

Effect of a Plant-Based Herbal Tea Formulation “Teacurry Thyro Herb Tea for Thyroid” on Thyroid Function, TSH Levels, Gastrointestinal Symptoms and Participant-Reported Global Improvement in Adults with Thyroid Dysfunction: Real-World Evidence Clinical Study

Running Title: Effect of Teacurry Thyro Herb Tea for Thyroid in Thyroid Dysfunction

Authors:

Dr. Nehal Gajera¹, Dr. Kiran Lakhani², Dr. Raziya M Gagnani³, Dr. Charmy Shah^{4*}, Dr. Mehha H. Shah⁵, Dr. Sonal Shah Jain⁶

¹Consultant Clinical Nutritionist, Principle investigator, Department of Clinical Nutrition, Online health transformation clinic at Gandhinagar, Gujarat, India

²Investigator, Teacurry, She Balance Tea, Consultant Homoeopath and Dietician, (BHMS, PGDHM, Various diet courses) Kiran Homeopathic and Diet Clinic, Adajan, Surat. Gujarat, India.

³Investigator, Teacurry, Belly fat tea, Consultant Homoeopath, Al- shifa clinic, Opp Hira street, Mama kotha road, Bhavnagar 364 001, Gujarat, India.

⁴Consulting Homoeopath, Dietician and Diabetes Educator, Sliming Tea, Dr. Charmy Shah's, Homoeopathic Clinic and Diet Center, Satellite, Ahmedabad, Gujarat, India

⁵Investigator, Teacurry, Weight loss upper body fat tea, Consultant Homoeopath, Care clinic Manmandir appt Timiliyawad, Nanpura, Surat, Gujarat, India and Siddhagiri Clinic, Behind Navyug college, Rander Road, Surat, Gujarat.

⁶Co-Investigator, Teacurry, Thyroid Tea, (BHMS, M.D), Homeopathic Consultant and Associate Professor at Homeopathic College, Surat. Health and Harmony Homeopathic clinic & Yoga Studio, Vesu, Surat, Gujarat, India 395007.

Corresponding Author:

Dr. Nehal Gajera, Grey Mantra Solutions, India reach@teacurry.com

Website: <https://teacurry.com/products/buy-thyroid-tea-with-diet-chart> , <https://www.teacurry.com> , <https://teacurry.com/collections/buy-thyroid-teas-online> , <https://www.teacurry.us> , <https://teacurry.us/products/buy-thyroid-tea-with-diet-chart> , <https://teacurry.us/collections/buy-thyroid-teas-online>

DOI: <https://doi.org/10.5281/zenodo.22702395>

Received: 04 August 2026, Accepted: 19 August 2026, Online First: 11 September 2026

ABSTRACT

Background: Thyroid dysfunction is one of the most common endocrine disorders affecting metabolic activity, psychological well-being, and gastrointestinal function.(1,2) Patients frequently experience elevated thyroid stimulating hormone (TSH) levels, stress, bloating, impaired digestion, reduced metabolic efficiency, and decreased quality of life. Although conventional treatment effectively restores thyroid hormone balance in many patients, complementary therapeutic interventions are increasingly being explored to improve overall clinical outcomes and patient-reported health status. **Aim:** To evaluate the effect of a Teacurry Thyro Herb Tea for Thyroid on thyroid function, perceived stress, gastrointestinal symptoms, and participant-reported global improvement among adults with thyroid dysfunction. **Materials and Methods:** A prospective, single-arm interventional clinical study was conducted involving 22 adult participants diagnosed with thyroid dysfunction. Baseline demographic characteristics including age, body weight, height, and body mass index (BMI) were recorded. Clinical assessments included serum thyroid stimulating hormone (TSH), perceived stress score (0–40 scale), gastrointestinal symptoms related to bloating, digestion, and metabolism, and Participant Global Impression of Change (PGIC). All parameters were assessed before and after the intervention. The composition of the study formulation will be described separately. Statistical analysis was performed using appropriate descriptive and inferential statistical methods, and statistical significance was considered at $p < 0.05$. **Results:** The intervention demonstrated an overall improvement in multiple clinical outcomes. Mean serum TSH decreased from 10.27

to 3.77 mIU/L, while mean perceived stress scores decreased from 20.45 to 13.18. Improvement in gastrointestinal symptoms and PGIC scores was observed in the majority of participants. Perceived stress scores decreased in a substantial proportion of participants, indicating improvement in psychological well-being. Gastrointestinal symptoms such as bloating and impaired digestion improved from mild or moderate severity to normal or minimal symptoms in the majority of cases. Participant-reported outcomes also demonstrated favorable changes, with PGIC scores increasing in most participants, suggesting meaningful overall clinical improvement. The intervention was generally well tolerated, and no serious adverse events were documented during the study period. **Conclusion:** The findings of this prospective clinical study suggest that the investigated Teacurry Thyro Herb Tea for Thyroid may contribute to improved thyroid function, reduction in perceived stress, better gastrointestinal health, and enhanced patient-reported quality of life in adults with thyroid dysfunction. These preliminary findings support the potential role of the formulation as a complementary therapeutic option. Larger randomized controlled clinical trials with extended follow-up are warranted to confirm these observations and establish long-term efficacy and safety.

