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EFFICACY OF TWO RELAXATION TECHNIQUES IN DEPRESSION

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The efficacy of two relaxation techniques i.e., Jacobson's Progressive Relaxation and Broota's Relaxation has been evaluated in relation to a control group. The sample selected was from the out-patient department of Dr. Ram Manohar Lohia Hospital, New Delhi. The patients were manageable and were able to comprehend the task. They were diagnosed as suffering from depression. No subject with any brain damage or neurological deficit or who had undergone ECT was included. All the subjects in the three groups were on chemotherapy. The subjects were randomly assigned to each of the three groups. Each subject was administered the treatment (relaxation) or no relaxation consecutively for 3 days (3 sessions). It constitutes a randomized group design. A symptom check list was administered twice, pre- and post-relaxation setting. The symptom change constituted the dependent variable. Results showed that both relaxation techniques were found effective compared to the no-treatment groups Broota Relaxation Technique being more effective than the Jacobson's Progressive Relaxation.

The broad applicability of relaxation therapy 'promoted one group of observers to call relaxation the "behavioural aspirin" (Ruman et al., 1980). Relaxation can neutralize the stress factor and thereby serve as a safe alternation or adjunct to chemotherapy. The pattern of treatment influence will vary as a function of the style of the particular relaxation techniques. (Davidson, 1978; Davidson & Schwartz, 1974 p. 399-442). To illustrate, progressive relaxation mainly emphasizes the physiological mode, but also divert attention away from troubling thoughts, so that secondary benefits are obtained in the cognitive mode as well. Alternatively, the numerous varieties of "mantra meditation" (e.g., Transcendental Meditation) zero on thought control (the cognitive factor) and, secondarily, global physiological relaxation also emerges. Lastly, the diverse forms of self control relaxation come the closest in mounting a tridimensional assault on anxiety by teaching brief, portable forms of relaxation (physiological mode), using relaxation cue words (cognitive mode), and helping the client to avoid anxiety producing postural styles (motoric mode).

Jacobson (1943) discussed the role of chronic, excessive muscular tension in stimulating, adverse brain pattern and other somatic sequelae eventually leading to "nervous breakdown" and

he provided some case study material to illustrate his point. (Jacobson, 1941).

Progressive Relaxation (PR) and self control relaxation have proved to be effective interventions for muscle contraction headache (Andrasick et al., 1982). Autogenic training meditation and biofeedback have shown good results in the management of asthma (Erkine-Millies & Schonell, 1981; Koteses & Glans, 1981). Stress is a likely contributor to many cases of essential hypertension (Shapiro & Goldstein, 1982; Surwit, Williams, & Shapiro, 1982; Benson, et al., 1978; Patel, 1977). Relaxation can neutralize the stress factor and thereby serve as a safe alternation or adjunct to chemotherapy. PR proved to be an effective treatment for high BP in a number of studies (Glasgow, et al., 1982; Goebel, et al., 1980; Hach et al., 1985; etc.).

Growing interest in the ancient Indian science of yoga prompted Deshmukh (1972) and Vahia et al. (1966, 1972, 1973a, b, 1975) to apply successfully psychophysiological therapy based on Patanjali's concepts with patients suffering from many psychiatric disorders. For example, the role of yoga in anxiety (Sahasi, et al., 1989), in examination anxiety (Parekh, 1988), in low back pain, neck pain with psychogenic origin. (Sahasi & Shambunath,

1984), etc., have been well demonstrated.

However, very little research has been conducted in the area of depression and relaxation. The present study aims at evaluating the efficacy of two relaxation techniques in patients suffering from depression as compared to control group.

METHOD

Sample

The sample consisted of 30 out-door patients from the out-patients department of the Department of Psychiatry at the Dr. Ram Manohar Lohia Hospital. The main criteria used for the selection was - patient suffering from depression is manageable, responsive and can comprehend the instructions. The patients were selected with the help of a psychiatrist who diagnosed the patient as depressive. By and large, the patients included in the study were those diagnosed as neurotic-depressive or reactive-depressive.

All the patients were under medication for not more than one year. However, no patient had been administered any electro-convulsive therapy. The age of the sample ranged from 19 years to 48 years. Out of the 30, 14 are males and 16 females. Care was taken that no patient suffered from any physical disability or neurological damage.

