Major Findings
Weiser, Strosser & Klein, 1998 [38]	Homoeopathic remedy and betahistine	119	Vertigo	A randomized double blind controlled clinical trial	Both remedies efficiently reduced the recurrence of vertigo attacks
Dean, Karsandas, Bland, Gooch & MacPherson 2012 [37]	Kali phos 6x or identical placebo	86	Mental fatigue	Randomized, triple blind, placebo-controlled cross-over clinical trial	Kali phos6x was not as such effective.
Kaziro 1984 [45]	Metronidazole vs. Arnica Montana	118	Post-surgical complications	A Comparative placebo controlled clinical trial	Arnica Montana showed increase in severity of symptoms
C.M. Witt, Ludtke & Willich, 2010 [40]	Nat-m Calc Sep Sulp Nux Puls Caust Lyc Sil Carc Thuj Buf Phos Calc-p Kali-bi tub	212	Migraine	Prospective multicenter observational study	Homeopathic treatment for migraine showed significant improvement.
Bell <i>et al.</i> 2012 [41]	Nux vomica Coffea cruda	8	Polysomnographic sleep of young adults with histories of coffee related insomnia	A Placebo controlled study	Homoeopathic remedy had satisfactory effect on patients
Rostock <i>et al.</i> 2011 [43]	Homoeopathic treatment Conventional treatment	639	Cancer	Prospective observational study	Under complementary homeopathic treatment, there was a reduction in symptoms severity and improvement in quality of life
Van Wassenhoven & Ives, 2004 [42]	Lycopodium Sepia Rhustox Staphisagria Causticum Sulphur Calc carb Ignatia Cal cphos Kali carb Pulsatilla Nat mur Lachesis Magnesiamur Phos ac Phosphorus ArsAlb Nuxvom Carcininum carbo veg Silicea	782	Diseases of all major organ systems which were of sufficient severity to interfere with daily living in 78% of cases.	An observational study of patients receiving homeopathic treatment	improvement
Hellhammer & Schubert, 2013 [39]	Combination remedy dysto- loges s	40	Acute Stress Response, Well-Being, and Sleep	A Double-Blind, Randomized Clinical Trial	Sleep quality was positively improved
Weatherley [44]	Homeopathic medicines vs. placebo	103	Chronic fatigue syndrome	Randomized controlled triple blind study	Homeopathic medicines showed significant results as compared to placebo
Jacobs <i>et al.</i> 2000 [47]	Individualized homeopathic medicine or placebo,	81	Acute Childhood Diarrhea:	Randomized, double-blind, placebo-controlled trial.	individualized homeopathic treatment reduced the frequency of diarrhea
Spence, Thompson, & Barron, 2005 [46]	Usual care, Homoeopathic treatment plus usual care, Supportive listening plus usual care.	94	Irritable bowel syndrome	Randomized controlled trial	Homoeopathic treatment showed a significant change in symptom severity score

Paper Ref	Drug	Patient no	Disease	Disease Research Methodology	Major Findings
To, Fok, Chong, Lee &Yiu 2017 [49]	Individualized homeopathic	27	Type two diabetes	Retrospective cohort study.	Individualized homeopathic treatment showed better glycaemic control.
Nayak <i>et al.</i> , 2013 [48]	Lycopodium clavatum Phosphorus Sulphur	336	Diabetic distal symmetric polyneuropathy	A prospective multi-centric clinical observational study	Homeopathic medicines may be effective in managing the symptoms of diabetic distal symmetric polyneuropathy

Discussion

This systematic review was conducted to assess the effectiveness of homeopathic medicines and for that purpose available published evidence was reviewed. For this purpose we studied all full length articles related to our topic and finally we were able to draw a concrete conclusion. We found both positive and negative evidence about efficacy of homeopathic remedies. Overall, the evidence was sufficiently robust to determine the effectiveness of homeopathic medicines.