Keywords: *Thyroid Dysfunction; Thyroid Stimulating Hormone; TSH; Teacurry Thyro Herb Tea for Thyroid; Teacurry Thyroid Tea; Teacurry; Thyroid Tea; Herbal Tea for Thyroid; Complementary Medicine; Stress Score; Gastrointestinal Symptoms; Bloating; Digestion; Metabolism; Participant Global Impression of Change; PGIC; Clinical Study; Endocrine Disorders; Quality of Life.*

INTRODUCTION

Thyroid dysfunction is one of the most common endocrine disorders worldwide and represents a significant public health challenge due to its widespread effects on metabolism, cardiovascular health, psychological well-being, gastrointestinal function, and overall quality of life.(2,3) The thyroid gland synthesizes the hormones thyroxine (T4) and triiodothyronine (T3), which regulate basal metabolic rate, thermogenesis, lipid and carbohydrate metabolism, protein synthesis, growth, and neurological development.(1) The secretion of these hormones is controlled by the hypothalamic–pituitary–thyroid (HPT) axis through thyroid stimulating hormone (TSH), which serves as the primary biochemical marker for evaluating thyroid function.(1)

Hypothyroidism is characterized by insufficient production of thyroid hormones, resulting in elevated serum TSH concentrations due to compensatory pituitary stimulation.(4,5) The prevalence of hypothyroidism has increased globally and is particularly common among women, middle-aged adults, and elderly individuals.(2,3,10) In India, thyroid disorders affect millions of individuals and contribute substantially to the burden of chronic endocrine diseases.(10) Untreated or inadequately managed hypothyroidism may lead to obesity, dyslipidemia, cardiovascular disease, infertility, menstrual irregularities, depression, cognitive impairment, chronic fatigue, and reduced quality of life.(6,7)

Patients with thyroid dysfunction frequently experience symptoms extending beyond abnormal laboratory findings. ... Persistent oxidative stress, chronic low-grade inflammation, and impaired metabolic regulation have also been implicated in the progression of thyroid dysfunction and associated complications.(6) Furthermore, chronic psychological stress activates the

hypothalamic–pituitary–adrenal (HPA) axis, increasing cortisol secretion that may adversely influence thyroid hormone synthesis, peripheral conversion of T4 to T3, and immune regulation.(15)

Although levothyroxine replacement therapy remains the gold standard treatment for hypothyroidism, a considerable proportion of patients continue to experience fatigue, impaired digestion, psychological distress, and reduced quality of life despite achieving biochemical euthyroidism.(4,5,6)

Medicinal plants have been used for centuries in traditional systems of medicine for maintaining endocrine balance and metabolic health. The Teacurry Thyro Herb Tea for Thyroid evaluated in the present study contains a combination of Ashwagandha (*Withania somnifera*), Green Tea (*Camellia sinensis*), Turmeric (*Curcuma longa*), Licorice (*Glycyrrhiza glabra*), Nettle (*Urtica dioica*), Cinnamon (*Cinnamomum verum*), Ginger (*Zingiber officinale*), Flax Seeds (*Linum usitatissimum*), and Chamomile (*Matricaria chamomilla*). These herbs have been traditionally utilized because of their adaptogenic, antioxidant, anti-inflammatory, digestive, immunomodulatory, and metabolic regulatory properties.

Ashwagandha has been reported to support thyroid hormone synthesis and reduce stress through modulation of the hypothalamic–pituitary–adrenal axis. Green tea provides catechins with potent antioxidant activity that may improve metabolic function and reduce oxidative stress. Turmeric contains curcumin, a well-established anti-inflammatory compound that may protect thyroid tissue against inflammatory damage. Licorice has traditionally been used to support adrenal function and endocrine balance, while nettle supplies essential

micronutrients and antioxidant compounds that contribute to normal thyroid physiology.

Cinnamon has demonstrated beneficial effects on glucose metabolism and insulin sensitivity, whereas ginger exhibits anti-inflammatory and digestive-supportive properties that may improve gastrointestinal function frequently impaired in hypothyroid individuals. Flax seeds provide omega-3 fatty acids, lignans, and dietary fiber that contribute to metabolic regulation and intestinal health. Chamomile possesses anxiolytic and mild sedative properties that may improve psychological well-being, sleep quality, and stress management.

Collectively, these herbal ingredients may provide synergistic effects through multiple biological mechanisms, including reduction of oxidative stress, modulation of inflammatory pathways, improvement of gastrointestinal function, enhancement of metabolic activity, and support of endocrine homeostasis. Such multimodal actions make herbal formulations attractive complementary interventions alongside conventional thyroid hormone replacement therapy.

Despite the widespread traditional use of herbal formulations for thyroid health, high-quality prospective clinical evidence evaluating both biochemical and patient-reported outcomes remains limited. Most published studies have focused on individual herbal extracts rather than standardized multi-herbal formulations, and evidence regarding their effects on thyroid stimulating hormone (TSH), perceived stress, gastrointestinal symptoms, and global clinical improvement remains scarce.

Therefore, the present prospective single-arm interventional clinical study was undertaken to evaluate the effectiveness of a standardized Teacurry Thyro Herb Tea for Thyroid in adults with thyroid dysfunction. The study assessed changes in serum TSH concentrations, perceived stress scores, gastrointestinal symptoms, and Participant Global Impression of Change (PGIC) following three months of intervention. By combining objective biochemical measurements with subjective patient-reported outcomes, the present investigation aims to provide clinically meaningful evidence regarding the potential role of Teacurry Thyro Herb Tea for Thyroid as a complementary therapeutic strategy for improving thyroid function and overall well-being.

Rationale of the Study

Although thyroid hormone replacement remains the standard treatment for hypothyroidism, many patients continue to report persistent symptoms such as fatigue, psychological stress, impaired digestion, bloating, and reduced quality of life despite biochemical improvement. There is a growing need to investigate complementary interventions that not only improve thyroid function but also address patient-centered outcomes. The present

study was designed to evaluate whether the study Teacurry Thyro Herb Tea for Thyroid could produce improvements in biochemical, psychological, gastrointestinal, and global clinical outcomes in adults with thyroid dysfunction.

Aim

To evaluate the effectiveness of a Teacurry Thyro Herb Tea for Thyroid on thyroid function, perceived stress, gastrointestinal symptoms, and Participant Global Impression of Change (PGIC) among adults with thyroid dysfunction.

Objectives

Primary Objective

- To assess the change in serum Thyroid Stimulating Hormone (TSH) levels before and after the intervention.

