


# Scientific Aspects of the Indian Vedic Sciences and Their Effect on Stress

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## ABSTRACT

Indian ancient Vedic science, which has fascinated world researchers, has become more relevant in the 21st century because of other global crises and threats. It has shown a powerful impact in all the areas of life, especially in curing physical and mental ailments. The various violent incidents in European countries and the USA have forced the world political, religious, and science leaders to find alternative remedies. Mental fitness has been a great challenge. Yajna science has multiple advantages and affirmative responses in this direction. The author's team presents this study that measures Vedic mantra and Yajna sciences' effect on stress, anxiety, and checks its impact in a worldwide depression-like scenario. The data analysis and visualizations have been done in Python to show the different mental fitness angles, taking various demographic parameters into account.

## KEYWORDS

Anxiety, Depression, Mantra, Mental Fitness, Stress, Yajna

## INTRODUCTION

The various scientific aspects of Yajna Sciences have been propounded in the below section, and its multiple advantages have been displayed through different literature.

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## Therapeutic Form of Yagyopathy

Yagyopathy, as the name itself sounds like a therapeutic way, is a proven way of having a clean environment. This enormous psychic power leads to peace, contentment and prosperity. Among different forms of worship, Yajna is the most sorted way to achieve life aspects as boons of the divine.

Once it is understood why one should perform Yajna, its benefits make life easier and acceptable. Then how to perform becomes an easier task. As the “why Yajna”, gives a proven and acceptable formula, then “how” becomes an encouraging one. Humans visualize a clean environment with fresh air, healthy being, and prosperous living (Adhikari et al., 2020; Bhakti et al., 2009).

## Yajna and Environment

The rights of Yajna were an everyday observance in the India of yore. Yajna was instituted as the performance of Dharma (duty) in each household, twice a day. Through thousands of years, the tradition of Yajna/Homam/Agnihotra was carried on regularly to purify the environment and bring forth nourishing rainfall that brought forth the glory of greenery and happiness of good health to all forms of life (Cascella et al., 2020; Shree Gulabkunverba Ayurvedic Society, 1949a; Shree Gulabkunverba Ayurvedic Society, 1949b; Shree Gulabkunverba Ayurvedic Society, 1949c).

## Effect of Yajna With Different Woods

The chemical formula of salt is NaCl, and when the temperature in the fire is above 250 degrees centigrade, sodium breaks down to form oxides. And chlorine breaks down and releases chlorine gas into the atmosphere, which is a toxic gas. If salt is put into the Yajna or sacrificed with salty things, there will be poisonous gas. That is why Yajna is prohibited with a salty item or salt. Likewise, it is forbidden to perform Yajna on Neem wood because it releases chlorine in small amounts when neem wood burns. That is why sacrificial fire with neem wood also negatively affects the skin (Debnath et al., 2012) (Fig. 2).

## BACKGROUND

### Yajna Science: Connectivity of Humans and the Deities/ Divinity With Yajna

Yajna means sacrifice, usually in the sense of ritual fire worship ceremony in which negative Karmas can be consumed by giving oblations (Ahutis) with clarified butter or certain medicinal herbs, along with Vedic mantras (chanting of mystic sound syllables repeatedly) and offering oblations with swaha

Figure 1. Researchers and Participants Performing Yajna in Different Parts of Globe



Figure 2. Ultimate analysis of Mango Wood

Ultimate Analysis (wt %) and HHV for Selected Solid Biofuels (Dry Basis)							
Biomass	C	H	O	N	S	Ash	HHV (MJ/kg)
Kelp, giant brown, Monterey	26.6	3.7	20.2	2.6	1.1	45.8	10.3
Mango wood	46.2	6.1	44.4	0.3	0.0	3.0	19.2
Maple	50.6	6	41.7	0.3	0.0	1.4	19.9
Oak	49.9	5.9	41.8	0.3	0.0	2.1	19.4
Pine	51.4	6.2	42.1	0.1	0.1	0.1	20.3
Pine, bark	52.3	5.8	38.8	0.2	0.0	2.9	20.4
Poplar, hybrid	50.2	6.1	40.4	0.6	0.0	2.7	19.0
Rice hulls	38.5	5.7	39.8	0.5	0.0	15.5	15.3
Rice straw	39.2	5.1	35.8	0.6	0.1	19.2	15.2
Sudan grass	45.0	5.5	39.6	1.2	0.0	8.7	17.4
Switchgrass, Dakota Leaf, MN	47.4	5.8	42.4	0.7	0.1	3.6	18.6

Source: Bain, R. L., Amos, W. P., Downing, M., and Perlack, R. L., *Bioenergy Technical Assessment State of the Industry and the Technology*, NREL Report No. TP-510-33123, National Renewable Energy Laboratory, Department of Energy Laboratory, Golden, CO, 2003.

(surrendering to supreme). Vibrations produced by mantras during Yajna penetrate the energy sphere at the subtle and cosmic level. Vedic Mantras' chanting latently contains the torrent's essential sound of life-sustaining energies emanating from the cosmic energy centers (Chaudhary et al., 2010).

Oxygen will undoubtedly be absorbed whenever anything is burnt, and carbon will be emitted. But there are vast differences in carbon emitted by garbage burning and carbon emission from burning fragrant (Ratna et al., 2010).

Smoke and poisonous gases emitted by burning garbage can be reversed back by the fumes produced by aromatic herbs offered in the Yajna as oblations (Ahutis). The carbon emitted during Yajna, through aromatic herbs is in a minimal amount that is considered necessary to activate specific neurons in the system. Apart from the herbs offered in the fire, which produces qualified environmental friendly gases, Creosote, Phenols, Acetylene, Aldehyde, and Ozone also assimilate in this. Even if a poisonous substance is emitted in a little quantity, it is immediately evaporated with the oblations given by clarified butter (Ghee)(Debnath et al., 2012; Dornala et al., 2012).

