

A Non-Randomized Single Blind Clinical Study To Assess The Efficacy Of Bach Flower Remedies In Management Of Generalised Anxiety Disorder In Age Group Of Above 18 Years

Dr. G.V. Gayatri¹; Dr.V.V. Dolas^{1*}

Bharati Vidyapeeth (Deemed to Be University) Homoeopathic Medical College, Dept. Of Post Graduate & Research Centre, Pune-Satara Road, Katraj, Dhankawadi, Pune, India - 411043

Abstract

BACKGROUND:

A generalized anxiety disorder is an excessive, irrational worry that contributes to the majority of psychological distress, makes it difficult to concentrate on everyday tasks, encourages sedentary behaviour, and has the potential to spread systemic diseases over the world. The COVID-19 pandemic increased the global health consciousness, leading to anxiety and fear among both sufferers and non-sufferers. Unexpected emotional, physical, and psychological disturbances impact daily life activities. Here comes a Nature's gift: Bach Flower remedies help mental turmoil, clear hindrances, and achieve emotional balance. Dr. Bach introduced Bach Flower Remedies as a complementary alternative therapy for emotional imbalances causing Mental and physical ill-health. This study was intended to investigate whether Bach Flower Remedies are effective in treating Patients with GAD.

OBJECTIVE: To study the efficacy of Bach flower remedies for management of episodes of generalized anxiety disorder and to relieve their symptoms and to improve the quality of life of patients with GAD.

METHODS: It is a single blind, non-randomized clinical trial, conducted at the OPD of Bharati Vidyapeeth (deemed to be university) Homoeopathic college and Research Centre, Pune. The study includes 34 clinically diagnosed cases of GAD, of which 30 cases of age group 18 – 60 years. Bach Flower remedies were selected in combinations, according to symptom similarity on the basis of totality of symptoms predominantly on mental generals ascertained after detailed case taking. Assessment of improvement was based on Generalized Anxiety Score 7 scale, and subjective relief in their presenting symptoms.

RESULTS: GAD 7 Anxiety score before and after the intervention in the management of generalized anxiety disorder. analysis was done using paired “test. Before treatment, GAD-7 score was 14.83+3.77 (mean+ SD) which reduces to 9.27 + 3.75 after treatment. T-statistic value is 27.61 with a p-value of 0.000 ** highly significant, which suggests that Bach flower remedies are effective in managing cases of Generalized Anxiety Disorder.

CONCLUSION:

After assessment of all the data obtained from 30 cases shows that among 38 Bach flower remedies, in which impatiens, mimulus, larch, rockrose, rescue remedy, and red chestnut, are frequently needed in GAD patients. It also shows most frequent psychological emotions include fear, uncertainty, despondency, and despair were main turmoil for causing GAD, Insufficient interest in present circumstances, Rescue condition, loneliness comes in next line of predominance of causing GAD. It is found to be selection of remedies are unique for each individual we cannot generalize specific combinations for specific psychological diseases as every individual emotion, thought process, perception, are unique in and out. Hence, Bach Flower Remedies produced significant effect in treatment of Generalized Anxiety Disorder. This study is a beginning to explore the study of Bach Flower Remedies. The Results were supportive to open new paths for future studies on BFR. These Remedies work well alongside of all forms of treatments and as a helping aid in the hands of any therapists.

Key Words: Anxiety, Generalised Anxiety Disorder Assessment scale (GAD-7), complimentary Therapy, Homoeopathy, Bach Flower Remedies, Emotional imbalances, quality of life.

Introduction

WHO defines Health as a holistic state of mental, physical, and social well-being and not merely the absence of diseases. Normal Mental Health consists of focus on reality, self-awareness, self-acceptance, behaviour management, affectionate connections, manage daily problems, work successfully and goal-oriented activities,

characterized by active involvement in fruitful activities. Deviation of mind involves significant impairment in intellectual, emotional, behavioural areas manifesting as mental illness. The most common mental illnesses are anxiety and depressive disorders, which affect 970 million people globally, or 1 in every 8 people or 15-20% of patients, causing worry, fear or foreboding.[1][2][3] ANXIETY is a physiological and psychological Emotion aroused when there is an Imminent Threat and when individual considers Danger as possibility. It is classified based on onset, progression, existence, and type of triggers. [4]

Generalized anxiety disorder (GAD) is one among them, it is characterized by excessive, persistent, unreasonable, or unrealistic anxiety about daily tasks like money, family, work, and relationships. People may be aware of their excessive worry but struggle to manage it, causing disruption to their lives. GAD onset typically before the age of 20, social inhibition, childhood concerns, and first-degree relatives increase lifetime prevalence to 5-6%.[4] GAD affects 4% of adults and 9% of people in general, with women being twice as common as men. It often concerns academic or athletic performance, while adults often face similar issues like money, health, or work obligations.[5] According to recent studies, estimates that COVID-19 pandemic created a havoc in rise of anxiety and depression disorders by 26% and 28% in 2020. [2] According to cross-sectional and longitudinal research, it demonstrates a rise in GAD prevalence from 1.8% to 49.5% in youth.[6]. Alteration in hormones & genes related to serotonin (5-hydroxytryptamine [5- HT]; Hypothalamo-pituitary-adrenal axis (HPA axis), Neurotrophins, Norepinephrine, GABA dysregulation, dopamine, opioid receptors, predispose to change in personality traits or temperaments. Symptoms should be present continuously for a sufficiently Period of 3 months to 6 months GAD (generalized anxiety disorder) to diagnose. Continues anxiety & unmanageable worry (apprehensive expectation) and physical symptoms of anxiety associated features include: Hypervigilance, Difficulty in concentration mind just goes blank, Irritability, Feeling on the edge, Restlessness, Tremors, Palpitations, Sweating, Light headedness, Dryness of mouth, Frequent headaches, Exaggerated startle response. Worrying is regarded to some future misfortunes like Regarding- health of one self/family members/financial situations, occupational/academic performance etc. These psychological symptoms may lead to physical manifestations of symptoms like: Digestive problems- eating more /eating less; indigestion, irritable bowel syndromes, Muscle aches & soreness from carrying tension in their muscles, Sleep disturbances, Chronic fatigue. Mild affected gad-Can function socially & hold down a job; sometimes might improve or worsen over time. Severely affected gad-Completely debilitated have trouble with simplest daily activities.[1]

According to GLOBAL CONSIDERATIONS the most common anxiety disorders presenting in primary care and is based on the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) and the tenth revision of the International Classification of Diseases (ICD-10), the framework for categorizing psychiatric illness used in the United States.[5] Generalized anxiety disorder-7 scale is a safety and effective scale for assessing the severity of the GAD, with more reliability and validity this 7-item anxiety scale can be used as criteria to follow up the persons anxiety level which will be differentiated from other mental illness[7]

Treatments include cognitive behavioral therapy, relaxation techniques and in conventional treatment- long term usage of Antidepressants; BENZODIAZEPINES (psychoactive drug): Selective; serotonin reuptake inhibitors (regulate serotonin levels in brain & help to elevate mood) & short acting alprazolam Can lead to get side effects of intolerance; excess anxiety withdrawal symptoms; dependence [5]

In community-based settings, the WHO's Comprehensive Mental Health Action Plan 2013–2030 aims to offer integrated mental health and social care services, promote mental health promotion, and protect everyone from mental illnesses.[8]

After overview of different literature available it is concluded that mental health is a critical concern in the pandemic's scenario, and Homoeopathy can be a safe and effective alternative system of medicine with evidence-based effectiveness in mental health issues or adjunctive to the conventional system in the management of anxiety disorders during chaotic situations [9]

Excessive worrying negatively impacts an individual's ability to function efficiently and calmly, leading to symptoms like muscle tension, fatigue, and difficulty concentrating. Emotional diseases often result from emotional causes, and can be treated through counselling or psychical remedies. Psora is the primary cause of one-sided mental illness. (APHORISM 210-230) [10]

