Chapter - 5

Discussion
In the present scenario, millions of people are suffering from cardiovascular disorders. These pathologies take their toll on the quality of life of the patients causing acute discomfort and unhappiness. Although certain aspects of these pathologies appear to be fairly well controlled through medical procedures which have advanced by leaps and bounds, an awareness that these procedures are associated with side effects which are increasingly coming to light have made people extremely wary and cautious in adopting them. Therefore, the search for a strategy that can alleviate problems without the fear of accompanying damage has been taken up as a priority issue. The search has been consistently pointing out towards strategies like meditation which have proved to be successful in dealing with these pathologies. Absence of disease and improvement in physical symptoms is undoubtedly important, but mere absence of disease is not sufficient to spell health, something beyond this condition is also necessary. The humanistic paradigm speaks of the individual's own perception and phenomenological experience of positive affect and positive perspective which is of crucial significance. Thus the aim of a treatment should be to bring about improvement in the measurable aspect of the disease together with experiential aspect relating to the individual.

The major problem with medical and drug therapy relating to hypertension and cardiac disorders is that drugs lead to inconvenience, complications and sometimes negative emotions. Some anti-blood pressure drugs may lead to respiratory problems, problems in digestion, sense of foreboding and insomnia etc. Similar reactions are found in drugs for cardiac ailments. Life saving drugs for angina (nitrates) sold under name
sorbitrate, angised, cause severe flushing, headaches, giddiness, sense of exhaustion and weakness etc. A strategy that not only alleviates physical problems but also does not cause the side effects cited above, would be an extremely desirable alternative.

The results of the present study reflect improvement on all parameters not only in those patients who were undergoing meditation (together with drugs) but also in those patients who were not undergoing meditation but taking drugs only. There is no denying that a lot of progress has been made in terms of pharmaceutical drugs for hypertension and cardiovascular ailments and the beneficial effects of the drugs can be seen in patients using them. The benefits of drugs in terms of reduction of blood pressure which had been on the higher side, as well as lowered frequency of angina episodes are bound to result in SWB and this was observed. Results showed that the subjects well-being improved significantly in terms of the initial score at the start of drug therapy and the score obtained after six months of treatment. It may therefore appear that meditation hardly has any additional benefits to offer, but certain interesting differences can be clearly seen.

The first important difference is in terms of extent to which wellbeing has been enhanced and blood pressure has been lowered in both the groups. While in terms of comparisons with initial scores there was improvement on all parameters in both the groups, comparison of post-test status on all indices indicates a significant advantage of the meditation group over those who were only on drugs. The onset of advantage was also
markedly different in the sense that meditation was found to result in immediate lowering of blood pressure and increase in well-being. Furthermore meditation resulted in a stable condition on all indices by fourteenth to sixteenth week. In the group that was not undergoing meditation but was only on drugs, there were fluctuations, discernible throughout. Relief occurred at a much later point as compared to meditation group. Thus a different picture of advantage associated with meditation is evident. The picture expresses a phenomenally larger advantage in terms of blood pressure and well-being as compared to the group taking drugs only. Therefore, though we can not deny advantages that occur due to drugs but advantages of meditation are overwhelmingly greater. The picture would have been more clear if we could have a meditation only group, but for ethical reasons it was not advisable to persuade patients to leave prescribed drugs and depend only on meditation. Incidentally the researcher had access to two patients who on perceiving the advantage of meditation left off drugs on their own accord. Graphic representation of these patients is indicated in Appendix VII and VIII. Furthermore a patient who had reduced drug intake because of benefits perceived by him was also evaluated graphically and his status is indicated in Appendix IX. These cases indicate that there was no disadvantage from stopping or reducing drug dosage. The question needs much more comprehensive and thorough probing but a trend is clearly indicated.

