

MANAGEMENT OF DAILY HASSLES AND ANXIETY AMONG MYOCARDIAL INFARCT PATIENTS

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Abstract.

Coronary heart disease (CHD) is found to be the leading cause of mortality worldwide. Currently, the Myocardial Infarction (MI) or stroke incidence in India is much higher than western industrialized countries. One of the factors associated with an increased risk of MI are chronic hassles at workplace, financial setbacks and persistent anxiety that aggravate incident of CHD and cardiac mortality. Presently, prevention and management of stroke is the best option considering the Indian scenario through control and/or avoiding risk factors of stroke. This study aimed to examine the effects of a short yoga program in overcoming stressful response towards hassles and the tendencies to react anxiously to situations. Thirty MI patients aged 28–55 years mostly working men and women participated in management program in the form of yoga Nidra (deep relaxation), pranayama (breathing techniques) and meditation for ten consecutive days. The assessment pre and post yoga and meditation techniques showed remarkably reduced level of anxiety and improved reactions toward hassles at workplace from Day 1 scores to Day 10. Results highlighted the effectiveness of yoga and meditation in decreasing physiological sensations of anxiety by enabling patients to observe these anxiety-laden sensations in a non-judgmental way without avoiding them. In addition, the techniques helped MI patients in recognizing stress inducing or negative thought patterns and redirecting attention to things that occurred in the present moment. The paper thus, reiterates the beneficial effects of regular practice of yoga and meditation for improving the physiological, emotional and psychological health and thereby enhancing the productivity at workplace.

Keywords. Myocardial Infarction. Management. Hassles. Anxiety. Meditation. Yoga.

Cardiovascular disease (CVD) is only one among a number of non-communicable conditions, such as cancer and diabetes that can be expected to impose a major financial burden on affected households in developing countries like India (Karan et al. 2014; Carlsson et al, 2014). Studies suggested that daily hassles in developing nations are noise pollution in jobs (Mead, 2007; National Health Services 2012), traffic jams, stressful working environment (Kivimäki et al. 2002), working for unreasonable and unfair bosses (Wager et al. 2003), job insecurity (Landsbergis et al. 2003), long working hours (Sokejima and Kagamimori 1998), low control in the work environment (Bosma et al. 1997) and lack of financial control (Jacob, 2014; Karan et al. 2014). Research inferred that performance linked pre-requisites private sector jobs and those that has targets which are sometimes unachievable beyond employee's potential when they failed to manage the given situation were more than twice as likely to suffer from coronary heart disease (Kumari et al.

2014). Acute myocardial infarction (AMI or MI) commonly known as a heart attack occurs when a part of the heart muscle is injured, and this part may die because of sudden total interruption of blood flow to the area characterized by chest pain or discomfort, weakness, sweating, nausea, vomiting, and arrhythmias, sometimes causing loss of consciousness. One of the contributory causes is researched to be stress, both physical and psychological. Stress, long considered alien to Indian lifestyle is now a major health problem hazard. The lifestyle change in recent years has acted as a catalyst to induce stress (The Health Site 2013). India is currently passing through this epidemic so much so that it would be taking a heavy toll on Indian working youth and economy.

The most ignored everyday niggling aggravations impact continuously creating a dent into an individual's body and mind which is reflected through the physiological ailments and behavioral disruptions. The repercussions on health highly depend on the way people react to work stressors, that was found to be strongly associated with chronic health conditions later in life as the immune system weakens, if we tend to be more reactive (rather than responsive) to job demands, financial pressures and more guarded and defensive which ultimately lowers the quality of living.

Reviews exhibited that daily stressors not only exacerbate symptoms of chronic health conditions, such as joint pain, psoriasis, and chronic tension headaches but also showed slow long-term effects on cardiovascular, immune, and neuroendocrine functioning (Bomhof–Roordink et al. 2015) and maintains persistently elevated levels of hormones like adrenaline and cortisol causing allostatic load (Ranbir and Reetu 2011). They further postulated that yoga-based practices correct under-activity of the parasympathetic nervous system and GABA systems, in part, through stimulation of vagus nerves, the main peripheral pathway of the parasympathetic nervous system, and reduce the allostatic load (Streeter et al. 2012; La Forge, 1997; Manchanda, 2014) and even controls anxiety which is an independent risk factor for incident coronary heart disease (CHD) and cardiac mortality. It is believed to help 'detoxify' the body, mitigate chronic fatigue, encourages self-control, treat depression, focused concentration, restores inner peace and improve organ and immune functions (Shapiro et al. 2007; Kirkwood et al. 2005; Pilkington et al. 2005).