The WHO established the WHO Traditional Medicine Strategy from 2014-2023 to strengthen traditional medicine and prioritize complementary practices in health services. Brazil's Unified Health System integrates complementary practices, including flower therapy, which uses transparent, all-natural essences to harmonize

emotions and complement other therapies.[11] Bach flower remedies are an alternate or complementary form of treatment for pain and emotional issues. Homoeopathy and Bach flower therapies have a similar philosophy. All major types of mental disorders, as listed in the diagnostic and statistical manual of mental disorders published by the American psychiatric association, are also treated using Bach medicines. [12]

As a medical doctor who "evolved from conventional medicine via bacteriology to homoeopathy, where he emerged as well-known for the discovery of bowel nosodes," Dr. Edward Bach, M.B.B.S., M.R.C.S.L.R.C.P For finding non-lactose-fermenting bacteria in patients' faeces that were later employed as Bowel Nosodes.[13] This suggests that he perceived his work as "A CONTINUATION OF THAT HAHNEMANN OR LEADING THE WAY TO FURTHER DISCOVERY." [14] Though he believed with Hahnemann that there was a connection between the patient's emotional and mental components and the underlying causes of their sickness, he felt that this important feature needed to be taken into account when determining the appropriate course of treatment. He gradually shifted away from using bacteria and towards using herbal remedies after discovering the emotional and mental profiles of the treatments and the patient.[15]

All the 38 Bach flower remedies were classified into 7 broad psychological emotional causes of Illnesses were explained in the Table 1. [16][17]

In table 2 explains about the classification of psychological emotions and their respective remedies and its miasms. [16][18][19]

The Table 3 explains about Characteristics Of all 38 Bach Flower Remedies and Rescue remedy of their Botanical names, preparation method, mental characteristic type and patterns [17] of their respective negative and positive psychological emotional expressions. [16]

The healing potential of flowers has been highlighted by numerous therapies, including Homeopathy, Puspa, Ayurveda, Aromatherapy, BFR, Australian Bush Remedies, SAHIIIR, and others. All of these emphasize the flowers' ethereal "energy" or "vibration," which is transmitted to the water in which it is suspended. Kirlian's photographs [20] are one method to show that there is a delicate energy transmission between the flowers and the water. Quantum physics shows that invisible signals are significantly more potent than visible ones. [21]

One of the scientific studies on flower essences was parent plants' physical and energetic characteristics helps understand flower essences' attributes. Recent research on their benefits in clinical practice and home care supports this idea. However, there is limited official scientific research on floral essences. The more likely explanation is that they operate through energy resonance. Colour-plate images taken by the German researcher Dieter Knapp show evidence of the energetic fields that flower essences produce. Dr. Knapp applied a drop of each floral essence to specialised photographic film using a Kirlian technique variant. According to Knapp, each essence formed a unique pattern that served as a sign of its own bioenergy pattern. [22]

Bach was particularly interested in flowerheads and their petals because he thought that these contained the highest, purest healing energy and matched the deeper, higher vibrations of a person's consciousness. The head, cognition, and consciousness of a person direct and express his or her entire being, much like the flowerheads express and "head" the plant. Together with rejuvenation, reproduction, and fruit-bearing, flowers also bring forth fresh development and fruits of consciousness through their therapeutic essences. In order to extract the plant's best healing power, he tried a variety of preparation techniques while always focusing primarily on the flower heads [23].

The Himalayan plant, known as Impatiens, has various names, including bobby tops and policeman's helmets. Its name comes from its explosive opening and 7-meter upward trajectory. Despite its widespread spread, Impatiens has antifungal, antibacterial, and antiviral properties, as well as potential cancer cell activity. It can treat snake bites and alleviate stress and mental strain. Doctrine of signature of Impatiens (*Impatiens glandulifera*) [24] states that Remedy of Impatiens is indicated in persons who are of explosive nature, having lack of patience, thinks other people too slow, wants everything to be quick, inclined to stay solitary. [16][17]

Bach Rescue and a placebo were compared for its effects on the autonomic response to a mental test in 30 women (mean age, SD, 6 years). The lower LF/HF low frequency power to high frequency power ratio [$\ln(LF/HF)$] ($p=0.041$) ratio in the Bach Rescue Remedy group showed a shift in the sympathetic-parasympathetic balance, favouring the parasympathetic system. This result revealed that the Bach Rescue Remedy's ability to reduce stress may be due to a regulation of the sympathetic and parasympathetic nervous system processes.[25]

According to some studies the findings are, BFE Rescue Remedy might be useful in lowering high levels of situational anxiety. situational anxiousness.[26] one study aimed to map the application of Bach flower remedies in the field of adult healthcare. Impatiens, Cherry Plum, White Chestnut, and Beech flower essences were reportedly employed in the experiments. They assisted in lowering anxiety, depression, fear, and pain when used in 4 diluted drops.[27]

These 38 herbal treatments are frequently prescribed in homoeopathic dose formulations and have received "safe" or "probably safe" designations. BFRs have been used to treat elderly patients with Herpes Zoster, carpal tunnel syndrome pain, and anxiety in children. Despite challenges in distinguishing BFRs from placebos, BFRs have potential applications in nursing care, alternative preterm care, emotional imbalances, major depressive illness, anxiety, mood changes, sleeplessness, and infantile tension. [13] anxiety disorders are the most prevalent mental disorders in South Africa, and treating them appropriately may be necessary. Similar to homoeopathic remedies, Bach flowers can be used as a conjunctive therapy to complement the treatment of anxiety-based diseases.[28]

In a Review curative powers of Bach remedies, the human mind, consisting of neurons and bioactive substances, affects overall wellbeing. Plants and plant parts contain bioactive substances that affect physical, and psychological functions. Flower essences, like Bach Remedies, are believed to treat psychosomatic illnesses. This Analysis discussed the therapeutic properties of these remedies, their classification, preparation, clinical studies, and their utility in self-healing.[29]

Table 1: - The following explains about the classification of psychological emotions and their respective BACH FLOWER REMEDIES. [16][17]






GROUP NO:	PSYCHOLOGICAL CAUSES	BACH FLOWER ESSENCES.
1	FEAR	MIMMULUS, ASPEN, ROCK ROSE, RED CHESTNUT, CHERRY PLUM.
2	UNCERTAINTY	SCLERANTHUS, CERATO, GENTIAN, GORSE, HORNBEAM, WILD OAT.
3	INSUFFICIENT INTEREST IN PRESENT CIRCUMSTANCES	CLEMATIS, HONEYSUCKLE, WILD ROSE, OLIVE, WHITE CHESTNUT, MUSTARD, CHESTNUT BUD.
4	LONELINESS	WATER VIOLET, HEATHER, IMPATIENS
5	OVERSENSITIVE TO INFLUENCES AND IDEAS	AGRIMONY, CENTAURY, WALNUT, HOLLY.
6	DESPONDENCY OR DESPAIR	LARCH, ELM, PINE, CRAB APPLE, STAR OF BETHLEHEM, SWEET CHESTNUT, OAK, WILLOW.