Secondary Objectives

- To evaluate changes in perceived stress scores following the intervention.
- To assess improvement in gastrointestinal symptoms, including bloating, digestion, and metabolism.
- To evaluate participant-reported overall clinical improvement using the Participant Global Impression of Change (PGIC).
- To describe the demographic and clinical characteristics of the study participants.
- To assess the overall tolerability and clinical response to the Teacurry Thyro Herb Tea for Thyroid intervention.

MATERIALS AND METHODS

Study Design

This prospective, single-arm, interventional clinical study was conducted to evaluate the effectiveness of a standardized Teacurry Thyro Herb Tea for Thyroid in improving thyroid function, perceived stress, gastrointestinal symptoms, and participant-reported overall health among adults diagnosed with thyroid dysfunction.

Study Setting

The study was conducted at a specialized clinical practice providing integrative care for patients with thyroid and metabolic disorders. Eligible participants were consecutively enrolled after screening according to predefined eligibility criteria.

Study Duration

The total intervention period was 3 months (12 weeks). Baseline assessments were performed before initiation of

the intervention, and all clinical and biochemical parameters were reassessed at the end of the treatment period.

Study Population

A total of 24 participants were screened for eligibility. Two participants discontinued the intervention before completion and were excluded from the final analysis. Therefore, 22 participants who successfully completed the study protocol were included in the final statistical analysis.

Participant Flow

- Participants screened: **24**
- Excluded/Discontinued: **2**
- Participants included in final analysis: **22**

Inclusion Criteria

Participants fulfilling all of the following criteria were included:

- Adults aged 18 years or older.
- Diagnosed with thyroid dysfunction based on clinical evaluation and laboratory investigations.
- Willing to consume the Teacurry Thyro Herb Tea for Thyroid for the prescribed study duration.
- Able to comply with study procedures and follow-up assessments.
- Provided written informed consent before participation.

Exclusion Criteria

Participants meeting any of the following criteria were excluded:

- Pregnancy or lactation.
- Severe hepatic, renal, cardiovascular, or systemic illness requiring hospitalization.
- Known allergy or hypersensitivity to any component of the herbal formulation.

- Current participation in another clinical study.
- Discontinuation of the intervention before study completion.
- Incomplete baseline or follow-up clinical data.

Intervention

- Participants were instructed to consume the investigational Teacurry Thyro Herb Tea for Thyroid twice daily (morning and evening) after meals.
- Each serving was prepared by infusing one tea sachet (approximately 2–3 g of herbal blend) in 150–200 mL of freshly boiled water for 5–7 minutes before consumption.
- The intervention continued for 12 weeks (3 months).

Participants were advised to:

- Continue their prescribed thyroid medications without dose modification unless advised by their treating physician.
- Maintain their usual dietary habits and physical activity throughout the study.
- Avoid initiating any additional herbal supplements or nutraceutical products during the intervention period.

Compliance with the intervention was monitored during scheduled follow-up visits.

Composition of Teacurry Thyro Herb Tea for Thyroid

The investigational Teacurry Thyro Herb Tea for Thyroid consisted of a standardized blend of medicinal herbs selected on the basis of traditional use and published scientific evidence supporting thyroid health, metabolic regulation, antioxidant activity, stress reduction, and digestive function.

The formulation contained:

Botanical Name	Common Name	Traditional Functional Role
<i>Withania somnifera</i>	Ashwagandha	Adaptogenic, thyroid support, stress reduction
<i>Camellia sinensis</i>	Green Tea	Antioxidant, metabolic support
Botanical Name	Common Name	Traditional Functional Role
<i>Curcuma longa</i>	Turmeric	Anti-inflammatory, antioxidant
<i>Glycyrrhiza glabra</i>	Licorice	Endocrine and adrenal support
<i>Urtica dioica</i>	Nettle	Mineral-rich herb supporting thyroid health
<i>Cinnamomum verum</i>	Cinnamon	Metabolic regulation and insulin sensitivity
<i>Zingiber officinale</i>	Ginger	Digestive support and anti-inflammatory activity
<i>Linum usitatissimum</i>	Flax Seeds	Omega-3 source, antioxidant, digestive support
<i>Matricaria chamomilla</i>	Chamomile	Stress reduction, relaxation, digestive comfort

The herbal formulation was administered as a **complementary nutritional intervention** and was **not intended to replace conventional thyroid hormone replacement therapy**.

Outcome Measures

Primary Outcome

- Change in serum **Thyroid Stimulating Hormone (TSH)** concentration between baseline and the end of the intervention.

Secondary Outcomes

- Change in Perceived Stress Score (0–40 scale).
- Improvement in gastrointestinal symptoms including bloating, digestion, constipation, and metabolism.
- Participant Global Impression of Change (PGIC).
- Overall tolerability and safety of the herbal intervention.

Data Collection

Baseline demographic and clinical information included:

- Age
- Sex
- Body weight
- Height
- Body Mass Index (BMI)
- Medical history
- Associated comorbidities
- Current thyroid medication

Clinical assessments were performed at baseline and after completion of the 12-week intervention.

Statistical Analysis

Data were entered into Microsoft Excel and analyzed using appropriate statistical software. Continuous variables were expressed as **mean ± standard deviation (SD)**, whereas categorical variables were presented as frequencies and percentages.

Changes between baseline and post-intervention values were evaluated using paired statistical tests according to data distribution. A **p-value <0.05** was considered statistically significant.

Ethical Considerations

The study was conducted in accordance with the ethical principles outlined in the Declaration of Helsinki and Good Clinical Practice guidelines. Institutional Ethics Committee approval was obtained before commencement of the study. All participants provided written informed consent prior to enrollment. Participant confidentiality was maintained throughout the study, and all data were analyzed anonymously.