### Treatment of Diseases by Yajna

Treatment for fatal diseases like tuberculosis through Yajna is also mentioned in CHARAK SAMHITA. French research scholar in chemistry, Dr. Trelle has done extensive research on 'the impact or effects of flames and fumigations on the air'. According to his studies, the gas Formic Aldehyde formed by burning sugar works as a vermicide, which destroys the parasites, cholera, TB etc. comparing to sugar candies. If black raisins, dry dates, small raisins like sweet things, are offered in the Yajna flames, they create some particular nutrients along with vermicide effects (Choi, S.Y. et al. 2016; Ediriweera et al., 2010; Sharma(b), 2020).

It has been proven that if Yajna offerings are of herbs like Justiciaadhatoda (Vasa) and Commiphora and Boswellia (Guggle), they destroy the bacterial parasites and also prevent the chronic diseases from spreading (Rout et al., 2011; Samal et al., 2016).

Fumes emitted from flowers like Asian pigeon wings (Aparajita) help destroy all parasites. If Guggle, cloves, Ghee, sugar (brown, unrefined) sandal powder are used in Yajnadaily, they increase the quality of fire element of the person (Sharma(c) et al., 2020; Ghanekar et al., 2020).

In many parts of India and the globe, discussions on Agnihotra and Yajna's effects have been started on various technological mediums (Murthy et al., 2008; Panda et al., 2011) (Fig. 3and Fig. 4).

Figure 3. Agnihotra and Homa Therapy Awareness Sessions and Discussions Online

**Faculty of Life Sciences**  
Present International Webinar on  
**Effects of Agnihotra on our  
Environment, Agriculture and  
Human Health**

**Key note Speaker**  
**Dr. Ulrich Berk (Ph.D)**  
President  
German Association of  
Homotherapy  
Germany

Date: 7<sup>th</sup> July, 2020  
Time: 2:00 pm

**Co-organizer**  
**Dr. Taniya S. Rathore**  
Associate Professor  
Faculty of Life Sciences,  
Mandanpur University  
Email ID: taniya\_singh@msu.edu.in

**Convener**  
**Dr. Shikhar Jain**  
Associate Professor and Head  
Faculty of Life Sciences,  
Mandanpur University  
Email ID: holl@facsci@msu.edu.in

**Free Registration**  
Registration Link:  
<https://forms.gle/zZrd2aFm5hFQh5us6>

Last Date for Registration:  
6<sup>th</sup> July, 2020

\*E-certificate of Participation will be provided after successful completion of event.  
\*Online Webinar link will be sent on registered email ID

Contact detail: 7089810143 / 8619486513 / 7999438347 / 9511546936

Figure 4. Agnihotra and Homa Therapy Awareness Sessions and Discussions in a Meeting



## Pregnancy and Issues With Global and Indian Females Related to Health

Since the evolution of life in the universe, unique importance has been given to women for their power of 'Janani'. Women are the roots of progeny. Pregnancy and childbirth are natural phenomena, but today they are complicated. Now, normal delivery is not a simple task; it has been revealed that the primary cause is our worse lifestyle. We have come far from a healthy lifestyle based on modernization and urbanization. Junk and fast food are the primary sources of calorie and long sittings in offices, and lack of physical activities is part of our lifestyle (Modha et al., 2009). Complications of pregnancy and childbirth are the leading cause of death in young women in developing countries; the chief reason is malnutrition (Sharma et al., 2011; Sharma et al., 2008; Sharma et al., 2012b).

Today the world faces the dual burden of malnutrition that comprises undernutrition and overnutrition. During pregnancy, eating a balanced diet and exercising regularly are the critical factors for the good health of a mother and her baby (Joshi et al., 2006; Kajaria et al., 2014).

It requires physical health as well as mental health for a healthy pregnancy. Nowadays, both are in the rat race, which results in stress, anxiety and other mental illness. We have lost peace of mind; it directly hits our hormonal system, and as we know, the impact of emotions of the mother directly affects her baby. Besides, different physical disorders like high blood pressure, hyperglycemia, thyroid etc. are also common disorders kicked due to emotional upset and harmful to mother and fetus (Lal et al., 2020; Maragalawaththa et al., 2010; Sharma et al., 2012a). Womb ceremony is being famous now in Vedic Rituals, and through technology, many persons can take its benefit simultaneously at their place via an online medium (Fig. 5).

## EXPERIMENTAL SETUP AND METHODOLOGY

### Scientific Explanation of Instruments and Drug Consumption and Effects Through Yajna

In the house-to-house worship of Yajna, different instruments were used in the laboratory for Yajna related research at Shantikunj Haridwar. The tools, principles, techniques used for Yajna Science described experiments were conducted at Yajnavalakya Yajna Research Center, Dev Culture University, and Brahmavarchas Research Institute, Shantikunj Haridwar.

After blood cleanser medicines, the blood's acidity is measured by a blood gas analyzer and pH meter.

Measurement of blood sugar, urea cholesterol, and creatinine and other enzymes and possible changes are measured in the biochemistry chamber using various drugs (Sharma et al., 2012).

Bacterial extermination in the basic form, fumigation form and dissolved form of drugs is monitored by culture and mycoscopy in the bacteriology cell.

The effect of the drug smoothed by the Yajna affects the ductless glands (hormones) of the body and is being studied by the radio immunity technique.

To prevent mental diseases and awakening of latent powers, the response of various drugs to the brain is studied using polygraph devices.

To know why GauGhrta is the best for Yajna, a chemical analysis system and measurement of biochemical changes in the body have been made in Brahmavarchas.