Table 2: The following explains about the classification of psychological emotions and their respective remedies and its miasms [16][18][19]







GROUP NO:	PSYCHOLOGICAL CAUSES	BACH FLOWER ESSENCES.
1	FEAR-PREDOMINANTLY-PSORA	MIMMULUS =PSORA ASPEN= PSORA, SYCOSIS. ROCK ROSE= PSORA RED CHESTNUT= PSORA CHERRY PLUM= PSORA, SYPHILIS

2	UNCERTAINTY	SCLERANTHUS=SYPHILIS CERATO= SYPHILIS GENTIAN= PSORA GORSE= SYCOSIS. HORNBEAM= PSORA WILD OAT= PSORA, SYPHILIS.
3	INSUFFICIENT INTEREST IN PRESENT CIRCUMSTANCES	CLEMATIS=PSORA, SYPHILIS. HONEYSUCKLE=PSORA, SYPHILIS. WILD ROSE=PSORA, SYPHILIS. OLIVE=PSORA, TUBERCULAR. WHITE CHESTNUT=PSORA. MUSTARD= SYPHILIS. CHESTNUT BUD= SYCOSIS.
4	LONELINESS	WATER VIOLET= SYCOSIS, SYPHILIS. HEATHER= PSORA, TUBERCULAR IMPATIENS=SYCOSIS.
5	OVERSENSITIVE TO INFLUENCES AND IDEAS	AGRIMONY =SYCOSIS CENTAURY= PSORA WALNUT =SYPHILIS. HOLLY =SYCOSIS.
6	DESPONDENCY OR DESPAIR	LARCH =PSORA ELM = PSORA PINE =PSORA, SYPHILIS. CRAB APPLE= SYPHILIS STAR OF BETHLEHEM =PSORA SWEET CHESTNUT=PSORA, SYPHILIS. OAK=TUBERCULAR WILLOW=PSORA, SYPHILIS.
7	OVERCARE FOR WELFARE OF OTHERS.	CHICORY= TUBERCULAR VERVAIN =SYCOSIS VINE=TUBERCULAR BEECH= SYPHILIS. ROCK WATER= PSORA.


TABLE 3: Characteristics Of 39 Bach Flower Remedies. [16][17]

BACH FLOWER REMEDIES [16]	SCIENTIFIC NAMES [17]	BACH FLOWER IMAGES	PREPARATION METHOD- 4th CHAPTER [17]	MENTAL CHARACTERISTIC- 5th CHAPTER [17]	FROM	TO
					NEGATIVE EMOTIONAL BEHAVIOUR [16;17]	POSITIVE EMOTIONAL BEHAVIOUR [16;17]
GROUP1: FEAR						
MIMMULUS	<i>Mimulus guttatus</i>		Sun method (35pg)	The Bravery flower (pg128)	Known Fear of the world (Fear of everyday things, known cause of anxiety, they feel shy, timid, afraid of people & social situations.)	Trust in the world (Gives gentle courage, helps them to overcome their Nervousness) 1pg
ASPEN	<i>Populus tremula</i>		Boiling method (31pg)	The Psychic Flower (149pg)	Dark Premonitions (Vague unknown fears. Helps feelings of apprehension-uneasy feelings that something is about to happen. Aspen fears can also shade into Hair-standing-on-end-terror. Although here too the cause will be unnameable.)	Conscious sensitivity (Realise emptiness of fears & put them into perspective. As victor Bullen said, "fear knocked on the door, courage answered and there was no one there.")1pg
ROCK ROSE	<i>Helianthemum nummularium</i>		Sun method (36pg)	The Liberation Flower (152pg).	Panic. (Terror or panic might experience when we witness an accident or wake from lucid nightmare. Fear is extreme & specific.)	Heroic Courage. (Helps to restore us to calm) 2 pg.
REDCHESTNUT	<i>Aesculus carnea</i>		Boiling method (35pg)	The Cutting-Free Flower (148pg).	Symbiosis. (When we become afraid for the safety, health or well-being of people close to us. Worry all the time when their children go on school trip, fearing they might fall ill or be injured in some way. If spouse has to travel, they can't rest until he or she is home again safe & sound.)	Autonomy. (Helps us have more faith & put our fears into perspective.) (2pg)
CHERRY PLUM	<i>Prunus cerasifera</i>		Boiling method (32pg)	The openness Flower (66pg)	Overload (Fear of losing control)	Relaxation (Restores peace, calm & reason) 2pg-bcf




GROUP2: UNCERTAINTY:

SCLERANTHUS	<i>Scleranthus annuus</i>		Sun method (36pg)	The Balance Flower (161pg)	Inner Conflict (Indecision & hesitancy, inability to decide one thing & another. First, we choose one thing, then decide on the other. Our dilemmas can be wearing and cause much mental turmoil.)	Inner Equilibrium (Eases this uncertainty. Helps us know our minds & reach a decision without much debate.)
CERATO	<i>Ceratostigma willdenowii</i>		Sun method (32pg)	The Intuition Flower (62pg)	Indecisiveness (Distrust their own intuition-seek the reassurance of others) =2pg-BCF	Inner certainty (Build confidence in own judgement)
GENTIAN	<i>Gentiana amarella</i>		Sun method (33pg)	The Belief Flower (95pg)	Doubt (Discouraged, disappointed, lose faith. Often occurs result of setback) 2pg	Trust (Feel more positive in our outlook more hopeful, helps to focus on brighter opportunities.)
GORSE	<i>Ulex europaeus</i>		Sun method (33pg)	The Hope Flower. (99pg)	Giving up (Lost all hope of happiness returning, no faith in their treatment, believe that they will never get better)	Going Forth. (Restores hope & optimism)
HORNBEAM	<i>Carpinus betulus</i>		Boiling method (34pg)	The Vitality Flower. (116pg)	From Listlessness. (Lack of mental strength to face the day ahead like Monday mornings. We feel weary with the thought of the next task. We tend to procrastinate/postponement of work because everything seems a chore.)	To Mental Freshness. (Helps to restores the strength we need to face the day and get on with our lives.)
WILD OAT	<i>Bromus tectorum</i>		Sun method -not made from oat, but from wild grass (38pg)	The Vocational calling Flower (193 pg.)	From Seeking. (For people who feel fairly aimless in life or disappointed with their actions or achievements. They are ambitious but uncertain about how to pursue it, and neither their employment nor their personal lives provide them with the sense of fulfilment they want.)	To Finding. (Helps those who are in this position to become more certain of their goals and to choose a direction for their lives that will bring them greater fulfilment and satisfaction.) 3pg

GROUP3: INSUFFICIENT INTEREST IN PRESENT CIRCUMSTANCES:

CLEMATIS	<i>Clematis vitalba</i>		Sun method (33pg)	The Reality Flower (81pg)	Escaping Reality. (Thoughts too much in future, daydreaming, not in present, absent minded/ lack concentration) 3pg	Living (Allows us to enjoy having something to look forward to, but enjoy the present day too)
HONEYSUCKLE	<i>Lonicera caprifolium</i>		Sun method (34pg)	The past flower (112pg)	Then (Thoughts dwell in past, nostalgia shades into homesickness, regret) 3pg	Now (Unlocks the mind and brings present back into focus, can enjoy & learn from past without being trapped in it.)
WILD ROSE	<i>Rosa canina</i>		Boiling method (38pg)	The zest for Life Flower. (197pg).	Resignation. (Those who become apathetic and lack of motivation. People accept life as it is, without being especially happy or unhappy about their situation. In illness they may become resigned to their suffering.)	Devotion. (Helps people find in this state to find that spark of enthusiasm that makes life more exciting and rewarding.) 3pg.
OLIVE	<i>Olea europaea</i>		Sun method (35pg)	The Regeneration Flower (141pg)	Exhaustion. (When we feel exhausted due to overwork or suffering, feel drained of energy & find it difficult to carry daily normal routine)	Inner Renewal. (Helps to regain our energies naturally, either putting us back in touch with our reserves or helping us rest & recover.)
WHITECHESTNUT	<i>Aesculus hippocastanum</i>		Sun method (37pg)	The Thought Flower. (248pg).	From Mental Merry-go-round. (Persistent thoughts and concerns can cause insomnia due to insufficient interest in the moment, hindering mental occupied and relaxation.)	Mental quiet. (Helps to restore peace of mind.) 3 pg.
MUSTARD	<i>Sinapis arvensis</i>		Sun method (35pg)	The Light Flower (133pg)	Soul pain (Gloom & despondency for no apparent reason, this state descends like dark cloud, casting a shadow over our joy in life)	Soul grandeur (Helps to drive away the darkness & restores happiness)4pg
CHESTNUT BUD.	<i>Aesculus hippocastanum</i>		Boiling method (32pg)	The Learning Flower (71pg)	Superficiality. (Repeat same mistakes time & time again)	Experience (More observant & learn lessons of daily life more easily)2pg.