The five essential parts of yoga practice involve asanas (postures), yoganidra (deep relaxation), visualization or imagery, meditation and pranayama or breathing exercises. Yoga is qualitatively different from any other mode of physical activity in that it consists of a unique combination of whole-body isometric muscular contractions, stretching exercises, relaxation techniques, and breathing exercises (Mei-Ying et al. 2013). Practice of asana replenishes the tissues with a fresh supply of oxygen. Asanas initiates the circulatory system responsible for the nourishment of tissues which is provided by the contraction and relaxation of the heart that reduces the level of stress to the heart Swami Satyananda Saraswati (2002) explains yoga nidra as a state of mind between wakefulness and dream. When someone practices it he opens the deeper phases of the mind. During its practice, the consciousness is at different level and is suspended for a few moments periodically, which means that it alternates between the subconscious and unconscious states. Thus it helps in restoring mental, emotional and physical health by way of relaxation, and makes the mind more conducive to Pratyahara -withdrawing senses from their objects, Dharana -concentration, and meditation. The practice helps harmonize the two hemispheres of the brain and the two aspects of the autonomous nervous system (sympathetic and parasympathetic). Through the consistent practice which, enables practitioner to enter into the realms of the subconscious mind, thereby releasing and relaxing mental tensions and establishing

harmony in all facts of life (Dwivedi& Singh, 2016; Rani et al. 2011, 2013; Mandlik et al. 2002; Sharma et al. 2005; Deuskar et al. 2006; Kumar, 2008). In summary, it is likely that the yoga practices of controlling body, mind, and spirit combine to provide useful physiological effects for healthy people and for people compromised by cardiovascular disease (Cengiz et al. 2015; Raub, 2002; Jayasinghe, 2004; Bussing et al. 2012) and eventually contribute to the general well-being, decreased physiological arousal, better sleep, better appetite, and decreased overall psychosocial stress (Malathi et al. 2000; Sharma et al. 2008).

The essential part in mental relaxation performed through meditation called as dharana and dhyana seen as a process in Ashtanga (eight limbs) yoga where the mind is fixed on the some object to sustain attention through visualization or imagery. This has contributed immensely in offsetting arteriosclerosis (coronary artery blocked due to the deposition of fats on the inner walls of the heart). The pre requisite to reach this stage is a state called pratyahara where the mind and mental awareness are dissociated from the sensory channels aiming at higher states of concentration and Samadhi. Thus owing to its many positive effects-direct and indirect on the cardiovascular system, yoga assumes a pivotal role in heart care. Meditation too decreases the muscle tension, consumption of oxygen, heart rate and alpha brain wave emissions, galvanic response whereas increases skin resistance and stabilizes autonomic nervous system which is an indication of lower stress level (Vempati&Telles, 2002). Therefore, a decrease of expenses in the use of health services by its regular practice and thereby reducing the relapse and further burden on nation's economy.

If destructive emotions mark one extreme in human proclivities, research seeks to map their antidote, the extent to which the brain can be trained to dwell in a constructive range: contentment instead of craving, calm rather than agitation, compassion in place of hatred. It is proved that psychological health of meditators is better than the non-meditators in terms of less anxiety, internal locus of control, greater self-actualization, optimism and confidence to overcome stressful situations, productivity at work, satisfaction with job, improvement in the sleep behavior and general state of positive health. It even decreases substance use, reduces fears and phobia, unassertiveness at workplace and showed high potential for stress management.