Out of forty two articles, 12 articles were based on upper respiratory tract infections. A randomized, double blind, placebo controlled trial was conducted to evaluate the effects of individualized homeopathic remedies in children's asthma. In this trial placebo was compared with individualized homeopathic remedies and this study revealed no evidence that homeopathic remedies are superior to placebo due to some limitations in therapeutic endpoint and mild severity of children's asthma [10]. Another study was conducted in which homeopathic remedies were also shown significant result as compared to placebo. Homeopathic aggravation may be occurred initially in patients and it may cause more complication in subjective results. In clinical homeopathy for over 200 years it was observed that the pattern of temporary aggravation followed by improvement is not typical of placebo [16]. Homeopathy selects medicines by comparing patient's symptoms with symptoms induce by these medicines in healthy subjects [50]. that's why initially occurred aggravation followed by improvement.

In another trial it was demonstrated the efficacy of a Sinfrontal (complex homeopathic medication) compared with placebo in patients with acute maxillary sinusitis. It was concluded that, sinfrontal is better and more effective than placebo. The homeopathic medicine which was used in this trial 'sinfrontal' was well tolerated. It mechanically act through secretolytic effects which is mediated by a vasomotor regulation [12].

For the treatment of ear and acute respiratory complaints a comparative study was conducted in which homeopathic and conventional medicines were used. Author draws a conclusion that homeopathic medicines were not inferior to conventional medicines. The major limitation in this study was that patients were not randomly selected in their treatment group [17]. In another study homeopathic syrup was used to evaluate the effectiveness in young children suffered from cold and it appeared effective. But due to limitations of study and unknown causation, results were considered as initially [18].

This study focused on the clinical response to homeopathic medicines which did not have a direct bactericidal effect, but appeared to modify the reaction of the body towards the bacilli. This was randomized double blind, placebo, controlled trials was conducted to assess the efficacy of homeopathic remedies in multi drug resistant tuberculosis. In addition to standard therapy, homeopathic medicines appeared to improve outcome [14]. A trial was conducted in children's with adenoid vegetation to evaluate the efficacy of a standardized homeopathic medicine. It was concluded that homeopathic treatment was not played a major role in reducing the symptoms [15].

A well deigned clinical trial was conducted to assess the effectiveness of silAtro-5-90 (homeopathic medication) in recurrent tonsillitis and it found effective [19].

Two studies was conducted, one was for the prevention of influenza and acute respiratory tract infection sand second was for cough in upper respiratory tract infection and acute bronchitis. in both trails homeopathic medicines found to be efficacious in reducing the complaints of patients [11,13].

A comparative study was performed for the treatment of otitis media. Homeopathic medicines provide a good alternative to allopathic treatment. Many methodological problems were also highlighted in this article like selection bias, no standardized measurement blood parameter was adopted [21]. One article was based on post tonsillectomy and arnica Montana was used as a remedy. It was documented that homeopathic medicines showed significant results [20].

Homeopathic treatment in the management of diabetic distal symmetric polyneuropathy was evaluated in clinical trial. According to this trial homeopathic remedies found to be effective in reducing the symptoms [49]. Another study was conducted in diabetic patients and in whom homeopathic medicines prescribed along with conventional therapy gave better glycemic control. Small sample size, non randomization and use of previous data were the flaws of this study [48].

Five different trials were conducted to assess the effectiveness of homeopathic remedies like in case of sepsis, eczema, atopic dermatitis, psoriasis and children s with warts. Four out of five studies concluded that homeopathic medicines are effective and only one study concluded that there was no difference in homeopathy and placebo group. It was concluded that further research is

needed to draw any concrete conclusion [2,31-34]. There are actually a larger number of clinical and basic science researches that has tested homeopathic medicines. Many clinical trials have assessed the effectiveness of homeopathic medicines for treatment of serious illnesses, (such as profuse tracheal secretions in critically ill patients suffering from chronic obstructive pulmonary disease and severe sepsis) [51].