GROUP4: LONELINESS:

WATER VIOLET	<i>Hottonia palustris</i>		Sun method (37pg)	The Communication Flower. (245pg).	Isolation. (Water violets prefer a solitary lifestyle, avoiding imposing others and maintaining privacy. They may appear aloof or proud, creating a barrier that creates distance and feelings of loneliness.	Togetherness. (Helps to soften the barrier so they can once more enjoy the company of friends.) 4pg.
HEATHER	<i>Calluna vulgaris</i>		Sun method (34pg)	The Identity Flower. (103pg)	Needy child (Need company & feel lonely if no one to talk so they become self-absorbed & can find it difficult to stop talking people may start to avoid them, danger of loneliness deepens).	Understanding Adult (Helps people of this nature take their minds off themselves, attach less importance to their troubles, become better listeners & companions) 4pg.
IMPATIENS	<i>Impatiens glandulifera, Joylet.</i>		Sun method (34pg)	The Time Flower (120pg)	Impatience. (Inclined to solitary, they find other people too slow. Prefer to work, talk, move too quickly. lack of patience cause irritation & tension) 4pg	Patience. (Adopt more relaxed pace, more patience)

GROUP5: OVERSENSITIVE TO INFLUENCES AND IDEAS:

AGRIMONY	<i>Agrimonia eupatoria.</i>		Sun method(31pg)	The Honesty Flower(44pg)	Pretended Harmony. (People who mask their worries, fears, or anxieties by appearing naturally joyful. Because they dislike making a scene, they hide their problems and act as though everything is fine.)	Inner peace. (Helps to relive hidden anguish. They can share their problems more honestly and find ways to deal with them instead of pretending everything is fine.)
CENTAURY	<i>Centaurium umbellatum.</i>		Sun method (32pg)	The service flower(38pg)	Passive service. (Polite, friendly individuals overwork and persuade others, often mistreating or exploiting generous people's generosity.)	Active service. (Helps them to recognize their inner power so they can defend themselves and deal with other people's domination.)
WALNUT	<i>Juglans regia</i>		Boiling method(37pg)	The Midwife Flower. (241pg).	Vacillation. (When we set upon our chosen path in life but feel distracted by circumstances or the ideas of others.) 5 pg.	Inner Steadfastness. (Consistency and protection from influences help us adjust to life changes and new phases.)
HOLLY	<i>Ilex aquifolium.</i>		Boiling method (34pg)	The Heart-Opening flower(107pg)	Hard-Heartedness (Hatred, envy, revenge, suspicion will eat away the love within us & destroy happiness)	Generosity. (Wholehearted pleasure in achievements and success of others)

GROUP6: DESPONDENCY OR DESPAIR:

LARCH	<i>Larix decidua</i>		Boiling method (34pg)	The Self-Confidence Flower-(124pg)	Self-Restriction (Expect failure, don't think they can succeed. Tend not to try in the first place, so they miss out many opportunities)	Self-Unfolding (Restores the self-confidence)
ELM	<i>Ulmus procera</i>		Boiling method (35pg)	The Responsibility Flower. (91pg)	Self-worth crisis. (Lose their confidence / feel depressed due to unable to cope up)	Inner confidence. (Restores the ability to deal with overload in a balanced way) 5pg.
PINE	<i>Pinus sylvestris</i>		Boiling method (35pg)	The Self-Acceptance flower-(144pg)	The Self-Negation. (Guilt arises from self-blame, apologizing for others' mistakes, and keeping feelings secret, causing feelings to grow out of proportion.)	Self-Respect (Helps to realise that we are not always to blame, that others make mistakes too. Where we were at fault it helps us realise the burden of guilt & move on.) 5pg
CRAB APPLE	<i>Malus pumila.M.robustata</i>		Boiling method (35pg)	The Cleansing Flower (86pg)	Compulsive order. (Obsessed with thought of dirt, germs, unclean, when we feel ugly/ashamed about our appearance& washes hands again and again, fustidiously tidy up & clean)	Inner order. (Washes away these obsessive thoughts) 5pg (Washes away these obsessive thoughts) 5pg.
STAR OF BETHLEHEM	<i>Ornithogalum umbellatum</i>		Boiling method(36pg)	The Comfort Flower. (165pg)	Shock. (Who have suffered shock, trauma or loss-distress of sudden bad news like bereavement.	Reconciliation. (Remedy comforts and helps in time of sorrow) 6pg
SWEET CHESTNUT	<i>Castanea sativa</i>		Boiling method(37pg)	The Deliverance Flower (169pg)	Through Darkness. (Feeling exhausted and suffering, we try solutions but find nothing, feeling dejected and heartbroken.)	To Light. (Helps to lift the sadness & restores the hope of some future happiness.) 6 pg.
OAK	<i>Quercus robur</i>		Sun method(35pg)	The Endurance Flower-(137pg)	Unflagging Duty. (Brave individuals struggle with illness, seeking treatment but becoming discontented when it disrupts their normal life.)	Inner commitment. (Helps people to stay strong, also brings balance to their lives so can rest when they need to.) 6 pg.
WILLOW	<i>Salix vitellina</i>		Boiling method (38pg)	The Destiny Flower. (200pg)	From Resenting Fate. (We compare our bad luck with the good fortune of others and feel life has been unfair to us. We feel sorry for ourselves and may lose interest in things we previously enjoyed.)	To Taking Personal Responsibility. (Helps us move away from self-pity and feel more positive about our lives.) 6pg

GROUP7: OVERCARE FOR WELFARE OF OTHERS:

CHICORY	<i>Cichorium intybus</i>		Sun method(32pg)	The Motherliness Flower. (76pg)	Demanding Love (They Might interfere manipulative make as a centre of their lives) 6pg	Giving Love Freely. (Express our love by giving people their freedom)
VERVAIN	<i>Verbena officinalis</i>		Sun method (37pg)	The Enthusiasm Flower. (252pg)	World Saviour (Great Enthusiasts they throw all their energy into tasks, which can lead to burnout. They can't accept injustice & unfairness, & will fight what they believe is right & persuade others to think the same way, they can't hear other points of view.)	Light Bearer (Helps them to face problems in a measured way & with fair-mindedness.) 6 pg.
VINE	<i>Vitis vinifera</i>		Sun method (37pg)	The Authority Flower. (257 pg.)	From Leading. (People are Born Leaders, Self-assured & certain they know best. They don't invite argument or debate & don't try to persuade. We issue commands and use force of character to get things done our way.)	To Being Led. (Helps us soften our approach and use our strength as a virtue rather than a weapon, we are able to lead without dominating or dictating.) 6 pg.
BEECH	<i>Fagus sylvatica</i>		Boiling method (31)	The Tolerance Flower (53pg)	Know-it-all (We find it hard to understand the difficulties of others. People's failings, habits and faults irritate us, and we become intolerant and critical of their shortcomings and apparent foolishness.	Better understandings. (Helps us feel more tolerant and realise that other approaches to life can be just as good as our own.) 7pg
ROCK WATER	Not derived from flower, plant or tree it is pure water.		From Natural Spring water with healing qualities. (pg7)	The Flexibility Flower-(156pg)	Dogmatic Discipline. (Deny pleasure, act as a martyr, pursue self-righteousness, and strive for physical or spiritual ideals.) 7pg	Attentiveness. (Helps us relax & temper the demands we make of ourselves. Still set high standards, but they are more human and reasonable)

GROUP RESCUE: RESCUE CONDITIONS:

