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The Effect of Meditation by Quantum Method on Subjective Well-Being of the People of Bangladesh

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University of Rajshahi

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THE EFFECT OF MEDITATION BY QUANTUM METHOD ON SUBJECTIVE WELL-BEING OF THE PEOPLE OF BANGLADESH



*A Thesis submitted to the University of Rajshahi, Bangladesh,
in partial fulfilment of the requirements for the degree of
Doctor of Philosophy in Psychology*

Submitted By

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DECLARATION

Except where full references have been given, the thesis contains the independent original work of the author

This thesis has not been submitted before, nor is it being submitted anywhere else at the same time for award of any degree or diploma.

Mashud Siddiki
28.06.12

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CERTIFICATE

Certified that this research work entitled “**The Effect of Meditation by Quantum Method on Subjective Well-Being of the People of Bangladesh**” has been conducted by Md. Mashudul Haq Siddiki as partial fulfillment of the requirements for degree or Doctor of Philosophy under my supervision. I recommend this thesis for evaluation.

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-The author

ABSTRACT

The present study was designed to investigate The Effect of Meditation by Quantum Method on Subjective Well-being (SWB) of the People of Bangladesh. A total of 307 respondents were used as subject in the study. They have a wide variety of age range, professional identity and educational background. They were from different places of Bangladesh.

Repeated Measurement design was employed in this study. A Bangla adaption of short version of the Subjective Well-being Questionnaire of Nagpal and Sell (1985) was used to measure the Subjective Well-being of the practitioners. The questionnaire measures eight dimensions of well-being. The overall well-being can also be measured. First, the Subjective Well-being questionnaire was administered on the subjects who came to participate in meditation course by Quantum Method. The questionnaire was again applied on the same subjects after the completion of the meditation course of forty hours duration. The subjects were again tested after practice of six months and also after practice of twelve months using the same questionnaire.

The mean score of each respondent on each of the eight dimensions as well as overall scores were computed separately. In order to analyze the effect of independent variable comparisons were made among the four sets of the score by employing t- test.

It was hypothesized that Meditation by Quantum Method increases the Subjective Well-being of the individual. In the results of the study the overall mean score of Subjective Well-being was found to decrease as a function of degree of practice of Meditation by Quantum Method. These findings suggest that the Subjective Well-being of the subjects increases as a function of degree of practice of Meditation by Quantum Method. Thus, the results of the study confirm the hypothesis. The Subjective Well-being score was also found to decline gradually as a function of degree of practice of meditation in case of seven dimensions of Subjective Well-being. These additional findings provide further support to the hypothesis. Thus from the results of the study it can be conclude that Meditation by Quantum Method increases the Subjective Well-being of its practitioners.

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Chapter-I

Introduction

Chapter-1

INTRODUCTION

People have practiced meditation for centuries. Philosophers and religious teachers claim that meditation allows the practitioners to realize their true identity, achieve peace of mind, and move closer to God. Social scientists in general and psychologists in particular, have understood it to mean that meditation reduces psychological problems such as anxiety, depression and stress (Hall, 1999). In more general terms, psychologists argue that meditation leads to better emotional and physical health (Gelderloos, 1987). The claimed benefit of meditation has heightened the interest in it and has led to a proliferation of meditation procedures.

Concept of Meditation

Meditation is a journey of our conscious toward the self. In meditation we consciously travel from the body to mind, mind to intellect, intellect to self and beyond..... Thus, we can consciously direct our attention to expand our state of consciousness, can be aware of the present moment without the emotional and mental coloring of the past, and can achieve a strong sense of relaxation and so on.

Meditation can be defined in many ways as philosophical, operational etc. Webster's dictionary defines meditation 'as an act of spiritual contemplation'. It is assumed that in its wider modern application, it denotes (Kokoszka, 1990) self-experience, self-realization and in some religious tradition, a specific practice to achieve the discovery of the ultimate truth.

From psycho-physiological perspective, meditation is the intentional self-regulation of attention, in the service of self-inquiry, in the here and now (Masion et al., 1995). Most of the descriptions of meditation are expressed in behavioral terms (craven, 1989), that includes the following components: (i) relaxation (ii) concentration (iii) altered state of awareness (iv) suspension of logical thought process and (v) maintenance of self-observing attitude.

