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REVIEW ARTICLE

HOMEOPATHY IN HYPOTHYROIDISM: A CRITICAL REVIEW OF EVIDENCE, BIAS, AND CLINICAL RELEVANCE

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Abstract

Background: Hypothyroidism is a common endocrine disorder characterized by insufficient thyroid hormone availability, usually reflected in elevated thyroid-stimulating hormone (TSH) in primary disease and reduced free thyroxine (FT4) in overt disease. Although levothyroxine remains the standard replacement therapy, some patients seek homeopathy because of residual symptoms, concerns about lifelong medication, preference for individualized consultation, and cultural acceptance of complementary medicine.

Objective: This review critically evaluates recent evidence from 2020 to 2025 on homeopathy in hypothyroidism and related thyroid disorders, with emphasis on clinical outcomes, methodological bias, biological plausibility, placebo and contextual effects, and practical clinical relevance.

Methods: A critical narrative review with systematic search elements was conducted across PubMed, Scopus, Web of Science, Cochrane Library, Google Scholar, DOAJ, ScienceDirect, SpringerLink, Wiley Online Library, Taylor & Francis, and relevant guideline repositories. Searches were restricted to 2020-2025 and DOI-bearing peer-reviewed sources. Evidence was grouped into direct thyroid-specific homeopathy literature, indirect homeopathy trials and meta-research, contemporary hypothyroidism management literature, and bias/placebo methodology papers.

Results: Recent direct evidence for homeopathy in hypothyroidism is sparse and consists mainly of case reports, case series, and low-control clinical observations.

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No recent large, independently replicated, double-blind, placebo-controlled trial was identified that establishes homeopathy as a disease-modifying or replacement therapy for overt hypothyroidism. Several indirect homeopathy trials in non-thyroid conditions show that rigorous blinding and placebo control are possible, but findings cannot be extrapolated to thyroid hormone physiology without biochemical endpoints.

Discussion: Interpretation is limited by small samples, lack of blinding, inadequate controls, poor preregistration, selective reporting, concomitant levothyroxine use, spontaneous TSH fluctuation, regression to the mean, and strong contextual effects. Patient-reported symptom improvement should not be equated with restoration of thyroid hormone physiology unless supported by objective TSH and FT4 normalization.

Clinical Relevance: Current evidence does not justify replacing levothyroxine with homeopathy. Where patients use homeopathy, it should be framed as adjunctive supportive care only, with continued biochemical monitoring and transparent informed consent.

Conclusion: Homeopathy in hypothyroidism remains clinically unproven as a replacement therapy. Rigorous, preregistered, adequately powered, placebo-controlled trials with biochemical endpoints are needed before disease-modifying claims can be accepted.

Introduction:-

It is the most common endocrine disorder which is the insufficient availability of thyroid hormone with respect to tissue requirements. When the thyroid gland does not produce adequate amounts of hormone is called primary hypothyroidism. In this condition, arise in the pituitary secretion of TSH appears. The overt disease usually has high TSH with low FT4, while subclinical hypothyroidism has high TSH with FT4 in the reference interval. Typical symptoms are fatigue, weight gain, cold intolerance, constipation, dry skin, disturbance of the menstrual period, changes of hair, bradypsychia, and decreased ability to think. But they are not a feature of low thyroid only because they overlap with those of anemia, depression, sleep disorders, obesity, chronic inflammatory disorders, menopause, and medications (Chaker et al., 2022; Taylor et al., 2024).

Since treatment thresholds, anticipated benefits, and risk-benefit trade-offs are different, the clinical distinction between overt and subclinical hypothyroidism is significant. Individuals with overt primary hypothyroidism usually require thyroid hormone replacement therapy. For those with subclinical hypothyroidism, the decision to treat must be individualized according to TSH level as well as symptoms, age, pregnancy status, cardiovascular risk, goiter, thyroid autoantibodies, and persistence of abnormal test results (Ku et al., 2023; Urgatz& Razvi, 2023). The most common cause is Hashimoto's thyroiditis in iodine sufficient areas. Thyroid peroxidase antibodies (TPOAb) may indicate autoimmune thyroiditis and probability of progression to overt disease (Klubo-Gwiezdzinska&Wartofsky, 2022; Vargas-Uricoechea et al., 2025).

Management strategies generally include levothyroxine replacement, measures for biochemical monitoring, and dose titration. Present reviews and guidelines that therapy should aim to achieve biochemical euthyroidism, assess symptoms for improvement, avoid over-replacement and exercise special caution in pregnancy, older adults, cardiovasculardisease,andpost-thyroidectomy(Centannietal.2025;Chiardietal.2025;Jonklaas2022;Jonklaas et al. 2021 ; Urgatz& Poppe 2024). Despite having a normal TSH, symptoms may persist. They should not automatically be blamed for continued thyroid hormone deficiency. Adherence, drug interactions, absorption, comorbid disease, psychosocial factors and unrealistic expectations need structured review (Al Kindi et al., 2023; Alofi et al., 2023; Gunasekaran et al., 2024; Wang et al., 2022).

In this clinical setting some patients take homeopathy. Some reasons for consulting a homeopath may include ongoing feelings of illness or malaise, dissatisfaction with short conventional consultations, the prospect of taking medications for life, fear of dose escalation, choice of "natural" therapies, prior experience with complementary medicine, and homeopathy being acceptable in terms of culture and values. Extended time, empathy, narrative listening, and tailored consultation that may improve patient-reported outcomes through contextual pathways even when physiological effects on disease remain unproven (Hafliðadóttir et al., 2021; von Wernsdorff et al., 2021).

The essence of the ultimate clinical question is not whether some patients benefit from homeopathic care and feel better but whether homeopathic intervention can elicit clinically meaningful and reproducible changes in thyroid physiology TSH, FT4, T3 if indicated, TPOAb trends, symptom scores, quality of life, medication stability, adverse events and long-term safety. This the review critically assesses those claims, separate in gout direct thyroid specificity evidence from indirect homeopathy evidence, while separating symptom improvement from described biochemical correction.

Review Objectives:-

To identify and critically review recent evidence from 2020-2025 on homeopathy in hypothyroidism and related thyroid disorders.

To evaluate whether homeopathic interventions show clinically meaningful effects on TSH, FT4, T3, TPO antibodies, symptoms, quality of life, and medication requirement.

To assess methodological bias in available homeopathy studies, including lack of blinding, small samples, open-label design, inadequate controls, selective outcome reporting, placebo effects, and regression to the mean.

To compare homeopathic claims with current endocrinology evidence and clinical guidelines.

To determine the clinical relevance, safety, ethical implications, and practical limitations of using homeopathy in hypothyroidism.

Methodology:-

This article has been designed as a narrative critical review, with elements of systematic search, not a systematic review or meta-analysis. Prior to synthesis, we decided not to pool effect sizes due to the sparse and clinically heterogeneous eligible thyroid-specific homeopathy literature dominated by uncontrolled designs. The reporting logic is transparent about information sources, eligibility standards, screening logic and evidence categorization employing a PRISMA-style tool (Page et al. 2021a, 2021b).

PubMed, Scopus, Web of Science, Google Scholar, Cochrane Library, DOAJ, Science Direct, Springer Link, Wiley Online Library, Taylor and Francis and their respective official guidelines. The span of the study chosen was 2020-2025.Search terms used were: “homeopathy” OR “homoeopathy” OR “individualised homeopathy” OR “complementary medicine” AND “hypothyroidism” OR “subclinical hypothyroidism” OR “hashimoto thyroiditis” OR “autoimmmune thyroiditis” OR “thyroid dysfunction” OR “TSH” OR “levothyroxine” AND “trial” OR “randomised controlled trial” OR “systematic review” OR “meta-analysis” OR “bias” OR “placebo” OR “clinical relevance”.

Eligible sources consisted of peer-reviewed studies, systematic and quantitative reviews, clinical reviews, statements of consensus, methodological papers, and guidelines published from the year 2020 Directory of Open Access Journals (DOI) and moreover. Any source which dealt with the issue of homeopathy, hypothyroidism, thyroid disorders, endocrine outcomes, placebo/contextual effects, trial bias, evidence quality, levothyroxine management or a clinically relevant assessment of any form of complementary medicine was included. Key exclusion criteria are absence of DOI, publication before 2020, non-peer-reviewed promotional claims, blogs, clinic marketing material, unverifiable records, duplicate citation, and source unrelated to the clinical question.

The way the trial was designed to run was appraised rather than the effect. The researchers assessed the included trials to determine whether randomization, allocation concealment, placebo control, blinding of participants, practitioners and assessors, attrition, outcome reporting, sample size, statistical power, intention-to-treat analysis, preregistration, conflict of interest, and adverse-event reporting were appropriate for their included trials. Confounding, selection bias, regression to the mean, spontaneous fluctuation in TSH, concomitant levothyroxine use, timing of measurement, plausibility of attributing change to intervention (Gartlehner et al., 2022; McGuinness& Higgins, 2021; Sigurdson et al., 2023) were assessed for open-label and observational studies.

The final analysis of the evidence separated it in four layers, specifically: thyroid-specific homeopathy evidence; indirect homeopathy trials in other chronic or symptom-based conditions; current evidence on hypothyroidism and subclinical hypothyroidism endocrine management; and methodological evidence on placebo effects, contextual healing, reporting bias and clinical relevance. This split occurred because trial feasibility and bias control can be informed by indirect evidence but not thyroid-specific disease modification.