The purpose of the present investigation was to examine the effect of short term yoga and meditation for handling hassles at present job, managing finances with inflation and state-trait anxiety frequently exhibited by Myocardial Infarct (MI) patients. Managing stress is the key to decrease the risk of stroke. For this reason, the present study was conducted to find out the effectiveness of yoga and meditation in reducing anxiety and hassles at workplace among MI patients and Control group. A large number of researches have studied and researched the subject of stress from various angles. Work stress is caused due to the conditions of work. A satisfied work force is the result of different attitudes he or she receives at work place and the quality of work life. As the awareness increases among the population, it is necessary to produce better services. This emphasizes the need to address problem in the work place and finances systematically rather than simply focusing on mere interventions through stress management programs.

Procedure

The patient group comprised of 26 males and 4 females with age range from 28 to 55 years employed in private companies, belonging to middle class, married, living in a nuclear set-up and were Hindus. The sample of patients was obtained from OPD of the cardiology wing, Metro Hospital, Delhi NCR whereas the control group was chosen as close family member of the patients, working and not diagnosed with any major physical or mental ailments. The control group was compared subsequently with the intervention

group to examine whether the positive effects have taken place. The written informed consent was obtained from those who agreed to participate in the study. The MI patients were asked to arrive at the Meghadootam Park in Delhi NCR. The meditation and yoga expert trained by art of living was specially earmarked to guide the yoga and meditation for 10 days by dividing them in half for effective results. The scales were administered on patient group prior to intervention sessions on Day 1 and control group were assessed too on day 1 and day 10 respectively without intervention. Once the scales were completed, the confidentiality of results was assured. The yoga asanas and meditation sessions planned for brief time for two days and then with patient's consent expanded for two hours to gain perfection and confidence with repeated practice sessions. Simultaneously, the potential benefits of asanas and meditation was explained with group counseling and guidance with ways to handle work stress and financial pressures. The main inclusion criteria were subjects were able to perform basic yoga postures, willing to comply with the research and those with first episode of MI attack were recruited in the study. Only stable patients were included in the sample (survived the attack and expected to live for another year with stable vital parameters like normal BP, near-normal pulse, and no respiratory distress). The physical limitation or illness severity is sufficient to preclude them from participation.

Tools Used

Hassle and Uplifts scale developed by De Longis, Folkman, and Lazarus (1988) examined relationship between daily stress and two aspects of well-being, physical symptoms and mood on which subject rate each item on a 4 point scale. A revised version of the scale was used in the present investigation with focus on items related to finances and work hassle like job security, work satisfaction, workload, concerns about meeting others expectations, concerns about retirement, environment, commuting, financial matters, thoughts about future, making decisions, guilt, boss or superior, time to relax and investment or taxes.

Socio-demographic profile sheet was used to collect the socio-demographic information, i.e. name, age, education, locality, years of employment, nature of job, income, etc. of the patients and the caregivers.

The state and trait anxiety was assessed by using "State and Trait Inventory-Y 1 and 2" (STAI-Y), which is a validated tool devised by Spielberger (1970). This is a self-report assessment device which includes separate measures of state and trait anxiety. State anxiety reflects a transitory emotional state characterized by subjective, consciously perceived feelings of tension and apprehension, and heightened autonomic nervous system activity which may fluctuate over time and can vary in intensity. In contrast, trait anxiety denotes a relatively stable individual difference in anxiety proneness and refers to a general tendency to respond with anxiety to perceive threats in the environment.

Results

The STAI-Y and Hassles scores on Day 1 and Day 10 were compared by Student's *t*-test for paired observations. The following tables show the scores of MI and Control(CO) group on the measure of the hassles and anxiety. Table 1 and Table 2 displays the results of percentages and paired *t*-test scores of groups on workplace and financial hassles.

Table 1

Summary results of mean percentages of MI and CO groups on the Workplace and Financial hassles (N=60)

MI group-C0group	Mean Percentages	CR Value	Significance
Workplace hassles	29.55-5.97	6.12	0.001
Financial hassles	30.07-7.87	2.54	0.002

Table 2

Summary results of Paired t –test for Workplace and financial hassles scores for MI and CO group at Day 1 and Day 10 (N=60)

Hassles	MI (with intervention)		P value P ₁	CO (without intervention)		P value P ₂
	Day 1	Day 10		Day 1	Day 10	
Workplace hassles	32.17±14.99	29.10±11.36	<0.001	22.17±12.22	21.10±12.05	0.001
Financial hassles	31.17±12.99	27.10±10.36	<0.001	20.17±7.22	20.10±7.05	0.002