Meditation has been defined by different authors in different manner. Selye (1976) described it, as a psycho-physiological technique that facilitates the dissolution of existing stress from the nervous system, rather than a mean for coping with internal stress. Stress in this sense could be equated with what many would define as strain, the biochemical or structural abnormality that result from any 'overload' on the mind or body. It reduces stress, improves health and leads to an all-round improvement of the quality of life of those who practice it.

According to Hall (1999) Meditation is a systematic narrowing of attention that slows down the metabolism and helps to produce feelings of relaxation.

Roth (2001) defines meditation as a practice of developing one's capacity to enhance experience. It offers to awaken the mind to sensory experiences and helps to achieve the benefits of relaxation, better mood, ability to concentrate, lower blood pressure and a sense of well-being.

Shapiro (1982) defines meditation as a family of techniques which have in common, a conscious attempt to focus in a non-analytical way and an attempt not to dwell on discursive, ruminating thought.

Meditation is a self-regulation strategy (Ellis, 1984) which is comparable to other cognitive focusing, relaxation, and self-control strategies such as guided imagery, hetero-hypnosis, biofeedback, progressive relaxation, and autogenic training (Shapiro, 1982, 1985; Holmes, 1984; Dillbeck & Orme-Johnson, 1987).

Meditation is related but distinguishable from daydreaming, hypnosis (Fromm, 1975), praying, cardiovascular and neurovascular feedback, autogenic training and relaxation techniques (Kokoszka, 1994). Meditation differs from these other techniques or practices. It emphasizes on maintaining alertness and its philosophical/cognitive background, aims at expanding self-awareness and an increased sense of integration and cohesiveness (Snaith, 1998).

An ordinary person may consider meditation as a worship or prayer. But it is not so. Meditation means awareness. Whatever one does with awareness is meditation. 'Watching your breath' is meditation; listening to the bird is meditation. As long as these activities are free from any other distraction to the mind, it is effective meditation. Meditation is not a technique but it is a way of life. Meditation means 'to join together or to yoke'. It describes a state of consciousness when the mind is free of scattered thoughts and of various patterns. The observer (one who is practicing meditation) realizes that all the activities of the mind are reduced to one.

In the western world, the word meditation means a concentrated state of mind in serious reflection. The Latin root of the word meditation is 'mederi', which means 'to heal'. It is an effort to heal sufferings of the mind and the hurt ego by trying to understand the causes of the problems and finds a way to resolve those by knowing what counter-measures to be taken. Thus, meditation is a state of deepening of understanding.

In contrast, in the east, meditation does not mean thinking at all. It means fixing the mind in a spiritual ideal to be one with it, or to indulge the thought process to dissolve in the consciousness. According to Zen, meditation does not involve any concept but it is an awareness of inner silence. As per the yoga of Patanjali, meditation is a combination of the following steps- Pratyahara or abstraction or withdrawal of the mind from the sense-objects or attention to their memory; dharana or concentration; and dhyana or contemplation which is not a thought-process but absorption of the feeling of oneness with the ideal.

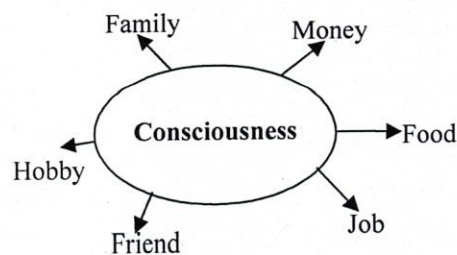
Traditionally meditation has been practiced within a religious context. In modern time, the techniques of meditation have been extracted from their spiritual and philosophical context and applied to the promotion of individual well-being. Most of the literatures in scientific journals and research about meditation are based on personal health-enhancing aspect (Epstein, 1990; Globus, 1980; Leuschitz & Harlman, 1996; Russell, 1986; Shapiro, 1994; Tyler, 1977; West, 1987).

Meditation is used by psychodynamic therapists for controlled regression in service of the ego and as a means to allow repressed material to come forth from the unconscious (Carrington & Ephron, 1975b; Shafii, 1973b). Humanistic psychologists also have used it to help individuals gain a sense of self-responsibility and inner directedness (Keefe, 1975; Schuster, 1975-1976; Lesh, 1970c). Behaviorists have used it for stress management and self-regulation (Stroebel & Glueck, 1977; Shapiro, 1985; Woolfolk & Franks, 1984).

Meditation is a mental exercise. This quiet practice expands our consciousness and improves our concentration and creativity. Establishing control over our own minds and gives birth of a positive life view.