Table 1. Summary of Included Evidence Categories from 2020-2025

Evidence category	Typical source type	Main contribution to review	Main limitation
Direct thyroid-specific homeopathy evidence	Case reports, case series, open-label observations	Describes how homeopathy has been reported in subclinical hypothyroidism, overt hypothyroidism, thyroid-	Usually uncontrolled, small, non-blinded, vulnerable to regression to the mean and spontaneous TSH fluctuation

		related symptoms, and multi morbidity contexts	
Indirect homeopathy evidence	Double-blind placebo-controlled trials in non-thyroid conditions; homeopathy meta-research	Shows that rigorous placebo-controlled homeopathy trials are feasible; in forms bias and contextual-effect interpretation	Cannot be extrapolated to thyroid hormone physiology without thyroid endpoints
Endocrinology evidence	Guidelines, consensus statements, clinical reviews, cohort studies, adherence studies	Defines standard biochemical diagnosis, levothyroxine management, monitoring, and special-population safety	Does not directly evaluate homeopathy
Bias/placebo/methodology evidence	PRISMA guidance, placebo reviews, reporting-bias studies, risk-of-bias visualization tools	Provides framework for interpreting uncontrolled improvement and subjective outcomes	General methodological evidence must be applied carefully to disease-specific contexts

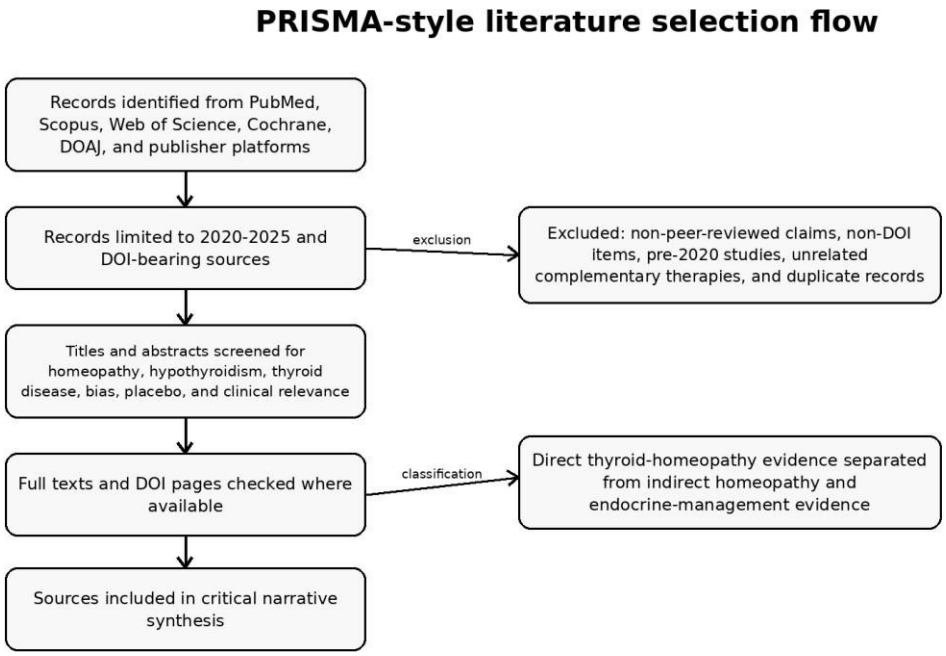

Figure 1. PRISMA-style literature selection flow used for classifying DOI-bearing 2020-2025 evidence.

Pathophysiology and Clinical Classification of Hypothyroidism:-

Hypothyroidism is more appropriately defined as a syndrome of diminished thyroid hormone action. Thyroid failure in primary overt hypothyroidism causes an increase in the level of TSH and a decrease in the level of FT4.TSH is high, but FT4 is within the laboratory reference range in their condition.

The difference is important, because where clear replacement indications may be available for "obvious" disease, for mild subclinical disease, the outcome may depend on baseline TSH, or antibody status, age, iodine status, drug exposure, pregnancy status and comorbidity of the patient.

Hashimoto's thyroiditis is the immune-mediated injury to the thyroid with lymphocytic infiltrate and thyroid auto-antibodies. The presence of TPOAb and thyroglobulin antibodies can assist in confirming an autoimmune diagnosis but does not mean that antibody positivity means that symptoms are due to current thyroid hormone deficiency. The prevalence and clinical manifestations of Hashimoto's thyroiditis are affected by population, gender, age, iodine exposure, and diagnostic cutoffs (Klubo-Gwiezdzinska&Wartofsky, 2022; Vargas-Uricoechea et al., 2025).

Other causes are iodine deficiency or excess, thyroidectomy, radioiodine therapy, external neck irradiation, congenital thyroid disorders, central hypothyroidism, drug-induced thyroid dysfunction and pregnancy-related thyroid disturbance. Various drugs such as amiodarone, lithium, immune checkpoint inhibitors, and tyrosine kinase inhibitors can interfere with thyroid function. Post-surgical hypothyroidism is not an autoimmune hypothyroidism as there may be an absence of residual endogenous production; hourly requirements after thyroidectomy are therefore dependent on weight residual function age absorption treatment target (Chiardi et al., 2025; Jonklaas, 2022).

Interpretation of any thyroid tests must take into account the variation of the assay as well as illness, pregnancy, age, timing, contraindication, adherence and interference. The FT4 assessment reflects the availability of thyroxine circulating around the body. It is necessary to confirm the presence of overt disease. The T3 measurement is less central in routine primary hypothyroidism. It is because the T3 levels may stay normal until later stages of illness. Further, these levels may be influenced by illness affecting non-thyroidal organs. According to Taylor et al., 2024; Vargas-Uricoechea et al., 2025, TPOAb is useful for autoimmune risk stratification; less so, for a direct measure of symptoms.

The interpretation of reports with uncontrolled homeopathy is central to the natural fluctuation of TSH. It is possible for mild elevation of TSH to regress towards the reference range, especially if the baseline abnormality is transient, illness related, assay related, or due to inconsistent use of levothyroxine. Without further data, it is difficult to pinpoint the reason for the TSH normalization. Further more, there was no control group provided for the verification of this matter. This is especially the case for case reports and open-label designs, where patient expectations and clinician allegiance can exaggerate benefit.

Table 2. Clinical Features and Biochemical Markers of Hypothyroidism

Domain	Clinical or biochemical feature	Interpretation	Clinical relevance
Symptoms	Fatigue, cold intolerance, weight gain, constipation, dry skin, hair loss, menstrual irregularity, Cognitive slowing	Nonspecific; may overlap with anemia, depression, menopause, obesity, sleep disorders, or chronic stress	Symptoms require biochemical correlation before treatment decisions
TSH	Elevated in primary hypothyroidism; may be mildly elevated in subclinical disease	Sensitive marker for primary thyroid failure but fluctuates with illness, age, pregnancy, assay interference, and medication adherence	Primary monitoring marker for levothyroxine titration
FT4	Low in overt primary hypothyroidism; normal in Subclinical disease	Confirms hormone deficiency when low with Elevated TSH	Essential for Distinguishing overt from subclinical hypothyroidism
T3	May remain normal in early hypothyroidism; less reliable for routine monitoring	Influenced by non-thyroidal illness and conversion dynamics	Useful only in selected clinical contexts
TPO antibodies	Marker of thyroid autoimmunity	Positive results increase Risk of progression but do not prove current symptom	Useful in Hashimoto's thyroiditis and subclinical-risk stratification

		causation	
Pregnancy markers	Trimester-specific TSH and FT4 interpretation	Maternal thyroid status Affects obstetric and fetal outcomes	Requires guideline-based treatment and close monitoring

Standard Evidence-Based Management of Hypothyroidism:-

Levothyroxine is the mainstay of treatment for overt hypothyroidism. It is working, affordable, biologically plausible, and consistent with decades of clinical experience and current evidence syntheses. The treatment usually begins with an appropriate dose based on factors such as body weight, age, risk of cardiovascular disease based on severity, pregnancy status, and residual thyroid function, followed by TSH-guided titration. In older patients or patients with ischemic heart diseases, lower starting doses are often used in order to avoid precipitating angina, arrhythmia, and excessively high metabolic demand (Centanni et al., 2025; Jonklaas, 2022; Kahaly& Gottwald-Hostalek, 2022).

The frequency of the monitoring intervals is related to the pharmacokinetics of thyroxine and the time for TSH equilibration. TSH is often reassessed weeks after starting or changing a dose. Patients whose treatment is stable in the long term require testing from time to time. Testing is particularly important with weight changes, pregnancy, gastrointestinal disease, interaction with other medications, adherence problems, etc. If TSH remains abnormal despite therapy, it may be related to missed doses, incorrect administration with food or supplements, malabsorption, drug interactions, formulation switching, or incorrect dose (Al Kindi et al 2023; Alofi et al 2023; Gunasekaran et al 2024; Wang et al 2022).

