Therapeutic effect of yoga on Depressive Disorders among Students in India: A Pilot Study.

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Abstract:

Background - depressive disorders becoming a very serious health problem among students in India.

Aim - To evaluate the effect of yogic interventions on depressive disorders among students.

Also to evaluate the risk factors among youth.

Methods: A total of 60 mild to moderate depressive disorder cases were recruited by the purposive sampling method for this study. Further divided into two groups i.e., one group comprises of 30 cases in which standard treatment protocol was given without yogic intervention. Whereas remaining 30 cases were advised to follow standard treatment protocol along with yogic practices. The intervention group received 40-minute yoga sessions for a month. The data were collected using a demographic questionnaire and HDRS for both groups.

Result- Both groups were analyzed after one month, and it was observed that both group cases improved clinically, but the yogic intervention group was fairly better in comparison to the control group.

INTRODUCTION-

Today, depression is a serious problem among youth. Today, when we pick up the newspaper, we are heartbroken by the news of children's suicide. Most of them are youth who are role models. The observance of World Suicide Prevention Day (September 10) in India comes just days after Kota recorded 23 student suicides already in 2023, its peak since 2015, when it recorded 17 student deaths by self-murder. Data provided by the National Crime Records Bureau

(NCRB) says that 13,089 students died by suicide in 2021 (the year of its latest report on suicides).

This represents a 70% increase from 7,696 student suicides in 2011. The number of student suicides in India since 2011 has generally increased every year.

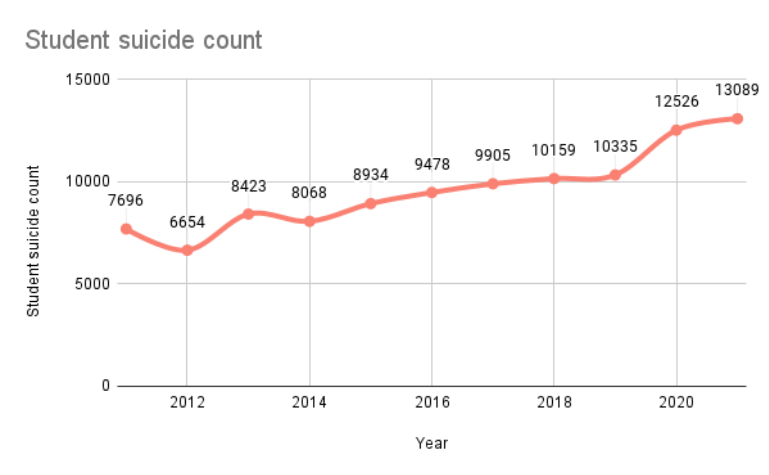

Figure: 1: Data: NCRB's Accidental Deaths and Suicides in India reports

The share of students among India's overall suicide victims has also increased. It stood at 8% of the total in 2021, having grown by 2.3 percentage points since 2011. For both the number and share of student suicides in India, an uptick is observed in the year 2020.