Design

The study was designed to determine the effect of different relaxation techniques on depression symptoms by comparing the symptom check list before and after the relaxation in a randomized group design (Broota, 1989; p. 60) where relaxation technique was the main factor having 3 levels: 1, represents Broota Relaxation Technique, 2, represents Jacobson's Progressive Relaxation Technique and 3, represents the no-treatment group. Ten subjects were randomly assigned to each of the three groups. A consecutive 3 day session of each treatment was administered to each subject.

A symptom check list before and after the specific technique and also to no-treatment group was given for all the three days to estimate the changes in symptoms, if any.

Materials Used

Symptom check List: A check list of 26 common psychological and physiological symptoms characteristic of the depressed were included in the list. The symptoms were taken from the descriptions of anxiety and depression in DSM-III and ICD-9 and also from the patient's responses from a pilot study. The symptoms were: Bodyache, restlessness, breathlessness, feel tired in the eyes, impaired concentration, palms sweating, loss of sleep, nightmares, irritability, diarrhea, lack of appetite, choking, sensation, constipation, feeling loss of weight, feeling of high pulse rate, worry, forgetfulness, panic, dizziness, nausea, tension, muscular tension, palpitations, feel faint, weakness, and absent mindedness.

To find qualitative difference in pre-and post-relaxation conditions some more symptoms were 'included' in the check list, i.e., feeling fresh, feeling good, feel no more ill, peaceful, feeling lighter, feel less ill, confident, feeling active, and better mood.

Broota Relaxation Technique

The Broota relaxation technique (Broota, In Press) is a set of four exercises adapted from yoga and combined with autosuggestion. The value of autosuggestion in the control of emotionally disturbing thoughts has been amply established by the psychoanalytical school of thought.

The first exercise is Deep Breathing with the word "Relax". The subject is asked to lie flat on his back (full length) on a hard bed with 1 or 2" in. mattress with palms of the hand open and facing the roof. The subject is asked to leave the body absolutely free. That is, feet, knees, waist, hand, shoulders and neck are not tight nor tense. The subject is asked to take

a deep breath in a special way. The subject is asked not to expand his chest but expand his stomach, popularly known as diaphragmatic breathing or abdominal breathing. The mouth is closed and air is inhaled and exhaled through the nostrils. The stomach is blown or expanded just as one gradually fills air in a balloon. The subject is instructed to inhale gradually till he can do so no more. He is asked to remain in that position for about 20 to 30 secs. depending upon his capacity. Then he is instructed to exhale the air through his nostrils slowly and gradually. After the air has been exhaled out, the subject with a fresh breath is asked to speak out the word 'relax', in order to induce auto-suggestion. This whole process is repeated 5 times. The slow and gradual inhalation and exhalation gives cognitive control and also helps the subject to achieve concentration towards one task, thus, keeping him away from his disturbing thoughts for a while. According to Patanjali (In Iyengar, 1972) by regulating breathing, one can thereby control the mind.

It has been said by Kariba Ekkan, a 17th century mystic "If you foster a calm spirit, regulate your breathing; for when that is under control, the heart will be at peace, but when breathing is spasmodic, then it will be troubled. Emotional excitement affects the rate of breathing. Equally, deliberate regulation of breathing checks emotional excitement and disturbance.

The second exercise included in the technique is the "Bow Asna" with the word 'Relax'.

The subject is asked to lie full length on the stomach with neck and head lying on the side, either right or left side. The arms are folded from the elbows and placed a little angularly on either side of the neck with palms facing downwards. The legs are placed well apart. The subject is asked to fold one leg from the knee at a time. Both the legs are not folded together. This is done to make the subject more aware of his body. And also that the larger limbs are tensed separately one by one. Then he is asked to take his

arm back one at a time. Each hand will hold the respective ankle. The subject is then instructed to raise his head up. During this posture, the knees are raised above the ground and simultaneously the chest. The arms and hands act like a bow string to the body like a bent bow. The head is lifted and the subject pulls it as far back as possible. The abdomen bears most of the weight of the body. The subject is to stay in this posture and say 'up' fairly loudly thereby creating an auto-suggestion of a positive-up-feeling. Each leg is brought down one by one. Till that time, the arms and hands are still at the back pulled in the air; not to be resting on the back. Then each arm is brought to the front with elbow rested down on the bed or the floor, one by one in a folded angular position similar to the one while starting the exercise. Palms are downward. Now, the head and neck are brought down and rested on the left side. The subject is then asked to say 'Relax' fairly loudly to produce auto-suggestion. The subject is allowed to breathe in a way he wants during this process.