Therapy must not only be aimed at mere symptom control but must also achieve biochemical euthyroidism and avoid iatrogenic thyrotoxicosis. Over-replacement creates risks for atrial fibrillation, bone loss, anxiety and other harms. Under-treatment leaves patients exposed to fatigue, hyperlipidaemia, menstrual disruption, infertility worry, cardiovascular risk, and severe complications in extreme cases. According to the reviews on levothyroxine physiology, a normalized serum TSH may not indicate complete symptom resolution for every patient, but it is the most important marker of safety and efficacy in primary hypothyroidism (Jonklaas et al., 2021; Okuroglu et al., 2022; Taylor et al., 2024).

Extra care is needed for special populations. The status of the thyroid requires attention along with the interpretation of thyroid thresholds specific to each trimester. There is a risk to the maternal and fetal health attributable to the delay in the treatment of Hypothyroidism during pregnancy (American Society for Reproductive Medicine Practice Committee, 2024; Urgatz and Poppe, 2024).

After total thyroidectomy, levothyroxine is not optional replacement but the physiological substitute for absent thyroid hormone production (Chiardi et al., 2025). For older adults with mild subclinical hypothyroidism, treatment decisions should be nuanced. Recent reviews caution against giving treatment automatically without consideration of symptoms, cardiovascular risk, frailty and degree of TSH elevation (Zhang et al., 2023; Zhao et al. 2022).

An additional therapy, therefore, deserves to be assessed against the same criteria: objective biochemical response, sustained clinical benefit, safety, adherence transparency, and avoidance of delay/discontinuation of proven treatment. A therapy that enhances subjective well-being while allowing TSH to worsen cannot be adequate disease management in overt hypothyroidism.

Homeopathy and Thyroid Disorders: Principles, Therapeutic Claims, and Relevance:-

Homeopathy is an individualized prescribing system in which a remedy is chosen only after careful assessment of all symptoms, constitution, modalities, mental and physical features, and perceived totality of the case. Classical practice frequently entails repertorization, materia medica comparison, potency selection, and follow-up based on symptom evolution. Potentization involves serial dilutions and succussion, which may exceed normal dose-response expectations. The concepts are vastly different from endocrine replacement therapy where a quantifiable hormone deficit is addressed with a standardized molecule.

In homeopathy, practitioners assess hypothyroidism (HYPO) as either a biochemically dysfunctional disorder or an expression of some underlying constitutional dysfunction that may or may not be manifesting an autoimmune tendency.

A commonly mentioned remedy in clinical practice is Calcarea carbonica along with Sepia, Natrum muriaticum, Iodum, Thyroidinum, Graphites, Lycopodium, etc. This review states that the remedies are not approved but only a way of practice under claims or claims as part of case reports. It does not recommend any remedy as a proven therapy. Claims regarding selection of remedies should be tested with controlled trials with thyroid-specific endpoints.

Individualization is a key methodological challenge. Advocates dispute standardized trials, stating they can't reflect classical homeopathy since the same diagnosis leads to different remedies. Nonetheless, contemporary homeopathy trials demonstrate that the particularized approach can still be subjected to testing using double-blind placebo-controlled designs; such trials have been conducted in chronic rhinosinusitis, hypertension, dermatological conditions, gynecologic symptoms, and pain (Dutta et al., 2022; Koley et al., 2024; Misra et al., 2021; Nag et al., 2024; Shahid et al., 2022). individualization alone is not a good reason to eschew rigorous control; it is a design challenge, not exemption from evidence standards.

Evidence Concerning Homeopathy for Hypothyroidism:-

Direct Randomized Controlled Trials:-

In the 2020-2025 DOI bearing search window, large independently replicated double blind placebo-controlled randomised trial not identified to demonstrate homeopathy as an effective substitute to levothyroxine in overt Hypothyroidism. Some previous trials of homeopathy for thyroid-related conditions severally before date and were therefore excluded for the date rule. Failure to satisfy this requirement is important because oververt hypothyroidism has objective biochemical endpoints with clinically relevant safety implications. Consequently, strong evidence beyond uncontrolled symptoms claim disease modification.

There has been no recent high-quality thyroid RCT although there are placebo-controlled individualized homeopathy trials in other non-thyroid conditions. It is possible to carry out a trial through blinding, placebo comparators, trial registration and objective statistical analysis within homeopathy research. The suitability of trials is mixed across indications and simply cannot be transferred to thyroid physiology (Ghosh et al, 2021, 2023; Koley et al, 2024; Sahoo et al, 2024; Shahid et al, 2022).

Non-randomized, Open-label, Case-series Evidence:-

According to a recent direct source – 19 cases of subclinical hypothyroidism treated with homeopathy reported TSH normalization in a proportion of patients (Grelle & Camacho, 2022). The study is clinically relevant on subclinical hypothyroidism and gives biochemical outcome measure. However, it does not have randomisation, placebo control, blinding and protection from regression to the mean. Subclinical hypothyroidism tends to normalize spontaneously; thus, it would be naïve to attribute the observed normalization rate to homeopathic intervention in the absence of a comparable untreated or placebo group.

Some smaller case reports or case series of hypothyroidism or subclinical hypothyroidism, where individualized homeopathy was the treatment, are also direct reports (Acharya et al., 2024; Dogra & Mandal, 2020; Sabud et al., 2022; Yadav et al., 2023). The accounts are either describing symptom improvement or TSH reduction or clinical follow up, and in general they have very small sample size, inadequate control, limited biochemical follow up, uncertain levothyroxine continuity, and over all a high risk of bias due to selective reporting. A multimorbidity case report after surgical menopause reported an improvement in TSH among other outcomes, but case design prevents causal inference and includes many simultaneously changing clinical variables (Mahesh et al., 2020).

Case reports may generate hypotheses and help record patient experiences, choice of remedy, and possible safety signals. They cannot prove effectiveness for a chronic endocrine disease. It is especially crucial when baseline TSH has a slight abnormality, when repeat testing is absent prior to treatment, or when the patient is also manipulating diet, supplements, stress, body weight or levothyroxine compliance.

Observational and Indirect Evidence:-

Indirect evidence from homeopathy trials in non-thyroid conditions is weak for hypothyroidism. Double-blind randomized trials in chronic rhinosinusitis, plantar fasciitis, acne vulgaris, vitiligo, pre-hypertension, hemorrhoids, pre-menstrual syndrome, menstrual irregularities, and menopausal syndrome exhibit diverse designs and outcomes, varying from non-significant primary endpoints to preliminary positive findings (Dutta et al., 2022; Ghosh et al., 2023; Karuppusamy et al., 2022; Koley et al., 2024; Misra et al., 2021; Nag et al., 2024; Rai et al., 2022; Sahoo et

al., 2024; Shahid et al., 2022). These studies planned and executed as rigorously as clinical trials for pharmaceutical products show how homeopathy can be studied. They do not prove that high-dilution remedies correct thyroid hormone deficiency, however.

In homeopathy, systematic review and meta-research demand caution too. A systematic review of homeopathy meta-analyses found evidence to vary according to indications and trial quality while studies on reporting bias revealed that there are important concerns regarding trial registration and publication patterns. (Gartlehner et al., 2022; Hamre et al., 2023). Amore recent meta-epidemiological argument stated that a field dominated by nulls had something to say regarding treatment-effect interpretation, but does not resolve disease-specific uncertainty for hypothyroidism (Sigurdson et al., 2023).

Table 3. Evidence Matrix of Homeopathy Studies Related to Thyroid Disorders

Study/source	Design and population	Key thyroid outcomes reported	Main limitations	Clinical interpretation
Grelle & Camacho (2022)	Case series; 19 patients with subclinical hypothyroidism	Reported TSH normalization in a proportion of cases	No randomization, no placebo control, no blinding, high risk of regression to the mean	Hypothesis-generating only; not proof of efficacy
Dogra & Mandal (2020)	Three-case report/series in hypothyroidism	Reported response of thyroid markers and symptoms	Very small sample, uncontrolled, incomplete protection against concomitant changes	Cannot establish causal effect
Sabud et al. (2022)	Case report of subclinical hypothyroidism	Reported individualized homeopathic intervention and biochemical follow-up	Single case; spontaneous normalization possible	Illustrative only
Yadav et al. (2023)	Case report in hypothyroidism	Reported individualized medicine and clinical improvement	Single patient; limited generalizability; possible publication bias	Very low certainty
Acharya et al. (2024)	Case series on thyroid health	Reported improvement in thyroid-related parameters and symptoms	Uncontrolled, small, vulnerable to selective reporting and clinician allegiance	Requires controlled replication
Mahesh et al. (2020)	Multimorbidity case report with mild subclinical hypothyroidism among other conditions	Reported reduction in TSH along with multiple symptomatic changes	Multiple simultaneous outcomes and confounders; single case	Not disease-specific evidence for hypothyroidism
Indirect RCTs in non-thyroid conditions	Double-blind placebo-controlled trials in other conditions	No thyroid endpoints	External validity to hypothyroidism is weak	Useful only for trial-design feasibility and bias discussion

Evidence Quality and Risk of Bias:-

The main limitation is sample size and when it combines with uncontrolled design, subjective outcome measures, spontaneous biochemical fluctuation, strong expectation effects, the evidence becomes significantly weak as in homeopathy-hypothyroidism. A case series reporting TSH improvement following treatment cannot distinguish the

treatment effect from regression to the mean, repeat testing, better levothyroxine adherence, dietary changes, weight change, resolution of a transient illness, and selective reporting. In patients with subclinical hypothyroidism whose natural history includes a subset normalizing, these constraints are particularly severe (Ku et al., 2023; Urgatz and Razvi, 2023).