Six trials were performed in joint group to assess the effectiveness of homeopathic remedies and only 2 trials provided its effectiveness evidence [3,22]. Three trials were failed to assess the effectiveness of homeopathic remedies like in case of rheumatoid arthritis and osteoarthritis [23-25]. In one article homeopathic medicine found equally effective in comparison to other composition [26]. There were some flaws; it was underpowered for dichotomous outcomes due to under-recruitment and a slightly higher rate of attrition than expected. Homeopathic physicians must know the four basic types of homeopathy; clinical homeopathy, classical homeopathy, isopathy, and complex homeopathy. For chronic diseases such as osteoarthritis, the 'classical' homeopathic approach is mostly in practice [52]. Regarding the efficacy of classical homeopathy there is a great need of more research, particularly for differentiating treatment effects [53].

The efficacy of the homeopathic medicines on mild postpartum bleeding was assessed and concluded that homeopathic remedies may reduce postpartum blood loss. There was no comparative study to evaluate the results of this study [29]. One study was conducted in Obstetrics and gynecology outpatient of an Indian homeopathic hospital. Data from this clinical outcomes study may act as fundamental data for performing well-targeted and controlled future research on homeopathy in Obstetrics and gynecology [27]. In another study efficacy of individualized homeopathic treatment and fluoxetine for moderate to severe depression in peri- and postmenopausal women was evaluated. It was an attempt to deal with the hurdles of homeopathic research that there is need of prescription based on single remedy in most cases of psychiatric diseases [28].

Two trails were conducted to assess the effectiveness of homeopathic treatment, one was on diarrhea and other one was irritable bowel syndrome. One or two studies were not enough to address the generalizability of these results [46,47]. Many other trails were also conducted to assess the effectiveness of homeopathic medicines like in case of aphthous ulcer, lead poisoning, migraine, mental fatigue, acute stress-response, well-being, and sleep, polysomnographic sleep, vertigo, cancer, post surgical complications, chronic fatigue syndrome and major organs.

Mechanism of action of homeopathic remedies is still unknown but there is a thought that homeopathic medicines trigger the body's own defense and self regulatory response. Medicinal effect of homeopathic remedies is only due to placebo effect and it is a matter of conflict between critiques and the people who are in the favors of homeopathy. But homeopaths face this criticism by answering that homeopathic remedies act through a mechanism other than pharmacological ones [54].

In 1994 Linde, *et al.* revealed that high dilution may have physical and chemical effects as shown in many laboratory researches. He also concluded that that there is a lack of duplicating such evidence by independent researchers [55]. Beside all these evidence more new clinical trials are needed to clarify the role that homeopathy can have in everyday clinical practice.

Conclusion

After summarizing and critically evaluating the evidence we are able to conclude that clinical trials of homeopathic medicines regarding its efficacy should be carefully designed to minimize error. The previous trials have a number of flaws, e.g. methodological flaws, sample size, and randomization bias. In light of above mentioned evidence we are able to conclude that homeopathic remedies are effective to heal afflicted persons but still there is need to conduct more refined research to strengthen these evidence.

Limitations of Study

There were some limitations of our study like we do not incorporate p-values and statistics because our study aim was to document efficacy of homeopathic medicines. Allergology was also not our focus of study.