Type A and Type B classification is by and large a well accepted demarcation of personality type emerging primarily out of studies related
to CHD. The greater propensity of Type A persons to succumb to CHD has been pointed out by many researchers. When cardiovascular patients undergoing treatment in the institute with which the researcher was associated were screened for Type A and Type B personality it was observed that patients fell into Type A and Type B category with almost equal frequency. There was no difficulty in obtaining Type B sample. This was surprising because it had been surmised that there would be significantly lesser number of type B as compared to Type A.

It should be borne in mind that behaviour's learned by the individuals are anchored in the social context. Therefore many innate tendencies to behave in a particular way may be modified to fall within a framework of approved and expected behaviours. Type A behaviours are usually not socially desirable, it is socially better to present a calm and cool exterior, behave with restraint and project a picture of self controlled maturity. Thus even Type A persons with innate temperament to behave with aggression, impulsivity and hurriedness may teach themselves Type B behaviours in spite of it being contrary to their inclinations. Furthermore the Type A association with cardiac disorders emerged out of the hypothesis that Type A are under greater stress and it is actually stress that causes vulnerability for CHD. There is no evidence to state that Type B are not stressed. There may be immense stress under the cool and composed behaviour of Type B. Thus, the demarcation of Type A and Type B personality appears to be much more fluid and overlapping than was earlier surmised. Even otherwise there has been contradictory evidence regarding
the Type A and CHD association. Many researches have failed to report a relationship between type A behaviour and CHD. Johnston and others (1987) studied 5936 men aged 40-59 years randomly selected from British GP lists. Results of this longitudinal study indicated no relationship between type A behaviour and heart disease. In 1984, Palsane and Evans studied 120 state transport drivers in the Pune region of Maharashtra state to examine the differences in their driving behaviour and health as related to Type A/Type B personality patterns. They found no significant difference in Type A and Type B drivers so far as cardiac problems are concerned. Evans, Palsane and Carrere (1987) extended this study and attempted to compare Type A and Type B bus drivers in the United States and India. Results indicate that type A pattern of behavioural disposition is not found to have any bearing on cardiac problems.

In our study also we observed that not only were Type A and Type B personalities equally frequent amongst cardiac patients, the benefits from meditation were similar in both the groups on all the indices under the study i.e. SBP, DBP and SWB. Advantages that occur due to meditation in both the groups were similar.

The conjecture that type A patients were more likely to benefit from meditation had been based on appreciation of difference between Type A and Type B personalities theorised and demonstrated by earlier studies. No difference at any level was borne by our study.

It is important to study gender differences with regard to various phenomena not because it is important to prove that gender differences
exist but equally important to highlight when differences do not exist. There are points of common reactions and functioning amongst males and females and also areas where they differ. This appears to be an area where no difference is observed. Both males and females react in a similar manner to meditation. Since meditation is concerned with our physical and cognitive systems at levels which transcend differences in body structure and molecular level functioning, no difference was seen.

A very important finding relates to SWB which is experienced by the group undergoing meditation and the group not undergoing meditation (drug only). We found in pretest and post-test comparison of both groups that SWB has improved. There are two important points of difference in the improvement perceived by meditation group as compared to non-meditation group. First, the quantum of increase in well-being is markedly greater through meditation, second through meditation not only is wellbeing related to alleviation of symptom, but it is also related to a more positive interpersonal and social orientation. The enhanced wellbeing in the non-meditation group (i.e. DT only) is due only to alleviation of disease related symptoms. The status of the individual with regard to broader life issues remains the same.

