

Effects of Integral Meditation on Peace in Young Adult Non-regular Meditators

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The experiment was conducted on a sample of 12 young non-regular meditators to examine the effects of Integral Meditation On Peace with respect to anxiety, higher-level conscious experiences, introspective reports, and pulse rate. State-Trait Anxiety Inventory (STAI) by Spielberger *et al.*; Meditational experiences checklist (MEC) by Khubalkar were used to assess anxiety and higher-level conscious experiences respectively. Pre-test-Post-test single group design was used for analyzing the effect/s. One Way ANOVA for repeated measures was employed to analyze differences in pulse rate in three conditions, 'pre' (before), 'during', and 'post' (after) meditation session. The results indicated significant increase in higher-level conscious experiences, decrease in trait anxiety and pulse rate due to meditation. Introspective reports in 'before' meditation condition consisted of general reactions toward the test/s taken whereas 'after' meditation condition reports comprised experiences like 'feeling of very much calm and peace, silence, as though in void, not able to think wrong about anything, etc. Implication of IM on Peace for self – growth and self-transformation, is discussed.

Keywords: Integral Meditation, Peace, anxiety, conscious experiences, and pulse rate.

Meditation has gained a wide popularity world over among researchers and professionals these days. Researchers got attracted to it chiefly because of its consequent psychophysiological effects. To mention a few commonly reported physiological changes due to meditation include reduced physiological arousal, decreased oxygen consumption (Schuman, 1980; Benson & Proctor, 1984), decreased blood pressure (Wenger & Bagchi, 1961), slower heart rate and respiration as well as lower body temperature (Wallace, 1970), and higher plasma melatonin levels (Tooley, Armstrong, Norman & Sali, 2000).

The psychological changes include following meditation people report feeling thoroughly relaxed, calmness, and, well-being. The regular meditators are also seen reporting such psychological experiences as sensation of floating, being detached from

their bodies, feeling of calm and relaxation, and reduced anxiety (Cridler, Goethals, & Soloman, 1989). Meditators' dream content has been found to contain more archetypal elements, reflected universal or transcendental themes (Faber, Saayman, & Touyz, 1978).

Various forms of meditation are being used by different meditators these days. The most common are TM – Transcendental Meditation, Zen Buddhism, Tai Chi, Vipassana etc. Majority studies have been conducted on regular TM (Transcendental Meditation) practitioners. The interesting thing about the fact of using regular meditators as subjects in experiments on meditation has provided room to many critics (e.g., Druckman & Bjork, 1994) to become skeptical about its effects. They argued that the life styles and attitudes of the meditators may influence the claims (i.e., the effects)

meditators do. In the present investigation young fresh non-regular meditators have participated as subjects.

The present investigation has used Integral Meditation on Peace – a different kind of meditative practice based on certain principles of the Mother and Sri Aurobindo's integral yoga and therefore has been so called. This yoga seeks Integral transformation of human nature for which Sri Aurobindo sees integration of individual divine and Divine Supreme as essential. In this yoga, Sri Aurobindo has stressed two – way movement of the ascent and descent of the forces. He believes higher forces descend down to a sincere call into the mind and body. He states “.....Our yoga is a double movement of ascent and descent: one rises to higher and higher levels of consciousness, but at the same time one brings down their power not only into mind and life, but in the end even into the body. And the highest of these levels, the one at which it aims is the supermind. Only when that can be brought down is a divine transformation possible in the earth-consciousness” (Sri Aurobindo, 1972, p. 102).

“In this Yoga the whole principle is to open oneself to the Divine Influence. It is there above you and, It descends into the mind and into the body as Peace, as a Light, as a Force that works, as the Presence of the Divine with or without form, as Ananda” (Sri Aurobindo, 1998). While elaborating on Sadhana through meditation Sri Aurobindo (1971) mentions, “The best help for concentration is to receive the Mother's calm and peace into your mind. It is there above you — only the mind and its centers have to open to it....” (p. 735). Thus based on these premise, it was reasoned that meditation on peace would facilitate descent of peace into the mind and body and would influence their functions.

In a recent study by Khubalkar (2002), IM on Peace has been found to have resulted

in decrease in state anxiety, decreased pain to needle prick, increase in level of consciousness and activation of immune system in terms of significant increase in TLC count in young adult individuals. The present study has been carried out to confirm certain effects of IM on Peace related to anxiety and higher – level conscious experiences. In a way, it was aimed at examining the effectiveness of IM on Peace, how it influences certain psychological and physiological functions. The study was expanded to examine how it influences besides anxiety and higher – level conscious experiences, pulse rate and subjective introspective reports.

