

Nature and Spirituality are Well-being Paths for Engineering Students to Overcome Stress, Depression and Suicidal Ideation: In Indian Context

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Abstract - There is an imperishable connection between nature and spirituality; these remarkable primary elements are noteworthy for human sustainability in this world. The current higher educational system is providing a very little opportunity for students to immerse with nature and spirituality. Engineering students often encounter high level of stress and depression due to academic, social, and career pressures which create suicidal ideation among them. This research article explores the significance of nature and spirituality in the Indian context to overcome the psychological stress and depression of engineering students. In the current scenario the stress and depression considered as a major trauma for engineering students. The nature and spirituality are an intertwined well-being platforms for engineering students to overwhelm from the mental health conditions. This research theoretical discuss the two investigations a) why nature and spirituality become as desirable choice for engineering students for sustainability b) which well-being methods are recommended by the nature and spirituality to condense the stress, depression and suicide ideation. Nature and Spirituality are considered as non-clinical inventions, and both are accessible tools for enhancing well-being path for engineering students to overcome the high-stress and depression in environment of engineering education. This paper contemplates that how nature and spirituality becomes well-being paths for engineering students for a fruitful life and pleased career.

Key Words: Stress, depression, suicidal ideation, nature, spirituality, engineering students and well-being.

I. Introduction

According to the 2023 report by the World Health Organization, more than one in three students are globally experiencing the symptoms of stress and depression, due to the impact of academic stress. Over the past decade, there has been a concerning rise in student suicides, with a 50 percent increase in male student suicides and a 61 percent increase in female student suicides, according to a 2024 report by the National Crime Records Bureau (NCRB). (<https://www.indiatoday.in/education-today/featurephilia/story/mental-health-crisis-why-is-mental->

[health-education-important-for-students-2641662-2024-11-28](https://www.indiatoday.in/education-today/featurephilia/story/mental-health-crisis-why-is-mental-2641662-2024-11-28))

In the present scenario, prevalence of stress, depression and suicide ideation among STEM field's students becomes very natural and it leads to suicidal ideation. The engineering education is innovative, productive, creative, scientific, technical and highly principled knowledge session. To achieve the employability students of engineering has to face many challenges. The employability is a life changing achievement for students, however, by not achieving the suitable employability students comes under stress and depression. However, besides academic pressures and employability, there are multiple motives such as social isolation, infatuations, low level of motivation, future uncertainty, low health conditions, family financial crises, high level of competition, addiction of alcohol, drugs & mobile, debt from illegal loan apps and mental fatigue are the motives for stress and depression of the engineering students to the suicidal ideation. The previous research says that, most of the engineering students are facing stress and depression due to the academic pressures.

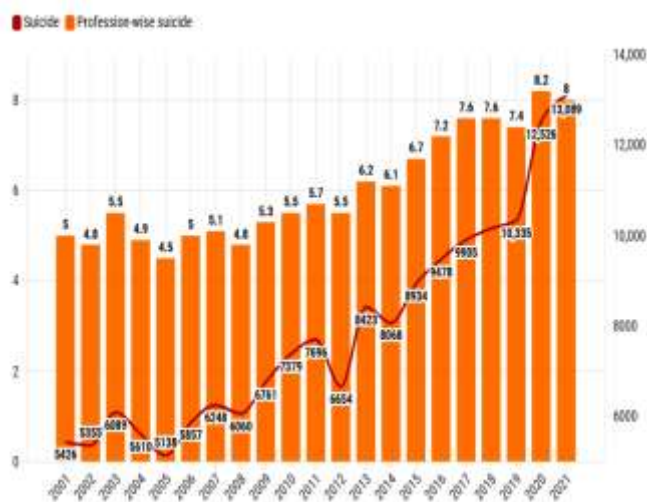
The present engineering education system was consisting of continuous technical and self-learning moods. In another way, the engineering education system introduced the student centric classrooms; these classrooms develop 'internal achievement learning pressure' among the students. Through this system students feel anxiety and stress from this education.

The dominance of stress and depression raises the suicidal ideation among the college students (Gallagher, 2008). Due to the high stress and depression the engineering education has earned low (dis)reputation as one of the most stressful course of study in higher education section (Danowitz & Beddoes, 2018). However, the stress, depression and suicidal tendencies are low in traditional education system (Lipson et al., 2016). Some research studies explored that students from the various countries (Ang et al., 2007; Crystal et al., 1994; Deb et al., 2011; Lee and Larson, 2000; Lei et al., 2007; Mitra et al.,

2011; Zhao et al., 2009) such as Japan, China, India, Korea etc. feel more stress and went into depression due to the academic comparison from western countries. The cognitive theories explore that depression and stress creates unanswerable events and develops unexpected behaviours and risky moods which lead humans into life loss (LeMoult & Gotlib, 2019). In India to qualify for reputed engineering courses students' faces depression and stress, which lead to the ideation of suicide (Gupta D, Ranjan R, Singh M, et al., 2025). Depression and stress is a devastating problem among students of engineering, which are affecting motivational levels, concentration, attitude and feelings of sense worth, the range of depression and stress increases from 10.2% to 71.2% in recent decades (Christensson, Vaez, Dickman & Runeson, 2011; Kumar, Jain & Hegde, 2012). The inability of skills and employability fear raises the suicidal ideation among engineering students.

