

डॉ. सुनंदा व डॉ. सुभाष रानडे प्रतिष्ठान पुरस्कृत लेख

Efficacy of Heartfulness - Meditation on Academic Improvement of First Year BAMS Students – an Interventional Study



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ABSTARCT: Learning is a process in which knowledge is achieved by attentiveness and focus on specific objectives and the learner is able to perceive the knowledge. Meditation practiced over a period of time changes perception, attention and cognition. This project aims to inculcate, assess and obtain the perceptions of 57 potential learners of first year preclinical students which were selected on the basis of their Pre Meditation Test scores. The intervention of Heartfulness meditation is intervened daily up to 6 weeks. The scores of each subject after intervention were evaluated in Post Meditation Test and they were found significant. So it was concluded that meditation was found to be effective in improving the learning of the potential learners as observed through their better academic performance with increase in Post Meditation Test scores. The analysis of their perception about intervention revealed the enhancement in their attention, concentration, focus, ability to organize and time management, class communication and stress management.

The study findings suggest that the meditation may be implemented as a promising remedy to enhance the learning among the potential learners.

KEY WORDS : Heartfulness Meditation, Mental Health, Potential learners.

INTRODUCTION: Meditation, a form of mental training that has been shown to increase mental focus and reduce stress. It has become an increasingly used tool in both the medical and clinical psychology arena.

It is important to study specific meditation techniques because various meditation techniques employ different procedures to achieve the desired state of mind. Moreover, processes like cleaning

and meditation with yogic transmission are unique to Heartfulness system, which makes it important to study the effect of these processes comprehensively.

Heartfulness cleaning is an active process in which “will power” is used. The practitioner imagines that all the complexities and impurities are leaving his entire system. After some time, he supposes that a current of purity is coming from the source and entering his system from the front. This current is flowing throughout his system, carrying away any remaining complexities and impurities. He finishes with the conviction that the cleaning has been completed effectively. During meditation with a Heartfulness trainer, the practitioner meditates along with the trainer who triggers the transmission (utilization of divine energy for the transformation of human beings) on their behalf as per procedure.

As described above, Heartfulness spiritual practice comprises of several different components like cleaning, meditation and prayer. The yogic transmission facilitates the process of meditation, thereby making it easier even for the new practitioner to feel the effects in a very short period of time. Owing to its unique approach, simplicity and perceived efficacy by the practitioners, Heartfulness spiritual practice has been gaining popularity worldwide as a refined and modified form of Raja Yoga (yoga of mind)

The study explored the impact of classroom-based meditation as a tool to facilitate learning. Moreover, the impact of meditation on cognitive engagement, Heartfulness and academic performance of undergraduate college students was investigated. Additionally, the relationships between Heartfulness and cognitive engagement and between these variables and students' academic performance were

explored. Furthermore, Heartfulness was examined for its potential as an indicator of engagement and meditation as a potential facilitator of engagement. Evidence provided from this research supports the use of methods that cultivate Heartfulness, as valid pedagogical tools, further substantiating the educational efficacy of classroom-based meditation practice.

The meditation being improving the attention and cognition it may be utilized to enhance the learning of students. Considering this, the present study has been conducted with purpose to evaluate the effect of meditation on learning of the potential learners towards betterment.

Rationale: The students are daily engaged in various curricular and co-curricular activities and feel tired. This tiredness affects their physical as well as mental health and ultimately its adverse effect is seen on their learning and performance. Meditation can improve the student's learning by enhancing their attention and cognition. So this topic is selected to study the impact of meditation on student's learning.

AIM & OBJECTIVES:

Aim: To study the impact of Meditation on learning among potential learners of SSAM & H.

Objectives: 1. To inculcate the art of meditation among preclinical potential learners. 2. To assess the effect of meditation on potential learner's learning. 3. To assess the perception of potential learners about this intervention.

MATERIALS & METHODS:

Locus of study: The study was conducted in the department of Samhita Siddhanta Department, Shree Saptashrunji Ayurved College & Hospital, Nashik.

Study Design: Prospective interventional study.

Study Duration: Total study duration was 12 months.

Study population: The study population was preclinical undergraduate Ayurved potential learners (First year potential learners). Total 57 students were selected and enrolled.