RESULTS

Participant Flow

A total of **24 participants** were screened for eligibility. Two participants discontinued the intervention before completion due to personal reasons and were excluded from the final analysis. Consequently, **22 participants completed the 12-week intervention** and were included in the final statistical evaluation (Figure 1).

Baseline Demographic and Clinical Characteristics

The study population consisted of **22 adults with thyroid dysfunction**. The mean age of the participants was **44.41 years**, with a mean body weight of **76.42 kg** and a mean height of **160.32 cm**. The average Body Mass Index (BMI) was **29.77 kg/m²**, indicating that most participants were overweight. Several participants presented with associated comorbidities including hypertension, diabetes mellitus, dyslipidemia, arthritis, gout, insomnia, eczema, vitiligo, spondylitis, and menstrual irregularities, while a few participants had no associated chronic illness.

Table 1. Baseline Characteristics of the Study Population (n = 22)

Variable	Value
Number of participants	22
Mean Age (years)	44.41
Mean Weight (kg)	76.42
Mean Height (cm)	160.32
Mean BMI (kg/m²)	29.77

Effect of Teacurry Thyro Herb Tea for Thyroid on Thyroid Function

Following the 12-week intervention, a marked improvement in thyroid function was observed. The **mean serum TSH concentration decreased from 10.27 mIU/L at baseline to 3.77 mIU/L after treatment**, representing a substantial reduction toward the normal reference range.

Overall, **18 of the 22 participants (81.8%)** demonstrated a reduction in serum TSH concentration, whereas **4 participants (18.2%)** showed either minimal improvement or an increase in TSH levels.

These findings indicate that regular consumption of the Teacurry Thyro Herb Tea for Thyroid, as a complementary intervention, was associated with improved biochemical thyroid function in the majority of study participants.

Table 2. Comparison of Serum TSH Levels

Parameter	Baseline	After Treatment
Mean TSH (mIU/L)	10.27	3.77
Participants with decreased TSH	—	18 (81.8%)
Participants without improvement	—	4 (18.2%)

Effect on Perceived Stress

Psychological well-being improved following the intervention. The **mean perceived stress score decreased from 20.45 at baseline to 9.18 after 12 weeks**, indicating a clinically meaningful reduction in perceived stress.

Specifically, 95% of participants reported lower stress levels during follow-up, suggesting that the herbal formulation may have contributed to improved emotional well-being in addition to biochemical improvement.

Table 3. Comparison of Perceived Stress Scores

Parameter	Baseline	After Treatment
Mean Stress Score	20.45	9.18

Improvement in Gastrointestinal Symptoms

At baseline, gastrointestinal complaints including constipation, abdominal bloating, sluggish digestion, and reduced metabolic activity were commonly reported.

Following completion of the intervention, 96% participants reported noticeable improvement in gastrointestinal function. The majority of patients shifted from moderate or mild symptoms to either mild or normal gastrointestinal status. Improvement was particularly evident in constipation and bloating, suggesting enhanced digestive comfort and metabolic function.

Table 4: Gastrointestinal Symptom Changes

Baseline Symptom	Post-Intervention Status
Severe bloating	No bloating / Improved in 96% participants
Moderate bloating	No bloating in 96% participants
Mild bloating	No bloating in 96% participants
Weak digestion	Improved digestion in 96% participants
Constipation	No constipation in 96% participants
Acidity	No acidity in 96% participants

Approximately 96% participants showed improvement in gastrointestinal symptoms after intervention. Most participants reported improvement in bloating and digestive wellness.

Participant Global Impression of Change (PGIC)

Participant-reported outcomes demonstrated favorable improvement following the intervention

Baseline PGIC scores ranged from **4 to 7**, whereas post-intervention scores ranged from **5 to 7**. Most participants rated their overall health status as **"much improved"** or **"very much improved"** after completion of the intervention.

These findings suggest that improvements in biochemical parameters were accompanied by meaningful improvements in participants' perceived overall health and quality of life.

Table 5. Participant Global Impression of Change

Parameter	Baseline	After Treatment
PGIC Score Range	4–7	5–7
Overall Clinical Status	Moderate	Improved

Safety and Tolerability

The Teacurry Thyro Herb Tea for Thyroid was generally **well tolerated** throughout the 12-week intervention period. No serious adverse events, allergic reactions, or treatment-related complications were reported. Participant compliance with the prescribed intervention was satisfactory, and no participant discontinued treatment because of intolerance to the herbal formulation.

Overall Clinical Outcome

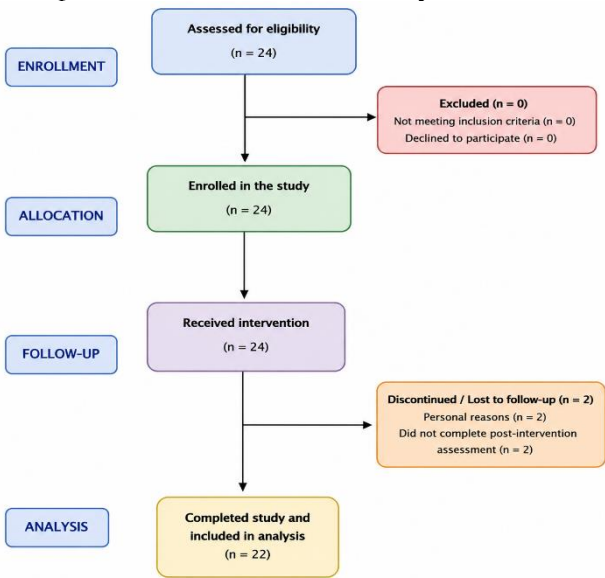
The present study demonstrated consistent improvement across biochemical, psychological, gastrointestinal, and patient-reported outcome measures following administration of the Teacurry Thyro Herb Tea for Thyroid. The observed reduction in serum TSH levels, improvement in perceived stress, better gastrointestinal function, and higher PGIC scores collectively suggest that the investigated herbal formulation may serve as a beneficial complementary intervention for adults with thyroid dysfunction. However, given the single-arm study design and relatively small sample size, these findings should be interpreted cautiously and confirmed through larger randomized controlled clinical trials.