Figure 5. Womb Ceremonies are popular now in online Mediums for Multiple Persons



As a result of the sacrificial process, evaporated drugs circulate in the atmosphere and are analyzed and extracted by the Saint and Graha Lawrence gas analyzers, whatever proportion the gas was produced (Sharma (b) et al., 2020).

It is said that burning wood creates smoke, and this smoke is just a mixture of carbon dioxide carbon monoxide gas, usually question asked if this smoke process is different from other smoke in the sacrificial fire. These smoke samples are chemically analyzed by sampling them (Sushruta et al., 1897

The scientists of Shantikunj make their selection through column chromatography, thin-layer chromatography, and gas-liquid chromatography instruments (Panelia et al., 2015).

Gas-liquid chromatography (GLC) is a fully computerized complex instrument that performs a thorough analysis of the concentrated boiling and vapor gases of drugs and marking them on a graph to provide information about what is working in the pharmaceutical plant before ignition. GLC instruments also offer authentic information about harmful carbon particles in the smoke.

The thermocouple instrument measures how much heat is generated in the sacrificial process's various sections. The light meter measures the intensity of light, and the spectrum of the flame is seen with a spectroscope.

How much and how far radioactivity exists around the YajnaKund is measured by the Gigar Muller counter(Sharma(a) et al., 2020).

Now the People are interested in getting the benefits of Yajna by understanding its science (Fig. 6 and Fig. 7).

### Science of Mudras and Their Effects

Pran Mudra awakens the latent energy, vital power, vigor, health and vibes of positivity, including the supply of vitamins, and omits the deficiency due to tiredness caused by hunger, thirst and due to fasting. The mudras are used for diabetes, five minutes each (Sen et al., 2009; Sharma et al., 2012). That was done along with Yagyopathy:

\*ApanMudra 3 Times chanting.--OM Trayambkam, AhamArogyam, AhamBrhamasmi, Om Shanti, Shanti, Shanti.

Process: First use apan mudra for 5 minutes, then chin/ dhyana mudra for 5 minutes, next Surya mudra for 5 minutes, last prana mudra. In this sequence, apan removes toxins; chin helps divine intervention, Surya gives the necessary heat to the pancreas, and pran mudra gives the vital force/ energy(Pandya et al., 2009; Paneliya et al., 2015).

Figure 6. Meditation on Burning Flame with Clove of Cow is Effective in Satva Gun and reducing Mental Illness





Figure 7. Across the world, people accept the process of Indian Vedic Rituals



Different Mantra Chanting and Specific Mudras are being used to cure different ails and disorders (Fig. 8 and Fig.9).

Below the MritSanjeevani mantra (Nectar Mantra Chanting for Deads)is provided. It can be pronounced as “Om Haun Jun Sah Om BhurbhuvahSwah Om Tat Saviturvarenyam Trayambakam Yajamahe Bhargo Devasya Dheemahi Sugandhim Pushti Vardhinam Dhiyo Yonah Prachodayat Urvarukmiv Bandhnan Mrityurmokshihya Mamritat Om Swah Bhuvah Bhu Sah Jun Haun Om”.

## RESULTS AND DISCUSSIONS

After school, the most prominent adolescent-centered interpersonal organization surveyed the high school students from around the U.P., India, for stress and emotional well-being and the effect of meditation. (Annex for Data set understudy).

Stress assumes a significant role in the general emotional well-being of an adolescent. As a development to our Social Media Safety in Schools 2018 Conference, related to youngster self-destruction avoidance and emotional well-being, we asked our clients about the role job stress plays in their lives, and how they oversee it. A total of 35,878 teens participated in the poll.

The above diagram shows that approximately 16 thousand high school students feel stress regularly, and more than twelve thousand students are stressed. There are not many individuals in high school who never feel stressed. So, we need to consider the students’ training strategies and

Figure 8. MritSanjeevani Mantra (Nectar to Dead Mantra) Used for Serious Diseases Cure

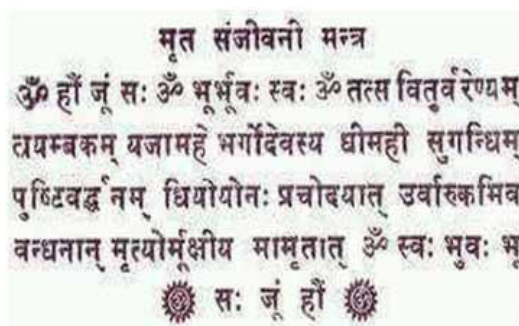


Figure 9. People across the world, accept Prayer, Yoga, Meditation and Indian Science



environment. Students experience distinctive mental sicknesses like depression, schizophrenia, and bipolar disorder after some time. We need to deal with students' emotional well-being by rehearsing Yoga and Meditation (Fig. 10).

The students pose another inquiry: What things stress you out most. We have discovered some information about the response to this inquiry. The above diagram portrays that 9,000 students believed that relationships encourage them to feel stressed. Teachers, parents, college and others are the things which stress them the most. It is unexpectedly high that not many students handle stress with companions (Fig. 11).