Meditation Group (Study Group): 57

Study Protocol: Selection of Potential learners The potential learners from the preclinical phase in Ayurveda i.e., 1st year undergraduate students were enrolled for the study. The potential learners were

Advetorial



GLOW AND Grow With MATRUJ JEEVAN Shatavarin

1) Can Ayurveda prevent IUGR

Shatavari, Jeevanti, mudgaparni, maashparni, singhada, yashtimadhu from Matruj Jeevan Shatavarin no.7 help achieve intra uterine growth, provide proper nutrition of growing foetus. The herbs act as rich source of micronutrients proteins, vitamins, ca, fe, zn etc in natural form. Hence Foetal weight is increased and healthy growth outcome achieved, reducing chances of IUGR and reducing chances of anaemia in pregnancy.

2) Tones up mammary glands

Shatavari, Mudgaparni, maashparni, jeevanti from Matruj Jeevan Shatavarin no. 7 help tone up mammary glands preparing them for lactation ahead and also their size starts increasing.

3) Prevents premature delivery in seventh month

Singhada, Kasheru, kamal, yashtimadhu, shatavari prevent premature delivery of baby as this months enhance body immune and impart strength for normal delivery after nine months. Kamal, kasheru, yashtimadhu, Mudgaparni, Maashparni, Jeevanti of Matruj Jeevan Shatavarin no.7 help arrest bleeding per vagina, pain in abdomen, cramps during seventh month of pregnancy. Jeevanti shows analgesic action reduces pain in pregnancy.

derived on the basis of Pre Meditation Test scores.

The students who were willing to participate in the study were included. Accordingly, total 57 students could be categorized as potential learners.

At the outset the study protocol was explained and the consent was obtained from each participant.

Orientation & Sensitization:- The potential learners were oriented regarding the intervention of the study. The process of meditation had been demonstrated to them.

Step of Meditation: The students had been instructed as follows:-

MORNING MEDITATION : Sit in meditation for an hour thinking that Divine light without luminosity is present in your heart. Do it in quite a simple and natural way without forcing your mind. Never mind if you do not see the light there. Start with a mere supposition so to say, and sit meditating in one posture with your attention turned towards the heart in a natural way without any effort to concentrate. Try to be unmindful of the thoughts arising at that time.

Evening Cleaning: Sit for half an hour with a suggestion to yourself that all complexities and impurities including grossness, darkness, etc., are going out of the whole system through the backside in the form of smoke or vapor and in its place the sacred current is flowing into your heart from the Master's heart. Do not meditate on those things which we want to get rid of. Simply brush them off.

PRAYER

"O, Master!

Thou art the real goal of human life.

We are yet but slaves of wishes

Putting bar to our advancement.

Thou art the only God and power

To bring us up to that stage."

Just before going to bed at night, offer prayer. The proper and the most effective method of prayer is to sit in a supplicant mood and repeat the same mentally twice or thrice. Then begin to meditate over its true sense and try to get lost into it.

The process of cleaning uses the original power of Thought in the form of human will for the refinement of the individual soul to enable it to ascend the steep and slippery path of Realization of

the subtlest essence of identity.

Standard Cleaning Practices: Sit for half an hour with a suggestion to yourself that all complexities and impurities including grossness, darkness, etc., are going out of the whole system through the backside in the form of smoke or vapour and in its place the sacred current is flowing into your heart from the Master's heart. Do not meditate on those things which we want to get rid of. Simply brush them off.

The total 57 potential learners from had been intervened by for six weeks [8, 9] at Yoga hall at SSAM& H. The effect of the meditation on learning of potential learners was assessed through their performance in the next PCT i.e., Post Meditation Test which immediately followed after intervention.

Also, the perception of the participants about the intervention was obtained using prevalidated feedback questionnaire form. The feedback form contains 10 items which includes 7 close ended and 3 open ended items.

Questionnaire was based on 5 point Likert scale was prepared and validated to evaluate students' perception for intervention, the 5 point Likert scale (1 – Strongly Disagree to 5 – Strongly Agree) was used to record responses for items 1-7. Item no. 8, 9 & 10 were open ended questions where students were asked about increased focus & overall performance by meditation and suggestions which should be further incorporated for improvement.

Inclusion Criteria:

1. Age group – 18 to 20 yrs 2. Gender – Both 3. Irrespective of religion, social economical class 4. Group of potential learner who written consent

Exclusion Criteria: 1. Age group – 0 to 18 yrs and above 20 yrs were excluded 2. Irregularity during meditation were excluded

Data Analysis & statistics plan:

• **PCT Scores:** To study the impact of meditation, the Pre and Post Meditation Test scores were compared. • **Performance:** The overall performance of study subjects and difference of scores in subjects were analyzed using inferential statistics (Students paired t – test) • **Feedback questionnaire :** i. For close ended items – Descriptive statistics was used. ii. For open ended items – Inferential Analysis was

used.