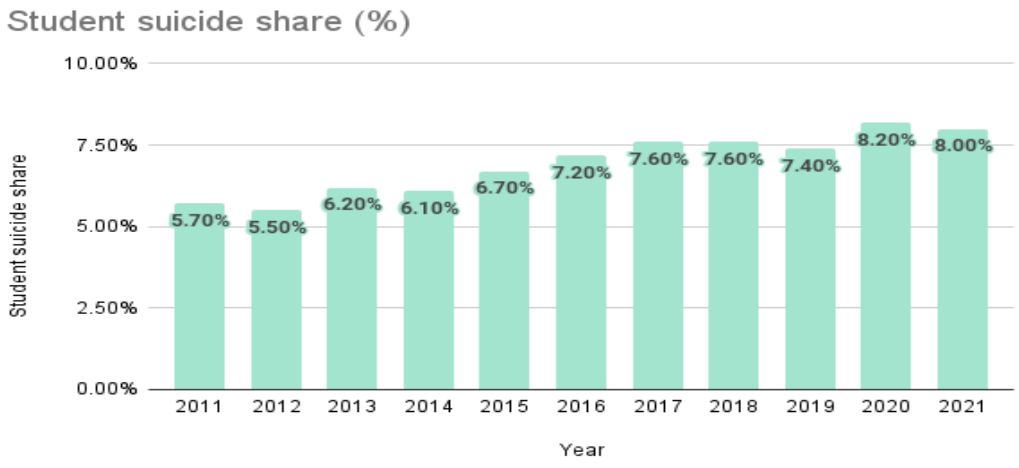

Figure 2: Data: NCRB's Accidental Deaths and Suicides in India reports

While the NCRB's Unintentional Deaths and Suicides in India (ADSI) reports do not provide a breakdown of the reported causes for self-murder among students specifically, they provide these breakdowns for age groups. Discounting "other" or unidentified causes, the most frequent cause of self-murder listed by NCRB's 2021 ADSI report for sufferers below 18 years of age was family problems (3,233 cases, or 30% of the total in this age group). This was followed by "love affairs" (1,495 cases, or 14% of the total), illness (1408 cases, or 13% of the total), and "failure in examination" (864 cases, or 8% of the total). Mental disease made up the majority of cases listed under disease (58%). The share out of Indians of all age groups that ADSI reports say committed suicide due to "failure in examination" has an average value of 1.8% and a median of 1.77% between 2011 and 2021.

The reported shares for this cause remained between 1.8% and 2.0% between 2011 and 2019, falling to 1.4% in 2020 and 1.0% in 2021. Failure in examination was listed as the cause of suicide in 1,673 cases in 2021. Out of this, 991 victims were male and 682 were female.

Today, those children at such a young age who have not seen the world in the right way, which is the future of India, do not bear the pressure of a little and end up killing themselves. Youth, who mostly live a student's life from 15 to 30 years, tried to find out the causes of depression and suicide among them and try to find leading causes for it. Some factors are the following:

- No awareness about mental health and well-being
- Underestimated mental health problems by victims
- Low income
- Pressure for earning
- Unhealthy Competition
- Not taking proper medication
- Child parenting
- Personality type is also a leading factor for depression.

These are the leading causes of depression, and when these situations are out of control, individuals commit suicide and close their chapter for a lifetime.

Yoga therapy is a complementary medicine technique using breathing techniques and laughter and clapping (Kataria, 2011). It is stated that yoga therapy reduces levels of stress, depression, anxiety, and loneliness (Alici & Bahceli, 2021; Kataria, 2011; Kaur & Walia, 2008; Kim et al., 2015; Shahidi et al., 2011; Yazdani et al., 2014). This study was conducted to evaluate the offline yoga sessions effectiveness on depressive disorders.

Depression as an Indian Knowledge System-

Indian psychology is an approach to psychology based on the Indian beliefs, the characteristic soul of the Indian civilization. One could also say that it is a psychology rooted in the consciousness-based Indian worldview, yoga and a life-affirming holiness. Bhagavad Gita is part of the great epic Mahabharata, a broadly famous mythological story of Santana philosophy. Gita is just about in its whole the discussion between two personalities, Lord Krishna and Pandav putra Arjuna in the battle field of Kurukshetra. Bhagwat Gita has contains with 18 chapters. Which has 700 slokas. 574 slokas of Lord Krishna, 85 slokas of arjuna, 40 slokas of Sanjay and 1 sloka of Dhritrastra. The first chapter is "Arjuna Vishada Yoga" (Sorrow of Arjuna) and the eighteenth chapter is "Moksha Sanyasa Yoga" (Nirvana and Renunciation).

The 3rd sloka of 2nd chapter is picture of the helpless condition of Arjuna requesting Lord Krishna for assistance.