Figure 10. Graph Depicting the Survey Response of Stress Issues

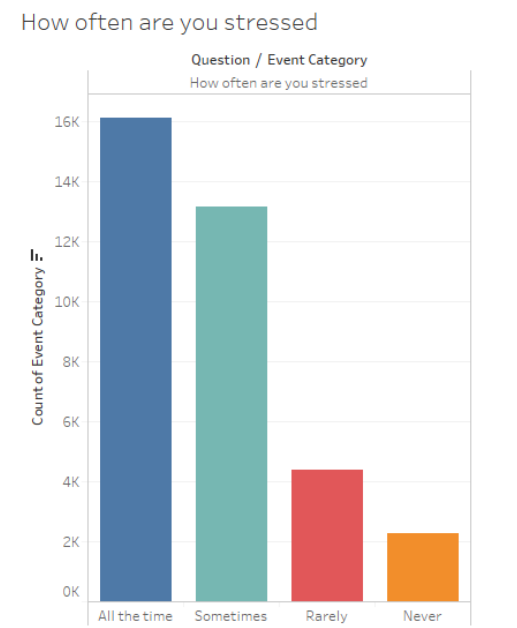
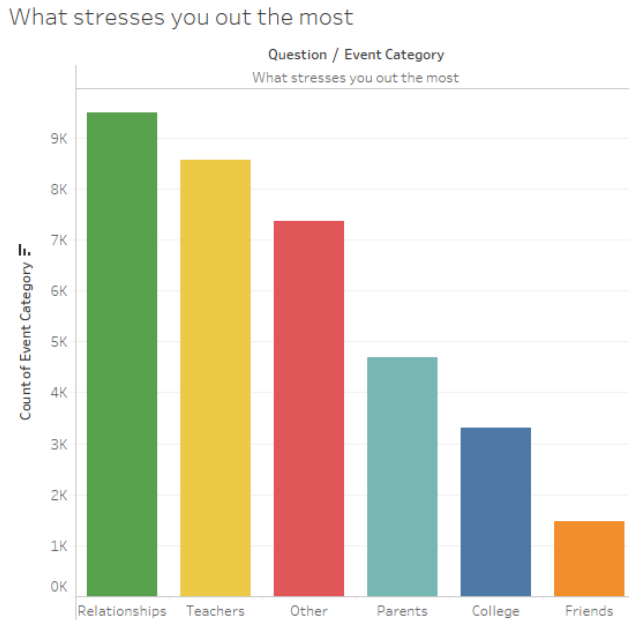




Figure 11. Different Factors of Causing Stress and Their Occurrences



The above figure shows that 7500 students converse with their companions when stressed. More than 5000 students eat when they are stressed. Approximately 3500 students drink and ingest medications for mediating stress. There is an extreme propensity for consuming drugs and drinking liquor for stress relief. We need to persuade students to rehearse Yoga and Meditation to reduce stress (Fig. 12).

The above figure shows that mobile applications or online sites help high school students assuage stress. Some fewer students receive the assistance of a specialist to alleviate their anxiety. We intend to be mindful of the students about yoga and contemplation. Yoga and meditation are the characteristic keys to relieve every student from stress (Fig. 13).

In this plot, we have utilized India’s Mental Health disorder dataset from 1990 to 2017. Four sheets depict the information over mental illness everywhere. Four crore people experienced depression in India in 2017, which is 4% of the populace. It is a significant issue in India these days, so we need to deal with ourselves by following Yoga, Meditation, and taking an appropriate dinner (Fig. 14).

Figure 12. Different Alternatives opted out in suffering from Stress and Their Frequency

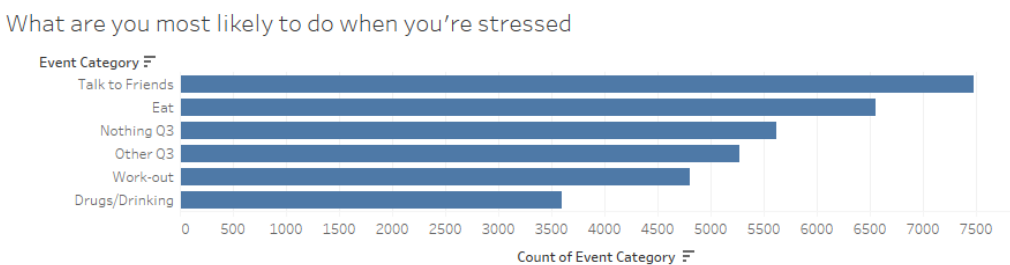


Figure 13. Resources Used to take help in case of stress

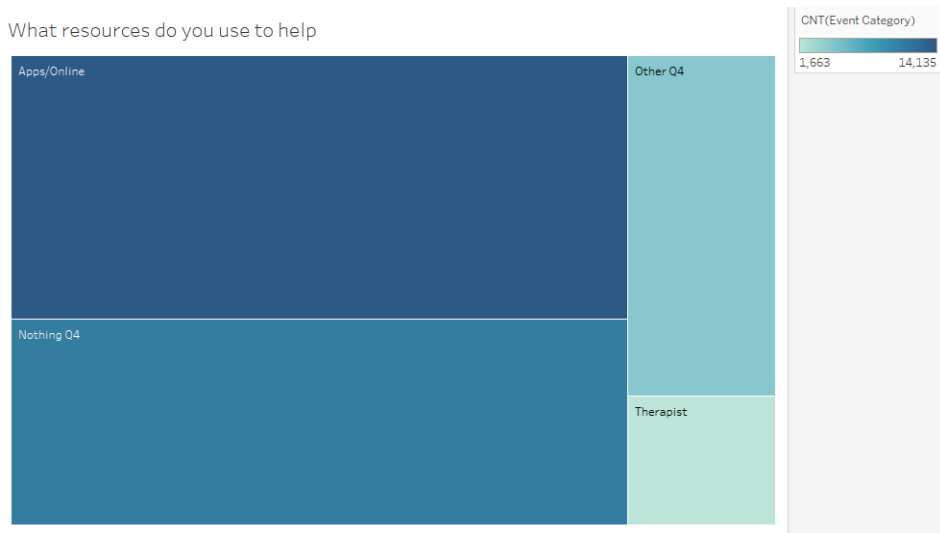
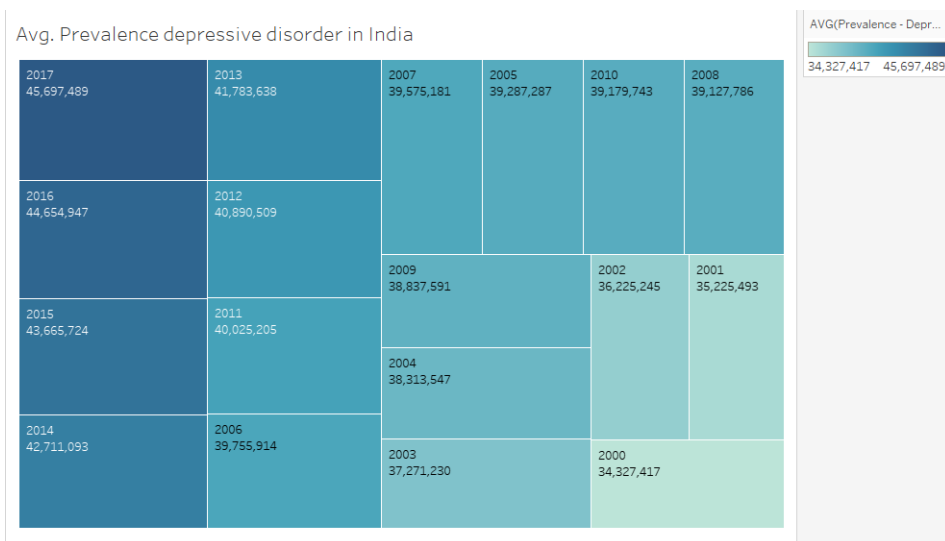