Statistical analysis was done by using descriptive and inferential statistics using student's paired t test and $p < 0.05$ is considered as level of significance. Response to close ended and open ended questions were analysed quantitatively and qualitatively respectively.

Observation & Results: The present prospective interventional study was undertaken to assess the impact of meditation among potential learners of Shree Saptashrungi Ayurved Mahavidyalaya &

Hospital, Nashik. For the present study total 57 students were enrolled.

To assess the impact of Meditation, Pre and Post Meditation Test scores of each study subject of 1st year were compared. There was significant difference in between the PCT scores with improvement in their Post Meditation Test scores as compared to Pre Meditation Test scores.

Table 1: Comparison of Pre Meditation Test and Post Meditation Test Scores of 1st year students

Subject	Theory		SD	t- value	Practical		SD	t- value
Padarth Vigyan	PCT II	45.07	7.56	5.73 P = 0.0001,S				
	PCT I	41.02	10.7					
	Difference of Marks	4.05						
Sanskrit	PCT II	43.5	5.69	5.94 P = 0.0001,S				
	PCT I	38.29	9.07					
	Difference of Marks	5.21						
Kriya Sharir	PCT II	32.87	8.69	8.17 P = 0.0001,S	PCT II	42.77	4.17	7.47 P = 0.0001, S
	PCT I	27.17	7.15		PCT I	36.40	7.30	
	Difference of Marks	5.7			Difference of Marks	6.37	4.43	
Rachana Sharir	PCT II	35.65	6.19	4.70 P = 0.0001,S	PCT II	42.88	2.50	13.96 P =
	PCT I	32.05	7.89		PCT I	41.55	2.13	
	Difference of Marks	3.6			Difference of Marks	3.33	1.24	
Moulik Siddhanta	PCT II	38.09	7.01	6.73 P = 0.0001,S	PCT II	28.11	2.42	14.42 P = 0.0001, S
	PCT I	33.17	9.12		PCT I	25.22	2.84	
	Difference of Marks	4.92			Difference of Marks	2.88	1.01	

S - Significant ; NS - Not Significant; PCT I- Pre Meditation Test, PCT II – Post Meditation Test

It has been observed that the differences in between Pre & Post Meditation Test scores were significant in 1st year potential learners towards increase in scores in Post Medication Test.

After completion of intervention to all study

participants, the feedback was obtained from them. There were seven closed ended questions and three open ended questions in the questionnaire; following was question wise analysis of feedback of potential learners.

Table 3:- Analysis of Feedback Questionnaire (Que. 1 – 7)

Sr. No.	Perception /Feedback	SD % (n)	D % (n)	N % (n)	A % (n)	SA % (n)
1.	This intervention of Meditation helped me to improve my attention towards academic needs.	0% (0)	1.75% (1)	5.26% (3)	50.88% (29)	42.11% (24)
2.	It helped me to concentrate in college activities	0% (0)	0% (0)	8.77% (5)	63.16% (36)	28.07% (16)

3.	It improved my ability to organize and time management.	0% (0)	1.75% (1)	19.30% (11)	29.82% (17)	49.12% (28)
4.	It helped me to enhance my academic performance.	1.75% (1)	0% (0)	19.30% (11)	45.61% (26)	33.33% (19)
5.	It helped to handle the stress properly.	0% (0)	5.26% (3)	10.53% (6)	64.91% (37)	19.30% (11)
6.	It helped me to enhance my class communication with teacher.	0% (0)	3.51% (2)	17.54% (10)	64.91% (37)	14.04% (8)
7.	I am emotionally satisfied with meditation.	0% (0)	3.51% (2)	5.26% (3)	49.12% (28)	42.11% (24)

SA - Strongly Agree ; A - Agree; N - Neutral; D - Disagree; SD - Strongly Disagree

It was observed that for most of the items in the questionnaire, the students agreed towards the improvement of the attribute mentioned and the

students strongly agreed for items 1,3 & 7 i.e., it helped to improve their attention, ability to organize and emotional satisfaction.

