Healthcare Possibilities of Moodforest's 'Bio-Happiness' and 'Forest Fasting' Protocols with Special Reference to Diabetes, Hypertension and Cardio-Protection

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Abstract: There's a growing global interest in enhancing health-span and achieving longevity. This article explores the potential of Moodforest's 'Bio-Happiness' and 'Forest Fasting' protocols for improving health and reversing diseases. Additionally, it suggests the possibility of a coronary cleanse as a preventive measure against the rising incidence of cardiac issues.

INTRODUCTION

All living beings possess fundamental abilities for reproduction and self-healing, which have driven the evolution of biological systems over millions of years, independent of human intervention and technology. Since 2014, Moodforest, formerly known as Sehatvan, has sought to explore this biological self-healing potential through largely unstructured self-experimentation.

Over the past decade, these experiments have revealed that not only can many diseases be reversed, but the aging process itself may also be slowed. However, since these findings stem from self-experimentation without rigorous scientific controls or statistical analysis, it is essential to evaluate them for the broader benefit of humanity.

This article is largely based on the research conducted at Moodforest over the past ten years, culminating in an Indian patent application filed on July 26, 2024 (application No. 202421056960). [1] Consequently, the intellectual property rights of the information presented here should be considered accordingly.

Initially, when the experiments began in 2014, the focus was on strengthening health and reversing diseases, which is why the name 'Sehatvan' was chosen— 'Sehat' meaning 'health' in Urdu and 'Van' meaning 'forest' in Hindi. However, the focus has since shifted to 'happiness,' leading to the new name 'Moodforest.' We now believe that health and happiness are two sides of the same coin. Let's start with the concept of Bio-Happiness, the latest hypothesis proposed by Moodforest.

THE QUEST FOR HAPPINESS AND IDEA OF BIO-HAPPINESS

Humans have long sought happiness, yet it remains unclear if we are making any real progress. Moodforest posits that a significant portion of our happiness is biological (see Figure 1), and this biological happiness is rapidly diminishing due to dramatic changes in our environment. This could explain why, despite advancements in finance, spirituality, and other social aspects, we feel no happier than our ancient ancestors.

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As our bio-happiness declines, we continue to pursue happiness through money, spirituality, and relationships, often overlooking the underlying biological factors that affect our well-being. For example, vitamin D deficiency is well known to contribute to depression, while low levels of vitamin B_{12} can lead to irritability and fatigue. Individuals with these biological deficiencies may find it difficult to elevate their mood through financial or spiritual means alone.

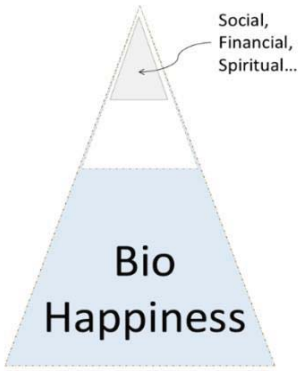

Figure 1: Happiness pyramid (copyright Moodforest LLP)

THE BIO-HAPPINESS FACTORS & PROTOCOL

Table 1 outlines nine key factors that influence human happiness, highlighting their health implications and prevalence. Moodforest has created a four-day module that incorporates psychological assessments at the evaluation stage and physiological interventions at the implementation stage.

GREEN MIND STUDY

The impact of the Bio-Happiness protocol has been formally examined in the 'Green Mind Study,' conducted under the supervision of Prof. Geertjan of Amsterdam University. Preliminary results indicate significant improvements across various parameters, including mental distress, mental well-being, cognition, and sleep quality, as illustrated in Figure 2.

FOREST FASTING PROTOCOL

The Forest Fasting Protocol synergistically integrates forest bathing, fasting, community living, green workouts, and fasting. As illustrated in Figure 3, this nine-day program consists of three phases: Strengthening, Fasting, and Re-strengthening.

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Table 1: Key Factors Affecting Human Health and Happiness (Copyright Moodforest LLP)

Factor	Health Implication	Mood Implication	Prevalence
Epigenetic Balancing	Essential for proper body function	Imbalances can lead to restlessness and other issues	Requires some regular exposure to the wild, most city dwellers do not have
Microbiome & Vit B_{12}	Crucial for a strong immune and nervous systems	Disruption leads to a diminished gut instinct	Declining in many individuals
Hydration	Dehydration can lead to various health problems, including accelerated aging and heart issues	Causes feelings of fear, anxiety, and lethargy	Most people are not adequately hydrated
Sunshine & Vit D	Linked to bone health	Associated with depression	Widespread deficiency/insufficiency
Sleep	Most bodily repair occurs during sleep	Quality sleep enhances cognition	Many people suffer from inadequate sleep
CO_2 Retention	Can lead to blood acidity, bone deterioration, and arterial blockage	Results in confusion and anxiety	Common in air-conditioned environments
Green Workouts	Inadequate physical activity can speed up aging	Outdoor productive workouts boost energy, clarity, and fulfilment	Traditional gyms and yoga are not considered green workouts
Nutrition & Autophagy	Overeating accelerates aging	Mood-altering foods can have long-term negative effects	Many people consume addictive foods
Community	Lack of community can lead to unhealthy eating habits, contributing to obesity and related disorders	Lack of community brings-in feeling of loneliness	Loneliness has reached epidemic levels