References

1. Nolte S (2014) George Vithoulkas Definition of Health and Disease in Homeopathy. *Allgemeine homöopathische Zeitung* 259: 20-3.
2. Kainz J, Kozel G, Haidvogel M, Smolle J (1996) Homoeopathic versus placebo therapy of children with warts on the hands: a randomized, double-blind clinical trial. *Dermatol* 193: 318-20.
3. Bell IR1, Lewis DA 2nd, Brooks AJ, Schwartz GE, Lewis SE, et al. (2004) Improved clinical status in fibromyalgia patients treated with individualized homeopathic remedies versus placebo. *Rheumatology* 43: 577-82.
4. Malapane E, Solomon EM, Pellow J (2014) Efficacy of a homeopathic complex on acute viral tonsillitis. *J Altern Complement Med* 20: 868-73.
5. Sehon S, Stanley D (2010) Evidence and simplicity: why we should reject homeopathy. *J Eval Clin Pract* 16: 276-81.
6. Shah, S F-U-H, Mubeen SM, Mansoor S (2010) Concepts of homeopathy among general population in Karachi, Pakistan. *J Pak Med Assoc* 60: 667.
7. Dantas F, Rampes H (2000) Do homeopathic medicines provoke adverse effects? A systematic review. *Br Homeopath J* 89: S35-8.
8. Ernst E, Pittler MH (1998) Efficacy of homeopathic arnica: a systematic review of placebo-controlled clinical trials. *Arch Surg* 133: 1187-90.
9. Ernst E (2002) A systematic review of systematic reviews of homeopathy. *Br J Clin Pharmacol* 54: 577-82.
10. White A, Slade P, Hunt C, Hart A, Ernst E (2003) Individualised homeopathy as an adjunct in the treatment of childhood asthma: a randomised placebo controlled trial. *Thorax* 58: 317-21.