Figure 14. Mean Prevalence Depressive order in India



In the above chart, we can see that anxiety disorder is expanding quickly in India. Tension's pervasiveness in people, and its quality in the scope of anxiety disorders, makes it a significant clinical interest. Finally, there is a broad scope of healing modalities rehearsed in India: faith healing, psychotherapy, Ayurveda, psychopharmacology, Unani medicine, homeopathy, yoga, meditation, and care (Fig. 15).

The above graph shows that as population increases, patients suffering from drug use disorder and depression also increase in India. The orange line shows the average depression over the year, and the blue line indicates the average drug use disorder. Most studies proposed yoga in decreasing substance use (Fig. 16).

Figure 15. Mean Anxiety Disorder over the Year in India

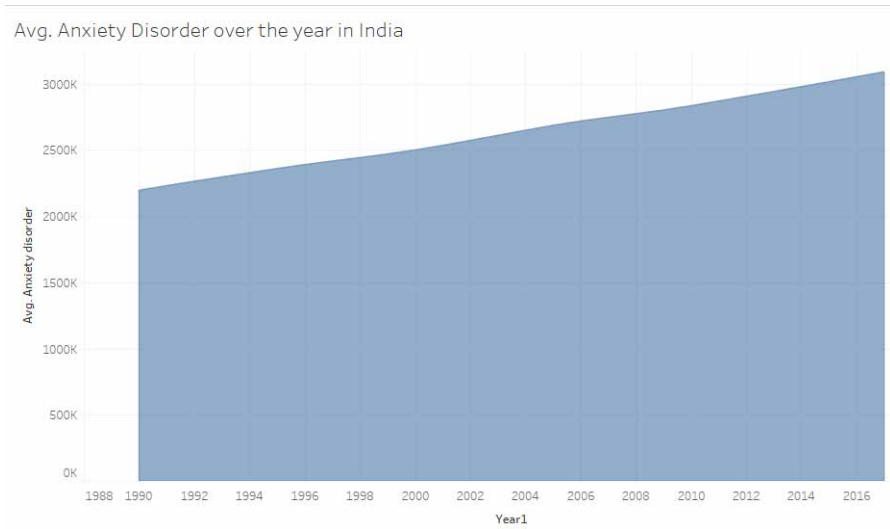
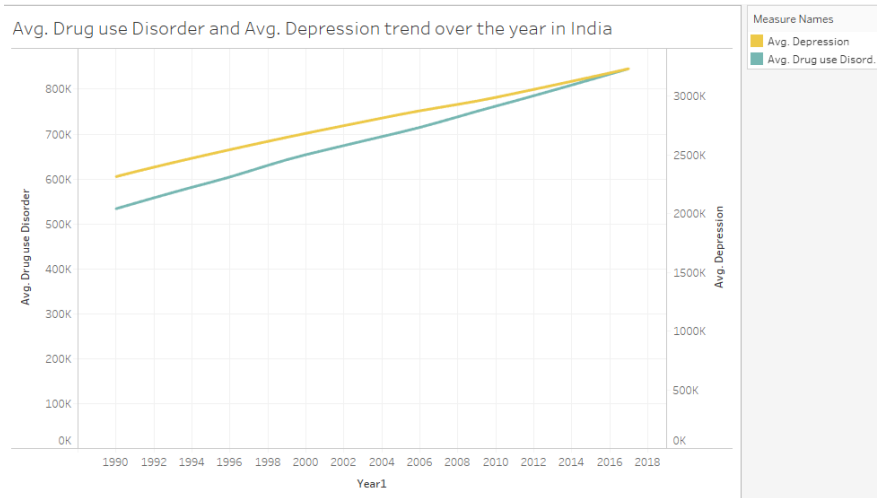


Figure 16. Average. Depression and Average Drug Usage Trend over a Year in India



## CONCLUSION

Right from the beginning of evolution, the human race has one ultimate motto in their lives, i.e. to live a life full of peace and prosperity. However, the results show a stressed and apathetic life. In this context, the revival of Yajna’s sacrificial fire in a therapeutic form known as Yagyopathy gives solutions to all human-made issues (Panigrahi et al., 2006; Raghuvanshi et al., 2009; Raghuvanshi et al., 2004).