Consultation and strength of treatment narratives are important thus principle of blinding is central. Patients' reporting of symptoms may improve through expectation, attention, and therapeutic alliance if it is known to them and to practitioners that a remedy has been prescribed. Such improvement is clinically meaningful as patient experience. However, it is not evidence of thyroid hormone replacement. To distinguish care effects in an overarching manner from remedy-specific effects and objective biochemical effects (Hafliðadóttir et al., 2021; von Wernsdorff et al., 2021).

It's also important to report bias. Concerns have been raised regarding the risk of non-publication of registered trials, non-prospective registration of published ones, and altering or selective focusing on primary outcomes of published trials in homeopathy trials meta-research (Gartlehner et al., 2022). Even if subsequent reassessments argue about the scale of the problem, the clinical message is the same: "future thyroid trials must be prospectively registered and publish protocols, have a primary biochemical endpoint, report all outcomes and be transparent about data availability".

Choosing outcomes is another weakness. The endpoints TSH, FT4, TPOAb, symptoms, quality of life, and levothyroxine dose stability are not interchangeable. A decline in fatigue score without stable biochemical improvement may convey a contextual benefit instead of hypothyroidism correction. On the contrary, a minor TSH change that remains outside the target range may be statistically significant but clinically insignificant. Clinical significance calls for the magnitude and durability of effect.

Table 4. Major Sources of Bias in Homeopathy-Hypothyroidism Research

Bias Type	How It Appears in Studies	Effect on Interpretation	Methodological Solution
Smallsamplesize	Case reports, case series, pilot trials	Unstable estimates; high chance findings; poor generalizability	Adequately powered multicentre trials
Lack of placebo control	No sham remedy or matched consultation control	Cannot separate remedy effect from expectation/context	Identical placebo and standardized consultation comparator
Lack of blinding	Patient, practitioner, or assessor aware of treatment	Inflates subjective Outcomes and clinician-rated improvement	Patient, assessor, and statistician blinding; blinded data analysis
Selection bias	Motivated patients or clinic attendees preferentially included	Improvement may reflect patient characteristics rather than treatment	Consecutive recruitment, Explicit eligibility criteria, registry-based sampling
Confirmation bias	Positive cases Preferentially documented	Over estimates benefit and underreports failures	Prospective protocols and mandatory reporting of all Enrolled patients
Regression to the mean	Mildly abnormal TSH Improves on repeat testing	False attribution of natural Normalization to treatment	Repeat baseline tests and Control group
Natural TSH fluctuation	TSH varies with illness, assay, age, timing, adherence	Single abnormal baseline may be misleading	Multiple measurements and standardized laboratory methods
Concomitant levothyroxine use	Medication continued, changed, or improved adherence during homeopathy	Biochemical change may be due to standard therapy	Document dose, timing, adherence, and changes; stratify analyses
Selective outcome reporting	Only favorable symptoms or labs reported	Overstates effectiveness	Prospective registration and complete outcome reporting

Practitioner allegiance bias	Investigators strongly favor homeopathy	May influence recruitment, assessment, and interpretation	Independent replication and blinded outcome adjudication
Inadequate adverse-event reporting	No systematic harm capture	False perception of safety	Predefined adverse-event forms and monitoring board

Placebo, Contextual Healing, and Patient-Reported Outcomes:-

Placebo responses and contextual healing aren't fairy tales; they are tangible elements of clinical care. The factors include expectations, conditioning, clinician empathy, time, ritual, meaning, patient-practitioner alliance, reduced anxiety, and symptom reinterpretation. A meta-research analysis of placebo-controlled trials estimates that contextual effects account for much of the observed improvement in the context of some RCTs (Hafliðadóttir et al. 2021). Research with open-label placebos has also shown that benefits can occur when a patient knows they are getting something inert, although that varies by condition and outcome (von Wernsdorff et al., 2021).

Therapeutic mechanisms of homeopathy may be enhanced due to longer consultations compared to regular endocrine visits. Homeopathy takes a case talking with the person about their narrative, emotional stressor, modality, and individualistic symptom patterns. Patients with persistent fatigue, anxiety, low mood, sleep problems or nonspecific symptoms, despite biochemical euthyroidism, may experience this interaction as therapeutic. Nonetheless, contextual enhancement should be truthfully described as supportive care or symptom experience and not as endocrine correction.

The difference is most crucial in hypo-thyroidism because someone's symptoms are not disease-specific. Reassurance, lifestyle change, improved sleep, improved compliance to levothyroxine & natural fluctuation may improve fatigue. The improvement in constipation, weight gain, and cognitive slowing might not involve thyroid hormone. Accordingly, future trials should collect patient-reported outcomes; however, findings must be interpreted in relation to TSH, FT4, TPOAb stability, levothyroxine dose stability, and adverse events (Frisaldi et al, 2020,2023; Niazi et al., 2024).

Debate on Biological Plausibility and Mechanism:-

Biological plausibility remains one of the most debated issues in homeopathy. Standard pharmacological thought would expect either a dose-response relationship, receptor interaction, biochemical activity, or at least a reproducible mechanism by which exposure leads to outcome. The higher-potency homeopathic agents often employ dilutions at which no molecules of the original substance are thought to remain. This creates a mechanistic puzzle for claims of a direct action on thyroid hormone. Science Direct Assessment: Two reviews of physicochemical studies of high dilutions report experimental heterogeneity and unresolved questions but do not demonstrate a clinically accepted mechanism to correct hypothyroidism (Tournier et al., 2021; Ücker et al., 2022).

An assessment of the right kind should separate plausibility from outcomes. A mechanism may not always be entirely clear before a therapy becomes clinically useful; if proposed mechanisms run counter to established chemistry and physiology, the burden of evidence is clinical. In the case of hypothyroidism, objective biochemical endpoints make this standard especially important. Any treatment that restores thyroid function would ultimately achieve a sustained normalization of TSH and FT4 in controlled conditions, not just improved symptoms in patients.

The mechanistic debate should not replace clinical epidemiology. A hypothesis of some new mechanism at high dilution will not help. The real question of clinical relevance will be whether this intervention improves outcome beyond placebo without harm and with thyroid safety. Thyroid specific evidence available in 2020-2025 is too little to answer in favor for homeopathy as replacement therapy.

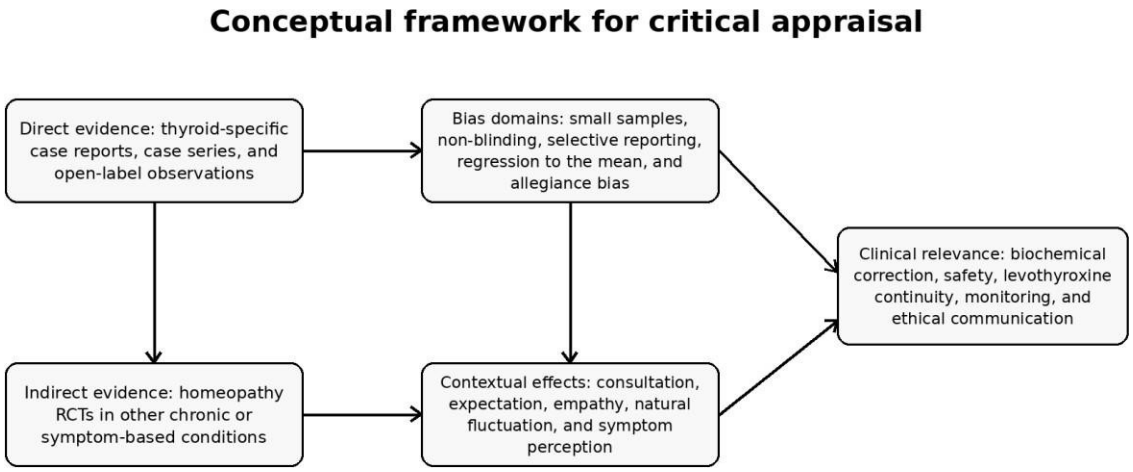

Figure 2. Conceptual framework showing evidence layers, bias domains, placebo/contextual effects, and clinical relevance.

Clinical Relevance:-

Replacement for Levothyroxine:-

The data does not support homeopathy as an alternative to levothyroxine in overt hypothyroidism. The deficiency of hormone is directly substituted with levothyroxine monitored by objective biochemical markers. Homeopathy failed to show similar thyroid hormone replacement in substantial thyroid-specific trials with blinding and control. To say levothyroxine must be discontinued based on case reports would be clinically unsafe.

Adjunctive Support Therapy:-

Using something in addition raises further question. When the patient is biochemically monitored, continues indicated levothyroxine, understands the uncertainty of evidence, and uses homeopathy in the context of supportive consultation or own use for nontarget non-specific well-being, the clinical risk may be lower. Nonetheless, it is crucial that the adjunctive use not obscure worsening TSH/FT4 pregnancies or cardiovascular risk or dose adjustment need. The term adjunctive must mean “alongside standard care,” not “instead of standard care.”

Residual Symptoms Despite Biochemical Euthyroidism:-

Patients who still suffer from symptoms despite normalized TSH require proper reassessment. There may be low adherence or absorption issues. Possible other causes include comorbid anemia, depression, sleep apnea, chronic stress, menopause, autoimmune comorbidity obesity ɗ and effects of other medications, or unrealistically high expectations of levothyroxine. Using factors such as personality, gut feeling, Hahnemannian and metaphorical explanations for symptom similarity, homeopaths reach a prescription. Genomic analyses of less common homeopathic and placebo remedies show little difference from placebo (Schulz et al., 2020).