Table 3:- Analysis of Feedback Questionnaire (Que. 1 – 7)

Sr. No.	Perception /Feedback	Feedback	No. of Students
8.	Do you think it has improved your focus?	Yes	91.23% (52)
		No	8.77% (5)
		Improved concentration level	5.26% (3)
		Improved focus	7.02% (4)
		Need more practice	1.75% (1)
9	This intervention helped you to enhance your overall performance?	Yes	85.96% (49)
		No	14.04% (8)
		Performance growth after meditation	1.75% (1)
10	Any suggestions / Remark	Duration of meditation should be increased	5.26% (3)
		Feeling calm after meditation	3.51% (2)
		Meditation should be practiced daily	7.02% (4)

For Question 8, the 91.23% of the students were in agreement towards their improvement in focus with the suggestion that they need more practice (1.75%).

For Question 9, the 85.96% of the students were in agreement towards their over- all performance. For item 10, the 15.79% of the students given their suggestions about the intervention as mentioned, the 'duration of meditation should be increased, it should be practiced daily and that they were feeling calm after meditation.'

DISCUSSION:The present research work has been carried out to study the impact of meditation on learning among potential learners of Shree Saptashrunji Ayurved College & Hospital and

Research center. Heartfulness Meditation in the form of Morning Meditation, Evening cleaning & prayer has been carried out on selected identified potential learners.

Improved attention: In this study, it has been observed that out of 57 participants half of the participants i.e., 29 (50.88%) agreed and 24 (42.11%) strongly agreed that meditation has increased their attention towards study and academic needs. The scores of individual subjects of the 1st year potential learners of Pre Meditation Test and Post Meditation Test have shown that there was increase in marks & the results were statistically significant which proves that there was improvement of attention due to regular practice of meditation found that students

need to meditate for a certain amount of time before any real changes in cognition can be experienced. This observation may support reports that meditation training develops the ability of keeping attention to execute an attention task with less interference from distracters.

Better Concentration & Improved Focus:

The 52 (91.23%) potential learners agreed that this intervention of meditation has improved their focus to concentrate on various subjects to improve their scores in exams. In the present study, more than half of the participants i.e., 36 (63.16%) agreed and 16 (28.07%) are highly agreed that there is improvement in their concentration and they can do their college activities more precisely. 52 (91.23%) potential learners agreed that this intervention of meditation has improved their focus to concentrate on various subjects to improve their scores in exams.

Ability to Organize and Time management:

The 17 participants (29.82%) agreed as well as 28 (49.12%) strongly agreed that they were more able to organize the different types of things and due to increased concentration the time required for performing various tasks was reduced. The scores in different subjects have shown that there was proper time management in handling respective subjects. As per statistics the results was found to be significant.

Better class communication: It includes communication between teachers and students in classroom activities containing verbal and non-verbal part. After meditation 37 (64.91%) agreed and 8 (14.04%) potential learners were strongly agreed that it has helped them to boost their confidence due to which they have better communication with teachers and friends. So meditation has improved their level of confidence through which they have gained good scores in the various subjects.

Enhancement in Academic & overall performance: After intervention of meditation, it has been found that there was a significant difference of marks in most of the subjects they have learnt. The results were found to be significant statistically in 1st year potential learners. 26 (45.61%) participants agreed and 19 (33.33%) strongly agreed that there was enhancement in their academic performance. Improved memory has been seen in meditation.

The 49 (85.96%) potential learners agreed that there was enhancement in overall performance of all subjects after this intervention. A series of studies on short term Heartfulness based intervention on undergraduate students suggested that the associated improvements in executive function are related to the neural circuitry specific to the anterior cingulate cortex and the autonomic nervous system.

Stress management & Emotional satisfaction:

After meditation, the mind and body becomes cool and relaxed. So equilibrium between mind and body was established. Due to this mental stress or physical fatigue was minimized. The 37 (64.91%) agreed and 11(19.30%) potential learners were strongly agreed that meditation has helped them to handle the stress adequately.

The (49.12%) agreed whereas 24 (42.11%) strongly agreed that they were emotionally satisfied by the meditation. They feel energized and relaxed mentally and physically. It is suggested that the process of mindfulness training can promote a balance between a relaxed and vigilant state of mind and thereby enhancing cognition through a better ability to self-regulate emotions..

The few of the students 3(5.26%) have suggested that duration of meditation should be increased, 2 (3.51%) suggested that they have felt calm after meditation and 4 (7.02%) have suggested that it should be practiced daily.

The various factors may influence the meditation experiences & practices as spiritual goals, belief systems, traditions, liturgical interactional & environmental properties, personality traits and the way of life.