This exercise is similar to "Dhanurasna". In this posture, the spine is stretched to the back. The autonomic nervous system and the hypothalamus are activated by these exercises in terms of tension and relaxation. According to Anand (1984), "Dhanurasna" the bow posture is an efficient asana for the treatment of anxiety.

It should be mentioned here that the subject is asked to count every movement during the exercise to keep him involved in the process and to bring his attention to this exercise away from his emotional disturbance.

Broota selected as her third exercise "Raising the legs". This is one of the variations of the "Urdhva Prasarita Padasana". The subject is asked to lie flat on his back. The palms are turned downward, that is, they are not facing the roof, because the subject will be able to put pressure on hands. The subject is asked to raise both of his legs together, without bending the knees only 3 in. above the bed. The

subject is asked to hold the legs in that position for 10 secs. In this position, the neck and the head are lying low, not raised at all. The next step is to lower the legs very slowly back on the bed. The subject is especially instructed not to abruptly throw the legs down. After this, the subject with a new breath says 'Relax'. This whole process is repeated five, times.

The technique not only tenses specific muscles' but involves larger' limbs, and the body as a whole. From this exercise, the subject learns self-control. The way he brings his legs down is a difficult task. Verbal reports of schizophrenics with an early onset report that they feel very good' after this exercise and are able to concentrate better on any object or-task.

The fourth exercise' is "cycling." The subject is, asked to, lie down flat full length on the back with palms down. The subject is instructed, to fold his legs and then bring the knees right upto the stomach. In order to check that the 'knees are not half way from' the stomach, the subject is asked to hold his' knees 'with' both' his hands. That is, right, leg with the right hand' and left leg with the left hand. After this, the subject puts his hands down and palms, facing ground. The subject is asked to make circular movements with his legs as if he was cycling. He counts loudly each cycling movement till he is breathless, and cannot cycle any more. Care is taken that he makes cycling (circular) movements. When he is breathless and cannot cycle any more, he folds, his legs, and presses them on the stomach with his hands. Again right hand will hold the right leg and left hand will hold the left leg. This posture of lying down with folded legs and, hands, pressing the legs on the stomach, Broota calls the embryonic position. The patient remains in this posture till he resumes normal breathing. Then the subject keeps his legs back in a, lying position. This end posture is also called the "Pawan Mukh Asana".

By counting the cycles, the subject not only, sustains his interest in the activity but also assesses the base

at which he started. He is then motivated to 'increase the cycling after a week. This exercise brings about changes in his circulatory processes.. It also gives new self-confidence to the subject that, he is capable of controlling his body which was otherwise collapsing because of his anxiety and other symptoms.

The subject is encouraged to keep lying for a period of 5 min. after all the exercises are completed. The total technique takes about 20 to 25 minutes,

Jacobson's Progressive Relaxation Technique

Muscle Relaxation has been used for many years for tension reduction. The best known technique is that of Edmund Jacobson's (1938) which is very frequently used, in clinical settings. This procedure' enables the subject to adapt in general muscle relaxation and then teach the subject differential relaxation - that is, the ability to relax each of the muscle groups. His technique is called Progressive Relaxation because he proceeds systematically from one muscle, to another, starting from one, end of the body to the other.

Procedure

After diagnosis, each patient was randomly assigned to one of the three treatment groups. The subject was then taken to a quiet room for relaxation. The following general instructions were given for the Broota's relaxation technique and Jacobson's Progressive Relaxation, Technique.

"Lie down straight and flat on your back. Leave your body absolutely loose. The body should be in a straight line. The legs should be about six inches apart and feet falling on outer sides. The arms should be about three inches away from the waist. The palms should, be locally facing the ceiling in a relaxed position. Mentally examine the body and check that your feet are loose and knees are not stretched. Your shoulders and head are dropped lightly.