Subclinical Hypothyroidism and Autoimmune Thyroiditis:-

Subclinical hypothyroidism is the point where homeopathy reports get most misinterpreted because mild TSH elevation can spontaneously normalise. The findings in subclinical hypothyroidism specifically show clinical

interest but low certainty. Claims relating immunomodulation in Hashimoto's thyroiditis require the monitoring of TPOAb, thyroglobulin antibody, ultrasound and thyroid function over time. A drop in antibody titres without preserved thyroid function may not be clinically beneficial, and antibody values may also vary.

Hypothyroidism During Pregnancy:-
In the high-risk scenario of pregnancy, homeopathy must not supplant THYROID management based on guidelines. Maternal hypothyroidism with untreated or undertreated thyroid dysfunction can have obstetric and fetal consequences, and when indicated, levothyroxine treatment is required. Any delay in effective therapy for hypothyroidism complicating pregnancy is unethical and clinically inappropriate (American Society for Reproductive Medicine Practice Committee, 2024; Urgatz& Poppe, 2024).

Safety and Ethical Considerations:-
The primary danger isn't direct toxicity from the highly diluted remedies; it is delayed diagnosis, discontinuation of levothyroxine, substitution of unproven care for proven treatments, inadequate monitoring and misleading claims. Even with a non-pharmacological remedy, the choice of a clinician to avoid/stop replacement therapy may be harmful. The risk is highest in cases of overt hypothyroidism, patients with post-thyroidectomy conditions, pregnancy, children, elder patients with cardiovascular disease and patients with severe hypothyroid states.

The current state of evidence should be included in the informed consent. Current direct evidence is limited, mostly uncontrolled and insufficient to prove disease modification. Doctors should clarify that improvement of symptoms does not indicate correction of biochemical error and check thyroid function. The unproved claims regarding homeopathy treating hypothyroidism, regenerating thyroid tissue, reversing Hashimoto's thyroiditis and stopping levothyroxine should be treated as misleading unless proved by controlled clinical evidence.

Collaborating and not polarizing is essential for ethically responsible integrative care. There should be no shaming of patients for using homeopathy, as many do this for unmet needs in conventional consultation. However, respect for patient preference does not mean abandoning evidence-based endocrine care. Clinicians ought to write about complementary therapy use, monitor thyroid function, review drugs and supplements, and provide clear red flags advice.

Comparative Analysis:-
There is a difference that is not simply between drug and natural care. One is biochemically replacing. The other is symptom-totality specifying. This difference is what conventional endocrinology and homeopathy, respectively, offer. While both address patient experience, they differ sharply in diagnostic basis, outcome standard, dose standardization, and emergency management.

Table 5. Conventional Endocrinology Approach vs Homeopathic Approach

Parameter	Conventional Management	Homeopathic Claims/Practice	Evidence Strength	Clinical Concern
Diagnostic basis	TSH, FT4, clinical assessment, etiology, antibodies, pregnancy status	Totality of symptoms, constitution, modalities, repertorization, Remedy picture	Strong for endocrine diagnosis; weak for remedy-specific thyroid diagnosis	Risk of underweighting objective thyroid deficiency
Treatment target	Biochemical euthyroidism and symptom control	Individualized constitutional improvement; sometimes claimed TSH normalization	Strong for levothyroxine in overt hypothyroidism; low for homeopathy replacement	Claims may exceed evidence
Outcome measurement	TSH, FT4, symptoms, adverse events, dose stability	Symptoms, general well-being, sometimes TSH/TPOAb	Objective markers underused in homeopathy reports	Subjective improvement may be misinterpreted

Biochemical monitoring	Scheduled TSH/FT4 monitoring and dose adjustment	Variable; may depend on practitioner and patient	Essential for safety	Delayed detection of worsening hypothyroidism
Adverse-event monitoring	Over- and under-replacement monitored	Often limited reporting in case literature	Better established in endocrinology	Indirect harm from delayed standard care
Dose standardization	Levothyroxine dose in micrograms; pharmacokinetic rationale	Potency and remedy vary by patient and prescriber	Standardized for levothyroxine; heterogeneous for homeopathy	Difficult replication and dose-response evaluation
Evidence quality	Guidelines, consensus, clinical pharmacology, observational and trial evidence	Case reports/series in thyroid disorders; mixed indirect RCTs elsewhere	High for standard care; very low-to-low for thyroid homeopathy	Insufficient for replacement decisions
Emergency management	Urgent medical care for severe hypothyroidism/myxedema risk	No established emergency role	Conventional care essential	Delay may be dangerous
Pregnancy safety	Guideline-based levothyroxine and close monitoring	Claims of supportive individualized care	High clinical need for standard care; no replacement evidence	Fetal/maternal risk if delayed

Research Gaps:-

The central research gap is the absence of large, double-blind, placebo-controlled, thyroid-specific trials. Existing reports do not adequately separate overt from subclinical hypothyroidism, do not consistently document levothyroxine dose and adherence, and often lack repeated baseline tests. Future studies must avoid combining heterogeneous thyroid states in a way that makes interpretation impossible.

Large multicentre RCTs are needed, especially in clearly defined subclinical hypothyroidism and residual symptoms in biochemically euthyroid patients.

Protocols should be preregistered with primary biochemical endpoints and predefined symptom/quality-of-life endpoints.

Overt hypothyroidism should not be studied using withdrawal of necessary levothyroxine unless ethically justified and medically supervised.

TSH, FT4, TPOAb, levothyroxine dose, adherence, pregnancy status, age, and cardiovascular risk should be documented systematically.

Longer follow-up is needed to detect durability, relapse, progression, adverse outcomes, and medication changes.

Independent replication is essential because practitioner allegiance and selective publication can distort evidence.

Adverse-event reporting must include direct effects, delayed treatment, biochemical worsening, and discontinuation of standard therapy.

Future Research Framework:-

A credible future trial should be designed to answer a clinically precise question rather than a broad claim that homeopathy "helps thyroid." The most defensible model would evaluate individualized homeopathy as an adjunct to standard care or as a supportive intervention for subclinical hypothyroidism under careful monitoring. Replacement of levothyroxine in overt hypothyroidism would be ethically problematic unless a medically supervised protocol ensures safety.

Table 6. Future Research Design for Testing Homeopathy in Hypothyroidism

Design element	Recommended specification	Rationale
Trial type	Multicentre, randomized, placebo-controlled, parallel-group trial	Improves generalizability and Reduces single-practitioner influence
Groups	Standard care; standard care plus individualized homeopathy; standard care plus placebo consultation/control	Separates standard care, contextual consultation, and remedy-specific effects
Population	Clearly defined subclinical hypothyroidism or residual symptoms with biochemical euthyroidism; overt disease only with continued indicated levothyroxine	Avoids unsafe withdrawal and reduces heterogeneity
Primary endpoint	Change in TSH and FT4 from Baseline to 6-12 months	Objective thyroid physiology endpoints
Secondary endpoints	Validated symptom score, quality of life, TPOAb, levothyroxine dose stability, adherence, adverse events	Captures patient-centered and safety outcomes
Blinding	Patient, assessor, statistician; matched placebo remedy; standardized consultation time	Reduces expectation and detection bias
Statistical plan	Intention-to-treat; ANCOVA for change scores; mixed-effects models for repeated measures; sensitivity analyses for adherence and baseline TSH	Appropriate for longitudinal endocrine data
Subgroups	Subclinical vs overt-on-treatment; TPOAb positive vs negative; baseline TSH strata; sex; age; pregnancy excluded or separately studied	Allows biologically meaningful interpretation
Transparency	Prospective registration, CONSORT-style reporting, complete adverse-event reporting, data availability statement	Minimizes selective reporting and improves credibility

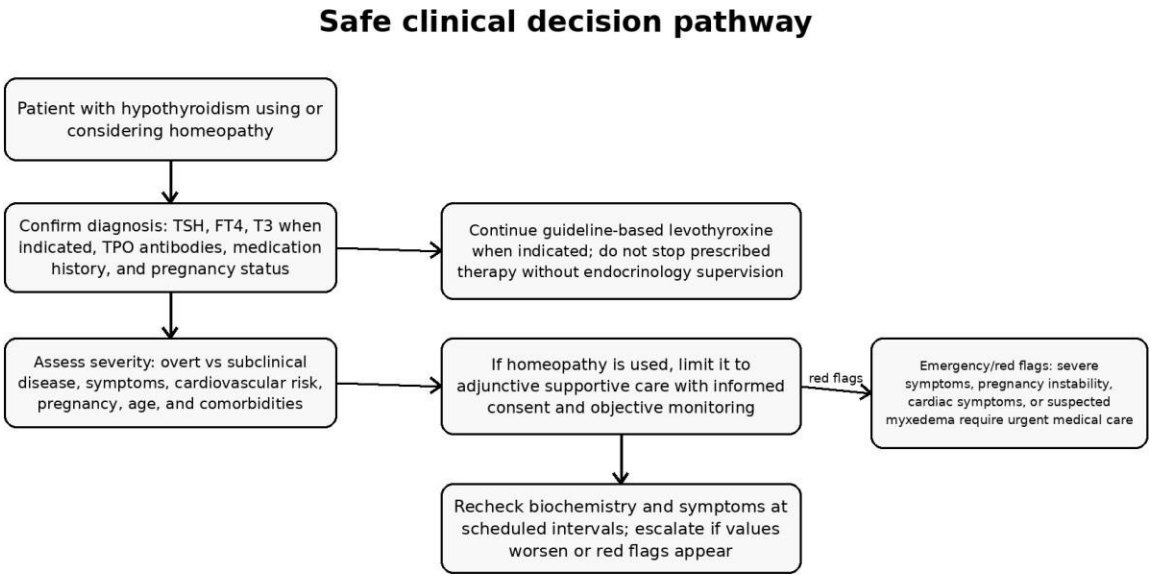

Figure 3. Clinical decision pathway for safe evaluation of patients using homeopathy along side standard hypothyroidism care.