The following illustrations will help to explore the concept of meditation:

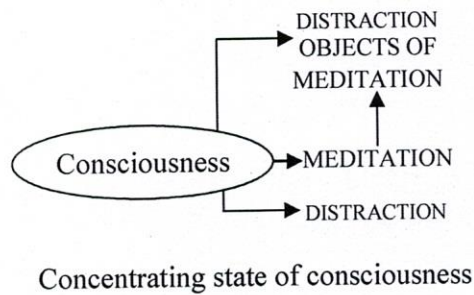
Normal state of consciousness: Meditation is a three-step process that leads to a state of consciousness that brings serenity, clarity and pleasure. Basically, our 'normal' state of consciousness is not actually quite normal.



**Normal state
of consciousness**

We receive sensory stimuli and react in a completely uncontrolled way. We bounce from one thought to another and follow them with our emotional and physical reactions. The same thought can bring about diametrically opposite reactions at different times.

Concentrating state of consciousness: The second illustration demonstrates concentration. This is the first step of meditation and is the beginning of gaining controls over the mind and thereby life.



The procedure is deceptively simple and seems like it would be very easy to do, but there are few tasks more difficult to master. The idea is to pick an object/subject to place one's attention on and then to focus exclusively on it without diversion.

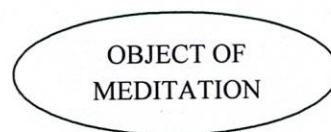
Meditating state of consciousness: The third illustration depicts meditation. Here a meditator has unbroken attention. The classic description of the difference



between concentration and meditation is given in the example of pouring oil from a bottle into a bowl. At first the oil drips out a drop at a time.

This is concentration. Then the oil comes out in a steady stream. This unbroken pouring out is Meditation.

Contemplating state of consciousness: At this point, the unity of the object of one's meditation and one's mind occurs. This is the state of contemplation and is the penultimate state of consciousness.



Where we usually are only conscious of our body and ego and consider ourselves apart from the rest of the universe, with the experience of contemplation we become conscious of the cosmos and know ourselves to be a part of it and realize our unity with all of it.

This is realization, cosmic consciousness. It is our birthright and destiny to know this wonderful state at first and enjoy the truth, consciousness, and bliss that is our eternal true nature. Thus, the justification in expending whatever energy is necessary to learn to meditate and to begin to make meditation an important part of our lives.

Types of Meditation

Meditation can be done in various ways and there are indefinite numbers of meditation techniques. But all share the same goal of inner peace and the foundation of all techniques is focus and attention.

The various techniques of meditation can be classified according to their focus. Some focus on the field or background perception and other focus on a preselected specific object. There are also techniques that shift between the field and the objects.

According to Goleman (1988), two types of meditation practice are generally identified. Concentrative meditation, such as the mantra meditations (note: the word mantra simply means a repeated sound or word in Sanskrit), and insight or mindfulness meditation.

In the concentrative traditions, the focus of attention remains on a particular object, frequently a word, mantra, phrase or prayer. The rhythm of the breath is also often used. In this tradition the goal is to maintain focus as much as possible on the particular object of attention. When attention wanders, as it naturally does, the instruction is to return it to the breath or back to original object of focus.

The simplest form of concentrative meditation is to sit quietly and focus the attention on the breath. Yoga and meditation practitioners believe that there is a direct correlation between one's breath and one's state of the mind. For example, when a person is anxious, frightened, agitated, or distracted, the breath will tend to

be shallow, rapid and uneven. On the other hand when the mind is calm focused, and composed, the breath will tend to be slow, deep and regular.

Focusing the mind on the continuous rhythm of inhalation and exhalation provides a natural object of meditation. When a meditator focuses on the breath his/her mind becomes absorbed in the rhythm of inhalation and exhalation. As a result, breathing becomes slower and deeper and the mind becomes more tranquil and aware.

In the mindfulness traditions, attention is purposefully kept open, attending to whatever enters the field of awareness, but without usual analytic engagement or 'thinking about' the object of awareness. The object of attention may be an emotion, a physical feeling, an image, an external object or again simply the breath, but there is more flexibility in the object of awareness than in concentrative meditation. Vipassana practice is a variant of mindfulness meditation.

