PILOT TESTING OF SUBJECTS PRACTISING THE TRANSCENDENTAL MEDITATION AND TM-SIDHI PROGRAMME: NEUROTICISM, ANXIETY, WELL-BEING, AND THE CAPACITY FOR ABSORBING EXPERIENCES

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Thirty-four subjects practising the Transcendental Meditation and TM-Sidhi programme were scored on Neuroticism and Lie scales of the Eysenck Personality Questionnaire, the Well-Being, Absorption, and Unlikely Virtue scales of the Differential Personality Questionnaire, and the Trait Anxiety scale of the State-Trait Anxiety Inventory.

Compared to norms the group exhibited significantly lower levels of anxiety ($p < .001$) and neuroticism ($p < .01$), and significantly higher levels of well-being ($p < .01$) and of the capacity for absorbing experiences ($p < .05$).

These results are consistent with previous psychological studies showing improvements in mental health, and with physiological data indicating a parallel growth of stability and sensitivity in nervous system functioning as a result of the practice of the Transcendental Meditation and TM-Sidhi programme.

INTRODUCTION

A large number of studies have now been completed that provide strong evidence that the Transcendental Meditation technique, as taught by Maharishi Mahesh Yogi, produces improvements in measures related to psychological well-being. At least 30 studies, for example, have used derivatives of questionnaires devised by the Eysencks (MPI, EPI, EPQ) and/or the State-Trait Anxiety Inventory (STAI), and have found consistent reductions in anxiety and neuroticism in a variety of populations. Improvements have also been found in more positive measures of mental health, such as the Northridge Development Scale and the Personal Orientation Inventory (see Orme-Johnson and Farrow, 1977; Chalmers, Clements, Schenkluhn, and Weinless, in press).

Physiological data indicate that subjects who practise Transcendental Meditation have higher levels of autonomic stability than non-meditators (Orme-Johnson, 1973). Furthermore, research has shown that increases in attentive ability (Pelletier, 1974; Martinetti, 1976) and perceptual sensitivity occur as a result of the practice (Pirot, 1977; Clements and Milstein, 1977; Wallace, Dillbeck, Jacobe, and Harrington, 1982; Daniels, in press; Harding, in press; b; Toomey, Chalmers, and Clements, in press).

Schwartz (in press), in an investigation of the effects of Transcendental Meditation on strength of
the nervous system, found that, compared with both short-term meditators and controls, long-term practitioners exhibited lower auditory thresholds, shorter reaction times to low level stimuli (indicating greater sensitivity of the nervous system), and shorter reaction times at high levels of stimulation (indicating greater strength or stability of the nervous system). Schwartz further found longitudinal improvements in auditory threshold and reaction time to all levels of stimulation as a result of the practice of Transcendental Meditation.

The purpose of the present study was to examine personality characteristics of individuals practising both the Transcendental Meditation technique and the more advanced TM-Sidhi programme in comparison with normative data, and to explore further the relationship between psychological measures of emotional stability and sensitivity in this subject population.

METHOD

SUBJECTS—Thirty-four male volunteers participating in an optional Transcendental Meditation residence course completed the questionnaires outlined below. These subjects formed a subgroup of a larger sample (N = 68) who completed the EPQ and STAI as part of a separate study (Jedrczak, Cox, and Cunningham, 1982). Due to the correlational nature of part of the present study only the results of this smaller sample are presented in detail here. The subjects had a mean age of 27 years 2 months, a mean length of practice of Transcendental Meditation of 6 years 10 months, and of the TM-Sidhi programme of 2 years 0 months.

INSTRUMENTS—Three scales devised to measure different aspects of mental health were used—the Neuroticism scale of the Eysenck Personality Questionnaire (Eysenck and Eysenck, 1976), the Trait Anxiety scale of the State-Trait Anxiety Inventory (Spielberger, Gorsuch, and Lushene, 1970), and the Well-Being scale of the Differential Personality Questionnaire (DPQ), recently developed by Tellegen (1980).

The DPQ also contains the Tellegen Absorption Scale (TAS), an increasingly used measure of sensitivity, which was included in the present study to explore the relationship between emotional stability and sensitivity in this subject population. High scorers on the TAS are described as being able to focus intently, or with "total attention", on the object of perception, as well as being responsive to music, art, and nature in general (Tellegen, 1980).

In addition, scores from the Lie scale of the EPQ and the "Unlikely Virtues" scale of the DPQ were examined to control for the effects of social desirability.

ANALYSIS OF DATA—Z-scores were used to compare the mean scores of the present group on each scale with normative scores given in the respective manuals.

Pearson product-moment correlation coefficients were calculated between the EPQ Lie scale and the three measures of mental health, and between the TAS and Neuroticism, Anxiety, and Well-Being. (The Unlikely Virtues scale of the DPQ, consisting of relatively few questions, gave too large a floor effect to be used in a correlation.)

RESULTS AND DISCUSSION

Table 1 presents the results for the mean scores.