Hypotheses

1) Number of higher-level conscious experiences will be significantly different for pre and post meditation session; post meditation experiences will be more than the pre; the experience/s will be more intensely felt.

2) There will be a significant difference in anxiety ('state' and 'trait') between pre (before) and post (after) meditation condition; post meditation anxiety will be less than the Pre.

3) There will be a (qualitative and /or quantitative) difference between introspective reports taken down in before and after meditation session.

4) There will be a significant difference in pulse rate in 3 conditions i.e., before (pre), during, and after (post) meditation; pulse rate will be lower in during as well as post meditation than the pre.

Method

Participants

Participants in the study were 12 young, post – graduate student volunteers (6 females and 6 males) from department of Psychology of Nagpur University, Nagpur. Their age ranged from 21 to 23 years with

an average of 21.58 years. All the subjects were fresh /non-regular meditators. Out of twelve 11 were doing meditation for the first time and the remaining one was doing meditation for the third time with a gap of 1 year from the last he meditated.

Design

The study employed 1) Pre-test – Post-test single group design to compare ‘pre’ (before) and ‘post’ (after) meditation differences in anxiety, higher – level conscious experiences and introspective reports and 2) to analyze differences in pulse rate in three conditions, ‘pre’ (before), ‘during’, and ‘post’ (after) meditation, one way ANOVA for repeated measures.

Tools

Meditational Experiences Checklist (MEC) by Khubalkar, (2000): Meditational/mental experiences checklist (first used to assess psychophysiological effects of IM ON Peace (Khubalkar, 2000)) is a list of experiences in the higher level of consciousness based on the experiences of Sadhak/s (one who practices a system of yoga) doing regular Sadhana (a method of yoga) and the literature related to spiritual experiences and observations of Sri Aurobindo and the Mother. It consists of 29 items – conscious experiences on which the subject/s can indicate whether the experience was present (or absent) and if present how intense it was.

State-Trait Anxiety Inventory (STAI) developed by Spielberger, Gorsuch & Lushene, (1983), consists of two coordinated 20 – items inventories (Y1 & Y2) that assess anxiety as a trait and as a state. Y1 – State portion of the STAI requests the subjects to give answers that seems best describe their present feelings. Y2 – Trait portion seeks to elicit a description of how the subjects generally feel.

Introspection: Participants were asked to note down their subjective reactions before

and after meditation session.

Meditation: IM on Peace, a meditative procedure used in this study, has been developed by Khubalkar, is based on the conceptualization of meditation of the Mother and Sri Aurobindo (a procedure was first introduced by the author in International Breast Cancer Conference, Breast Cancer in the New Millenium, 2002, Nagpur.).

Procedure has following underlying (fundamental) ideations: 1. Inner and outer quietening of the mind and body à (Preparatory phase / preparation, 2. Attempting /bringing the inner existence being to the fore, 3. Invoking à a call to the higher force ‘peace’, 4. Assimilating, and 5. Gratitude

Procedure

All the subjects completed MEC and STAI as a pre test prior to meditation session and as a post-test i.e., after the meditation session. Immediately after taking the tests, subjects were asked to write down introspection. Pulse rate for a minute was noted down three times ‘before’, ‘during’, and ‘after’ the meditation session. Total duration of the session was approximately one hour with actual meditation period of 20 minutes. The session was conducted in the classroom in sitting position between 10.45 a.m. and 12.00 noon. The meditation - session was conducted by the investigator. The data yielded were then subjected to statistical analysis.

Results

Table 1: Mean, SD and t value for ‘MEC’

	Pre Meditation	Post Meditation	<i>t</i>
Mean	16.16667		2.240*
SD	4.08619		
Pearson <i>r</i>	0.0055		

* $p < .05$

Significant increase in higher-level conscious experiences in post meditation assessment

Effect of IM on Peace on MEC: The results did support the hypothesis 1. Total number of higher - level conscious experiences was significantly more in post meditation condition than the pre meditation ($t = 2.2405$; $p < .05$). The mean number for pre condition ($M = 16.1667$) and post condition ($M = 19.3333$) can be seen in Table 1a. Data from table 1b showed that the intensity of experiencing the experience was significantly more in after meditation condition ($M = 68.66667$) than the pre meditation condition ($M = 59.5$), ($t = 2.6805$, $p < .02$). The experiences they more intensely felt as can be seen in table 1c were, 'calm and relaxed' and 'Silence' (66.667%); 'separating from self', 'peace', and 'inwardness' (58.333%); "Invincible power", 'heaviness in head', 'floating', and 'moving upward' (50%); 'uniting with unknown', and 'boundless joy' (41.67%).