Mindfulness meditation, according to Borysenko (1987), involves opening the attention to become aware of the continuously passing parade of sensations and feelings, images, thoughts, sounds, smells, and so forth without becoming involved in thinking about them. The person sits quietly and simply witnesses whatever goes through the mind, not reacting or becoming involved with thoughts, memories, worries or images. This helps to gain a more calm, clear, and non-reactive state of mind. Mindfulness meditation can be likened to a wide-angle lens. Instead of narrowing his focus/attention to a selected field as in concentrative meditation, here the mediator is aware of the entire field.

A third type of meditation might be considered focused or directed meditation, in which the content carries significance and is intended to engage a particular aspect of self but in a mindful, rather than analytic or judgmental way.

Meditation traditions may utilize primarily on one or another type of practice (concentrative, mindfulness or directed) but most combine elements of all three. For example, Transcendental Meditation (TM) is usually considered as a mantra

meditation, in which a word is repeated continuously on the breath, but it de-emphasizes a sustained effortful concentration that accompanies some other concentrative traditions. In Judaism repetitive prayer and movement remain a central aspect of Hasidism.

Quantum Method Meditation, a meditation method developed in Bangladesh, combines elements of different types of meditation. It primarily falls into the category of directed or guided meditation. A voice guides the meditators through the different stages of the meditation. However, it also combines elements of concentrative meditation. In the first part of the meditation, the meditator focuses on his/her breathing in an effort to concentrate his/her mind. Again, in a different part of the meditation, the meditator is asked to repeat autosuggestion or mantra. The meditation also includes other techniques such as goal visualization.

Elements of Meditation

Different types of meditation may include different features to help meditate. These may vary depending on who is conducting the meditation class or whose guidance is being followed.

Some of the most common features in meditation include (Mahajataq, 2000):

Focusing attention: Focusing attention is generally one of the most important elements of meditation. Focusing attention is what helps to free the mind from many distractions that cause stress and worry. Focus the attention on such things as a specific object, an image, a mantra, or even on breathing. The practitioner need not get worry when the mind wanders; just need to return the concentration to focus of attention.

Relaxed breathing: This technique involves deep, even-paced breathing using the diaphragm muscle to expand the lungs. The purpose is to slow breathing, take in more oxygen, and reduce the use of shoulder, neck and upper chest muscles while breathing so that the breathing becomes more efficient.

A quiet location: For a beginner, practicing meditation may be easier in a quiet spot with few distractions; no television, radios or cell phones. As one gets more skilled at meditation one may be able to do it anywhere, especially in high-stress situations where one may benefit the most from meditation, such as a traffic jam, a stressful work meeting or a long line at the grocery store.

A comfortable position: Meditation process can occur by any of the following ways as sitting, lying down, walking or in other positions or activities. However, it is important to be convenient or comfortable, so that a meditator can get the most out of meditation.

There's no right way or wrong way to meditate. What matters is that meditation helps one with stress reduction and feeling better overall.

The Practice of Meditation

The practice of meditation can be carried out in multiple ways. One of the most basic practices of meditation is outlined by Borysenko (1987), co-founder and director of the mind/body Clinic at New England Deaconess Hospital. He mentioned in eight steps as follows:

1. Find a quiet spot at home or elsewhere where there will be no disruption by people or telephone. This may be the hardest part for some because it entails making time for oneself.
2. Sit in a comfortable position-- back straight, arms and legs crossed. A cushion may be used to sit on for increased comfort. It is important to remember not to get too comfortable so that one will fall asleep.
3. Close the eyes.
4. Begin to relax all the muscles of the body beginning with the head down to the feet. Relax on the out breath or exhalation. Let go and let gravity pull on the body to relax. Taking deep breaths will help the relaxation process.

5. Become aware of the breath without trying to control it in any way. The breathing will get slower and shallower during the meditation process. This is a normal physiological response to the relaxation that is occurring. The body is requiring less oxygen because the metabolism has slowed down.
6. Repeat the mantra or focus word silently in time with the breath. Try onward for the inhalation- 'Let' and the other for the exhalation- 'Go'
7. Do not worry about progress or how well the meditation is going on. As soon as worries enter into the mind, meditation has turned into anxiety from what we want to get rid of. Inevitably, at first the mind will wonder. It will influence the thought process, unpleasant events as anger, grief, judgment etc.

Settle your mind on breath concentration again and allow all the sadistic or unwanted events to go away. Then return to the original state of concentration of word, phrase, or breath.

8. Practice meditation at least once a day for ten to twenty minutes. With continuous practice, meditation will get easier, deeper and to some extent will provide peace. Remember that meditation is not an end in itself, it is a process. The process is what heals.