Humans and their deities are connected through Yajna. Every human is born with some traits, an inseparable human personality aspect. It is embodied by birth as our psyche. Our psyche consists of consciousness (chitta), brain (buddhi), mind (Mana), and id (ahankara). The primitive and instinctual

part contains the aggressive drive and hidden memories as karma. Thus, faith's nature defines our life quality (Shyam et al., 2010).

The two energies during Yajna are heat from the Yajnaandfire. The sound of chanting Gayatri and other Vedic mantras are blended to achieve the desired physical, psychological and spiritual benefits. The body's appearance and energy affect our physical and mental plane. It interpenetrates our physical body by attracting the universal divine cosmic energy that further cleans the human psyche to understand the real virtues. Thus, the personality's traits of demonic nature are destroyed and eradicated. Humans, through Yajna, are thus connected to the divine deities. Therefore, the conclusion derived from this is that we help our environment be pollutant-free by doing daily Yajna for 10 minutes. The healthy mind leads towards a successful life, lifting society towards PARAMANANDA.

Finally, disease control, attracting heavy rain, effects on animals, pollution control, mental and physical fitness are gray areas where many more experiments and works have to be done. However, very innovative results as per Vedic scriptures could be established and verified (Ram et al., 2015).

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## APPENDIX

**Data set-1 URL**--[https://data.world/afterschool/teen-stress-mental-health-poll-on-after-school/workspace/file?filename=mental\\_health\\_poll\\_updated.csv](https://data.world/afterschool/teen-stress-mental-health-poll-on-after-school/workspace/file?filename=mental_health_poll_updated.csv)

**Data set-2 URL**--<https://data.world/vizzup/mental-health-depression-disorder-data>

Mental health Depression disorder Data.

### Questions Asked

- How often are you stressed?
- What stresses you out the most?
- What are you most likely to do when you are stressed?
- What resources do you use to help?

### The Data Set Collected by Stress Questionnaire Applied

#### *Mental Health Pole Updated*

It consists of the Poll Survey of Different Cities of the USA on different Stress Parameters.

**Table 1.** Such 136161 Data was collected through Survey

Question	Event Category	Region	City	Rows Available (Data)
How often are you stressed	All the time	Michigan	Interlochen	16102
What resources do you use to help	Apps/Online	Texas	Weatherford	14135
What are you most likely to do when you're stressed	Drugs/Drinking	Vermont	South Burlington	11115
How often are you stressed	Never	Texas	Houston	13245
What are you most likely to do when you're stressed	Nothing Q3	Colorado	Ken Caryl	8345
What resources do you use to help	Nothing Q4	Missouri	Jefferson City	7654
What stresses you out the most	Other	Alabama	Birmingham	5467
What are you most likely to do when you're stressed	Other Q3	New York	New York	5678
What resources do you use to help	Other Q4	Connecticut	Fairfield	11234
What stresses you out the most	Parents	North Carolina	Black Mountain	9672
How often are you stressed	Rarely	Connecticut	Fairfield	2356
What stresses you out the most	Relationships	South Carolina	Saint George	3487
How often are you stressed	Sometimes	Maine	South Portland	8736
What are you most likely to do when you're stressed	Talk to Friends	Minnesota	Minneapolis	4598
What stresses you out the most	Teachers	Utah	Holladay	1569
What are you most likely to do when you're stressed	Work-out	New York	Bedford	3672

*Prevalence by Mental and Substantial Dataset Country-Wise, Year Wise*

Consists of Dataset on different Parameters given below.

**Table 2. Such 3809 datasets were collected**

Entity	Code	Year	Schizophrenia (%)	Bipolar disorder (%)	Eating disorders (%)	Anxiety disorders (%)	Drug use disorders (%)	Depression (%)	Alcohol use disorders (%)
India	IND	1990	0.2616	0.552	0.10502	3.323845	0.4866509	3.758695	1.372084
India	IND	1991	0.2617	0.552	0.10539	3.32182	0.4810616	3.804294	1.387638
India	IND	1992	0.2617	0.552	0.10595	3.31953	0.4776849	3.844711	1.403009
India	IND	1993	0.2618	0.552	0.10665	3.317123	0.475732	3.877968	1.41687
India	IND	1994	0.2618	0.552	0.10738	3.314811	0.4749155	3.903063	1.42781
India	IND	1995	0.2618	0.552	0.10823	3.312676	0.474806	3.917893	1.434582
India	IND	1996	0.2618	0.553	0.10924	3.308029	0.4780443	3.92294	1.445345
India	IND	1997	0.2618	0.553	0.11059	3.299918	0.48498	3.922614	1.464851
India	IND	1998	0.2618	0.553	0.11208	3.291036	0.4938186	3.920098	1.486882
India	IND	1999	0.2618	0.553	0.1137	3.284052	0.5009493	3.918082	1.505249
India	IND	2000	0.2618	0.553	0.11526	3.281728	0.5038107	3.920528	1.513665
India	IND	2001	0.2619	0.553	0.11683	3.284843	0.5035166	3.932223	1.512145
India	IND	2002	0.262	0.553	0.11856	3.291147	0.503091	3.95214	1.506253
India	IND	2003	0.2621	0.553	0.12037	3.298745	0.5026132	3.972797	1.497945
India	IND	2004	0.2623	0.553	0.12222	3.305828	0.5020766	3.98767	1.489245
India	IND	2005	0.2624	0.554	0.12411	3.310625	0.5019264	3.990432	1.482164
India	IND	2006	0.2626	0.554	0.12623	3.309677	0.5014092	3.939382	1.451934
India	IND	2007	0.2629	0.554	0.12859	3.303176	0.5002222	3.826047	1.386798
India	IND	2008	0.2633	0.554	0.13116	3.294631	0.4990747	3.691869	1.308256
India	IND	2009	0.2635	0.555	0.13384	3.287489	0.4991235	3.577715	1.237784
India	IND	2010	0.2637	0.555	0.13647	3.285098	0.5006072	3.5259	1.196834
India	IND	2011	0.2636	0.555	0.1391	3.286323	0.5032338	3.520174	1.178418
India	IND	2012	0.2632	0.555	0.14189	3.287912	0.5060623	3.51598	1.161647
India	IND	2013	0.2625	0.556	0.14487	3.289877	0.5093286	3.5134	1.147224
India	IND	2014	0.2616	0.556	0.14794	3.292164	0.5130284	3.513171	1.135894
India	IND	2015	0.2605	0.556	0.15115	3.294846	0.5172565	3.515554	1.128306
India	IND	2016	0.2593	0.557	0.15444	3.298067	0.5220723	3.520805	1.125008
India	IND	2017	0.2579	0.557	0.15776	3.301939	0.5274107	3.529853	1.126607

