THE TRANSCENDENTAL MEDITATION PROGRAM AND ACADEMIC ACHIEVEMENT

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Students practicing the Transcendental Meditation technique showed an increase in grade point average.

—EDITORS

A retrospective study was conducted comparing the grade point averages (GPA's) of 25 subjects who had begun the practice of the Transcendental Meditation (TM) technique during their undergraduate studies to the GPA's of 25 subjects who had received their undergraduate degrees before learning TM. The mean GPA for the TM group rose from 2.52 for the three terms immediately before learning TM to 3.26 for the first three terms after learning TM. The change in GPA for the TM group was significantly greater than the change in GPA for the nonmeditating subjects over an equivalent period (p = .0003). For the next three terms GPA's for the meditating group continued to improve significantly (p = .027) as subjects continued the practice of TM. Further research was called for to investigate the possibility that TM may improve the achievements of students at all levels of education.

INTRODUCTION

For some time educational researchers have attempted to identify the characteristics of the most successful students but have not discovered to date an easily employed scientific procedure for ensuring the growth of these qualities in any individual. There is evidence that the Transcendental Meditation (TM) technique, which is the applied aspect of the Science of Creative Intelligence (SCI), may be just such a procedure.

TM is a systematically taught mental technique that produces psychophysiological changes in an easy and automatic fashion that does not involve suggestion or control (11). No particular skill or intellectual ability is prerequisite to gaining benefit from the practice. People who practice the Transcendental Meditation technique are not required to adopt any philosophical views or to alter their lifestyles. The technique is usually practiced for 15 to 20 minutes twice daily, sitting comfortably with eyes closed. More than 400,000 Americans from all walks of life have received instruction in the technique through the Students International Meditation Society and its affiliates (11). Because the teaching of TM is systematic and uniform throughout the world, and because TM is practiced according to a regular schedule, behavioral and physiological changes resulting from the practice can be reliably measured and replicated.

Previous studies have indicated that during the Transcendental Meditation technique one gains a unique physiologic state characterized by deep rest, alert relaxation (16), and increased orderliness of brain activity (2). Research also suggests that regular daily practice leads to greater stability of the autonomic nervous system (12); decreased use of drugs (3, 5); personality growth in the direction of increased self-esteem, inner-directedness, and self-actualization (14); and decreased anxiety, depression, and aggression (8). Thus, TM appears to develop qualities closely related to traits that researchers have associated with superior academic achievement: self-esteem, optimism, firm identity, adaptability, and purposiveness (7, 10).

Preliminary evidence also suggests that TM may enhance cognitive abilities. In a pilot study in Holland, Tjoa found that high school students practicing TM for one year showed significantly greater positive changes on measures of both intelligence and neuroticism than a control group of nonmeditating high school students (15). Abrams found that TM may influence short-term and long-term recall of paired associates (1).

The theory of SCI (11) predicts that turning the attention inwards and taking deep rest during TM makes one capable of greater success in activity. Frew's finding of improved productivity and job satisfaction among meditating workers and executives (9) supports the claim that the TM program enriches achievement. A preliminary investigation by Collier (6) indicates that TM may have a positive influence on college academic attainment. The present investigation was undertaken not only to examine the short-term and long-term influence of TM on
grade point average, but also to empirically test this prediction of SCI. Grade point average (GPA) is an excellent global measure of complex intellectual performance because it reflects numerous skills necessary for excelling in the various academic subjects and is significantly correlated with general intelligence.

METHODS

The subjects were all meditators and teachers of TM attending a graduate program of interdisciplinary studies at the Santa Barbara, California, campus of Maharishi International University. Data were obtained from the transcripts of their undergraduate work at various other colleges and universities. Of 110 students in the graduate program, 25 had completed at least three terms as full-time college students before learning TM and had also completed at least three additional terms of full-time undergraduate study after learning TM. Of the 25 who comprised this short-term TM group, 11 had completed at least six undergraduate terms after beginning TM. These 11 subjects comprised the long-term TM group.

Of 29 students who had completed their bachelor's degree before learning TM, four were eliminated because of insufficient data in their transcripts, and the remaining 25 became the control group. The mean age of both the short-term TM and control groups was 20. The short-term group included six females and 19 males, and the control group included nine females and 16 males.

A school term was considered to be the period for which a school normally gave grades—in some cases semesters, in other cases quarters. The criterion for full-time study was at least half the normal class load for that school. Mean GPA was calculated by dividing the total quality points for each group of three terms by the total course credits the student carried during those terms. Quality points are assigned as follows: four points for a grade of A, three points for a B, two points for a C, one point for a D, and zero for a failing grade.