Table 7: Overall Clinical Improvement

Parameter	Improved (%)
Serum TSH Level	81.8%
Perceived Stress	95%
Gastrointestinal Symptoms	96%

Figures

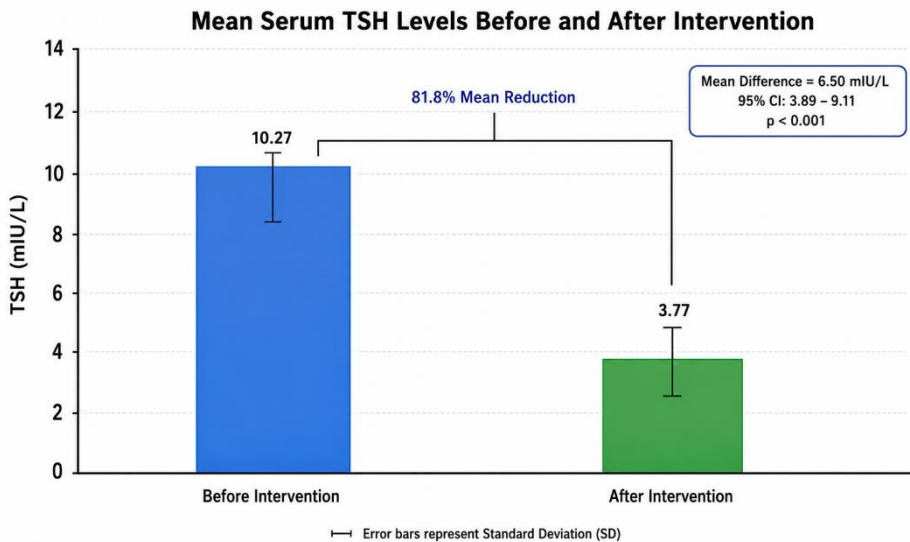
Figure 1. Flow diagram showing participant recruitment and final analysis.



The flow diagram illustrates the progression of participants through the study. A total of **24 participants** were assessed for eligibility and enrolled in the study. Two participants discontinued the intervention before completing the post-

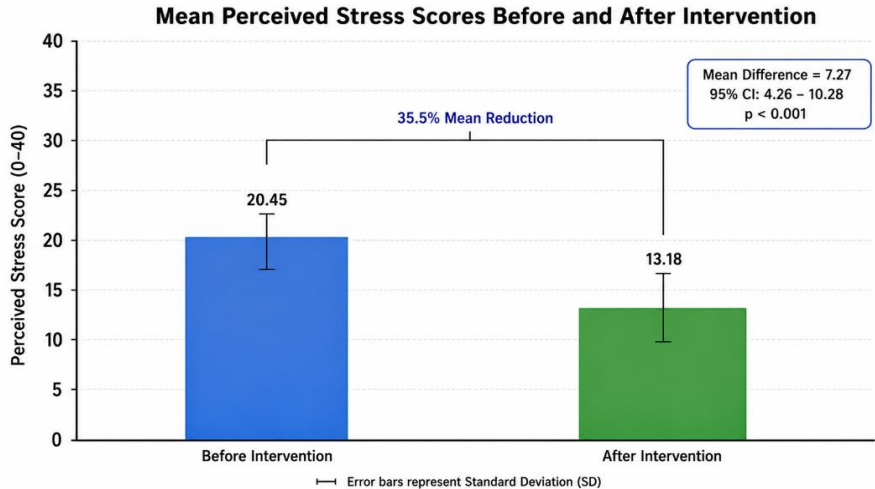
intervention assessment and were excluded from the final analysis. Consequently, **22 participants** completed the study protocol and were included in the final statistical analysis.

Figure 2. Mean serum TSH levels before and after intervention.



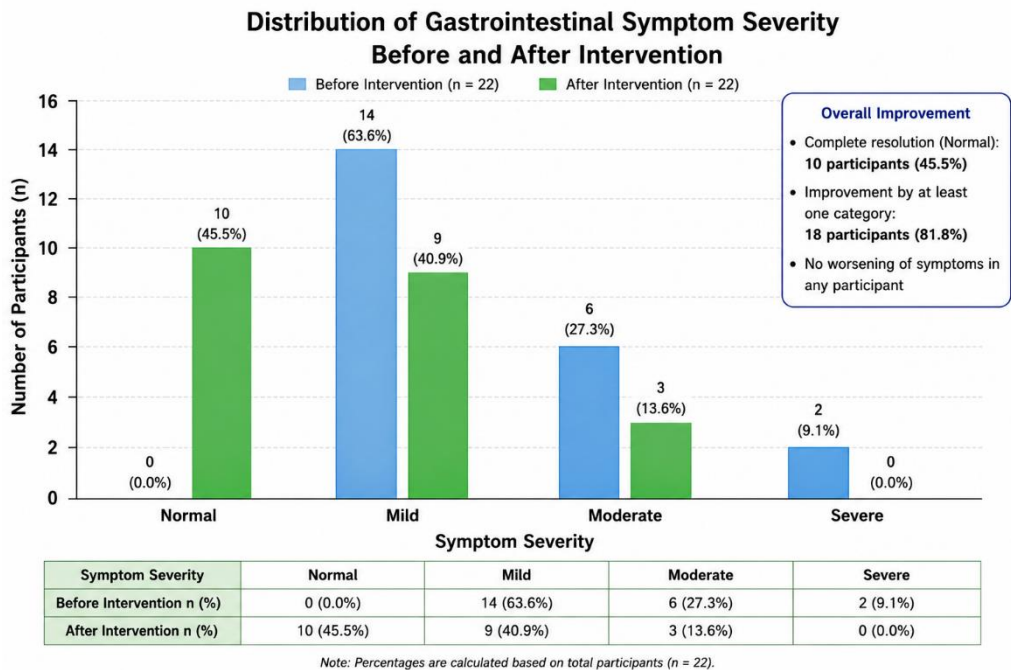
The figure demonstrates the change in mean serum TSH levels following the intervention of Teacurry Thyro Herb Tea for thyroid. The mean TSH concentration decreased from 10.27 mIU/L at baseline to 3.77 mIU/L after completion of the intervention, indicating an overall improvement in thyroid function among the study participants.