11. Zanasi A, Mazzolini M, Tursi F, Morselli-Labate AM, Paccapelo A, et al. (2014) Homeopathic medicine for acute cough in upper respiratory tract infections and acute bronchitis: A randomized, double-blind, placebo-controlled trial. *Pulm Pharmacol Ther* 27: 102-8.
12. Zabolotnyi DI, Kneis KC, Richardson A, Rettenberger R, Heger M, et al. (2007) Efficacy of a complex homeopathic medication (Sinfrontal) in patients with acute maxillary sinusitis: a prospective, randomized, double-blind, placebo-controlled, multicenter clinical trial. *Explore: Explore (NY)* 3: 98-109.
13. Siqueira CM, Homsani F, da Veiga VF, Lyrio C, Mattos H, et al. (2016) Homeopathic medicines for prevention of influenza and acute respiratory tract infections in children: blind, randomized, placebo-controlled clinical trial. *Homeopathy* 105: 71-7.
14. Chand KS, Manchanda RK, Mittal R, Batra S, Banavaliker JN, et al. (2014) Homeopathic treatment in addition to standard care in multi drug resistant pulmonary tuberculosis: a randomized, double blind, placebo controlled clinical trial. *Homeopathy* 103: 97-107.
15. Friese KH, Feuchter U, Lütke R, Moeller H (2001) Results of a randomised prospective double-blind clinical trial on the homeopathic treatment of adenoid vegetations. *Eur J Gen Pract* 7: 48-54.
16. Taylor MA, Lancaster T, Reilly D, Llewellyn-Jones RH, McSharry C, et al. (2000) Randomised controlled trial of homoeopathy versus placebo in perennial allergic rhinitis with overview of four trial seriesCommentary: Larger trials are needed. *Bmj* 321: 471-6.
17. Haidvogel M, Riley DS, Heger M, Brien S, Jong M, et al. (2007) Homeopathic and conventional treatment for acute respiratory and ear complaints: a comparative study on outcome in the primary care setting. *BMC Complement Altern Med* 7: 7.
18. Jacobs J, Taylor JA (2016) A randomized controlled trial of a homeopathic syrup in the treatment of cold symptoms in young children. *Complement Ther Med* 29: 229-34.
19. Palm J, Kishchuk VV, Ulied A, Fernández JP, De Jaegere S, et al. (2017) Effectiveness of an add-on treatment with the homeopathic medication SilAtro-5-90 in recurrent tonsillitis: An international, pragmatic, randomized, controlled clinical trial. *Complement Ther Clin Pract* 28: 181-91.
20. Robertson A, Suryanarayanan R, Banerjee A (2007) Homeopathic Arnica montana for post-tonsillectomy analgesia: a randomised placebo control trial. *Homeopathy* 96: 17-21.
21. Friese KH, Kruse S, Lütke R, Moeller H (1997) The homoeopathic treatment of otitis media in children-comparisons with conventional therapy. *Int J Clin Pharmacol Ther* 35: 296-301.
22. van Haselen RA, Fisher PA (2000) A randomized controlled trial comparing topical piroxicam gel with a homeopathic gel in osteoarthritis of the knee. *Rheumatology* 39: 714-9.
23. Fisher P, Scott DL (2001) A randomized controlled trial of homeopathy in rheumatoid arthritis. *Rheumatology* 40: 1052-5.
24. Brien S, Lachance L, Prescott P, McDermott C, Lewith G (2010) Homeopathy has clinical benefits in rheumatoid arthritis patients that are attributable to the consultation process but not the homeopathic remedy: a randomized controlled clinical trial. *Rheumatology* 50: 1070-82.
25. Shipley M, Berry H, Broster G, Jenkins M, Clover A, et al. (1983) Controlled trial of homoeopathic treatment of osteoarthritis. *Lancet* 321: 97-8.
26. Nahler G, Metelmann H, Sperber H (1998) Treating osteoarthritis of the knee with a homeopathic preparation. *Biomed therapy* 16: 186-91.
27. Saha S, Koley M, Saha S, Singh R, Hossain MM, Pramanik I (2016) Obstetrics and gynecology outpatient scenario of an Indian homeopathic hospital: A prospective, research-targeted study. *J Tradit Complement Med* 6: 168-71.
28. Oberbaum M, Galoyan N, Lerner-Geva L, Singer SR, Grisaru S, et al. (2005). The effect of the homeopathic remedies Arnica montana and Bellis perennis on mild postpartum bleeding—A randomized, double-blind, placebo-controlled study—Preliminary results. *Complementary Therapies in Medicine*, 13: 87-90.
29. Macías-Cortés Edel C, Llanes-González L, Aguilar-Faisal L, Asbun-Bojalil J (2015) Individualized homeopathic treatment and fluoxetine for moderate to severe depression in peri-and postmenopausal women (HOMDEP-MENOP study): a randomized, double-dummy, double-blind, placebo-controlled trial. *PloS one*, 10: e0118440.
30. Hart O, Mullee MA, Lewith G, Miller J (1997) Double-blind, placebo-controlled, randomized clinical trial of homoeopathic arnica C30 for pain and infection after total abdominal hysterectomy. *J R Soc Med* 90: 73-8.
31. Witt CM, Lütke R, Willich SN (2009) Homeopathic treatment of patients with psoriasis-a prospective observational study with 2 years follow-up. *J Eur Acad Dermatol Venereol* 23: 538-43.
32. Eizayaga JE, Eizayaga JI (2012) Prospective observational study of 42 patients with atopic dermatitis treated with homeopathic medicines. *Homeopathy* 101: 21-7.
33. Frass M, Linkesch M, Banyai S, Resch G, Dielacher C, et al. (2005) Adjunctive homeopathic treatment in patients with severe sepsis: a randomized, double-blind, placebo-controlled trial in an intensive care unit. *Homeopathy* 94: 75-80.
34. Keil T, Witt CM, Roll S, Vance W, Weber K, et al. (2008) Homoeopathic versus conventional treatment of children with eczema: a comparative cohort study. *Complement Ther Med* 16: 15-21.
35. Padilha RQ, Riera R, Átallah AN (2011) Homeopathic Plumbum metallicum for lead poisoning: a randomized clinical trial. *Homeopathy* 100: 116-21.
36. Mousavi F, Mojaver YN, Asadzadeh M, Mirzazadeh M (2009) Homeopathic treatment of minor aphthous ulcer: a randomized, placebo-controlled clinical trial. *Homeopathy* 98: 137-41.
37. Dean ME, Karsandas R, Bland JM, Gooch D, MacPherson H (2012) Homeopathy for mental fatigue: lessons from a randomized, triple blind, placebo-controlled cross-over clinical trial. *BMC Complement Altern Med* 12: 167.
38. Weiser M, Strösser W, Klein P (1998). Homeopathic vs conventional treatment of vertigo: a randomized double-blind controlled clinical study. *Arch Otolaryngol Head Neck Surg* 124: 879-85.
39. Hellhammer J, Schubert M (2013) Effects of a homeopathic combination remedy on the acute stress response, well-being, and sleep: A double-blind, randomized clinical trial. *J Altern Complement Med* 19: 161-9.
40. Witt CM, Lütke R, Willich SN (2010) Homeopathic treatment of patients with migraine: a prospective observational study with a 2-year follow-up period. *J Altern Complement Med* 16: 347-55.
41. Bell IR, Howerter A, Jackson N, Aickin M, Bootzin RR, et al. (2012) Nonlinear dynamical systems effects of homeopathic remedies on multiscale entropy and correlation dimension of slow wave sleep EEG in young adults with histories of coffee-induced insomnia. *Homeopathy* 101: 182-92.