The procedure, as mentioned earlier for the two techniques, was then followed. For the no-treatment group, the patient was asked to tell all about

his present complaints and experiences he is troubled with. The subject narrated his, problems for 20 minutes, the time taken by the subjects in the treatment groups.

The subject was asked to check the symptom check list and then the specific relaxation technique, was administered. The total time, taken for each of the two relaxation techniques was about 20 min. The subjects, were again asked to check the symptom check list after relaxation. An introspective report was also taken after the relaxation session. The same procedure was followed on three consecutive days for each subject. In the case of no-treatment group, the symptom check list before and after the narration of his symptoms were checked. The subjects in the control group were encouraged to talk about their state of mind.. Each subject was encouraged to narrate his problem for a period of 20 minutes.

RESULTS

Total symptom changes were worked out for each subject for all the three days. It was observed that the symptoms, checked on the second occasion were fewer than the symptoms checked initially. Thus, per cent symptom reduction was worked out for each subject in the three groups.

Two subjects, one in each of the two treatment groups could not complete the treatment programme. In order, to have equal no, one subject with lowest percent improvement in the control group was not included for data analysis. The percentage reduction in symptoms was subjected to analysis of variance in accordance with the design of the study after arc sin transformation of the data. The ANOVA indicated that the three groups differ significantly, $F(2,28) = 4.09; p < .05$.

The Dunnett test (1955) for comparing the two treatments, with control group was used. It is observed that the significant differences was found in comparing the treatment group one (Broota) as well as two (Jacobson) with the control group $t_1(28)=2.68; p < .05; t_2(28)=2.20; p < .05$.

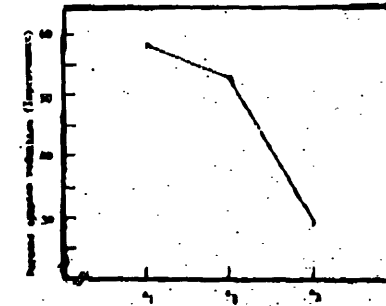


Fig. 1. Percent improvement in symptom reduction in the three groups

Fig. 1 shows how the, two relaxation techniques are superior to the no-treatment group. The Broota relaxation technique is seen little superior to the Jacobson Progressive Relaxation technique.

Discussion

The four exercises of Broota relaxation technique are based separately on breathing, spine stretching, leg raising and cycling. According to Patanjali (In Iyengar, 1972) the mind "manas" and the breath "prana" are intimately connected and the activity of the cessation of activity of one affects the other. Hence, Patanjali and even western authors (Klein et al., 1985) recommended rhythmic breath control for achieving equipoise and inner, peace. Volitional alteration of one's breathing pattern requires attention and it is surprisingly demanding of cognitive resources for so simple an act. Furthermore, somewhat unfamiliar bodily sensations abound when breathing is altered and these also compete for a share of awareness as do all novel stimuli.

Davidson (1966) offered an alternative explanation, to account for PR effects. The procedure generates pleasant sensations which neutralize noxious thoughts and emotions. Evidence of the virtues of cognitive diversion in research and in common experience is available. Rosenthal (1980, p. 111-146) has eloquently summarized a large body of research evincing the clinical utility of tasks which lure one's attention away from troubling thoughts. Others (Bahrke & Morgan, 1978; Boals, 1978; Burish & Lyles, 1979; Ellis, 1984, p. 671-673; Redd, Rosenberger & Mendler, 1982-1983; Rosenthal & Rosenthal, 1983, p. 3-26; Turk, Melchbaum & Genest, 1983) have considered cognitive diversion mechanisms inherent in a wide variety of relaxation techniques.

The subjects in the treatment groups did feel the difference immediately after taking relaxation. In the group using Broota Relaxation Technique, a subject reported after relaxation, "I am feeling relieved, cord orotic, better and peaceful". Another patient reported after first session "I am feeling relaxed, happier, and every way better. I am able to concentrate better on tasks and objects".

Similarly, in the group exposed to Jacobson progressive relaxation, the subjects reported feeling better, overall relaxed and lighter. One of the subjects reported "I was almost asleep and felt as if I am having pleasant dream". Yet another reported that "I don't feel so sad now".