For the short-term TM group, each subject's mean GPA for the three consecutive terms immediately before he learned the TM technique was compared to his mean GPA for the three terms immediately after he began TM. For the long-term TM group, the mean GPA of the fourth, fifth, and sixth consecutive terms after the practice was begun was also computed. In order to determine a data collection period for controls comparable to that for meditators, control subjects were individually matched with meditators with reference to the number of terms remaining before completion of the bachelor's degree at the beginning of the experimental period.

RESULTS

As shown in table 1 and fig. 1, the change in mean GPA was significantly greater for the short-term TM group than for the control group ($t = 3.66$, $p = .0003$). The mean GPA for the 11 long-term meditators increased significantly from 2.38 for the three terms before TM to 3.21 ($t = 4.21$, $p = .0009$) for the first three terms after TM, and it further increased to 3.48 ($t = 2.18$, $p = .027$) during the next three terms.

DISCUSSION

GPA was found to increase markedly and significantly for meditators following instruction in the TM technique, but was found to increase only slightly for control subjects during a corresponding period. The slight upward trend in GPA's for controls is consistent with trends observed throughout the University of California (13). The data on long-term meditators suggest that the effects of TM are cumulative, a finding that is consistent with reports concerning the immediate and long-term effects of the TM program on drug use (3) and personality growth (8). Because 4.0 is the maximum possible grade point average, it becomes increasingly difficult for the student to improve his GPA as he approaches 4.0. This factor could account for the fact that the increase in mean GPA for the

<table>
<thead>
<tr>
<th>GROUP</th>
<th>N</th>
<th>BEFORE GPA 3 Terms Mean</th>
<th>Mean GPA 3 Terms After Instruction of TM Group</th>
<th>Mean Diff.</th>
<th>$t$</th>
<th>$p$</th>
<th>AFTER GPA 5 Terms Mean</th>
<th>Mean Diff.</th>
<th>$t$</th>
<th>$p$</th>
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<tbody>
<tr>
<td>Control</td>
<td>25</td>
<td>2.69</td>
<td>2.81</td>
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<tr>
<td>TM (short-term)</td>
<td>25</td>
<td>2.52</td>
<td>3.26</td>
<td>0.74</td>
<td>3.66*</td>
<td>0.0003</td>
<td></td>
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<tr>
<td>TM (long-term)</td>
<td>11</td>
<td>2.38</td>
<td>3.21</td>
<td>0.83</td>
<td>4.21†</td>
<td>0.0009</td>
<td>3.48</td>
<td>0.27</td>
<td>2.18†</td>
<td>0.027</td>
</tr>
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*One-tailed $t$-test for independent measures comparing the mean difference in GPA of short-term TM and control groups.
†One-tailed $t$-test for dependent measures comparing the mean GPA for the long-term meditators at the two three-term intervals.
‡The 11 subjects in the long-term meditation group were also included in the short-term meditation group of 25 subjects.
long-term meditators during the first three terms after learning the TM technique (.83) was greater than during the next three terms (.27), when their mean GPA was only half a point below the ceiling.

It might be argued that the increase in GPA's after experimental subjects began TM could be related to a tendency toward improvement inherent in those who begin TM. Since in this study both control and experimental subjects eventually began TM, this argument is not valid.

The results of this study support the tenet of the Science of Creative Intelligence that the single tactic of giving deep rest to the nervous system through TM improves practical performance in general. It is worth noting that TM is not taught specifically as a means of improving grades, but is offered as a means of holistic self-development. It appears that the TM program may facilitate student achievement in a more simple and more comprehensive way than approaches that involve analyzing and attending to isolated components of behavior.

The results of this study, if verified in future research, indicate that this simple and reliable procedure can enable students to improve their academic performance and thereby enable educational institutions to more fully achieve their goals. More extensive investigations of the practical value of the Transcendental Meditation program should be carried out with students at all levels of education. The effects of the TM program on the grades of secondary, middle, and elementary school children, as well as its influence on measures of intelligence and specific aptitudes, should be studied. The use of the TM technique to treat such special problems as hyperactivity and emotional disturbances might profitably be researched. Since there is evidence that the TM technique produces increased general intelligence (15) and more accurate perceptual-motor performance (4), it may be found useful in the amelioration of learning disabilities and reading problems as well.

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