The present group showed scores that were significantly lower on Neuroticism and higher on Well-Being than norms. The Neuroticism score was in fact very similar to that obtained with the full sample of 68 (mean Neuroticism score = 7.06), and with two other groups of people practising the TM-Sidhi programme (males: mean N = 6.81; females: mean N = 6.01; Jedrczak et al., 1982)

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<td>MEANS AND STANDARD DEVIATIONS FOR ALL SCALES COMPARED WITH NORMS</td>
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| NORMS | EXPERIMENTAL GROUP (N = 34) |
| --- | --- | --- | --- | --- |
| | Mean | S.D. | Mean | S.D. | Z |
| EPQ | | | | | |
| Neuroticism | 9.83 | 5.18 | 6.62 | 3.98 | -3.62** |
| Lie Scale | 6.80 | 4.14 | 4.82 | 3.86 | -2.79** |
| DPQ | | | | | |
| Well-Being | 18.2 | 5.6 | 20.9 | 2.8 | 2.81** |
| Absorption | 19.8 | 7.5 | 22.6 | 4.8 | 2.17* |
| Unlikely Virtues | 1.7 | 1.7 | 1.3 | 1.6 | -1.37 NS |
| STAI | | | | | |
| Trait Anxiety | | | | | |
| | | | | | |

*p < .05  **p < .01

*Due to the wide variety of ages and occupations general male norms were used (Eysenck and Eysenck, 1976).

1Male norms not available separately. Norms are for combined male and female group (Tellegen, 1980).

2General norms not available. Refer to text.
The STAI manual unfortunately does not present general norms, only giving details for different subgroups (prisoners, hospital patients, and students). The lowest mean reported is for male undergraduates (37.68), and a comparison with this yields a highly significant difference ($t = -3.83, p < .001$). Although the groups are not really comparable, it is clear from general studies using the STAI that the current group does exhibit a low level of anxiety (see for example papers contained in Orme-Johnson and Farrow, 1977, and Chalmers et al., in press).

The Lie and Unlikely Virtues scores were not higher than norms, and there were no significant correlations between the Lie scale and Neuroticism ($r = -.12$), Anxiety ($r = -.18$), and Well-Being ($r = -.20$). It would appear, therefore, that these results are not the result of 'faking good'. (EPQ Lie scores were also very similar to those of the larger sample.)

Although the present study is not a controlled longitudinal or cross-sectional one and the norms for the DPQ and STAI are for American groups, the findings are consistent with work indicative of a causal link between practice of Transcendental Meditation and reductions in anxiety and neuroticism (e.g., Abrams and Siegel, 1979; Dillbeck, 1977; Harding, in press; a; and Turnbull and Norris, 1982), and with increases in general measures of mental health and self-actualization (e.g., Ferguson and Gowan, 1976; Hanley and Spates, 1978; Hjelle, 1974; Nidich, Seeman, and Dreskin, 1973; and Shapiro, 1977).

The results on the TAS indicate that subjects were significantly higher than norms on both Well-Being and the ability to focus intently on the object of perception. Higher levels of Well-Being are consistent with the findings of Weiss (in press), who found improvements in a variety of factors indicative of subjective well-being as an immediate effect of the practice of Transcendental Meditation.

Higher levels of sensitivity in meditators, as measured by the Absorption scale, are consistent with many studies (see Introduction above) showing that increases in attentive ability and perceptual sensitivity result from the practice of Transcendental Meditation.

As regards the relationship between the TAS and measures of psychological health, the following correlations were found:

- TAS and Neuroticism: $r = -.19, p > .1$
- TAS and Trait Anxiety: $r = -.22, p > .1$
- TAS and Well-Being: $r = .36, p < .05$

The direction of these correlations and the mean scores, when taken in conjunction with the general body of research on the Transcendental Meditation and TM-Sidhi programme (including the longitudinal studies previously cited), provides support for the hypothesis that the Transcendental Meditation and TM-Sidhi programme produces a parallel growth in measures of both sensitivity and stability.

These findings are interesting in view of the work of Coan (1974), who found that, in a non-meditating population, measures of self-reported proneness to distress were consistently related to measures of 'openness to experience'. Coan argues that people who are more sensitive and self-aware will also tend to be more aware of and acknowledge feelings of anxiety. While the pattern reported by Coan may be an accurate description of the general non-meditating population, it does not appear to be appropriate to a meditating population, who show high levels of sensitivity together with high levels of well-being and low levels of anxiety and neuroticism.

**CONCLUSION**

In conclusion, the results of this study support previous research documenting the positive effect of the Transcendental Meditation technique on psychological health, and are consistent with physiological data indicating that the practice of the Transcendental Meditation and TM-Sidhi programme leads to a parallel growth of sensitivity and stability in the functioning of the nervous system. Further studies utilizing a longitudinal design would be of interest to establish more directly the effects of the TM-Sidhi programme on the sensitivity/stability dimension.

**REFERENCES**


W. Germany: MERU Press. (Hereafter cited as Collected papers.)


SCHWARTZ, E. In press. The effects of the Transcendental Meditation program on strength of the nervous system, perceptual reactance, reaction time, and auditory threshold. In Collected papers, vol. 4.


WEISS, C. In press. The immediate effect of the Transcendental Meditation technique and theoretical reflections upon the psychology and physiology of subjective well-being. In Collected papers, vol. 2.