RESCUE REMEDY	Star of Bethlehem Rose + Cherry plum+ Clematis+ Impatiens.		Only Pre fixed combination of 5 remedies in Bach system, when we have no time to make a personal selection and for immediate help. (7 Pg)	The First Aid or Emergency Remedy. (205pg)	Emergencies like Accidents, stage fright, last minute examination nerves, to relieve effects of shock (Star of Bethlehem), feeling faint and bemused (clematis) restlessness, agitation (Impatiens), hysteria & feeling of losing control (cherry plum), fear, terror and panic (Rock Rose).	Immediately Restore calm and confidence in stressful situations. In 1900 Edward Bach saved a fisherman's life.
---------------	---	--	---	--	--	--

This table explains about Characteristics Of all 38 Bach Flower Remedies and Rescue remedy of their Botanical names, preparation method, mental characteristic type and patterns [17] of their respective negative and positive psychological emotional expressions. [16]

Objectives:

The present clinical research suggests that the use of well-chosen Bach Flower Remedies is essential aid in the hands of all therapists involved in treating psychological problems. At present there is little data on the effect of Bach Flower Remedies and prevention of Generalized Anxiety Disorder in India. In order to advance the present knowledge in the field of clinical research objectives of this study were to study the efficacy of Bach flower remedies for management of episodes of GAD. The secondary objective was to relieve the symptoms and to improve the quality of life of patients diagnosed with GAD after taking Bach Flower Remedies as well as to reduce the prolong need for anxiolytic and antidepressants like Benzodiazepines, etc. in patients with recurrent GADs.

Materials And Method

The study is based on the data relating to the Bach Flower Remedy treatment carried out with detailed case studies and their follow up on patient aged between 18 to 60 years age in the Out Patient Department. The study was carried out as a part of a Post- Graduate Research Project and all the possible relevant details of the patients were collected and recorded in the case papers. The above observed data after a detailed assessment were analysed and appropriate statistical significance tests were applied and the results are presented in this paper.

Study settings:

STUDY SETUP:

The study was carried out in Bharati Vidyapeeth Medical Foundation's Homoeopathic Hospital, out-patient - department (opd) and Mobile Clinics (outdoor opd), rural and urban camps.

THEORETICAL STUDY:

Theoretical study of this topic was done from various textbooks of practice of Internal Medicine; clinical medicine, psychiatric medicine, organon of medicine 5th and 6th edition, underwent a level-1 training from Dr. Edward Bach INTERNATIONAL REGITRER U.K affiliated to get a authenticated source regarding Bach flower Remedies, various textbooks of Bach flower remedies by different stalwart's Homoeopathic Materia medica teachings and previous research works, authentic journals, websites & articles regarding this topic. The role of Bach flower remedies of this topic will be studied in detail from all the available sources. Similimum will be selected with the help of symptom similarity.

CLINICAL STUDY: 30 people diagnosed with generalized anxiety disorder were studied. The case taking was done by standard case taking proforma as per homoeopathic principles.

CASE DEFINITION: persons presenting with symptoms of generalized anxiety disorder GAD SCORE ≥ 8 , of all the above 18 years of age and both sexes were included in study.

INCLUSION CRITERIA:

- All the persons fulfilling the case definition given by ICD-10; DSM-5 criteria.
- Persons having GAD-7 Score ≥ 8 .
- Persons who are willing to take treatment regularly and co-operate for regular follow-ups.
- Persons belonging to above 18 years age group.
- Persons of both sexes.

EXCLUSION CRITERIA:

- Persons requiring IPD management.
- BELOW 18 YEARS OF AGE.
- Persons having GAD-7 Score < 8 .
- Severely ill or emergency cases.
- Persons presenting with gross pathological cases.
- Persons suffering any systemic disorder which interfere with present study were excluded.
- Pregnant women and related disorder.

STUDY DESIGN:

- SITE OF THE STUDY: A Non-Randomized, single blind clinical study was conducted at BHARATI VIDYAPEETH MEDICAL FOUNDATION'S HOMOEOPATHIC HOSPITAL, OPD AND MOBILE CLINICS (outdoor opd), various rural and urban camps organized by the hospital.
- DURATION OF STUDY: study was conducted for 18 months SAMPLE SIZE -34 cases (4 drop outs)-30 cases were studied in detail.
- SELECTION OF SAMPLE: Persons as per the case definition was selected under the guidance of the Respected Guide of the Homoeopathic Materia medica.

INTERVENTION:

i) SELECTION OF THE REMEDY:

After detailed case taking and physical examination, totality is formed and the selection of the remedy in combinations form was done according to symptom similarity. As No human would be with single emotion, can be with mixed emotional causes (like fear, anger, loneliness, uncertainty in making decisions, lack of confidence, love, affection, despair, etc to get GAD and causes were unique for every individual.

DRUG STORAGE:

Drug have acquired from standard homoeopathic pharmacy (SBL Uttarakhand) & Medicines will be stored in Bharati Vidyapeeth Homoeopathic Pharmacy, katraj, pune- 411043. Liquid was stored in amber colour glass bottle kept in dark place, under appropriate temperature, away from sunlight & humidity condition. Log no.& Batch no. was maintained. Bach flower remedies are stored in glass dropper bottles.

ii) Declaration-

Declaration will be given that the drug used here is not harmful to human beings, said remedy is already available in the homoeopathic literature, Bach flower Literature, was well proved on healthy human beings and is harmless and has no side effects.

iii) DRUG DISPENSING:

It has done in liquid forms. Bach remedies usually come as liquids in dropper and Stock bottles. Freshly prepared liquid combinations mixture dose will be used for dispensing purpose. Each liquid mixture is unique for every individual and for every follow ups according to symptom similarity 2 drops of required medicine added into the 15 ml dispensing bottle with 5ml of 98 % v/v saccharum lactis solution and 5ml of sterile water. After mixing, tightened the lid and dispensed in liquid form.

iv) DOSE OF DRUG:

Bach remedies usually come as liquids in dropper bottles. It can either drop the remedy on tongue or mix it into a glass of water to drink. The dosage varies from patient to patient. Usually, 4 drops given 4 times a day in 1 glass of water & advised them to take 4 times a day depending on the state of illness. It was followed according to DR. Edward Bach lessons he stated in one of his teachings and practices - Bach flowers are the Natural flower remedies in order to observe the patient emotional conditions, medicine should be given 4 drops 4 times a day. Scientific reason behind this prescription was according to nature we have 4 time zones in a day morning, afternoon, evening and night as plants were very much adapt and response to the natural biological rhythm on earth.

Drug administration:

Administered through oral route.

BRIEF OF PROCEDURES:

After the selection of the samples a detailed case taking was conducted as per the standard proforma and the remedy was selected on the basis of symptom similarity. Relevant literature will be referred whenever required. Psychiatry Backup was provided in emergency conditions and whenever needed. There was no comorbid conditions during my study so investigations were not needed.

OUTCOME ASSESSMENT:

After detailed case-taking of the patients, the case was analyzed and clinical diagnosis was made and a suitable remedy in combinations form was selected.

Follow up criteria-

Duration of follow up -once in 15 days. First follow up was taken after 15 days of first visit to monitor the patient, then depending on the case assessment further follow ups will be taken either weekly or 15 DAYS. Generally anything related to Nature since from seed germination from the soil it will take minimum 21 days - 30 days to adapt the environment to gain the essence and to response, same as Neural tube development in mother's womb will take 28days, according to ancient yogic science Human brain will take 21 days to adapt anything. so according to nature, we have 4 time zones in a day morning, afternoon, evening and night as plants were very much adapted and response to the natural biological rhythm on earth. Finally according DR. Edward Bach lessons He stated in one of his teachings and practices - Bach flowers are the Natural flower remedies in order to observe the patient emotional conditions, medicine was given 4 drops 4 times a day. So, follow up was taken once in every 15 days.