Table 2: Mean, SD and t value for 'MEC' scores for intensity

	Pre Meditation	Post Meditation	t
Mean	59.5	68.667	2.680 *
SD	8.702	10.723	
Pearson r		.269	

* $p < .05$

Significant increase in intensity higher-level conscious experiences in post meditation condition

Effect of IM on Peace on STAI (State Y1 and Trait Y2): The results also supported the hypotheses 2 and 3 that anxiety would be less in post meditation condition. Average decrease in state anxiety (Y1) in post meditation condition ($M = 31.6666$) than the pre meditation condition ($M = 33.6666$) was found, can be seen in

Table 3: Frequency% of some Experiences of MEC

%	60 – 70 % (66.667%)	50 – 60 % -58.33%	50% -50%	-41.68%
Experience	Silence Peace Calm and Relaxed	Delight Inwardness Serenity Separating from self	Floating Harmony Invincible power heaviness, moving upward,	Boundless joy Uniting with Unknown

table 2. However the difference was not statistically significant. Significant decrease in trait anxiety was found in post meditation condition than the pre meditation condition ($t = 2.4358$, $p < .05$). The mean trait anxiety scores for pre ($M = 38.8333$) and post ($M = 36.0833$) can be seen in table 3.

Effect of IM on Peace on Introspection: The data also supported the hypothesis that there would be a change in Introspective reports in pre and post meditation conditions. As can be seen from table 4, total number of words before meditation was quite less ($Sum=201$, $Mean=16.75$) as compared to after meditation

condition ($Sum=582$, $Mean=48.5$). Contained text too in before meditation and after meditation showed qualitative difference. Introspective reports in 'before' meditation contained mostly general reactions toward 'tests' e.g., 'it was good', 'interesting to answer' etc., three of the subjects did not respond at all, whereas 'after' meditation reports contained various experiences subjects had during meditation and the way they were feeling at the time, for example, 'I was floating away with wind in a rhythm', 'clouds', 'harmony with breathing', 'as though in void', 'I am not able to think wrong about anything', it is difficult to express the

experience' etc. The 'text' samples are summarily presented in table 5.

Effect of IM on Peace on Pulse rate:

As expected the data (table 6, 7) did support the hypothesis four ($F_{(2, 22)} = 4.117, p < .05$). Newman – Keuls test revealed that pulse rate reduced significantly in 'during' ($M = 68.5$) than the before ($M = 73.75$) meditation condition ($p < .05$).

Table 4: Mean, SD and t values for 'STAI – Y1' (state anxiety)

	Pre Meditation	Post Meditation	t
Mean	33.667	31.667	.858
SD	11.345	10.990	
Pearson r	.736		

Table 5: Means, SD and t values for 'STAI – Y2' (Trait anxiety)

	Pre Meditation	Post Meditation	t
Mean	38.833	36.083	.436*
SD	10.026	10.148	
Pearson r	.9249		

*p < .05

No significant change in state anxiety (Y1). Whereas significant decrease in trait anxiety (Y2) after meditation.

Table 6: Qualitative Changes

Condition→	PRE Meditation	POST Meditation
KIND OF TEXT→	0 Interesting to answer 0 tests easy 0 liked the test/s 0 feeling Comfortable 0 Sometimes feeling relaxed 0 Sometimes tense 0 Excited about Meditation 0 Had to think while taking test 0 feeling contented 0 I don't show tension in public 0 felt satisfied after completing tests 0 three (3) did not comment	0 Floating away with wind in rhythm, clouds 0 harmony with breathing 0 water filled my body as though in void 0 I am not able to think wrong 0 tears in eyes, waves (tarang) in body, experience of happiness - it is difficult to explain the real experience 0 calm and relaxed but little tense, don't know 0 very - very quiet, can see my goal clearly 0 initially serene then at peace 0 very much relax, quite light eyes heavy, ache in back after sometime disappeared 0 a new experience, experience of light and perfect peace 0 generally always movement, now I could remain stable

Introspective Reports:

Table 7 Quantitative Difference

Condition	Total Number of Words	Average
Pre (Before) Meditation	201	6.75
Post (After) Meditation	582	48.5

Discussion

The study findings offer strong support for the contention that Integral Meditation on Peace (IM on Peace) influence anxiety, level of consciousness, subjective introspective reports, and pulse rate. The analyses did confirm the earlier study finding of Khubalkar (2002) of that of change in psycho - physiology of the individual due to IM on Peace.