Discussion:-

This evidence was taken into consideration for the production of the GHP (Global Homeopathy Practice) report by World Homeopathy Organisation. Evidence from 2020 to 2025 is mostly uncontrolled and uncertain. A few hypotheses can be generated from a mini case series in subclinical hypothyroidism and several case reports but not disease-modifying claims. The most clinically relevant endpoints-durable TSH and FT4 normalisation, antibody trends, levothyroxine dose stability, adverse events and long-term relapse-are reported inconsistently.

Some patients respond favorably to homeopathy, a balanced view acknowledges. We might see such enhancement due to a beneficial interaction between the patient and the health professional or due to spontaneous fluctuation. These results ought not to be brushed aside as meaningless; patients care about their experience. Nevertheless, in an endocrine disease subjective improvement can never replace objective evidence of hormone sufficiency. Safe clinical practice must focus on the difference between feeling better and becoming biochemically euthyroid.

Based on indirect homeopathy experience, the field can do double-blind placebo-controlled trials. It is significant as it counters the claim that the efficacy of homeopathy cannot be evaluated through practical trials. If individualized treatment can be studied in chronic rhinosinusitis, hypertension, dermatology, gynecology, pain and gastrointestinal symptoms, it can also be studied in hypothyroidism with proper endpoints. The absence of robust clinical trials specifically targeting thyroid disorders creates a research gap, not a lack of effectiveness.

An demanding reference point is the endocrine standards current. Levothyroxine serves a definite biological function and has an effect on the body which can be measured. Continuous indications under levothyroxine should suggest structured reassessment instead of automatic switching. The use of combination therapy with liothyronine is up for debate in select patients but still within thyroid hormone physiology and biochemical monitoring (Jonklaas et

al, 2021; Jonklaas, 2022). Homeopathy claims need to meet the same requirement for objective safety and outcome reporting at least.

The defensible clinical position is cautious integration: asking patients about homeopathy without judgment; recording all remedies and supplements; continuing indicated levothyroxine; monitoring TSH and FT4; addressing adherence and absorption; and including clear advice that stopping prescribed therapy can never be done without qualified medical supervision. This method retains patient agency while safeguarding against preventable endocrine damage.

Conclusion:-

There is no clinical proof for homeopathy use in hypothyroidism as alternative therapy. Recent 2020-2025 direct proof is sparse mainly due to the existence of case report and case series with a high risk of bias and inadequate protection against spontaneous TSH fluctuation, regression to the mean, selective reporting, placebo/contextual effect or concomitant influence of levothyroxine. The available evidence may warrant further examination, but it does not allow one to conclude that homeopathy is a disease-modifying treatment for overt hypothyroidism, Hashimoto's thyroiditis and hypothyroidism related to pregnancy.

Homeopathy (where demonstrated used) should only be used as adjunctive supportive therapy, with continued biochemical monitoring and with no discontinuation of prescribed levothyroxine unless supervised by a qualified medical endocrinology practitioner. Before stronger clinical claims can be made, rigorous, preregistered, adequately powered, placebo-controlled trials with objective thyroid endpoints, adverse-event monitoring, and transparent reporting are required.

Declarations:-

No outside help was used to fund the preparation of this review draft.
No conflicts of interest hath been declared in this draft. Before submitting the publication, authors should add any disclosure.
No ethical approval has been taken for the published literature review as it does not involve human participants/ identifiable patient information.
No firsthand data set was produced. The methodology section describes search terms and categories of evidence.
The content on this page does not constitute personal medical advice and is not intended to help you stop your thyroid hormone treatment.

Appendix A. Search Strategy and DOI Verification Note:-

Core search syntax combined homeopathy terms, thyroid terms, and methods terms. Titles and abstracts were screened first; full records and DOI pages were checked where accessible. Non-DOI sources, promotional websites, pre-2020 publications, and unverifiable records were excluded from the manuscript reference list. Because direct thyroid-specific homeopathy literature from 2020-2025 is limited, the reference list intentionally emphasizes verified DOI-bearing thyroid management, homeopathy methods, placebo/bias literature, and direct case-based thyroid evidence rather than padding the bibliography with unverified or weakly relevant items.
Example search string: ("homeopathy" OR "homoeopathy" OR "individualized homeopathy") AND ("hypothyroidism" OR "subclinical hypothyroidism" OR "Hashimoto thyroiditis" OR "thyroid dysfunction" OR "TSH" OR "levothyroxine") AND ("trial" OR "randomized" OR "systematic review" OR "bias" OR "placebo" OR "clinical relevance").

References:-

1. Acharya, R., Sharma, N., Kumawat, R., & Khatri, I. (2024). The impact of homoeopathy on thyroid health: A case series. Advancements in Homeopathic Research, 9(2), 48-53. https://doi.org/10.48165/ahr.2024.9.2.8
2. Al Kindi, A. H. H., Al Wahaibi, N., Al Sabahi, M., Al Busaidi, N., & Al Busaidi, N. (2023). Adherence to levothyroxine treatment among patients with hypothyroidism in Oman: A national cross-sectional study. Current Medical Research and Opinion, 39(10), 1313-1319. https://doi.org/10.1080/03007995.2023.2250256
3. Alofi, O. A., Alsharif, S. A., Alharthi, A. A., &Almatrafi, S. A. (2023). Adherence to levothyroxine treatment among patients with hypothyroidism in Madinah, SaudiArabia: Across-sectional study. Cureus, 15(6),e40686. https://doi.org/10.7759/cureus.40686