All values are mean ± SD; P=Paired t-test for MI and CO group (P₁ and P₂)

Table 3 exhibits the state and trait anxiety paired t-test scores for MI group (34.4 and 36.0) with intervention and control group (24.4 and 25.5) without intervention measured on day 1 and then on day 10 the scores were 31.4 and 33.3 (MI group) post intervention. The control group scores were not changed much as compared to the intervention group. This shows the level of state and trait anxiety and total scores decreased significantly (P<0.001) following the positive effect of yoga and meditation sessions. Similarly, the workplace and financial hassles mean scores on day 1 were comparatively more than day 10, decreased significantly (P<0.001) with intervention as compared to control group with no intervention (Table 2).

Table 3

Summary results of Paired t –test for State and Trait anxiety scores for the MI and CO group at Day 1 and Day 10 (N=60)

	MI (With intervention)		P value P ₁	CO (without intervention)		P value P ₂
	Day 1	Day 10		Day 1	Day 10	
State anxiety	34.4±7.6	31.4±6.6	<0.001	24.4±6.4	24.0±5.6	0.001
Trait anxiety	36.0±7.5	33.3±6.2	<0.001	25.5±6.6	24.4±5.4	0.003
Total scores	70.5±5.1	64.8±2.8	<0.001	50.0±3.0	48.4±1.0	0.001

All values are mean±SD; P=Paired t-test for MI and Control groups (P₁ and P₂)

Discussion

The present study was conceptualized to examine the impact of short term intervention on Myocardial Infarct (MI) group in the form of yoga and meditation in the wake of growing recognition of the importance of a patient's perspective of his or her health status after medical treatment compared to the disease free group. Daily life is filled with countless minor annoying sources of stress termed hassles. Reports revealed that India alone is burdened with approximately 25% of cardiovascular-related deaths after reoccurrence of attack and would serve as a home to more than 50% of the patients with heart ailments worldwide within next 15 years (Gupta et al. 2008). The seriousness of current scenario could be gauged by the fact that most CVD sufferers in India happens to be in their productive age which may potentially impose huge socioeconomic burden and devastating consequences over the coming years on economy. The relapse and reoccurrence of heart attack due to stress and anxiety post treatment has been increasing at an alarming pace. Presently, prevention and management of stroke is the best option considering the Indian scenario through control and/or avoiding risk factors of stroke, particularly stress and anxiety. Sometimes the environment like noise at work (Munzel et al. 2014), financial crises (Jacob, 2014), unemployment (Pharr et al. 2012), depression (Saran et al. 2001), occupational stress (Madhura et al. 2014, Prince, 2004), marital stress (Macleod, 2001), unable to maintain work-life balance not only worsens mental health but also contributes to a higher prevalence and the incidence of cardiovascular diseases (Yarnell et al. 2005). The assessment of hassles appears to be a useful approach to the study of life stress and prediction of health outcomes (DeLongis et al, 1982).

The findings in the present research concentrated on the high scores of the MI group on hassles and anxiety and it is generally believed that people with more financial and workplace hassles in their life have poorer health and lower well-being affecting the quality of life (Kohli et al. 2007) and cause thickening and weakening of artery walls, and acute stress caused clots to form and a heart attack to occur. Most south Asians reported the various hassles associated with length of working day, low income, pressures at work, unfair boss, unethical work culture, crowded housing, increased cost of living including medical costs, perceived lack of social support, family conflicts that could lead individually or collectively to high incidence of CHD (Williams & Bhopal, 2000). In many studies lack of social support was indicated as a predictor of onset and prognosis of CHD, and mortality among both sexes; however, it was more consistent in males (Bunker et al. 2003, Sorensen et al. 2009, Gaston, 2003).