Meditation by Quantum Method

The Training session of meditation by Quantum Method is a course of forty hours in duration to be held during four consecutive days. The procedure followed in Quantum Method is not different from those of the other types of meditation. In this method there are two procedures as follows: (a) Long process, and (b) Short process (Mahajataq, 2000).

- a) *Long Process*: Relaxation is necessary for making life relaxed, lively and successful and for gaining complete control over the mind and body. In

Quantum Method Meditation, the meditator can reach his 'Quantum Home'* for complete relaxation by following some simple and easy steps. These steps are as follows:

1. First, a quiet place for meditation needs to be selected. It should be a place where there would be no disturbance for some time. It is better to leave the telephone in another room or lower the telephone ringer so that the rings do not disturb during meditation. The room should be sufficiently ventilated and not completely dark. Loose comfortable clothes are ideal for meditation. Before starting, the meditator should think of a recent incident that was enjoyable. It does not matter how trivial the incident was, what matters is the feeling of joy it generated.
2. One can meditate either by lying down, or sitting on the chair, or on the floor. If he decides to lie down, he should do so on a hard surface, such as a mat, carpet or hard bed. The hands should be placed beside the body, the palms facing up. There should be some space between the feet. If he decides to sit on a chair; he should keep his spine erect. The feet should touch the floor and the hands should rest on the knees. If anyone knows Yoga, he or she can practice relaxation by sitting in the lotus posture or half lotus posture.
3. The process of meditation starts by closing the eyes the softly. One should not frown, but just let the two eyelids close softly. When the most active of sensors i.e. the eyes, are closed, one is less distracted by one's surroundings.
4. The meditator takes a deep long breath through the nostrils and exhales slowly through the mouth. The breathing should be such that the lower chest and upper abdomen expands. This is called abdominal breathing. While Inhaling,

* The Quantum Home (Moner Bari) is the most beautiful place that one has been. Or one may create it from imagination. It may be surrounded by mountains, rivers, lakes or oceans. In this way one may create the environment of one's Quantum Home. Quantum Home may be the most beautiful house one knows. It contains a spacious living room, a healing room and many other rooms.

one should feel abundant natural energy entering the body; while exhaling, s/he should feel all the waste of body draining out with air. One should continue to inhale deeply through the nostrils and exhale through mouth in this way. While inhaling, he should think that abundant natural energy is entering the body. And while exhaling, he should imagine that all the waste is draining out from the body. It should take a bit longer to exhale than to inhale. After breathing like this for about 6 to 10 times one should breathe normally again through the nostrils.

- 5 With the eyes closed, the meditator should visualize the body from the crown of the head to the tips of the toes. Then he should concentrate for about 10 seconds on the cells on the crown of his head. He should imagine that the blood circulation there has increased and feel a warm and tingling sensation. Then he should imagine that all the cells in the crown of the head have become relaxed and heavy. In this way, he should concentrate for 10 seconds on each of the organs named here: forehead, eyes and eyelids, lips and tongue, chin, face, throat, neck, shoulders, right hand, left hand, chest, backbone, stomach, intestine, waist, hips, thighs, knees, ankles, feet and toes. He should visualize and feel that the blood circulation is increasing in each of the organs, and then imagine that the organs have become relaxed and heavy. Finally, he should visualize the body again from head to toe and feel a wave of relaxation flowing down his body like melted ice.
6. At this point, the meditator should feel the body becoming numb and relaxed. He or she should breathe normally through the nostrils. He should take deep long breaths through the nostrils and take some more time to exhale through the nostrils again. After breathing in this way for 5/6 times, he should let the breathing return to normal.
7. The meditator should continue to breathe normally and simply watch the breathing. She/he should visualize the air entering through the nostrils, filling the lungs and coming out again. He should focus the entire attention on

breathing, but not control it. He should just let it flow normally and simply watch the breathing. After visualizing the breathing in this way for 1 to 2 minutes, he will start to feel his body becoming heavier.