But, some of the subjects did report feeling of tiredness and breathlessness. One subject reported "I am feeling strange", after the first session. This was especially true of the group having administered Broota Relaxation technique. Patients who had never exercised before were reporting fatigue. However, at the end of three sessions, the patients did not report so much fatigue as reported after the first session. In the control group, patients did not report any improvement.

The results of the study have both theoretical and practical implications with regard to psychotherapeutic attempts to combat depression. Both the techniques resulted in the reduction of depression

but the Broota relaxation was found to be superior over Jacobson Progressive Relaxation. There is a procedural difference between Jacobson's Progressive Relaxation and Broota Relaxation technique. Steps in every exercise of Broota Relaxation technique have the active involvement of the whole body.

The manner in which the subject has to produce certain asanas i.e., postures, he begins to develop confidence with a new body control. As mentioned earlier the cycling exercise accelerates the circulatory processes and makes the subject active which otherwise he is lethargic and lazy because of his tensions mounting in the muscles and depression compelling him to sit and worry. In case a person suffers from agitated depression, the cycling exercise releases his anxiety besides the cognitive diversion.

It may be pointed out that Parikh (1988) observed significant differences in the two relaxation techniques, in favour of Broota technique, with subjects experiencing examination anxiety.

It may be pointed out that under ideal situations all relaxation practice of yoga (Singh & Udapa, 1976) appears to be helpful in decreasing the subjective feeling of anxiety, helps maintain relaxed wakeful state, decreases neuroticism and lowers mental fatigueability. It helps the patient overcome depression. However, it must be mentioned that Broota relaxation therapy should be combined with drug therapy and psychotherapy for the effective treatment of depression.

REFERENCES

- Anand, S. (1984). The complete book on Yoga: Harmony of Body and Mind. Orient Paperbacks.
- Andrasik, F., Blanchard, E.B., Arena, J.G., Teders, S.J., Teenan, R. C., & Rodichok, L.D. (1982). Psychological functioning in headache sufferers. Psychosomatic Medicine, 44, 171-182.
- Bahrke, M.S., & Morgan, W.P. (1978). Anxiety reduction following exercise and meditation. Cognitive Therapy and Research, 2, 323-333.
- Aruna Broota & Rima Dhir
- Benson, H., Koeh, J.B., Crossweller, K.D. (1978). Stress and hypertension: Interrelations and Management. Cardiovascular Clinics, 9, 113-124.
- Boals, G.F. (1978). Toward a cognitive reconceptualization of meditation. Journal of Transpersonal Psychology, 10, 143-182.
- Broota, A. Relaxation Therapies: Eastern and Western style. Bulletin (In Press). Burwick, The Netherlands.
- Parikh, C. (1988). Efficacy of two relaxation techniques in Examination Anxiety. Unpublished Master's Dissertation, University of Delhi, Delhi.
- Broota, K.D. (1989). Experimental Design in Behavioural Research. New Delhi: Wiley Eastern.
- Burish, T.G., & Lyles, J.N. (1979). Effectiveness of Relaxation Training in reducing the aversiveness of chemotherapy in the treatment of cancer. Journal of Behaviour Therapy and Experimental Psychiatry, 10, 357-361.
- Davidson, R.J. (1978). Specificity of patterns in biobehavioural system: Implications for behavioural change. American Psychologist, 33, 430-436.
- Davidson, R.J., & Schwartz, G.E. (1976). The psychobiology of relaxation and related states: A multiprocess theory. In D.I. Mostofsky (Ed.), Behaviour Control and Modification of Physiological Activity. Englewood Cliffs, N.J.: Prentice Hall.
- Davidson, C.C. (1966). Anxiety under total curarization: Implications for the role of muscular relaxation in the desensitization of neurotic fears. Journal of Nervous and Mental Disease, 143, 443-448.
- Deshmukh, D.K. (1972). Experience in management of psychiatric and psychosomatic disorders with yoga. Journal of Yoga Institute, 8-83.
- Dunnett, C.W. (1955). A multiple comparison procedure for comparing treatments with a control. Journal of American Statistical Association, 50, 108-111.
- Ellis, A. (1984). The place of meditation in cognitive behaviour therapy and rational emotive therapy. In D.M. Shapiro, Jr., and R.N. Walsh (Eds.), Meditation: Classic and Contemporary Perspectives. Haisthorne, N.Y.: Aldine.
- Eskine-Millics, J., & Schonell, Malcolm. (1981). Relaxation therapy in asthma: A critical review. Psychosomatic Medicine, 43(4), 365-372.
- Glasgow, M.S., Caarder, K.R., & Engel, B.T. (1982). Behavioural treatment of high blood pressure II. Acute and sustained effects of relaxation, a systolic blood pressure biofeedback. Psychosomatic Medicine, 44, 155-170.
- Goebel, Maristella, Viol, G.W., Lorenz, J., & Clemente, J. (1980). Relaxation and biofeedback in essential hypertension: A preliminary report of a 6 year project. American Journal of Clinical Biofeedback, 1(1), 20-29.
- Hatch, J.P., Klatt, K.D., Supik, J.D., rios, N., Fisher, S.G., Bawer, R.L., & Shimotsu, G.W. (1985). Combined behavioural and pharmacological treatment of essential hypertension. Biofeedback and Self-Regulation, 10, 119-138.
- Iyengar, B.K.S. (1972). Light on Yoga. George, Allen and Unwin Ltd.
- Jacobson, Edmund. (1938). Progressive Relaxation (revised Edn.). Chicago: University of Chicago Press.
- Jacobson, E. (1941). The physiological conception and treatment of certain common "Psychoneurosis". American Journal of Psychiatry, 98, 219-226.
- Jacobson, E. (1943). Cultivated relaxation for the elimination of "nervous breakdowns". Archives of Physical Therapy, 24, 133-143, 176.
- Klein, M.H., Grdist, J.H., Gurnam, A.S., Neimeyer, R.A., Lesser, D.P., Bushnell, N.J., & Smith, R.E. (1985). A comparative outcome study of group psychotherapy vs exercise treatments for