CRITERIA FOR ASSESSMENT:

- GAD-7 SCORE was used for assessment of improvement of the patients Before and After Treatment.
- Marked improvement: when there is more than 75% disappearance of the symptoms.
- Moderate improvement: when the patient has symptomatic relief with 50-75% reduction of the complaints.
- Mild improvement: when the patient has symptomatic relief with less than 50% reduction of the complaints.
- No improvement: No response seen after treatment.
- Worse: Aggravation of subjective and objective symptoms.
- Dropped out: 4 drop outs have seen due to the patient opts out of the study due to place transfers or attending physician does not want to keep the patient under study for any valid reason

STATISTICAL TECHNIQUES & DATA ANALYSIS:

A specially designed Microsoft excel spreadsheet was sent for data extraction and inference was subjected to statistical analysis based on GAD-7 score.

CLINICAL PROTOCOL:

- Ethical committee approval is availed
- Guidelines by ICMR (Indian counsel of medical research), ICH (International council for harmonization) are followed.
- Data was collected by proper method and will be processed in standard format with following aspect:
- Patients were selected according to case definition.
- Details of the study work are explained to the patient.
- Patient's information sheet form was formed and filled up. And their informed consent was taken from adolescents and adults.
- Standardized case record was prepared and was maintained of individual patient and standardized follow-up sheet has prepared and maintained regularly
- Records of all cases in detail as per standardized case Performa has maintained along with follow-ups.
- Total research project was submitted to ethical committee
- Nosologically diagnosis is done after clinical study.

RESULTS:

Data Analysis and Interpretation

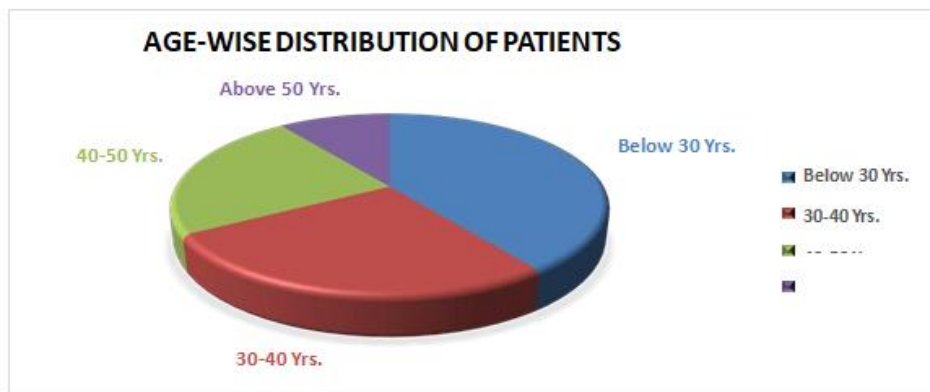
Table1: Distribution of patients according to demographic characteristics

Demographic variables		No of patients	Percentage
Age Group	Below 30 Yrs	12	40.00%
	30-40 Yrs.	8	26.67%
	40-50 Yrs.	7	23.33%
	Above 50 Yrs	3	10.00%
Gender	Female	15	50.00%
	Male	15	50.00%

Occupation	Business	4	13.33%
	Employee	13	43.33%
	Homemaker	3	10.00%
	Student	10	33.33%
Miasm	PSORA, TUBERCULAR	1	3.33
	PSORA, SYCOSIS	2	6.67
	PSORA	2	6.67
	PSORA, SYPHILIS	4	13.33
	PSORA, SYCOSIS, SYPHILIS, TUBERCULAR	5	16.67
	PSORA, SYCOSIS, SYPHILIS	16	53.33

Table2: Descriptive statistics of the GAD-7 before and after the intervention.

GAD-7	N	Mean \pm SD	T Statistic Value	P-Value
Before intervention	30	14.83 \pm 3.77	27.61	0.000**
After intervention	30	9.27 \pm 3.75		



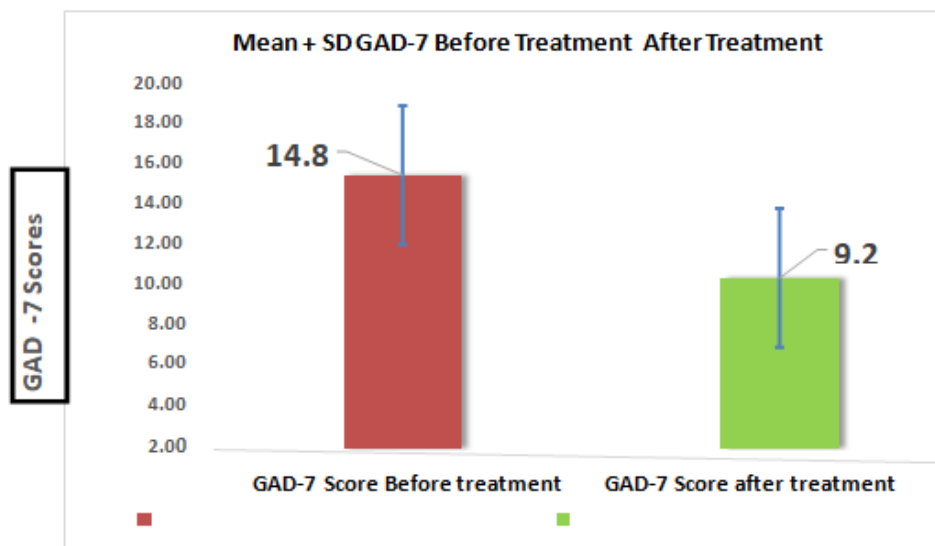
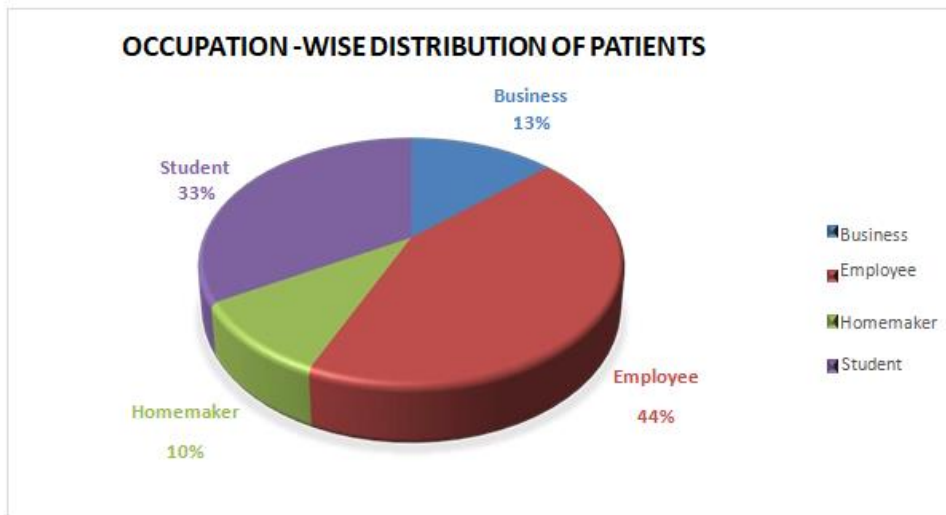


Fig:1: GAD-7 score analysis before and after treatment.