## Depression by Level of Education Data

Table 3. Country-wise and year-wise on different parameters such as 27 countries

Entity	Code	Year	All levels (active) (%)	All levels (employed) (%)	All levels (total) (%)	Below upper secondary (active) (%)	Below upper secondary (employed) (%)	Below upper secondary (total) (%)	Tertiary (active) (%)	Tertiary (employed) (%)	Tertiary (total) (%)	Upper secondary & post-secondary non-tertiary (active) (%)	Upper secondary & post-secondary non-tertiary (employed) (%)	Upper secondary & post-secondary non-tertiary (total) (%)
Austria	AUT	2014	6.5	4.7	7.7	15.5	9	15.2	4.3	3.5	5.5	5.5	4.2	6.7
Belgium	BEL	2014	5	4.1	7.1	7.1	4.8	11.6	3.7	3.3	4.2	5.7	5	7.5
Czech Republic	CZE	2014	3	2.6	4	2.1	2.5	6	1.7	1.7	2	3.5	3	4.4
Denmark	DNK	2014	6.7	5.7	8.3	10.4	6.5	15.5	5.7	4.7	6.7	7.4	6.9	8.8
Estonia	EST	2014	3.8	3.8	5.1	4.7	4.7	6.4	3.6	3.6	4.3	3.7	3.8	5.2
Finland	FIN	2014	8.5	7.2	10.7	7.4	3.1	14.4	7.4	6.7	8.9	10.9	9.2	13.2
France	FRA	2014	5.2	4.7	6.3	7.7	7.1	9.4	4.2	4	4.9	4.9	4.3	5.7
Germany	DEU	2014	10.3	9.6	11.6	14.4	12.4	17	8.2	7.9	8.9	11.4	10.6	12.5
Greece	GRC	2014	2.8	2.2	3.6	4.2	2.9	5.4	2	1.6	2.4	2.9	2.7	3.4
Hungary	HUN	2014	2.8	2.2	4.7	6.5	6.2	10.3	2	1.6	2.8	2.6	2.1	4.2
Iceland	ISL	2014	10.7	10.5	14.4	14.2	13.5	22.5	8.5	8.5	9.5	12.1	11.7	15.7
Ireland	IRL	2014	11.2	9.4	12.3	21.3	17.1	22.9	8.7	8	9	11.4	9.4	11.6
Italy	ITA	2014	2.9	2.2	3.9	4	3	5.3	1.9	1.5	1.9	2.6	2.1	3.3
Latvia	LVA	2014	7	6.2	8.6	6.9	5.8	13.3	6.6	5.8	7.3	7.3	6.5	8.7
Lithuania	LTU	2014	2.1	1.7	3.7	5.5	7.4	10.1	1.4	1	1.4	2.8	2.4	4.7
Luxembourg	LUX	2014	9.1	8.2	10.2	13.3	11.3	15.1	5.1	4.8	6.1	12.2	10.9	12.3
Netherlands	NLD	2014	5.7	4.9	8.6	7.5	6.1	13.8	3.5	2.8	4.5	6.8	6.2	9.1
Norway	NOR	2014	4.8	4.4	7.6	10.2	8.6	14.2	3.1	2.9	4.2	4.8	4.7	8.1
Poland	POL	2014	2.9	2.5	4.1	3.4	2.9	6.3	2.4	2.2	2.9	3.1	2.7	4.2
Portugal	PRT	2014	9.5	8	11	11.8	9.7	13.6	5.9	5.2	6.7	8.1	7.7	8.3
Slovak Republic		2014	2.6	2.1	4.2	5.7	5.1	8.9	1.8	1.6	2.1	2.6	2.2	4.4
Slovenia	SVN	2014	7.6	6	8.4	12.3	10.2	12.6	6.2	5.8	6.6	7.1	5.4	7.7
Spain	ESP	2014	5.5	4.1	7.1	7.5	5.2	9.7	3.3	2.7	3.5	5.8	5.1	7.1
Sweden	SWE	2014	8.4	8	9.9	8.8	8.2	11.4	7.9	7.8	9	9.2	8.7	10.6
Turkey	TUR	2014	10.2	9.6	12.5	10.5	10	13.3	9.1	8.2	9.5	12.9	12.5	12.5
United Kingdom	GBR	2014	7.4	6.3	9.9	11	8.1	15.2	5.7	5.3	7.1	8.3	7.1	10.7

## Prevalence of Depression by Age, Data Set

Table 4. Country-wise and year-wise sample data on different parameters has been produced below and such 6468 datasets were collected