क्लैब्यं मा स्म गमः पार्थ नैतत्त्वय्युपपद्यते |
क्षुद्रं हृदयदौर्बल्यं त्यक्त्वोत्तिष्ठ परन्तप || 3|| (B.G.2/3)

The 73rd Sloka of 18th chapter is reflection of suspension of nervousness, fear, downheartedness and guilt and alertness for act with self-reliance and strength.

अर्जुन उवाच |
नष्टो मोहः स्मृतिर्लब्धा त्वत्प्रसादान्मयाच्युत |
स्थितोऽस्मि गतसन्देहः करिष्ये वचनं तव || 73|| (B.G.18/73)

Whatever transpired between the 3rd sloka of 2nd chapter and the 73rd sloka of the 18th chapter is the subject of technical interest for every learner of psychology as it resulted in the total stress realesed[5].

योगश्चित्तवृत्तिनिरोधः (P.Y.S. 1/2)

HYPOTHESIS:

The hypotheses are given below:

H.0. There will be no effect of yoga to reduce the level of depression.

H.1. Yoga therapy has an effective procedure for reducing the level of depression.

MATERIALS AND METHODS

DESIGN

The present study was designed as a parallel, two-armed, randomized controlled trial. This study was conducted on students aged between 15 years to 30 years in Sir Sunder Lal Hospital, Dept. of Psychiatry, Trauma Centre, Banaras Hindu University, Varanasi, 221005, Uttar Pradesh, India, between 1st April and 31st April, 2023. Participants were randomized to the intervention (Yoga) and control groups.

Participants

Inclusion criteria in this study were:

a) Being a 10th to Post Graduation student.
b) Married and unmarried.
c) Being aged above 15 to 28 years old.
d) Students Only.
e) Mild to moderate level of depression.
f) Feeling in good health to go about their daily lives, performing normal school lives.
g) Not suffered any type of serious health issue, any surgery.

Exclusion criteria in this study included:

a) Aged below 15 and above 30
b) Suffering any medical condition
c) Any type of surgery
d) illiterate
e) Self-depended
f) Severe level of depression

Diagnostic criteria for Depressive Disorder based on ICD-11

Clinical profile tools:-

- Clinical profile sheet.
- Hamilton rating scale.
- Socio-demographic datasheet.

Sample size and sampling

Sample size for the current study has been calculated based on Mean and SD after intervention on Hamilton depression rating scale in controlled group and trail group from four previously published similar study on depressive disorder using with yoga intervention. Sample size formula for two independent sample mean as given below has been applied taking 5% level of significance and 80% power.

Further assuming 10% lost of follow-up the requiring sample size for the present study will be n= 30 in each group.

For selection of sampling convince sampling method were used.

PROCEDURE:

For this study, intervention given by following procedure-

Table 1: Given intervention procedure

Parts	Yoga Therapy Session	Duration
1.	**Warm-up Exercises**	**2 Minutes**
	Relaxation 30 Sec	
2.	**Nadi Shodhan**	1 Minutes
	Relaxation 30 Sec	
3.	**Laughter**	5 Minutes
	Relaxation 30 Sec	
5.	**Kapalbhati**	**5 Minutes**
	Relaxation 30 seconds	
6.	**Bhastrika**	**3 Minutes**
	Relaxation 30 seconds	
7.	**Suryabhedi**	**5 Minutes**
	Relaxation 30 seconds	
8.	**Ujjai**	**5 Minutes**
	Relaxation 30 seconds	

9.	**Om Chanting**	**5 Minutes**
	Relaxation 30 seconds	

RESULT:

Table 2 : incidence of sex in depressive disorders patients

Crosstab

			Group		Total
			Control	Experimental	
Sex	F	Count	24	17	41
		% within Group	80.0%	56.7%	68.3%
	M	Count	6	13	19
		% within Group	20.0%	43.3%	31.7%
Total		Count	30	30	60
		% within Group	100.0%	100.0%	100.0%

There were 24 cases of female in control group and 17 cases of female in experimental group. There were 6 cases of male in control group and 13 cases of male in experimental group.