- depression. International Journal of Mental Health, 13, 148-177.
- Kotese, H., & Glans, K.D. (1981). Applications of biofeedback to the treatment of asthma: A critical review. Biofeedback and Self-Regulation, 5, 573-593.
- Patel, C.H. (1977). Biofeedback-aided relaxation and meditation in the management of hypertension. Biofeedback and Self-regulation, 2, 1-41.
- Redd, W.H., Rosenberger, P.H., & Hendler, C.S. (1982-1983). Controlling chemotherapy side effects. American Journal of Clinical Hypnosis, 23, 161-172.
- Rosenthal, R.L. (1980). Social cueing processes. In M. Herson, R.M. Eisler and P.M. Miller (Eds.), Progress in Behaviour Modification, 10, 11: 1-14 & New York: Academic Press.
- Rosenthal, T.L., & Rosenthal, R.H. (1983). Stress: Causes, measurement and management. In K.D. Craig and R.J. McMahon (Eds.), Advances in Clinical Behaviour therapy. New York: Brunner/Mazel.
- Russo, D.C., Bird, B.L., & Masek, B.J. (1981). Assessment issues in behavioural medicine. Behaviour Assessment, 2, 1-18.
- Sahasi, G., Mbhan, D., & Kacker, C. (1989). Effectiveness of yogic techniques in the management of anxiety. Journal of Personality & Clinical Studies, 3(1), 51-55.
- Sahasi, G., & Shambunath, P. (1984). A holistic approach towards anxiety and tension related problems. Journal for Research in Ayurvedic and Siddha, VIII (1,2) 74-78.
- Shapiro, D., & Goldstein, I.B. (1982). Behavioural perspectives on hypertension. Journal of Consulting and Clinical Psychology, 50, 84-858.

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Singh, R.H., & Udapa, K.N. (1976). Yoga Therapy. Journal of the Yoga Institute, Vol. XXVII (A), p. 10.

Surwit, R.S., Williams, R.B., Jr., & Shapiro, D. (1982). Behavioural approaches to cardiovascular disease. New York: Academic Press.

Turk, D.C., Meichenbaum, D., & Genest, M. (1983). Pain and Behavioural Medicine: A Cognitive-Behavioural Perspective. New York: Guilford.