The potent part of the research was to reduce anxiety among working MI patients which may not only improve their quality of life but also improve the treatment efficacy as anxiety beyond optimal level is hazardous to performance at workplace which gradually aggravate ill health and also reduces the efficacy of medical or surgical treatment (Rees et al. 2004). The present study demonstrated a significant reduction in anxiety following a simple yoga and meditation based management sessions. These findings are similar to those observed in previous studies that showed a significant decrease in the trait anxiety scores following meditation (Sharma, 2002; King et al. 2002; Ankad et al. 2011). Regular meditation practice too results in sensory detachment from the external world, full awareness while remaining unaffected by it resulting in reduction of suffering and a disruption of the vicious cycle of helplessness, anger and tension which can sustain pain (Vyas & Dikshit, 2002). Together these findings suggest that reducing anxiety is beneficial in

improving clinical profile as well as enhancing the efficacy of treatment offered to these patients (Nagarathna&Nagendra, 2004; Ankad et al. 2011).

It is believed that working people approaching the age group of 45-55 years have more physical concerns related to pains, tiredness and losing out energy owing to job demands which is drastically improved once the positive effects of yoga and meditation were shown. A tremendous increase in coping up with crisis situation among the patients was observed post management techniques. There was a significant change in the scores for questions related to the negative factors, decrease in the worry and concern about the relationship of the subjects with their respective spouse and children and reduction in subjects' insufficient control over or inability to deal efficiently with certain aspects of work life, which are likely to disturb the mental equilibrium. This benefit, especially when achieved within a short time frame, appears promising because patient compliance becomes higher with shorter period of their engagement with the hospital/clinic and hence increases the clinical utility of the intervention.

Though the duration planned for management techniques implemented was short but the efficacy of these techniques was observed within the time period. The patients were asked to follow the techniques that they learnt in daily routine religiously in the same way they worship and pray. The need for this scenario is more elaborated interventional research (Banerji and Das 2016) particularly in a developing country like India where there are more pressures and dissatisfaction on the job, financial setbacks, long working hours, seeking loans for home and car, work pressures, marital adjustments due to child/children's better future and so on. The relationships between day to day hassles and toll on health are highly subjective, found more pronounced for subjects with a rigid coping and subjects with type A behavior (Twisk et al. 1999).

Thus undoubtedly, yoga goes to the roots of a poor lifestyle, when presented in a comprehensive manner, tends to convince the patient that a good lifestyle is not only healthier, but also more enjoyable than a poor lifestyle (Singh et al. 2003; Bijlani et al. 2005). Similarly, meditation called as 'silence within oneself' is a part of good lifestyle as it enters deeper layers of consciousness. We move from one world to another, and ultimately, we may reach a state of one all-pervading consciousness, which connects entire manifestation. With practice there is automatic realization that instead of wasting words and energy on unnecessary issues, change the course of one's route and move away if someone tries to challenge us. To acquire profundity, one must remain in isolation for long hours. Like a reservoir collects huge quantity of water and then allows multiple springs to flow simultaneously, the mind in isolation builds up tremendous capacity to carry on creative work. As a result one can pursue multiple tasks productively. Besides, the practice of performing meditation while working is possible only with silence. Silence is helpful and initiates in meditators the process to overcome all attachments that one may develop with karma, overcoming karma may appear easier compared to knowledge acquisition and dedication, but performing selfless action is the most difficult task. Meditators learn to identify their mistakes and willingness to rectify them is developed with practice, perfection follows automatically. In silence, one learns to live and let others live in peace. As it is said that belief and expectation are crucial components of acupuncture, massage, meditation and music therapy treatment. When patients actively participate in their treatment, i.e., positively anticipate clinical effects, the chosen therapy presumably is more effective (Esch et al, 2004). Focus on emotion-related brain activity is important because meditation has been found in numerous studies to reduce anxiety and increase positive affect (Sharma et al. 2004; Gupta et al. 2006).

No other methods than yoga and meditation has yet proved to be effective in permanent reduction of stress that one keep on accumulating at workplace. As one moves high up the ladder of success in job the responsibility builds up along with excess baggage of stress and anxiety. There would be situations when one's resources exceed one's potential to cope. Therefore one of the healthy ways to manage work stress and anxiety by both diseased and healthy person is by incorporating the simple relaxation technique i.e., meditation regularly suitably in the morning coupled with some yoga postures that would bring a state of peace with outer world and optimal performance. This gradual reduction of stress level would go a long way to reduce the fraticide and chronic state of diseases in our nation to a great extent.

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