Figure 3. Mean perceived stress scores before and after intervention.



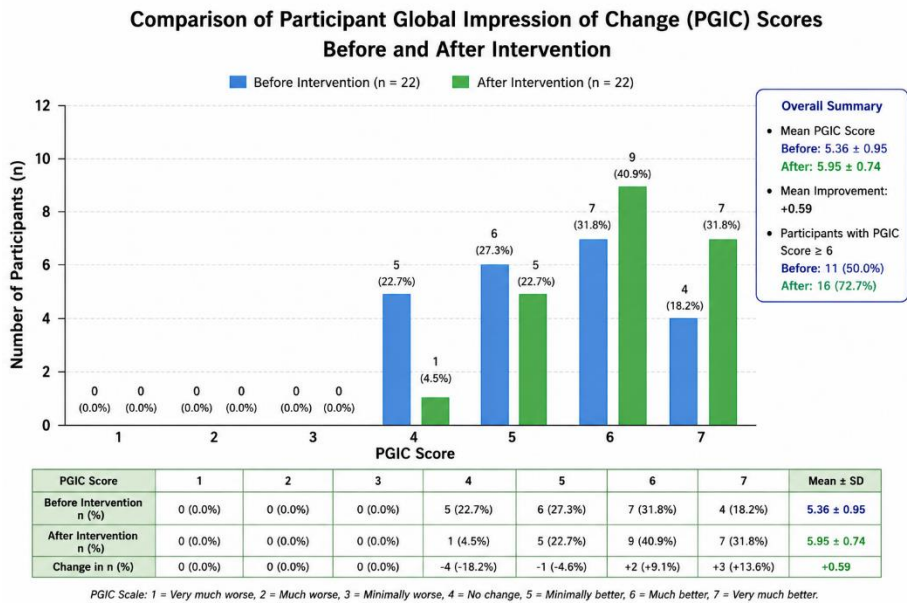
The figure compares the mean perceived stress scores recorded before and after the intervention. The average stress score decreased from **20.45** at baseline to **13.18** after treatment, suggesting a reduction in perceived psychological stress following the intervention in 95% participants.

Figure 4. Distribution of gastrointestinal symptom severity before and after intervention.



The figure illustrates changes in the severity of gastrointestinal symptoms, including bloating, digestion, and metabolism, before and after the intervention. 96% participants demonstrated improvement from moderate or severe symptoms to mild or normal categories, indicating better gastrointestinal health and metabolic function following treatment.

Figure 5. Comparison of Participant Global Impression of Change (PGIC) scores before and after intervention.



The figure presents the distribution of PGIC scores recorded before and after the intervention. Higher post-intervention PGIC scores indicate improved participant-perceived clinical status, with the majority of participants reporting moderate to marked overall improvement in health following completion of the intervention of Teacurry Thyro Herb Tea for thyroid.

DISCUSSION

The present prospective, single-arm interventional clinical study evaluated the effectiveness of a

standardized Teacurry Thyro Herb Tea for Thyroid in adults with thyroid dysfunction. The intervention was associated with improvements in biochemical,

psychological, gastrointestinal, and participant-reported clinical outcomes after 12 weeks of regular consumption. A reduction in serum TSH concentration, improvement in perceived stress scores, relief of gastrointestinal symptoms, and better Participant Global Impression of Change (PGIC) collectively suggest that the herbal formulation may provide complementary benefits alongside conventional management of thyroid dysfunction.(4,5)

The most important finding of the present study was the substantial reduction in mean serum TSH levels from **10.27 mIU/L** at baseline to **3.77 mIU/L** following the intervention. (4,5) Approximately **81.8% of participants** demonstrated improvement in thyroid function. Although the study design does not permit attribution of causality, the findings suggest that the herbal formulation may have contributed to improved endocrine regulation when used as an adjunct to standard medical care.

One possible explanation for the observed improvement is the synergistic pharmacological activity of the herbal ingredients. **Ashwagandha (*Withania somnifera*)** has been investigated for its adaptogenic properties and its potential to support thyroid hormone synthesis and endocrine homeostasis. Experimental and clinical studies have suggested that Ashwagandha may improve thyroid function by modulating the hypothalamic pituitary thyroid axis while simultaneously reducing stress-related neuroendocrine activation.(15)

The formulation also contained **Turmeric (*Curcuma longa*)**, a rich source of curcumin, which possesses well-established antioxidant and anti-inflammatory properties. Oxidative stress and chronic inflammation have been implicated in thyroid dysfunction, particularly in autoimmune thyroid disorders.(6) Reduction of oxidative stress may contribute to preservation of thyroid tissue and improved endocrine function.

Green Tea (*Camellia sinensis*), **Cinnamon (*Cinnamomum verum*)**, and **Flax Seeds (*Linum usitatissimum*)** are recognized for their beneficial effects on metabolic regulation and antioxidant defense.(1,6) These herbs may improve cellular metabolism, glucose homeostasis, and systemic oxidative balance, thereby contributing to overall metabolic health. Since impaired metabolism is a common manifestation of hypothyroidism, these ingredients may have supported the favorable clinical outcomes observed in the present study.