In the present study, IM on Peace significantly increased level of consciousness; Higher state experiences like, Silence, peace, calm and relaxed feeling, Delight, Inwardness, Assurance, Serenity, Boundless joy, Harmony, Invincible power and separating from self, Uniting with the Unknown, moving Upward were intensely felt by the subjects. The kind of introspective reports did further lend additional support to the fact that the state and self -experiencing

was quite different during and after meditation. There was obvious change in the quantity and quality of experiences and subjective perception. It appeared more positive rather superlative. Sample text of introspection is worth noting. Introspective reports consisted of such various experiences as, 'floating away with wind', 'in harmony with breathing', 'as though in void', 'I am not able to think wrong about anything', 'very very calm and quiet', 'can see my goal clearly', 'experience of light', 'tarang-waves', 'can be stable'. One participant narrated after a gap of around six months, 'immediately after the meditation session I experienced, 'I am happy in general and at pace with myself'. It helped me later also, 'now I can concentrate and try to be stable by practicing it off and on whenever I feel restless. Another reminiscenced, 'experience of light and perfect peace was a new experience for me. My body parts got separated, I felt serene, there was watering from eyes but I know that was not weeping / crying. I feel I need to meditate like this time and again'. Briefly speaking most expressed that it was different, it is difficult to explain the real experience, and it was a new experience. All this is quite self – explanatory, indicate that subjects were at different state of consciousness.

There is a unique finding of this study. It was interesting to note that IM on Peace has influenced more significantly the 'Trait' anxiety than the State anxiety in this experiment. Nevertheless, it has reduced State anxiety, but the difference is not statistically significant. This finding, although shares a general observation of researchers of decrease in anxiety during meditation but with a difference. In general, researches using other variants of meditation show that meditation reduces mainly the state anxiety, for example, Putai (1992) showed decrease in state anxiety and no change in trait anxiety among adult Tai chi practitioners; Engel and Anderson (2000) showed among persons

with chronic toxic encephalopathy. Although, the comparability reduces because of difference in types of subjects however the direction needs to be taken into account. Perhaps, the present finding indicates that IM on Peace has a potential to influence characteristic change in the individual. Implication of the finding could be that IM on Peace, if practiced regularly may lead to stable changes in anxiety. Of course, further long - term studies are needed.

Another finding of the study revealed reduction in physiological arousal, IM on Peace reduced pulse – rate significantly. The present finding is consistent with the study finding of Sudsuang, Chentanez and Veluvan' (1991), which showed Buddhist Meditation decreased pulse rate significantly. In the present study pulse rate was found significantly lower in 'during' meditation and also immediately 'after' meditation. The changes appeared to be fugitive. Thus, it tells, when the person is in that condition, pulse rate reduces but after coming out of that state gradually usual/ normal functioning comes back. As soon as the individual slips into ordinary consciousness the experiences too come to base level, nevertheless memory remains.

Like the earlier study of Khubalkar, the investigator in this study too attributes observed changes to the presence of 'Peace Force' in the individual. The data together gather evidence that "Higher Force Peace" descends down into the mind and body as stated by Sri Aurobindo and The Mother. In the light of the present findings, the phenomenon of descent of force is considered as real. IM on Peace does bring out psycho physiological changes. The young fresh non – regular meditators too can attain higher-level conscious – experiences. It should be noted that the participants in the study were all young non-meditators. The changes/experiences are not dependent on faithful adherence to life styles of regular

meditation practitioners as derogated by some critics but rather depend upon the consciousness state one achieves.

Conclusion

It can be said that (IM on Peace) Integral Meditation on Peace influenced psycho-physiological arousal, it reduced trait anxiety, increased level of consciousness, brought out quantitative and qualitative changes in subjective introspective reports and decreased pulse rate. The non – regular meditators could also be able to experience higher state experiences such as floating away with wind, harmony with breathing, as though in void, calm and relaxed, moving upward, 'experience of light, waves, unable to describe the real experience, experience of light, perfect peace etc.

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Received: July 24, 2008

Revision received: September 11, 2008

Accepted: October 13, 2008

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