4. American Society for Reproductive Medicine Practice Committee. (2024). Subclinical hypothyroidism in the infertile female population: A guideline. Fertility and Sterility, 121(5), 765-782. https://doi.org/10.1016/j.fertnstert.2023.12.038
5. Bagnis, A., Meeuwis, S.H., Haas, J.W., O'Keeffe, M., Bajcar, E.A., Babel, P., Evers, A.W.M., Glogan, E., Oleszczyk, M., et al.. (2025). A scoping review of placebo and nocebo responses and effects: Insights for clinical trials and practice. Health Psychology Review. https://doi.org/10.1080/17437199.2025.2471792
6. Burnier, M. (2024). The role of adherence in patients with chronic diseases. European Journal of Internal Medicine, 119, 1-5. https://doi.org/10.1016/j.ejim.2023.07.008
7. Centanni, M., Biondi ,B., Duntas, L.H., Jabbar, A., Laurberg, P., Persani, L., et al.. (2025). ETA guidelines for the use of levothyroxine sodium preparations in monotherapy to optimize the treatment of hypothyroidism. European Thyroid Journal, 14(5), e250123. https://doi.org/10.1530/ETJ-25-0123
8. Chaker, L., Razvi, S., Bensenor, I.M., Azizi, F., Pearce, E.N., & Peeters, R. P. (2022). Hypothyroidism. Nature Reviews Disease Primers, 8(1), Article 30. https://doi.org/10.1038/s41572-022-00357-7
9. Chiardi, C., Ricci, C., et al.. (2025). Establishing the adequate levothyroxine dose after total thyroidectomy: A systematic review with meta-analysis. Journal of Clinical Endocrinology & Metabolism, 110(11), 3301-3308. https://doi.org/10.1210/clinem/dgaf417
10. Das, S. K., Basu, T., Tabassum, S. N., Sarkar, A., Ghosh, S., Koley, M., Saha, S., Nath, A., & Khamrui, S. (2024). Efficacy of individualized homeopathic medicines in the treatment of sciatica pain: Double-blind, randomized, placebo-controlled trial. Journal of Integrative and Complementary Medicine, 30(7), 671-681. https://doi.org/10.1089/jicm.2023.0260
11. Dogra, R., & Mandal, S. (2020). Response of hypothyroidism to homeopathic treatment: A report of three cases. Innovare Journal of Medical Science, 8(5), 1-7. https://doi.org/10.22159/ijms.2020.v8i5.38924
12. Dutta, S., Ganguly, S., Mukherjee, S. K., Ghosh, P., Hazra, P., Roy, A. S., Shaikh, A. R., Ali, S. S., Sadhukhan, S., Koley, M., & Saha, S. (2022). Efficacy of individualized homeopathic medicines in intervening with the progression of pre-hypertension to hypertension: A double-blind, randomized, placebo-controlled trial. Explore, 18(3), 279-286. https://doi.org/10.1016/j.explore.2021.05.007
13. Frisaldi, E., Blease, C., et al.. (2023). Placebo and nocebo effects and mechanisms associated with pharmacological interventions: An umbrella review protocol. BMJ Open, 13, e077243. https://doi.org/10.1136/bmjopen-2023-077243
14. Frisaldi, E., Piedimonte, A., Benedetti, F., et al.. (2020). Understanding the mechanisms of placebo and nocebo effects. Swiss Medical Weekly, 150, w20340. https://doi.org/10.4414/smw.2020.20340
15. Gaertner, K., Ulbrich-Zürni, S., Baumgartner, S., Walach, H., Frass, M., & Weiermayer, P. (2023). Systematic reviews and meta-analyses in homeopathy: Recommendations for summarising evidence from homeopathic intervention studies. Complementary Therapies in Medicine, 79, Article 102999. https://doi.org/10.1016/j.ctim.2023.102999
16. Gartlehner, G., Emprechtinger, R., Hackl, M., Jutz, F. L., Gartlehner, J. E., Nonninger, J. N., Klerings, I., & Dobrescu, A.I. (2022). Assessing the magnitude of reporting bias in trials of homeopathy: Across-sectional study and meta-analysis. BMJ Evidence-Based Medicine, 27(6), 345-351. https://doi.org/10.1136/bmjebm-2021-111846
17. Ghosh, P., Ganguly, S., Mukherjee, S. K., Dutta, S., Shaikh, A. R., Ali, S. S., Singh, N. K., Bhattacharya, P., Koley, M., & Saha, S. (2022). Individualized homeopathic medicines in treatment of hyperuricemia: Evaluation by double-blind, randomized, placebo-controlled trial. Homeopathy, 112(2), 80-89. https://doi.org/10.1055/s-0042-1751272
18. Ghosh, S., Palanisamy, C., Das, A. D., Mandal, S., Guha, N., Maiti, S., Ghosh, P., Singh, N. K., Koley, M., & Saha, S. (2023). Efficacy of individualized homeopathic medicines in the treatment of menopausal syndrome: Double-blind, randomized, placebo-controlled trial. Journal of Integrative and Complementary Medicine, 29(10), 649-664. https://doi.org/10.1089/jicm.2022.0760
19. Ghosh, S., Ravindra, R. K., Modak, A., Maiti, S., Nath, A., Koley, M., & Saha, S. (2021). Efficacy of individualized homeopathic medicines in primary dysmenorrhea: A double-blind, randomized, placebo-controlled clinical trial. Journal of Complementary and Integrative Medicine, 19(1), 67-80. https://doi.org/10.1515/jcim-2020-0512
20. Gokkaya, N., et al.. (2024). Efficacy of levothyroxine monotherapy in achieving clinical euthyroidism and its impact on weight loss in women with hypothyroidism and obesity. Scientific Reports, 14, Article 26798. https://doi.org/10.1038/s41598-024-78185-w
21. Grelle, L. C. E., & Camacho, L. A. B. (2022). Homeopathic treatment of subclinical hypothyroidism: A series of 19 cases. Homeopathy, 111(3), 184-193. https://doi.org/10.1055/s-0041-1734028

22. Gunasekaran, K., Ng, D. X., & Tan, N. C. (2024). Thyroid function status in patients with hypothyroidism on thyroxine replacement and associated factors: A retrospective cohort study in primary care. BMC Primary Care, 25, Article 485. https://doi.org/10.1186/s12875-024-02613-z
23. Hafliðadóttir, S. H., Juhl, C. B., Nielsen, S. M., Henriksen, M., Harris, I. A., Bliddal, H., Christensen,R.,etal.. (2021). Placebo response and effect in randomized clinical trials: Meta-research with focus on contextual effects. Trials, 22, Article 493. https://doi.org/10.1186/s13063-021-05454-8
24. Hamre, H. J., Glockmann, A., von Ammon, K., Riley, D. S., & Kiene, H. (2023). Efficacy of homoeopathic treatment:Systematicreviewofmeta-analysesofrandomizedplacebo-controlledhomoeopathytrialsforany indication. Systematic Reviews, 12, Article 191. https://doi.org/10.1186/s13643-023-02313-2
25. Howick, J., Koletsi, D., Ioannidis, J. P. A., Madigan, C., Pandis, N., Loef, M., Walach, H., Sauer, S., Kleijnen, J.,Seehra,J.,Johnson,T.,Schmidt,S.,etal..(2022).MosthealthcareinterventionstestedinCochraneReviews arenoteffectiveaccordingtohigh-qualityevidence:Asystematicreviewand meta-analysis.JournalofClinical Epidemiology, 148, 160-169. https://doi.org/10.1016/j.jclinepi.2022.04.017
26. Inoue, K., Ritz, B., Brent, G. A., Ebrahimi, R., Rhee, C. M., Leung, A. M., et al.. (2020). Association of subclinicalhypothyroidismandcardiovasculardiseasewithmortality.JAMANetworkOpen,3(2),e1920745. https://doi.org/10.1001/jamanetworkopen.2019.20745
27. Jonklaas,J.(2022).Optimalthyroidhormonereplacement.EndocrineReviews,43(2),366-404. https://doi.org/10.1210/endrev/bnab031
28. Jonklaas,J.,Bianco,A.C.,Cappola,A.R.,Celi,F.S.,Fliers,E.,Heuer,H.,McAninch,E.A.,Moeller,L.C., Nygaard, B., Sawka, A. M., Watt, T., & Dayan, C. M. (2021). Evidence-based use of levothyroxine/liothyroninecombinationsintreating hypothyroidism: Aconsensusdocument.Thyroid,31(2), 156-182. https://doi.org/10.1089/thy.2020.0720
29. Kahaly,G.J.,&Gottwald-Hostalek,U.(2022).Useoflevothyroxineinthemanagementofhypothyroidism:A historical perspective. Frontiers in Endocrinology, 13, Article 1054983. https://doi.org/10.3389/fendo.2022.1054983
30. Karuppusamy,A.,Gupta,B.,Misra,P.,Koley,M.,Saha,S.,etal..(2022).Individualizedhomeopathic medicines in treatment of vitiligo: Double-blind, randomized, placebo-controlled pilot trial. Journal of Integrative and Complementary Medicine, 28(2), 96-102. https://doi.org/10.1089/jicm.2021.0193
31. Kaur,H.,Kaushik,S.,Singh,G.,Kumar,A.,Singh,S.,Chatterjee,T.,Ali,S.,Gautam,K.,Parewa,M.,Verma, N.K.,Bhatnagar,S.,Singh, S.P.,Shekhar,V.,&Khurana,A.(2023).Homeopathyasanadjuvanttostandard care in moderate and severe cases of COVID-19: Single-blind, randomized, placebo-controlled study. Homeopathy, 112(3), 184-197. https://doi.org/10.1055/s-0042-1755365
32. Klubo-Gwiezdzinska,J.,&Wartofsky,L.(2022).Hashimotothyroiditis:Anevidence-basedguidetoetiology, diagnosis and treatment. Polish Archives of Internal Medicine, 132, Article 16222. https://doi.org/10.20452/pamw.16222
33. Koley,M.,Vimal,V.K.,Verma, A.K., Pal,S.S.,Sonkar,D.K.,Vimal,S.,Singh,O.P.,Ghosh,S., &Saha,S. (2024). Efficacy of individualized homeopathic medicines in the treatment of hemorrhoids: Double-blind, randomized, placebo-controlled trial. Journal of Integrative and Complementary Medicine, 30(8), 783-792. https://doi.org/10.1089/jicm.2023.0228
34. Ku,E.J.,Yoo,W.S.,&Chung,H.K.(2023).Management ofsubclinical hypothyroidism: Afocusonproven healtheffectsinthe2023KoreanThyroidAssociationguidelines.Endocrinologyand Metabolism,38(4),381-391.https://doi.org/10.3803/EnM.2023.1778
35. Laskar,B.,Paul,S.,Chattopadhyay,A.,Karuppusamy,A.,Balamurugan,D.,Bhakta,P.,Das,S.,Pal,S.,Singh, N.K.,Koley,M.,&Saha,S.(2023).Individualizedhomeopathicmedicinesin thetreatmentoftineacorporis: Double-blind, randomized, placebo-controlled trial. Homeopathy, 112(2), 74-84. https://doi.org/10.1055/s-0042-1750799
36. Liu,Y.,Zhang,Y.,etal..(2025).Effectoflevothyroxineonmajoradversecardiovascularevents insubclinical hypothyroidism: A systematic review and meta-analysis. Frontiers in Endocrinology, 16, Article 1640086. https://doi.org/10.3389/fendo.2025.1640086
37. Mahesh,S.,Denisova,T.,Gerasimova,L.,etal..(2020).Multimorbidityaftersurgicalmenopausetreatedwith individualized classical homeopathy: A case report. Clinical Medicine Insights: Case Reports, 13, 1179547620965560. https://doi.org/10.1177/1179547620965560
38. Manchanda,R.,Rutten,L.,Gupta,B.,etal..(2021).PsychometricvalidationofthemodifiedNaranjoalgorithm used in homeopathy for chronic cases. Journal of Complementary and Integrative Medicine, 19(1), 101-109. https://doi.org/10.1515/jcim-2020-0533