According to the National Crime Records Bureau (NCRB) approximately, 13,000 students' were committed suicide in the year 2021, due to the high academic pressure to qualify in JEE and NEET aspirants. Figure 1 presents the data of professional students' suicides deaths during the years 2001 to 2021. The government body under the National Crime Record Bureau (NCRB) and Accidental Deaths and Suicide in India (ADSI) has published a collective report. The report explore that the student suicide has increased drastically over the past decade.

Fig: 1



Source: Accidental Deaths & Suicide in India (ADSI) (2021)
<https://www.data.gov.in/catalog/accidental-deaths-suicides-india-ads-i-2021>.

II. A Case Study on a Student to join in IIT

A 20-year-old Shakib hopes to get a place in the Indian Institute of Technology (IIT), one of India's most prestigious colleges. His parents have long wanted him to become a successful engineer. Three years ago, Shakib moved from Uttar Pradesh, India's most populous state, to Kota, a hub of private coaching institutes in the northern state of Rajasthan

catering to youngsters hoping for entrance into some of the country's most prestigious medical and engineering colleges.

Shakib's parents had to borrow money from relatives to help pay for his private coaching in Kota. Shakib remembers the tough days and sleepless nights after his first failed attempt to enter IIT. His low morale led to him even considering putting an end to his life - but with regular medication, he began to cope a bit better.

He is now getting ready for a second attempt at securing a place at IIT, and once again he is feeling an immense amount of pressure to pass the entrance exams. "There is no emotional support during the moments when you feel low. I used to cry for days and nights," Shakib told.

"There is immense pressure and expectations from parents to perform and that kill you from within. Sometimes you cannot take it any longer and you break down." The city of Kota is seeing a distressing trend as students struggle with the overwhelming pressure, fierce competition and a lack of support for those who feel the psychological impact from the fear of failure. <https://www.dw.com/en/india-exam-pressure-fuels-spike-in-student-suicides/a-66938137>

Report from National Crime Record Bureau (NCRB) and Accidental Deaths and Suicide in India (ADSI) and, the case study reveal the severity of the students' deaths. The multiple reasons are there behind the students' deaths; however, the engineering students faced academic pressure during the course. This paper tries to discuss to show the path to the students to come over from the deep stress and depression.

III. Definition for Stress, Depression and Suicidal Ideation in Medical Terminology:

According to the medical terminology Stress, Depression and Suicidal Ideation is called as Major Depressive Disorder (MDD) or Another Mood Disorder (AMD). According to the medical representation these symbolized students' need of medication for betterment. The medication required for a long period and need financial support.

IV. What is Nature?

It is easy to imagine *nature*, however, it is a difficult part to define accurate meaning of the *nature*, because it is linked with complex ecosystem which is directly influences the humans. According to the science the nature is define as a *complex biological mixture of various elements such as water, soil, plants, fire and air which springs the animal and human sustainability* (Lewis, 1973). However, according to the Indian Vedic context *the nature (prakrtih) is considered as Goddess of everything which springs the life for creatures. And it is also consider as a creator, destroyer and sacred as heaven*. In Indian framework the five elements such as Agni (fire), Vayu (air), Prthvi (earth), Jalam (water) and Akasa (space) are unitedly called as nature. The Vedic context exposes that the every living organism on this earth never

sustain without the sustenance of nature. Nature exists on its range, from wildernesses with little evidence of human impact to small parks in highly developed areas, from a dandelion or an urban stream, to extensive woodlands (Bratman et al., 2012).

V. Nature as a Well-being Path

The current academic circumstances are alarming the crisis of stress, depression and suicidal ideation among technical students around the world.

The crisis of stress and depression raises the approaches of suicidal ideation among the students (Lim et al., 2020). The stress, depression and suicidal ideation show the effect on household, professional, economic development and also social commitment. Stress distracts the metabolism of the body; increase the inflammatory disorders, and rise infectious diseases. The sustained stress levels can lead to physiological vagaries, particularly in the brain and contributing to disease development (Dhabhar, 2014). The past research reveal that, the personal social environment of the students is also one of the crisis for stress, depression and suicidal ideation. The depression, results of the over thinking, extreme fear and tension. The depression decreases the self-confidence, motivation levels and effective communication. In another way, depression symbolized through low energy, feeling hopeless, changes in sleeping hours and difficulty in making decision. However, globally the stress, depression and suicidal ideation vary from gender to gender (Ghaedi, L. & Kosnin, A. 2014). According to the recent surveys of WHO, 48% of students experience depression, 50% experience stress, and 21% experiences the suicidal ideation.