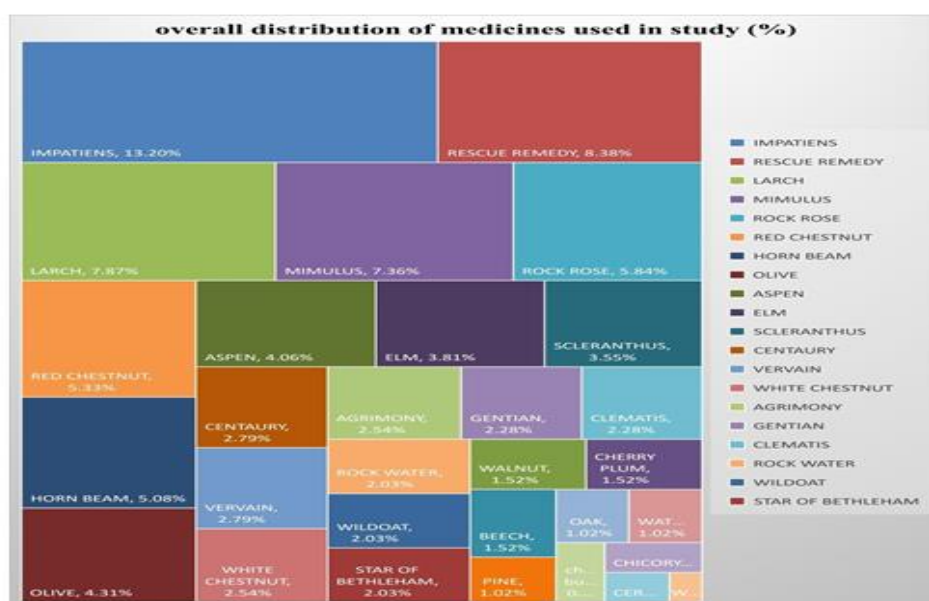


Figure 2: overall distribution of medicines used in the study (%)

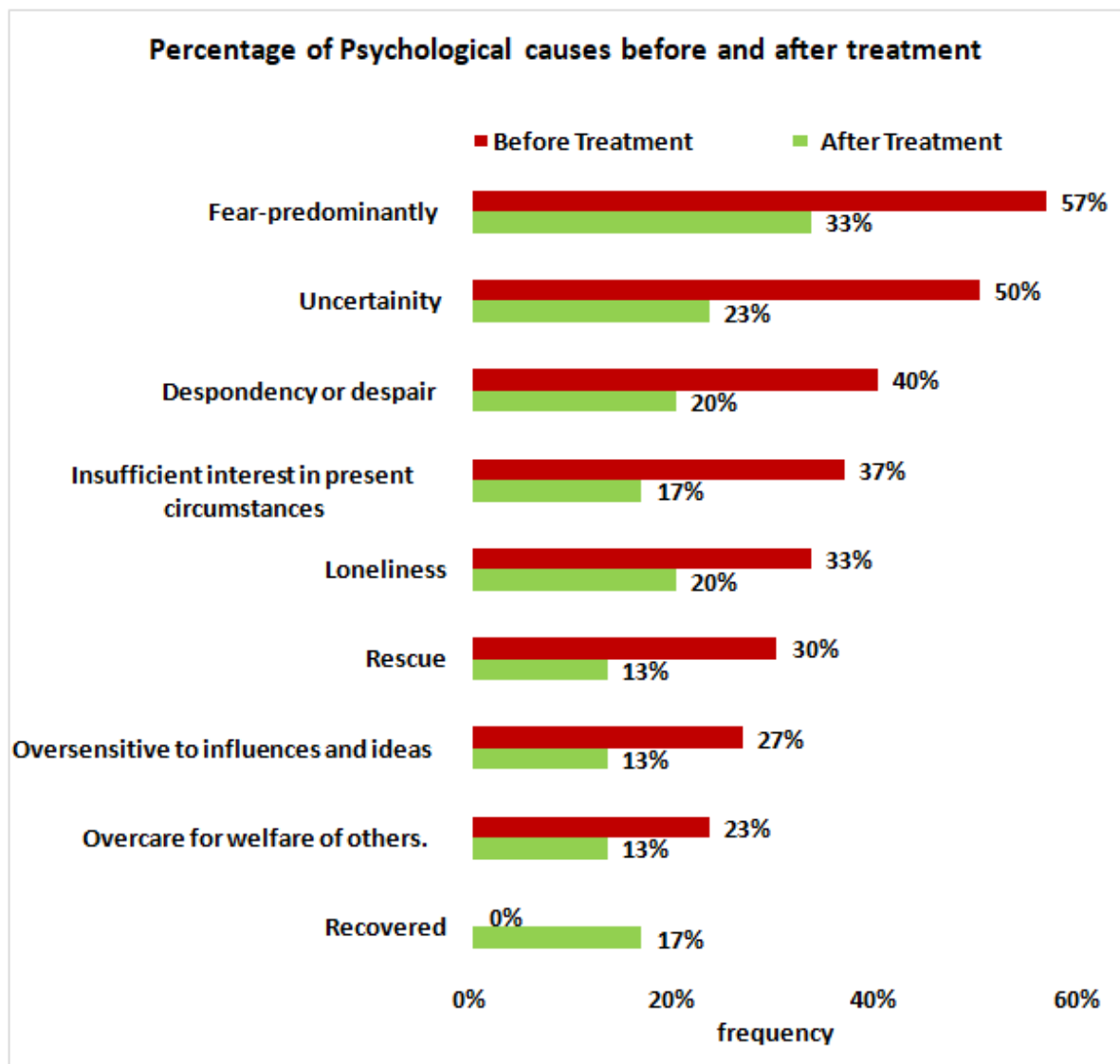


Figure 3: Distribution of psychological causes in % before and after treatment

Table 8: Distribution of patients according to anxiety level before and after treatment.

Level of Anxiety	Before treatment		After Treatment	
	No of patients	Percentage	No of patients	Percentage
Minimal	0	0.00%	4	13.33%
Mild	4	13.33%	10	33.33%
Moderate	10	33.33%	16	53.33%
Severe	16	53.33%	0	0.00%

Table 9: Distribution of patients according to the quality of life before and after intervention

Quality of Life	Before treatment		After treatment	
	No. of patients	Percentage	No. of patients	Percentage
Not at all Difficult	0	0	4	13%
Somewhat Difficult	4	13%	10	33%
Very Difficult	10	33%	16	53%
Extremely Difficult	16	53%	0	0%

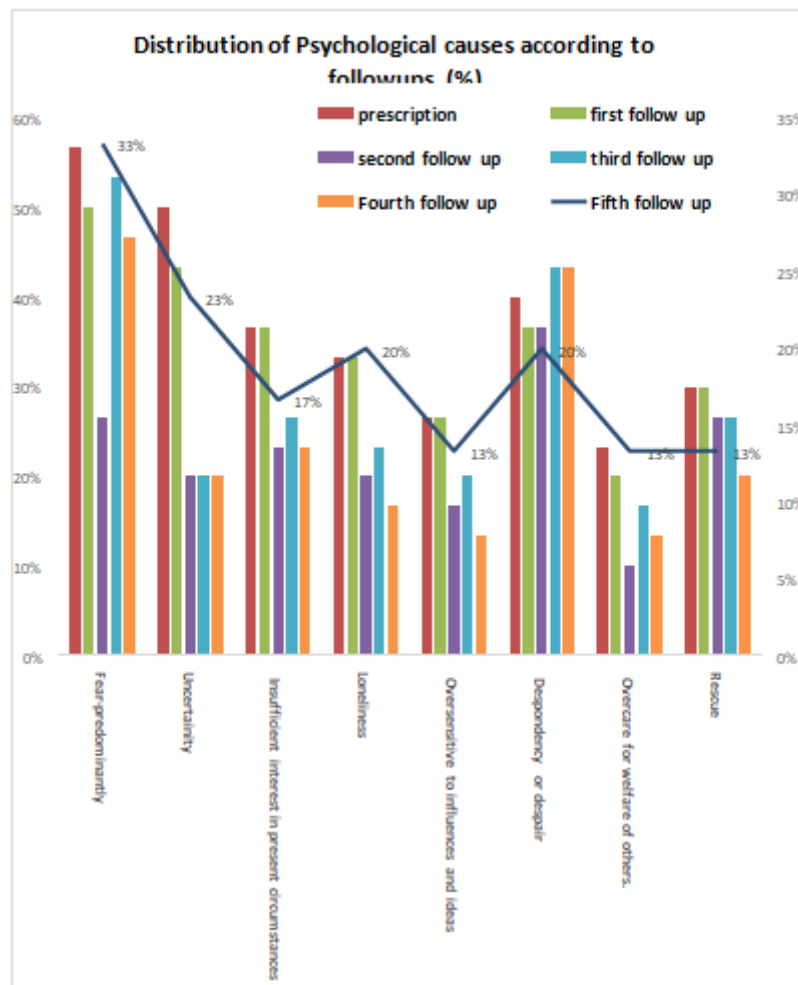


Figure 4: Distribution of Psychological causes according to follow ups. (%)