Entity	Code	Year	20-24 years old (%)	10-14 years old (%)	All ages (%)	70+ years old (%)	30-34 years old (%)	15-19 years old (%)	25-29 years old (%)	50-69 years old (%)	Age-standardized (%)	15-49 years old (%)
Afghanistan	AFG	1990	4.42	1.595	3.219	5.203	5.799	3.456	5.18	5.92	4.072	4.94
Afghanistan	AFG	1991	4.43	1.588	3.203	5.193	5.815	3.452	5.18	5.93	4.08	4.9
Afghanistan	AFG	1992	4.45	1.578	3.157	5.177	5.83	3.435	5.16	5.95	4.088	4.84
Afghanistan	AFG	1993	4.46	1.577	3.121	5.167	5.853	3.42	5.15	5.97	4.096	4.81
Afghanistan	AFG	1994	4.46	1.571	3.082	5.158	5.853	3.425	5.15	5.98	4.1	4.84
Afghanistan	AFG	1995	4.46	1.575	3.04	5.158	5.836	3.423	5.16	5.99	4.104	4.87
Afghanistan	AFG	1996	4.44	1.575	2.995	5.157	5.828	3.422	5.17	6	4.108	4.9
Afghanistan	AFG	1997	4.43	1.571	2.953	5.158	5.813	3.421	5.18	6	4.111	4.94
Afghanistan	AFG	1998	4.42	1.576	2.916	5.159	5.812	3.42	5.19	6.01	4.114	4.99
Afghanistan	AFG	1999	4.42	1.575	2.878	5.163	5.817	3.418	5.17	6.02	4.118	5.03
Afghanistan	AFG	2000	4.42	1.576	2.847	5.17	5.824	3.428	5.16	6.02	4.119	5.07
Afghanistan	AFG	2001	4.42	1.581	2.827	5.175	5.84	3.435	5.15	6.02	4.121	5.11
Afghanistan	AFG	2002	4.43	1.585	2.823	5.182	5.841	3.432	5.12	6.03	4.125	5.12

## Prevalence of Depression on Males Datasets

Table 5. Country-wise and year-wise sample data on different parameters has been produced below, and such 47808 datasets were collected

Entity	Code	Year	Prevalence in males (%)	Prevalence in females (%)	Population
Greenland	GRL	1990	4.703362025	8.151786	56000
Greenland	GRL	1991	4.765410459	8.267927	56000
Greenland	GRL	1992	4.821883354	8.376009	56000
Greenland	GRL	1993	4.866115301	8.458938	56000
Greenland	GRL	1994	4.894211277	8.515622	56000
Greenland	GRL	1995	4.905162682	8.537801	56000
Greenland	GRL	1996	4.901353295	8.535388	56000
Greenland	GRL	1997	4.890719778	8.527468	56000
Greenland	GRL	1998	4.874543958	8.513516	56000
Greenland	GRL	1999	4.856441338	8.499266	56000
Greenland	GRL	2000	4.84433119	8.480171	56000

## Suicide Rates vs Prevalence of Depression Disorder Rates

Table 6. Country-wise and year - wise sample data on different parameters has been produced below, and such 47808 datasets were collected

Entity	Code	Year	Suicide rate (deaths per 100,000 individuals)	Depressive disorder rates (number suffering per 100,000)	Population
Liberia	LBR	1999	12.2812534	3485.69	2700000
Liberia	LBR	2000	12.1008322	3486.535	2848000
Liberia	LBR	2001	12.1236441	3515.078	2954000
Liberia	LBR	2002	12.3715229	3580.885	3025000
Liberia	LBR	2003	12.5822088	3656.412	3077000
Liberia	LBR	2004	12.8523076	3720.218	3136000
Liberia	LBR	2005	13.1026509	3748.831	3218000
Liberia	LBR	2006	13.1398706	3747.978	3329000
Liberia	LBR	2007	13.1621317	3745.976	3462000
Liberia	LBR	2008	13.1613022	3740.657	3608000
Liberia	LBR	2009	13.3142721	3736.552	3754000

## Number With Depression Cases Count Year-Wise

Table 7. Country-wise and year - wise sample data on different parameters has been produced below, and such 6468 datasets were collected

Entity	Code	Year	Prevalence - Depressive disorders - Sex: Both - Age: All Ages (Number) (people suffering from depression)
Afghanistan	AFG	1990	318435.8137
Afghanistan	AFG	1991	329044.774
Afghanistan	AFG	1992	382544.5729
Afghanistan	AFG	1993	440381.5074
Afghanistan	AFG	1994	456916.6455
Afghanistan	AFG	1995	471475.202
Afghanistan	AFG	1996	486916.2202
Afghanistan	AFG	1997	499770.4095
Afghanistan	AFG	1998	509695.4476
Afghanistan	AFG	1999	503304.902
Afghanistan	AFG	2000	501129.0678
Afghanistan	AFG	2001	506530.4469

## Consent to Take Part in Research

TOPIC: "Holistic Health Management Through Vedic Processes."

I \_\_\_\_\_ Age \_\_\_\_\_ Years

Voluntarily agree to participate in this research study for my Wellness through Recitation & Meditation of Vedic Mantra (Gayatri Mantra) during my Maternity Period

I agree to participate in the research study. I understand this study's purpose and nature, and I participate voluntarily. I understand that I can withdraw from the study at any time, without any penalty or consequences:

- a) Yes
- b) No

I grant permission for the data generated from this interview to be used in the researcher's publications on this topic.

- a) Yes
- b) No

Signature of research participant \_\_\_\_\_

DATE:

Signature of researcher \_\_\_\_\_

I believe the participant is giving informed consent to participate in this study

DATE:

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