Vahia, N.S., & Doongaji, D.V. (1979). Value of Pantanjali's concepts in the treatment of psychoneurosis. In Silvino Arieti, Gerard Chazanowicki, New Dimensions in Psychiatry (Ed.). New York: John Wiley & Sons.

Vahia, N.S., Doongaji, D.R., Deshmukh, D.K., Vinekar, S.L., Parekh, H.C., & Kapoor, S.N. (1972). A deconditioning therapy based upon concepts of Pantanjali. International Journal of Social Psychiatry, 18, No. 1.

Vahia, N.S., Doongaji, D.R., Jeste, D.V., Kapoor, S.N., Ardhanjkar, I., & Ravindranath, S. (1973a). Further experience with the therapy based upon concepts of Pantanjali in the treatment of psychiatric disorders. Indian Journal of Psychiatry, 13, 32.

Vahia, N.S., Doongaji, D.R., Jeste, D.V., Kapoor, S.N., Ardhanjkar, I., & Ravindranath, S. (1973b). A psychophysiological therapy based upon concepts of Pantanjali - A new approach to the treatment of neurotic and psychosomatic disorders. American Journal of Psychotherapy, 27, 557.

Vahia, N.S., Vinekar, S.L., & Doongaji, R. (1966). Some ancient concepts in the treatment of psychiatric disorders. British Journal of Psychiatry, 112, 1089.

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COGNITIVE PERSONALITY FACTORS AND PATTERNS OF MARITAL INTERACTION

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The study is related to two cognitive personality characteristics - Marital Locus of Control (MLOC) and Social Intimacy (SI) - in four groups of married couples. The four groups of subjects (adjusted, maladjusted, complementary group I and group II) were identified on the basis of marital adjustment inventory scores. Results showed the positive relationships existed between MLOC and SI scores among adjusted husbands, wives and couples, and negative relationships between MLOC and SI scores among maladjusted husbands, wives and couples. No significant relationships existed between MLOC and SI scores among husbands, wives and couples of complementary group I and group II. Implications of these findings for an understanding of marital interaction, and for harnessing enduring relationships were discussed.

Since the development of the Marital Locus of Control (MLOC) scale (Miller, Lefcourt & Ware, 1983) many studies have been conducted on the relationship between marital locus of control, marital interaction behaviour (Sabatelli, Buck, & Dreyer, 1983; Winkler & Doberty, 1983), marital problem solving (Miller, et al., 1986), marital satisfaction (Husain & Gupta, 1987; Miller, Lefcourt, & Ware, 1985; White, 1984), social sensitivity in affective context (Lefcourt, et al., 1985) and approval motivation (Gupta & Husain, 1984; 1989). These studies have brought to fore some intriguing results that have necessitated further research on the subject using MLOC scale, locus of control has thus proved a relevant variable in the context of marital relationship.

The present study employed a marital locus of control measure to assess marital relations in couples in the hope that it would provide better understanding of the role of locus of control in marriage. The scale measures individual's locus of control specifically for marital satisfaction. Individual who are internal for marital satisfaction have expectations that marital outcomes, whether positive or negative are the result of their own efforts and abilities whereas individuals who are external for marital satisfaction take little personal responsibility for marital outcomes.

Another personality dimension employed here is social intimacy. Intimacy may

be defined as a strong relationship, characterising trust, and familiarity between two people. Not many studies have been conducted on the importance of closeness with others (including closeness with spouse, or with friends) for the prediction of healthy psychological functioning (Gupta & Kaushik, 1988; Miller & Lefcourt, 1982).

The main purpose of the present study is to determine the role of cognitive - personality factors - marital locus of control and social intimacy - in harnessing marital relationships. The present study differs from earlier studies in two respects: (a) It has employed a 'cognitive personality variable' i.e. PALOC as opposed to traditional personality trait dimensions such as marital adjustment or marital satisfaction as the dependent variable in marriage researches; (b) In earlier researches, two extreme groups of subjects (adjusted and maladjusted) were classified on the basis of marital adjustment scores, whereas this study has employed four groups of subjects (adjusted, maladjusted, spouses and couples). Complementary groups I, and II (earlier of the spouses is adjusted or maladjusted).

The main objectives of the present study are as follows:

1. To determine the relationship between marital locus of control and social intimacy among adjusted and maladjusted spouses (husbands, wives) and couples.