This Figure explains about Over all the psychological causes of getting GAD were reduced as follow-up progressed. The study found that fear, despair and uncertainty were the main sources of anxiety, accounting for 19.75%, 16.3% and 13.09% of psychological causes respectively. Insufficient interest in present circumstances, Rescue condition, loneliness comes in next line of predominance of causing GAD

Discussion:

Out of all 30 cases 40% patients belongs to the age group 18 -30 years Out of 30 cases 50% were men and 50% were females. Despite studies showing that GAD is more common in women, since the SARS covid19 outbreak, anxiety about one's health has increased worldwide. In this study, employees (43.33%) and students (33.33%) had higher rates of gad than business people and home makers. Out of 38 remedies, 31 were indicated in combination forms in the majority of cases, with Impatiens being the most frequently indicated remedy. Throughout the entire study, Rescue, Remedy, Larch, Mimulus, Rock Rose, Red Chestnut, and Hornbeam were the next most commonly prescribed remedies. According to the study, the three primary psychological causes of anxiety—fear, despair, and uncertainty—account for 19.75%, 16.3%, and 13.09%, respectively. Insufficient interest in present circumstances, Rescue condition, loneliness comes in next line of predominance of causing GAD. The three groups with the highest improvement were rescue (56%), insufficient interest in present circumstances (55%), and uncertainty (53%). The treatment was effective in reducing the severity of anxiety in most of the patients. None of the patients had severe anxiety after the treatment. The patients who had severe, moderate and mild anxiety before the treatment improved to moderate, mild and minimal anxiety levels after the treatment respectively. This study also examines how anxiety affects the quality of life of patients. It measures how much difficulty they have in doing their work, running their household, socializing with others. After treatment, patients showed a reduction in anxiety level. None of them experienced extreme difficulty. Their level of difficulty dropped. The outcome was that Bach Flower Remedies are effective in

managing the cases of GAD. Paired T-test was used. T-statistic value is 27.61 with a p-value of 0.000 ** highly significant Before treatment, GAD-7 score was 14.83+ 3.77 (mean+ SD) which reduces to 9.27 + 3.75 after treatment. Psora is found to be the most dominant and fundamental miasm found in all cases of GAD. while 53.33% of them also had sycosis and syphilis. Psora, sycosis, syphilis, and tubercular were found in 16.67% of the patients. BFRs work on an emotional level. A few physical illnesses that are caused as a result of the GAD were also improved. If any underlying pathological conditions are present, they ought to look for the appropriate diagnostic tests and required treatment for respective pathology. BFRs act as a helping aid in the hands of all therapists. This study is a beginning to explore the study of Bach Flower Remedies. The Results were supportive to open new paths for future studies on BFR.

Limitation: - Considering that GAD is a long-lasting Chronic Disorder. Improvement in the case could not be followed for a significant time period since this study is time bound. Sample size of 30 cases was small, no control Group was included Generalizing the result and conclusion of this study should be done cautiously as the sample size is small Some cases required long term observation which is practically impossible because of time limit.

Recommendation: - Larger Sample size with increased duration of study could provide better results It will be more scientific to include control group simultaneously to compare the effectiveness of Bach flower remedy treatment with other mode of treatments. The healing potential of flowers has been highlighted by numerous therapies, including Homeopathy, Puspa, Ayurveda, Aromatherapy, BFR, Australian Bush Remedies, SAHIIR, and others. All of these emphasise the flowers' ethereal "energy" or "vibration," which is transmitted to the water in which it is suspended [25]. Kirian's photographs are one method to show that there is a delicate energy transmission between the flowers and the water. Quantum physics shows that invisible signals are significantly more potent than visible ones [26]. According to the majority of the literature review, herbal plants have healing properties that could be used to treat psychological illnesses, which are on the rise and have no end in the modern age where people's minds are polluted with unwanted, unfulfilling thoughts. It should need further advancement in research with upcoming advanced techniques Nano technology, Quantum physics, meta-analysis etc. & trials are necessary to explain the material presence, bioenergy pattern, medicinal properties, action of these remedies and should enlighten its help & need in every field of science.

Conclusion:

This study enlightens the thought of great stalwarts Dr.C.F.S. Hahnemann -mind is a key to man as man is a multidimensional entity. Since the sickness always manifests in the inner man before spreading to the physical plane of the body, it is important to treat the cause rather than the disease. Another stalwart Dr. Edward Bach states - There can be no meaningful recovery without a change in perspective, mental peace, and internal happiness. After assessment of all the data obtained from 30 cases Bach flower remedies impatiens, mimulus, larch, rockrose, rescue remedy, Red chestnut are well marked and found to be the frequently needed in most of the GAD cases. It also shows most common psychological emotional causes like fear, uncertainty, despondency and despair, rescue ,insufficient interest in present circumstances were suffered with GAD. It is found to be selection of remedies are unique for each individual we cannot generalize specific combinations for specific psychological disturbances as every individual emotion, thought process, perception, are unique in and out. In fact Dr. Edward Bach himself found N number of combinations can be made with all the 38 remedies to treat all kind of emotional disturbances, so he stopped further discovery of flower remedies. In this study GAD-7 score analysis before and after treatment shows there is improvement seen with BFRs. This study suggests that Bach Flower Remedies plays an important role in management of Generalized Anxiety Disorder. This study is a beginning to explore the study of Bach Flower Remedies. The Results were supportive to open new paths for future studies on BFR.

Ethical statements:

The Institutional Ethics Committee of Bharati Vidyapeeth Deemed to Be University Homoeopathic Medical College & Hospital, Pune had approved the study through the letter dated 07 December 2021. Each patient was informed of the ethical issues related to the study through the informed consent form and was duly documented. The study was performed following the protocol laid down in the 1964 Declaration of Helsinki.

Acknowledgement

I would like to thank Almighty God and Master E.K for bestowing on me this wonderful opportunity, and for always keeping me under the power of his divine guidance and unconditional love.

References

1. I take this opportunity to express my deep sense of gratitude to my guide, Ass. Prof. Dr. Vaishali V Dolas M.D. (Hom), for her expert guidance, valuable suggestions and kind support during the period of study.
2. It gives me great pleasure to have this opportunity to express my thanks to Prof. Dr. Avinash Rajaram Mhetre, M.D.(Hom.), Principal, Bharati Vidyapeeth (deemed to be) University Homoeopathic Medical College, Pune, for being a source of constant inspiration and encouragement. I must not forget to thank Our P.G. co-ordinator prof. Dr. Mrs. Anita S. Patil and all the respected Teachers of Department of Homoeopathic Materia medica and all the departments of our Post graduation for encouraging me all through my study, Bharati Vidyapeeth (deemed to be) University Homeopathic Medical College Pune.
3. With blessings and inspirations of my ideal and respected Parents, Mother Mrs. G. V. Subhadra, Father Mr. G. V. Subrahmanyam(late), my brother Mr. G. V. Santosh and sister-in-law Mrs. G. V. Priyanka and whole family.
4. I greatly appreciate & thankful to my life time mentor and endless immense supportive spouse Mr. D. N. Bharat Vamsy, and my respected in laws and whole family I achieved all this in my life. Without their support I am nothing.
5. A very big thanks and special gratitude towards my friends who helped me a lot during this study. And thanks to patients for their valuable support rendered during the course of this study.
6. Last, but not the least, I Owe to our masters Honourable Dr. Samuel Hahnemann invented Homeopathy, and Master's Disciple Dr. Edward Bach introduced Healing Flower Remedies to serve the humanity.