39. McGuinness,L.A.,&Higgins,J.P.T.(2021).Risk-of-biasvisualization(robvis):AnR packageandShiny web app for visualizing risk-of-bias assessments. Research Synthesis Methods, 12(1), 55-61. https://doi.org/10.1002/jrsm.1411
40. Medici, B. B., et al. (2023). Effects of levothyroxine substitution therapy on hunger and food intake in individualswithhypothyroidism.EndocrineConnections,12(10),e230314.https://doi.org/10.1530/EC-23-0314
41. Misra,P.,Nayak,C.,Chattopadhyay,A.,Palit,T.K.,Gupta,B.,Sadhukhan,S.,Bhar,K.,Rai,S.,Parewa,M., Ali,S.S.,Basu,A.,Nath,A.,Koley,M., &Saha,S.(2021).Individualizedhomeopathicmedicinesinchronic rhinosinusitis: Randomized, double-blind, placebo-controlled trial. Homeopathy, 110(1), 13-26. https://doi.org/10.1055/s-0040-1715842
42. Muraca,E.,Ciardullo,S.,Oltolini,A.,&Perseghin,G.(2020).Restingenergyexpenditureinobesewomenwith primary hypothyroidism and appropriate levothyroxine replacement therapy. Journal of Clinical Endocrinology & Metabolism, 105(4), dgaa097. https://doi.org/10.1210/clinem/dgaa097
43. Nag,U.,Pal,R.K.,Saha,S.,Alam,S.M.,Parvin,T.,Gole,R.,Debnath,P.,Sengupta,S., Koley,M.,Roy,U., Akram, J., Shaikh, A. R., Koley, M., & Mukherjee, S. K. (2024). Treatment of menstrual irregularities with individualized homeopathic medicinal products in early reproductive females: A double-blind, randomized, placebo-controlled trial. Journal of Integrative and Complementary Medicine, 30(12), 1231-1242. https://doi.org/10.1089/jicm.2024.0050
44. Niazi,S.K.,Mariam,Z.,etal..(2024).Placeboeffects:Neurologicalmechanismsandclinicalimplications. Healthcare, 12(22), 2314. https://doi.org/10.3390/healthcare12222314
45. Okuroglu,N.,Ersoy,R.,etal..(2022).NormalisationofserumTSHdoesnotrepresenttrueeuthyroidismfor patients on levothyroxine treatment. Journal of the Pakistan Medical Association, 72(5), 827-831. https://doi.org/10.47391/JPMA.0588
46. Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff,J.M.,Akl,E.A.,Brennan,S.E.,Chou,R.,Glanville,J.,Grimshaw,J.M.,Hróbjartsson,A.,Lalu,M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., Moher, D., et al.. (2021a). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. BMJ, 372, n71. https://doi.org/10.1136/bmj.n71
47. Page, M. J.,Moher, D., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder,E.W.,Mayo-Wilson,E.,McDonald,S.,McKenzie,J.E.,etal..(2021b).PRISMA2020explanationand elaboration: Updated guidance and exemplars for reporting systematic reviews. BMJ, 372, n160. https://doi.org/10.1136/bmj.n160
48. Pathan, S. A., Alkaabi, J. M., Alshamsi, A., et al.. (2025). Assessing thyroid peroxidase antibodies in Emirati medicalstudents.FrontiersinEndocrinology,16,Article1582933.https://doi.org/10.3389/fendo.2025.1582933
49. Rai, S., Gupta, G. N., Singh, S., Michael, J., Misra, P., Gupta, B., Prakash, A., Tomar, M., Sadhukhan, S., Koley,M.,&Saha, S.(2022).Efficacyofindividualized homeopathic medicinesintreatmentofacne vulgaris: Adouble-blind,randomized,placebo-controlledtrial.Homeopathy,111(4),240-251.https://doi.org/10.1055/s-0041-1739397
50. Sabud, A., Das, A., & Debbarma, R. (2022). Efficacy of individualized homoeopathic intervention in subclinicalhypothyroidism:Acasereport.InternationalJournalofHomoeopathicSciences,6(4),566-572. https://doi.org/10.33545/26164485.2022.v6.i4i.710
51. Sadhukhan,S.,Singh,S.,Michael,J.,Misra,P.,Parewa,M.,Nath,A.,Magotra,N.,Kundu,N.,Basu,A.,Ali, S.S.,Koley,M.,&Saha,S.(2021).Individualizedhomeopathicmedicinesinstage Iessentialhypertension:A double-blind,randomized, placebo-controlled pilottrial.Journalof Alternativeand ComplementaryMedicine, 27(6), 515-521. https://doi.org/10.1089/acm.2020.0222
52. Sahoo, S., Nayak, C., Rath, P., Bhattacharya, S., Mukherjee, S., & Dutta, A. (2024). Individualized homeopathicmedicinesinthetreatmentofpremenstrualsyndrome:Adouble-blind,randomized,placebo-controlled trial. Explore, 20(6), 103039. https://doi.org/10.1016/j.explore.2024.103039
53. Saueressig,T.,Owen,P.J.,Diemer,F.,Belavy,D. L.,etal.. (2024).Theimportanceofcontext,orplacebo effects, in conservative non-pharmacological interventions for musculoskeletal pain conditions. European Journal of Pain, 28(4), 613-626. https://doi.org/10.1002/ejp.2222
54. Shahid,S.,Ghosh,S.,Chakraborty,A. S.,Maiti,S.,Sadhukhan,S.,Koley,M.,&Saha,S.(2022).Efficacyof individualized homeopathic medicines in plantar fasciitis: Double-blind, randomized, placebo-controlled clinical trial. Homeopathy, 111(1), 22-30. https://doi.org/10.1055/s-0041-1731383

55. Sigurdson,M.K.,Sainani,K.L.,&Ioannidis,J.P.A.(2023).Homeopathycanofferempiricalinsightson treatment effects in a null field. Journal of Clinical Epidemiology, 155, 64-72. https://doi.org/10.1016/j.jclinepi.2023.01.010
56. Taylor,P.N.,Medici,M.M.,Hubalewska-Dydejczyk,A.,&Boelaert,K.(2024).Hypothyroidism.TheLancet, 404(10460), 1347-1364. https://doi.org/10.1016/S0140-6736(24)01614-3
57. Tournier, A., Würtenberger, S., Klein, S. D., &Baumgartner, S. (2021).Physicochemical investigations of homeopathicpreparations:Asystematicreviewandbibliometricanalysis-Part3.JournalofAlternativeand Complementary Medicine, 27(1), 45-57. https://doi.org/10.1089/acm.2020.0243
58. Urgatz, B., & Poppe, K. (2024). Update on therapeutic use of levothyroxine for the management of hypothyroidismduringpregnancy.EndocrineConnections,13(3),e230420.https://doi.org/10.1530/EC-23-0420
59. Urgatz,B.,&Razvi,S.(2023).Subclinicalhypothyroidism,outcomesandmanagementguidelines:Anarrative review and update of recent literature. Current Medical Research and Opinion, 39(3), 351-365. https://doi.org/10.1080/03007995.2023.2165811
60. Vargas-Uricoechea,H.,Castellanos-Pinedo,A.,Urrego-Noguera,K.,Pinzón-Fernández,M.V.,Meza-Cabrera, I.A.,&Vargas-Sierra,H.(2025).Ascopingreviewonthe prevalenceofHashimoto'sthyroiditisandthe possibleassociatedfactors.MedicalSciences,13(2),Article43.https://doi.org/10.3390/medsci13020043
61. vonWernsdorff,M.,Loef,M.,Tuschen-Caffier,B.,Schmidt,S.,et al..(2021).Effectsofopen-labelplacebosin clinical trials: A systematic review and meta-analysis. Scientific Reports, 11, Article 3855. https://doi.org/10.1038/s41598-021-83148-6
62. Wang, L., Barone, J. A., et al.. (2022). Comparative effectiveness of persistent use of a name-brand levothyroxineversuspersistentuseofgenericlevothyroxineonTSHgoalachievement.AdvancesinTherapy, 39(1), 779-795. https://doi.org/10.1007/s12325-021-01969-3
63. Yadav, R. S., Girdhar, R., Kumar, V., Kumar, S., & Sisodiya, N. (2023). Effectiveness of individualized homoeopathicmedicineinthe managementofhypothyroidism:Acasereport.JournalforReAttachTherapy and Developmental Diversities, 6(7s), 1181-1185. https://doi.org/10.53555/jrtdd.v6i7s.3167
64. Zhang,Y.,Wang,Y.,Tao,X.,etal..(2023).Levothyroxinetreatmentandclinicaloutcomesinolderadultswith subclinical hypothyroidism: A systematic review and meta-analysis. Frontiers in Endocrinology, 14, Article 1242110. https://doi.org/10.3389/fendo.2023.1242110
65. Zhao, M., Yang, T., Chen, L., et al.. (2022). Effect of levothyroxine on older patients with subclinical hypothyroidism:Asystematicreviewandmeta-analysis.FrontiersinEndocrinology,13,Article932961. https://doi.org/10.3389/fendo.2022.9329610
66. Ücker,A.,Baumgartner,S.,Sokol,A.,Huber,R.,Doesburg,P.,&Jäger,T.(2022).Criticalevaluationof specific efficacy of preparations produced according to European Pharmacopeia Monograph 2371. Biomedicines, 10(3), Article 552. https://doi.org/10.3390/biomedicines10030552