This is a very significant difference between the two groups because achieving positive and healthy reactions and relations with the environment is important for personality growth and health. Psychosocial factors play an unimaginably vital role in our lives. Research has suggested that psychosocial factors may be associated with changes in natural killer
cell cytotoxicity (NKCC), which is an important defense against infections and cancer growth. For example, lowered NKCC has been shown in individuals under stress, bereaved individuals and those with major depressive disorder. In addition, research has suggested that social support, active coping style and joy may be related to changes in NKCC in patients with breast cancer (Goodkin and others, 1992). The research into NKCC is still in its early stages but it holds great promise for alleviation of disease through psychologic interventions. Goodkin and others (1992) also examined the relationship between psychosocial factors and NKCC in HIV-positive men and obtained results similar to those obtained in relation to cancer patients. Penix and Brenda (2000), found that focussing on positive emotions can contribute substantially to our insights regarding the ability to deal successfully with adverse events that are inevitable at an advanced age. In a 2-yr. prospective cohort study of 2,282 Mexicans aged (65-99 yrs), Ostir and others (2000) found that positive affect seems to protect individuals against physical decline in old age. Thomson and Judith E. (2000) found that spiritual wellbeing was an important contributor to overall quality of life amongst hospice patients. According to Salovey and others (2000), positive emotional state may promote healthy perceptions, beliefs and physical well-being.

Thus the overall well-being achieved through meditation which reflects the individual's increased capacity to react amicably with the environment is a protector against pathology. Our research findings, therefore reiterate the gains that can be achieved through meditation.
While pharmaceutical drugs help the patient by reducing pathological symptoms, this function is performed by meditation to a much more enhanced degree. Furthermore, meditation also touches an area which drugs are not able to touch namely attitudes and relationships with the environment. The latter is an unprecedented gain because it has implication of being as protective and buffer force against serious pathology.

**Suggestions for future research**

The conduct of research is an important learning experience for the researcher. The clarity which occurs after in-depth study and actually doing the work creates a more clear picture of shortcomings and issues to be taken cognizance of in future research. Some of the shortcomings in methodology were perceived at the beginning itself but they were such that have to be accepted as inevitable by the social scientist. It is not possible to intrude into the subjects life beyond the permissible limits. Therefore, manipulation of drug intake variable to create a group which stops drug intake can not be contemplated. The suggestions being given by the researcher include those relating to methodology and those relating to a broader perspective.

The search, while enlightening us with regard to a phenomena must also make available information which facilitates application of findings for alleviation of problems. It is true that overall results have clearly broughtout the efficacy of meditation for coping with hypertension and coronary heart disease. But there were some subjects who responded to meditation with a remarkable degree of success while some others did not
give such a favourable response. It would be extremely enlightening if subjects who have maximally benefitted from meditation and those that had derived minimum benefit were studied comprehensively. Personality factors, past experiences, attitudes and beliefs would help us to understand impact of meditation better. It could begin a new and fruitful area of research. Thus intensive study of a few limited cases could help to begin this work.

It was pointed out that subjects were drawn from those patients who were visiting the hospital with complaints of hypertension and angina. Drugs were prescribed by physician and meditation was offered to those who were agreeable. We had equated the groups on all pertinent dimensions including type and dosage of drugs taken by them. This interms of a well controlled study was viable since only the factor of meditation distinguished the two groups. Therefore the results obtained are no doubt of great importance. But accessing individuals who have hypertension and heart problems and who do not want to undergo drug therapy would enable us to get a group not undergoing drug therapy. This could be a difficult but not impossible task because a large number of people are not taking treatment for these ailments and may desire to adopt meditation. This would be an effort worth making it. All efforts must be made with ethically approved favour. Thus continuous monitoring and if blood pressure and other conditions warrant the need for medication then advising the patient to adopt drug therapy should be given, despite disadvantage to the subject. For angina patients the index of improvement which we studied was
frequency of angina episodes. This is actually not sufficient to evaluate the improvement. It could be more desirable if exercise ECG/stress test which evaluates the status more clearly is taken pretest and latter either post-test only or in a continuous phase manner would be more desirable.

There is clear, unequivocal evidence that meditation has benefitted hypertension and coronary heart disease patients. Therefore, the medical practitioner should include meditation in his treatment regimen so that benefits of a wider range and a more meaningful nature become available to the patients. Whether meditation can replace drug therapy totally is a different question which can be answered only after much more research but meditation as an adjunct and supplement to drug therapy should definitely become the practice.