Figure 3 : incidence of sex in depressive disorders patients

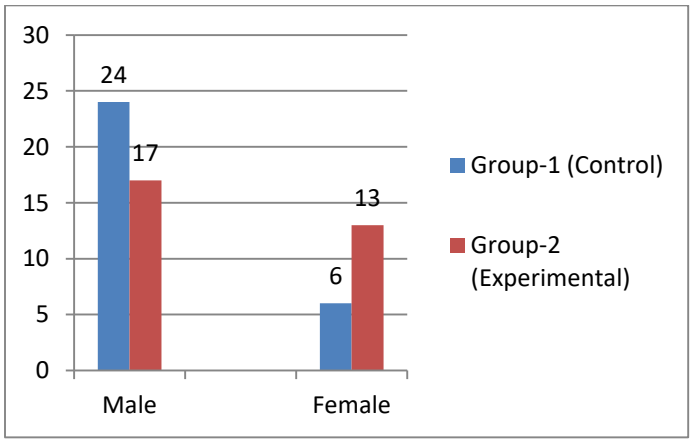

Table 3: Comparative analysis of two groups after one month follows up

Groups	HDRS Mean± SD		Within the group
	Pre	Post	Comparison paired t-test
Group-1 Control	16.33±4.934	15.9±5.720	0.43 ± 5.530 t= 0.426 ṗ>0.05
Group-2 Experimental	16.37 ± 5.275	13.40 ± 3.15	2.97 ± 4.181 t= 3.892 ṗ<0.001
Between the group 1 & 2 Comparison Unpaired t-test	t=0.278 ṗ>0.05	t=2.097 ṗ<0.05	----------

The mean HDRS score in control group before treatment 16.66, which reduced to 15.9 after treatment. The difference between mean was not statistically significant. In experimental group mean HDRS before treatment was 16.37, which reduced to 13.40 after treatment. The difference between mean was statistically highly significant.

The intergroup comparison after treatment was statistically significant. The mean HDRS after treatment in experimental group was lower than control group.

DISCUSSION

This study looked into the impact of yoga therapy sessions on depression levels in Indian youth. Depression affects more than 264 million people globally, and the pandemic is expected to increase the prevalence and severity of the condition. It is estimated that between 76 and 85% of persons in low- and middle-income nations lack access to depression treatment. Yoga therapy is an effective supplemental medicine practice that reduces depression. (Kataria, 2011; Shahidi et al., 2011).

This study included two groups. Group 1 was a control group, while group 2 was an experimental group. Both groups have 30 patients. There are 41 female and 19 male patients. Many studies have indicated that women become melancholy when they do not receive adequate compensation for their housekeeping or are deprived of socializing with young children. Females were more likely to suffer from depression than males. The age range for this study was 15 to 30 years for both groups.

According to the results, the H1 hypothesis was accepted, as indicated in Table 3. The null hypothesis (H0) was rejected. In this study, the significant reduction in depression levels may be

attributed to the introduction of more oxygen into the body through deep breathing exercises, increased energy levels through warm-up exercises, and various physiological changes (increases in level and decreases in cortisol) in the body through clapping, laughter, yoga, and so on. In this study, although there was a considerable drop in the stress levels of the students in the intervention group with regular yoga therapy, there were significant differences across the groups. Many more research has demonstrated the benefit of yoga in treating depressive illnesses.

CONCLUSION:

Yoga is the best treatment for Depression. It has more benefits. Doing yoga regularly, there is positive effect on mental health. As it can see this in present study. Practicing yoga at regular basis, there are many more advantages have shown. Yoga is a low cost effective therapy and most important thing is it has no side-effect. It is beneficial for overall health including physical and mental health.

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