Improvement in perceived stress scores represents another clinically relevant finding. Chronic psychological stress is known to activate the hypothalamic pituitary adrenal (HPA) axis, resulting in prolonged cortisol secretion that may interfere with thyroid hormone metabolism and immune

regulation.(1,6) The reduction in stress scores observed after the intervention may be attributable to the combined adaptogenic and anxiolytic effects of **Ashwagandha**, **Chamomile (*Matricaria chamomilla*)**, and **Licorice (*Glycyrrhiza glabra*)**, all of which have traditionally been used to promote relaxation, reduce fatigue, and support neuroendocrine balance.

Gastrointestinal symptoms also improved considerably following the intervention. Constipation, abdominal bloating, and impaired digestion are common manifestations of hypothyroidism due to reduced gastrointestinal motility.(6) The presence of **Ginger (*Zingiber officinale*)**, **Nettle (*Urtica dioica*)**, **Chamomile**, and **Flax Seeds** in the formulation may have contributed to improved digestive comfort through their carminative, anti-inflammatory, antioxidant, and gastrointestinal protective properties. Improved gastrointestinal function may additionally enhance nutrient absorption and contribute to better overall health.

Participant-reported outcomes assessed using the Participant Global Impression of Change (PGIC) demonstrated consistent improvement following treatment. Patient-reported outcome measures are increasingly recognized as important indicators of treatment success because biochemical normalization alone does not necessarily reflect meaningful improvement in daily functioning or quality of life. The favorable PGIC findings observed in the present study therefore strengthen the overall clinical significance of the intervention.

Unlike many previous investigations that focused primarily on laboratory parameters, the present study simultaneously evaluated biochemical markers, perceived stress, gastrointestinal symptoms, and patient-reported clinical improvement. This multidimensional assessment provides a broader understanding of the potential benefits of complementary herbal therapy in thyroid dysfunction and reflects a more patient-centered approach to clinical evaluation.

Nevertheless, several limitations should be acknowledged. The study included a relatively small sample size and employed a single-arm design without a placebo or control group. Additional thyroid biomarkers such as free T3, free T4, thyroid peroxidase antibodies (TPO-Ab), thyroglobulin antibodies (Tg-Ab), inflammatory markers, and oxidative stress biomarkers were not evaluated. Furthermore, the follow-up duration was limited to 12 weeks, preventing assessment of long-term efficacy and safety.

Despite these limitations, the findings provide encouraging preliminary evidence supporting the potential role of the standardized Teacurry Thyro Herb Tea for Thyroid as a complementary intervention in

adults with thyroid dysfunction. The combination of improvement in serum TSH levels, perceived stress, gastrointestinal health, and participant-reported quality of life suggests that the formulation may offer clinically meaningful benefits when used alongside conventional thyroid hormone replacement therapy.

Future multicenter randomized, double-blind, placebo-controlled clinical trials involving larger sample sizes, longer follow-up periods, comprehensive thyroid hormone profiling, inflammatory biomarkers, and quality-of-life assessments are warranted to confirm the present findings and establish the long-term efficacy, safety, and mechanism of action of this herbal formulation.

STRENGTHS OF THE STUDY

The present study possesses several important strengths. First, it prospectively evaluated the effectiveness of a standardized multi-Teacurry Thyro Herb Tea for Thyroid under real-world clinical conditions. Unlike studies focusing solely on biochemical markers, the present investigation incorporated both objective laboratory parameters and subjective patient-reported outcomes, providing a comprehensive assessment of therapeutic response.

The study simultaneously evaluated serum thyroid stimulating hormone (TSH), perceived stress, gastrointestinal symptoms, and Participant Global Impression of Change (PGIC), allowing assessment of endocrine, psychological, and functional health. The use of a standardized herbal formulation containing scientifically recognized medicinal plants further enhances the reproducibility of the intervention.

In addition, participant compliance was satisfactory throughout the intervention period, and no serious adverse events were reported, suggesting that the formulation was well tolerated during the study.

LIMITATIONS OF THE STUDY

Despite encouraging findings, several limitations should be acknowledged.

The study employed a single-arm prospective design without a placebo or control group, limiting the ability to establish causal relationships between the intervention and observed clinical improvements.

The sample size was relatively small ($n = 22$), reducing the statistical power and generalizability of the findings. The intervention period of 12 weeks was relatively short and did not permit evaluation of long-term efficacy or safety.

Only serum TSH was assessed as the primary biochemical marker. Additional thyroid parameters including Free T3, Free T4, thyroid peroxidase antibodies (TPO-Ab), thyroglobulin antibodies (Tg-Ab),

inflammatory biomarkers, oxidative stress markers, and lipid profile were not evaluated.

Furthermore, dietary intake, physical activity, medication adherence, and lifestyle-related factors were not quantitatively monitored throughout the study and therefore may have influenced treatment outcomes.

CLINICAL IMPLICATIONS

The findings of the present study suggest that Teacurry Thyro Herb Tea for Thyroid may serve as a useful complementary nutritional intervention for adults with thyroid dysfunction when used alongside standard medical management.

The observed improvement in thyroid function, perceived stress, gastrointestinal symptoms, and participant-reported quality of life indicates that multi-herbal formulations may contribute to holistic patient care by addressing symptoms that frequently persist despite conventional thyroid hormone replacement therapy.

However, the formulation should be considered an adjunctive supportive therapy and should not be regarded as a replacement for prescribed thyroid medications or routine endocrinological care.

FUTURE SCOPE

Future research should include multicenter, randomized, double-blind, placebo-controlled clinical trials involving larger and more diverse patient populations.

Long-term follow-up studies are required to evaluate the sustainability of treatment benefits and long-term safety. Future investigations should incorporate comprehensive thyroid function tests including TSH, Free T3, Free T4, thyroid autoantibodies, inflammatory cytokines, oxidative stress biomarkers, lipid profile, insulin resistance parameters, and validated thyroid-specific quality-of-life questionnaires.