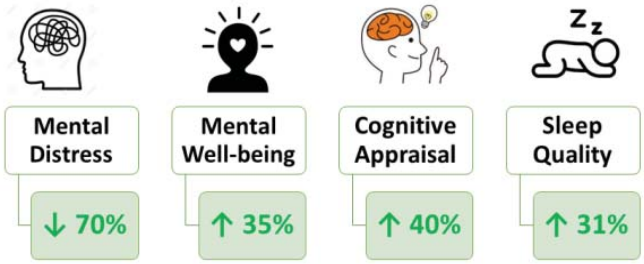

Figure 2: Preliminary outcomes of green mind study (copyright Moodforest LLP)

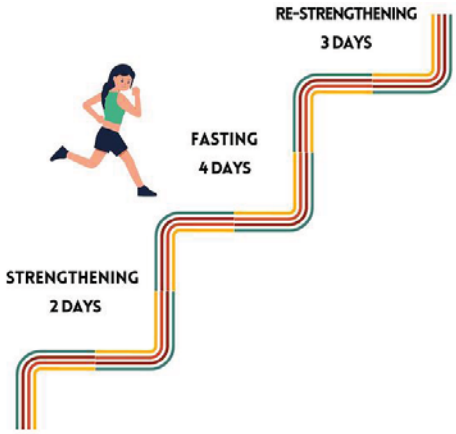

Figure 3: Forest fasting protocol (copyright Moodforest LLP)

HEALTH OBSERVATIONS OF FOREST FASTING

The Forest Fasting Protocol has been implemented with over 300 participants, who reported a range of effects detailed in Table 2.

PROBABLE MECHANISMS OF ACTION

What is being done at Moodforest could be considered as a whole new therapeutic approach and lot of formal studies would be required to understand the mechanisms of actions. From whatever is known, some mechanisms could be postulated.

Sun Bathing

1. **Physiological Effects**

- **Vitamin D Production**: Sunlight exposure facilitates the synthesis of vitamin D in the skin, which has been

Table 2: Health Observations of Forest Fasting

Indication	Outcome
Obesity	Depending upon the BMI, most obese have been losing 4-5 kg weight in the 9 days protocol duration. Some participant took multiple courses and lost over 20 kgs.
Diabetes	Many type2 diabetics succeeded in reaching to normal blood sugar levels in 3 or more cycles.
Hypertension	In most participants with elevated blood pressure, the BP got normalized in one, two or more cycles.
Hypercholesteremia	Cholesterol levels got normalized in 2 to 3 cycles.
Vitamin D Deficiency	Depending upon the level of deficiency, vitamin D levels have been reaching to normal mostly in single course.
Psoriasis	There has been only 1 participant with psoriasis, and surprisingly his 25-year-old psoriasis, spread in almost 60% body disappeared in 2 cycles.
Lupus	There has been one case of lupus, a 24-year-old girl with advanced lupus stayed in the campus for nearly 1 year. She didn't fast, she was mostly on bio-happiness protocol like lifestyle and her lupus got reversed.
Autism	A 7-year-old boy with autism stayed in the campus with his parents for around 2 month and improvement in his constipation, cognition, speech and socializing was observed.

Table 3: Sun Bathing Studies

Study	Participants	Key Findings
Wang *et al*. (2019) [2]	200 adults	Positive correlation between sun exposure and lower blood pressure levels.
Linos *et al*. (2011) [3]	500 participants	Higher vitamin D levels linked to reduced risk of CAD.
Holick *et al*. (2011) [4]	Review of multiple studies	Confirmed that adequate vitamin D is crucial for cardiovascular health.

Table 4: Forest Bathing Studies

Study	Participants	Key Findings
Sung *et al*. (2020) [5]	100 hypertensive adults	Significant reductions in both systolic and diastolic blood pressure after forest therapy sessions.
Park *et al*. (2017) [6]	80 hypertensive patients	Greater reductions in blood pressure and perceived stress compared to urban control groups.
Li *et al*. (2020) [7]	60 participants	Improved heart rate variability (HRV) and decreased anxiety levels following forest therapy.