Personality traits also play a significant role in meditation. It is well known in the Indian tradition that sattvaguna facilitates meditative life better as compared to rajoguna and tamoguna. It is to be noted that all the three gunas are present in all the individuals and it is the preponderance of one over the other which leads to the labelling of persons as sattvic, rajasic and tamasic type. According to Indian psychological perspectives, regular practice of meditation will lead to reduction in rajasic and tamasic qualities and increase of sattvic qualities.

Thus along with the meditative practices, other

factors needed to be taken care so as to have the act of meditation to be productive.

CONCLUSION:

- The intervention of Meditation was found to be effective in improving the learning of the potential learners as observed through their better academic performance with increase in Post Meditation Test scores.
- The analysis of their perception about intervention revealed the enhancement in their attention, concentration, focus, ability to organize and time management, class communication and stress management.
- The study findings suggest that the meditation may be implemented as a promising remedy to enhance the learning among the potential learners.

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पान क्र. २५ पासून पुढे

- » लीन गर्भ - बालबिल्वं तिलान्माषान् सक्तूश्च पयसा पिबेत (वा.शा. २/१९)
- » गर्भ निपतिते - पाञ्चकौलिके बिल्वादीपञ्चकक्राथे तिलोद्यालकतण्डुलैः (वा.शा. २/११)
- » गर्भिणी अष्टमे मासे - कपित्थ बृहती बिल्व पटोलेक्षु निदिग्धिका मूलानि क्षीरसिद्धानि (सु.शा. १०/६३)
- » गर्भसंग - कुष्ठतालीस कल्क-बिल्वासवसह (सु.शा. १/८७)
- » आमज तृष्णा - बिल्व/वचा/पिप्पल्यादी गण काथात- बिल्व व वचा चूर्ण (सु.उ. ४८/२८)
- » पानात्यय - चतुःस्नेह+दधि+भृंगरस+बिल्वफळ+यव काथ- एलादी गण कल्क-सिद्ध घृत अभ्यंग (सु.उ. ४७/५२)
- » कफज तृष्णा - बिल्वाढकीपञ्चकोलदर्भपञ्चकसाधितम् जलं (सु.उ. ४८/२१)
- » शिरोगत वात - बलाबिल्व शृत क्षीर-घृतमण्ड-नस्य (शुक्ती/प्रकुञ्च) (च.चि. २८/१२३)
- » जत्रुर्ध्व रोग - सितैरण्डजटासिंहीफलदारुवचानतैः घोषया बिल्वमूलैश्च तैलं पक्वं पयोन्वितम्-नस्य-सर्व जत्रुर्ध्व वातकफविकारात् (वा.उ. १३/५५)
- » वाताभिष्यंद - आश्रोतन - बिल्वादिभिर्हितः कोष्णः सहैरण्डजटाबृहतीमधुशिग्रुभिः (वा.उ. १६/११)
- » वातज कर्णशूल - बिल्वपत्रस्वरस कर्णपूरण (वा.उ. १८/१)
- » जातदशन अवस्था-बालक-अग्निदीप्ती - बालबिल्व- एला-शर्करा-लाजा-सत्तु (वा.उ. १/३९)
- » बालग्रह - स्नानद्रव्यांमध्ये बिल्व एक द्रव्य (वा.उ. ३/५९)
- » उपदंश - धावन कषायतील बिल्व एक द्रव्य-त्याच द्रव्याच्या कल्क काथाने सिद्ध तेलाने रोपण (वा.उ. ३४/३) (धावन काथ-जम्बाप्रसुमनोनीपञ्चेतकाम्बोजि काड्कुरान् शल्लकीबदरीबिल्वपलाश तिनिशोद्भवा त्वचः क्षीरीद्रुमाणां च त्रिफलां च जले पचेत्) अशा रितीने आपण बिल्वाच्या ग्रंथोक्त कल्पांची माहिती घेतली.

दैनंदिन व्यवसायात वैद्यांसाठी

उपयुक्त पुस्तक

आयुर्वेद चिकित्सा - एक मार्गदर्शिन व स्वानुभव सिद्ध औषधी संग्रह

लेखक: वैद्यराज वा.स. अंदनकर, आयुर्वेदतीर्थ
प्रकाशक- डॉ. गो.वा. अंदनकर
पाने : ३५०, किंमत : रु. ३००/-
(टपाल खर्च वेगळा) पुस्तक विक्रीसाठी उपलब्ध
* संपर्क *

संपादक, आयुर्वेद पत्रिका, आयुर्वेद सेवा संघ,
गणेशवाडी, पंचवटी, नाशिक - ४२२००३