There is an unbreakable relation in between humans and nature, human experiences the positive emotions when they are close to vegetation, water and panoramic views (Ulrich et al., 1991). According to the Vedas and Puranas the 'nature' is deeply associated and become a treasured recourse to humans to sustain and regulate the psychological stress and depression. Nature is always connected with emotion; however, it is a cognitive medicine for stressed and depression students. The Vedic literature advocates that, the integration between life and biosphere elements such as rivers, mountains, herbs, plants, trees, fresh air and water may harvest the positive energy to bounce back from stress and depression among humans (Smith et al., 2008). It is considered that "nature is a remedy to escape from changes of modernity" (Filpova, 2022). The current academic pressure is very high among students in achieving educational goals, some of the students who have low IQ they have suicidal tendency. There are many methods and techniques are design for them to improve IQ. However, peeling relationships, social division, and individual hostility continue to injure the human soul and these disorders advance the suicidal tendency.

The wellbeing methods of nature is not a new techniques for humans, the moderate life style attracted the individuals and

separated from the nature. However, psychiatrists and medics are recommends the students to spending time in blue spaces and green spaces, because it is linked with life satisfaction, reduces anxiety and increases happiness (Richardson, et al., 2020). The regular connection with nature generates a positive emotions and feelings of energy, and a decrease in negative reactions; it also provides relief of from mental tiredness, and an improvement in our attention span (Joseph, 2019)). This non-clinical (nature) method suggests that natural environments are characterized by unique and diverse objects of interest that sustain and reload attention and depleted energy. The natural habitats associated with mood restoration, including lower feelings of stress and depression. Restoration research points to the potential of outdoor settings that involve natural environments (for example, trees, mountains, lakes, or other natural environments) for diminishing stress, lowering fatigue, and facilitating mood (Kaplan, S. 1995).

VI. Natural Therapies to come out from the Stress, Depression and Suicidal Ideation

According to the Vedas the following therapies consider as best natural healers and well-beings:

The Aranyani (Rig Veda) (Green Rehabilitation) and Prithvi Sukta (Atharva Veda) (Earth Rehabilitation) consider as the best non-clinical therapies for students. Continuous attachment with Green and Earth systems may produces positive energy, improve mental condition and advances the will power among students.

VII. What is Spirituality?

It is difficult to define spirituality, because, spirituality is connected with different kinds of religions such as Hinduism, Islam, Buddhism and, Christianity and so on in India, however, there is spirituality in the world which is not connected with any religion. *Spirituality without religion is a personal journey of seeking meaning, connection, and a deeper understanding of life without any religious platforms* (Bender, C. 2010). *Spirituality without religion depends on self-potentiality, consciousness and personal introspection*. Most of the time spirituality connected with God. However, spirituality develops discipline, healthy habits, self- confidence and faith on himself. It is consider that, the Western knowledge as the "science of facts" and Indian spirituality as "the science of the soul, a peculiarly in Indian science" (Rolland, 1960). The word Spirituality is connected with SPRIT (Inner) and it depends on with ACTUALITY (Fact), which means *that, to an extent, spirituality means whatever the person asked thinks it should mean* (Gatmon, 2015).

The principle history of the word *spirituality* is in every religion such as Hinduism, Christian and Buddhism. The widening of the horizon of the word "spirituality" in last decades has been produced especially by the contact of

Western culture with Oriental religions and spiritualities, so that today many people make a spontaneous connection of the word with experiences like Yoga, Hinduism, Buddhism and Zen.

According to the Indian context spiritualism includes the following practices.

Meditation: Meditation is an activity which helps to give you deep rest. It helps to release stress. Some benefits of meditation are concentration, humility, correct understanding, patience etc.

Yoga: It is usually practice for health and relaxation. Yoga is nothing but connection, contact, union, method and addition.

Spiritual books: Students who read spiritual books had more religious connection; those students have higher positivity feeling and low level of depression. By adopting spiritualism, they can relieve their mental

Spirituality as a Well-being Path:

In Indian context spirituality is a completely *Self* (soul) which is connected with Eternal power. It is significance that the students required to start their spiritually journey in current stressful life. According to the spiritual scholars spirituality is in very religion and culture. Spirituality is the unsurpassed way to overcome the unwanted Cognition, Emotion, Behaviour and Desire (Oman, D. 2013).

Motives to follow Spirituality:

Spirituality shows purpose and meaning of Life: It can help students find answers to theoretical questions such as *What is the meaning of life?* and *What purpose does my life serve?*. These questions help the students to start their life journey with a meaningful way.

Manage the feelings of stress, depression, and anxiety: Spiritual involvements can be helpful to the students to come out from the stress, depression and anxiety, and they feel the new possessions in life.

Find a sense of community and support: Since organized faiths and groups are frequently a part of spiritual traditions, joining one can be a significant source of social support.

VIII. Natural and Spiritual Techniques for students to restore their Health:

Fig:2



Conclusion

This paper attempts to explain how the Nature and Spirituality developed well-being healing paths for students. The current educational and competitive world pulling the students into psychological pressure, in these conditions the Nature and Spirituality are the unsurpassed non-clinical methods for students to heal and come out from Stress, Depression and Suicidal Ideation. The continuous connectivity with these methods may uplift the students into better future and marvelous life.

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