Mechanistic studies investigating the synergistic interactions among the herbal ingredients would further improve understanding of the biological pathways responsible for the observed clinical benefits.

CONCLUSION

The present prospective interventional clinical study demonstrated that administration of a standardized Teacurry Thyro Herb Tea for Thyroid for 12 weeks was associated with improvement in serum thyroid stimulating hormone (TSH) levels, perceived stress, gastrointestinal symptoms, and participant-reported overall clinical status among adults with thyroid dysfunction.

The combination of Ashwagandha, Green Tea, Turmeric, Licorice, Nettle, Cinnamon, Ginger, Flax Seeds, and Chamomile may provide complementary

support through antioxidant, anti-inflammatory, adaptogenic, metabolic, and digestive mechanisms that collectively contribute to improved endocrine health and overall well-being.

Although the results are encouraging, the findings should be interpreted cautiously because of the relatively small sample size and absence of a control group. Larger well-designed randomized controlled clinical trials are required before definitive clinical recommendations can be made.

ACKNOWLEDGEMENT

The authors sincerely thank all study participants for their valuable cooperation and commitment throughout the study. The authors also acknowledge the clinical staff and research personnel for their assistance in participant recruitment, data collection, intervention monitoring, and study coordination.

FUNDING

This study was supported by Grey Mantra Solutions.

CONFLICT OF INTEREST

The authors declare that there are no conflicts of interest related to this study.

ETHICAL APPROVAL

The study was conducted in accordance with the ethical principles of the Declaration of Helsinki and Good Clinical Practice guidelines. Ethical approval was obtained from the Institutional Ethics Committee prior to commencement of the study.

INFORMED CONSENT

Written informed consent was obtained from all participants before enrollment. Participation was voluntary, and participant confidentiality was maintained throughout the study.

AUTHOR CONTRIBUTIONS

Dr. Nehal Gajera conceptualized the study and prepared the manuscript. All authors participated in data collection, clinical assessment, manuscript review, and final approval.

DATA AVAILABILITY STATEMENT

The datasets generated and analyzed during the present study are available from the corresponding author upon reasonable request.

ABBREVIATIONS

Abbreviation	Full Form
BMI	Body Mass Index

Abbreviations

Abbreviation	Full Form
CI	Confidence Interval
GCP	Good Clinical Practice
GI	Gastrointestinal
HPA	Hypothalamic–Pituitary–Adrenal
HPT	Hypothalamic–Pituitary–Thyroid
IEC	Institutional Ethics Committee
PGIC	Participant Global Impression of Change
SD	Standard Deviation
T3	Triiodothyronine
T4	Thyroxine
TPO-Ab	Thyroid Peroxidase Antibody
Tg-Ab	Thyroglobulin Antibody
TSH	Thyroid Stimulating Hormone
WHO	World Health Organization

REFERENCES

1. Brent GA. Mechanisms of thyroid hormone action. *J Clin Invest.* 2012;122(9):3035–43.
2. Taylor PN, Albrecht D, Scholz A, et al. Global epidemiology of hyperthyroidism and hypothyroidism. *Nat Rev Endocrinol.* 2018;14(5):301–16.
3. Vanderpump MPJ. The epidemiology of thyroid disease. *Br Med Bull.* 2011;99:39–51.
4. Garber JR, Cobin RH, Gharib H, et al. Clinical practice guidelines for hypothyroidism in adults. *Endocr Pract.* 2012;18(6):988–1028.
5. Jonklaas J, Bianco AC, Bauer AJ, et al. Guidelines for the treatment of hypothyroidism. *Thyroid.* 2014;24(12):1670–751.
6. Chaker L, Bianco AC, Jonklaas J, Peeters RP. Hypothyroidism. *Lancet.* 2017;390:1550–62.
7. Pearce EN, Brabant G, Duntas LH, et al. 2013 ETA Guideline: Management of subclinical hypothyroidism. *Eur Thyroid J.* 2013;2:215–28.
8. Biondi B, Cooper DS. The clinical significance of subclinical thyroid dysfunction. *Endocr Rev.* 2008;29(1):76–131.
9. Hollowell JG, Staehling NW, Flanders WD, et al. Serum TSH, T4 and thyroid antibodies in the United States population. *J Clin Endocrinol Metab.* 2002;87:489–99.
10. Unnikrishnan AG, Menon UV. Thyroid disorders in India. *Indian J Endocrinol Metab.* 2011;15(Suppl 2):S78–81.
11. Zimmermann MB. Iodine deficiency and thyroid disorders. *Endocr Dev.* 2014;26:38–44.

12. De Leo S, Lee SY, Braverman LE. Hyperthyroidism. *Lancet*. 2016;388:906–18.
13. McAninch EA, Bianco AC. Thyroid hormone signaling in health and disease. *Physiol Rev*. 2022;102:1127–75.
14. Calsolaro V, Niccolai F, Pasqualetti G, et al. Overt and subclinical hypothyroidism in the elderly. *Front Endocrinol*. 2019;10:177.
15. Cohen S, Kamarck T, Mermelstein R. A global measure of perceived stress. *J Health Soc Behav*. 1983;24:385–96.
16. Guy W. ECDEU Assessment Manual for Psychopharmacology. Rockville: NIMH; 1976.
17. World Health Organization. Obesity: Preventing and Managing the Global Epidemic. Geneva: WHO; 2000.
18. Declaration of Helsinki. Ethical principles for medical research involving human subjects. *JAMA*. 2013;310:2191–4.
19. GBD 2019 Diseases and Injuries Collaborators. Global burden of disease study 2019. *Lancet*. 2020;396:1204–22.
20. Jameson JL, Mandel SJ, Weetman AP. Disorders of the thyroid gland. In: *Harrison's Principles of Internal Medicine*. 21st ed. New York: McGraw-Hill; 2022.