Table 5: Fasting Studies

Study	Participants	Key Findings
Trepanowski *et al*. (2017) [8]	100 obese individuals	Significant reductions in systolic and diastolic blood pressure with alternate-day fasting.
Anton *et al*. (2018) [9]	40 overweight adults	Improved lipid profiles and reduced inflammation after a 5:2 diet.
Longo *et al*. (2016) [10]	Review of fasting benefits	Highlighted fasting's role in metabolic health, including cardiovascular benefits.

associated with various cardiovascular benefits. Research indicates that low levels of vit. D are linked to hypertension, heart disease, and increased risk of CAD. Adequate vit. D levels can improve calcium metabolism, which is essential for maintaining vascular health.

- **Nitric Oxide Release**: Exposure to ultraviolet (UV) radiation in sunlight stimulates the release of nitric oxide (NO) in the skin. Nitric oxide is a potent vasodilator that can improve blood flow and reduce blood pressure. Enhanced NO levels can lead to improved endothelial function, which is critical in preventing atherosclerosis.

2. Psychological Effects

- **Mood Enhancement**: Sun exposure is linked to increased levels of serotonin, a neurotransmitter associated with mood regulation. Improved mood can lead to lower stress levels, which are vital for maintaining heart health. Furthermore, seasonal affective disorder (SAD) has been shown to have a strong connection with lack of sunlight exposure.

Forest Bathing

1. Physiological Effects

- **Stress Hormone Reduction**: Spending time in natural environments has been shown to lower cortisol levels, a hormone that plays a significant role in the body's stress response. Elevated cortisol levels contribute to inflammation and arterial stiffness, both of which are risk factors for CAD.
- **Enhanced Autonomic Nervous System Function**: Forest therapy promotes a shift from sympathetic (fight-or-flight) to parasympathetic (rest-and-digest) nervous system dominance. This shift can lead to

improved heart rate variability (HRV), a marker of cardiovascular health. Increased HRV is associated with better heart function and lower risk of cardiovascular events.

2. **Psychological Effects**

- **Mindfulness and Relaxation**: Forest therapy encourages mindfulness, which has been linked to reductions in anxiety and stress. Practices such as Shinrin-yoku (Japanese forest bathing) have been shown to foster emotional well-being, further enhancing cardiovascular health.

Fasting

1. **Physiological Effects**

- **Metabolic Adaptations:** Fasting enhances insulin sensitivity, leading to improved glucose metabolism. Studies indicate that fasting can lower blood sugar levels and reduce insulin resistance.
- **Lipid Profile Improvement**: Fasting has been shown to improve lipid profiles significantly. Research indicates that fasting can reduce total cholesterol, low-density lipoprotein (LDL) cholesterol, and triglycerides—factors that contribute to the development of atherosclerosis.
- **Inflammation Reduction**: Fasting has anti-inflammatory effects, which can lower the levels of C-reactive protein (CRP) and other inflammatory markers associated with CAD. Reduced inflammation can stabilize existing plaques and lower the risk of rupture, thus decreasing the likelihood of acute cardiovascular events.
- **Autophagy**: Fasting triggers autophagy, a cellular cleanup process that removes damaged cells and promotes cellular repair. Enhanced autophagy can improve overall metabolic health, which is vital for heart function.

2. **Psychological Effects**

- **Cognitive Clarity**: Many individuals report improved focus and mental clarity during fasting periods. This cognitive boost may help in better stress management and emotional regulation, indirectly supporting cardiovascular health.

STUDIES CARRIED-OUT BY OTHER RESEARCH GROUPS

There is no report of any study focusing on protocol similar to that of Moodforest; however, some studies on single elements are reported (Table 3, 4 and 5).

CONSIDERATIONS AND FUTURE RESEARCH

While the preliminary evidence supporting these practices is promising, further research is necessary to:

1. **Standardize Protocols**: Establish guidelines for optimal exposure times, fasting durations, and forest therapy sessions. For example, determining the ideal duration and frequency of forest therapy for optimal cardiovascular benefits.
2. **Investigate Synergistic Effects**: Explore how combining these practices may enhance cardiovascular health outcomes more than individual practices alone. Longitudinal studies could provide insights into the cumulative effects over time.
3. **Longitudinal Studies**: Conduct long-term studies to assess sustained impacts on CAD prevention and management, including potential risks and benefits associated with each practice. These studies could help clarify how lifestyle changes can be most effectively implemented.
4. **Demographic Variability**: Investigate how factors such as age, gender, and ethnicity may influence the effectiveness of these interventions on heart health. Tailoring approaches based on individual characteristics may improve outcomes.
5. **Mechanistic Studies**: Further research into the underlying biological mechanisms of each intervention, such as how sun exposure influences nitric oxide production or the specific pathways activated by fasting that enhance cardiovascular function.

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