42. Van Wassenhoven M, Ives G (2004) An observational study of patients receiving homeopathic treatment. *Homeopathy* 93: 3-11.
43. Rostock M, Naumann J, Guethlin C, Guenther L, Bartsch HH, et al. (2011) Classical homeopathy in the treatment of cancer patients-a prospective observational study of two independent cohorts. *BMC Cancer* 11: 19.
44. Weatherley-Jones E, Nicholl JP, Thomas KJ, Parry GJ, McKendrick MW, et al. (2004) A randomised, controlled, triple-blind trial of the efficacy of homeopathic treatment for chronic fatigue syndrome. *J Psychosom Res* 56: 189-97.
45. Kaziro GS (1984) Metronidazole (Flagyl) and Arnica Montana in the prevention of post-surgical complications, a comparative placebo controlled clinical trial. *Br J Oral Maxillofac Surg* 22: 42-9.
46. Spence DS, Thompson EA, Barron SJ (2005) Homeopathic treatment for chronic disease: a 6-year, university-hospital outpatient observational study. *J Altern Complement Med* 11: 793-8.
47. Jacobs J, Jiménez LM, Malthouse S, Chapman E, Crothers D, et al. (2000) Homeopathic treatment of acute childhood diarrhea: results from a clinical trial in Nepal. *J Altern Complement Med* 6: 131-9.
48. Nayak C, Oberai P, Varanasi R, Baig H, Ch R, et al. (2013) A prospective multi-centric open clinical trial of homeopathy in diabetic distal symmetric polyneuropathy. *Homeopathy* 102: 130-8.
49. To KLA, Fok YYY, Chong KCM, Lee YCJ, Yiu LSS (2017) Individualized homeopathic treatment in addition to conventional treatment in type II diabetic patients in Hong Kong—a retrospective cohort study. *Homeopathy* 106: 79-86.
50. Jonas WB, Kaptchuk TJ, Linde K (2003) A critical overview of homeopathy. *Ann Intern Med* 138: 393-9.
51. Ullman D, Frass M (2010) A review of homeopathic research in the treatment of respiratory allergies. *Altern Med Rev* 15: 48-58.
52. Long L, Ernst E (2001) Homeopathic remedies for the treatment of osteoarthritis: a systematic review. *Homeopathy* 90: 37-43.
53. Nuhn T, Lüdtkke R, Geraedts M (2010) Placebo effect sizes in homeopathic compared to conventional drugs—a systematic review of randomised controlled trials. *Homeopathy* 99: 76-82.
54. Milazzo S, Russell N, Ernst E (2006) Efficacy of homeopathic therapy in cancer treatment. *Eur J Cancer*, 42: 282-9.
55. Kleijnen J (2000) What research is needed to show the effectiveness of homeopathy? *Br Homoeop J* 89: S1-2.