8. The meditator should start to feel that gravitational force pulling the body downwards. He should feel the weight of the body; feel that the weight his head, shoulders, chest, abdomen, hips, hand and legs have increased. As he feels this heaviness; he should imagine that the body has become inert. He should imagine that the body cells are no longer living cells but have transformed into sand.
9. Then the meditator should imagine that the body is made up of sand grains only. He should imagine each fine grain of sand shedding from the body. In this way, he should imagine the fingers, hands, legs and muscles all falling off. He should visualize that the body has been transformed into a pile of sand and is lying on the floor.
10. Now the body is only a pile of sand. The mediator imagines that a cold wind is blowing from the north. The speed of the wind is rising gradually. The wind is becoming stormy and spreading the sand of the body all around. He imagines that his body does not exist anymore. What exists is his consciousness and mind. Now the mind has reached the Alpha Station* on the way to Quantum Home, the home of peace and happiness. Then he says in his mind "from the Alpha Station I will go to my Quantum Home, my home of peace and happiness which is in the deeper level of mind. As long as I am there all unnecessary external sound will make my concentration deeper. However if there is any fire, earthquake, theft or any dangerous situation or emergency I will automatically return to my external conscious level from any level of mind and take quick appropriate measures".

* Alpha Station is a place, which is surrounded by deep woods, mountains, and oceans, and there is also a waiting room beside the garden.

11. Now the meditator starts a countdown to reach the Quantum Home. He reaches the Quantum Home by counting down from 19 to 0. As he counts 19, he should begin the Quantum journey and when he counts 0 he should reach the Quantum Home, the home of peace and happiness. As he counts 19, he should feel and visualize a cool, soothing blue light showering on him. He imagines a long path of light has been created. This path leads to the deeper level of mind. Then he should count 18, 17, 16, 15, 14, 13, 12, 11 and say in his mind 'I am going deeper through this path of light' Again he should count 10, 9, 8, 7, 6 and then 5, 4, 3, 2, 1, 0. After he counts 0, he should say in his mind, 'I have reached my Quantum home' and feel infinite joy.
12. At this point the meditator should look around the surroundings of his Quantum Home. He should smell each flower and compare the color or one with the other, hear the singing of the birds and look around as far as eyes the go. He should walk on the sea-beach and hear the ripple of the waves. He should look at all the details of the surroundings and touch them, feel them.
13. Then he should enter the living room of the Quantum Home and sit comfortably.
14. Quantum Home is in a deeper level of mind. Every word in this level of mind has a tremendous effect. When one reaches the Quantum Home, the body automatically starts to relax. The immune system improves and the brain and nervous system are more alert and tranquil. The mind readily accepts any 'autosuggestion' in this level. Therefore, the meditator says in his mind "In the future, whenever with the intention to meditate I close my eyes and say or hear the word, 'Relax! Relax! Relax!' all the unnecessary functions of my mind and body will stop and I will be completely relaxed. Then whenever I count from 19 to 0, I will reach my Quantum Home". One may also give some other positive auto suggestions to the mind, such as "from now onwards I will always feel relaxed. I will easily concentrate on any subject any time I desire. I will keep my mind and body healthy. I will keep myself completely free from

the influence of all kinds of negative and reactive thoughts and words. Positive and pro-active thoughts and action will bring my welfare. I will get whatever I want through, pro-active thinking. Day by day in every way I am getting better, healthier and happier". Meditators may compose their own auto-suggestion according to their mental and physical needs. But they should always remember to use positive words in it. Every word said in this level of mind will be transformed into energy.

15. After this, the meditator may practice goal visualization or anything else he likes.
16. After spending a splendid time in the Quantum Home the meditator will return to reality. He begins this process by taking a long breath. Then he says to himself 'after counting from 0 to 7, I will be wide awake. I will feel lively and excellent both mentally and physically.' Then he counts '0-1'. He imagines that all the grains of sand are returning to their places and forming the body.' 2-3'. He takes a long breath. He feels that all the grains of sand have been transformed into living cells '4-5'. He should take another long breath. He imagines that his body is now nicely reconstructed and has become vibrant with new life forces. Then he should say in his mind, 'after I count to 7, I will be wide awake and feel completely healthy and happy. I will not feel any pain or discomfort on my shoulders, neck and head or in any part of my body. I will feel completely agile and happy both mentally and physically. '6-7'. He opens the eyes, slowly moves his head and shoulders, slowly moves his hands. He stretches his legs, and says loudly and joyfully, 'I am feeling better; I am feeling better and better'.

b) *Short Process*: The Short Process covers the following steps.

1. After completing the necessary preparations, the meditator should sit or lie comfortably.
2. He should close his eyes softly.
3. He should take a deep long breath through the nostrils and exhale slowly through the mouth. The breathing should be such that the lower chest and upper abdomen expands. This is called abdominal breathing. While inhaling, he should feel abundant natural energy entering the body. And while exhaling he should feel that all the toxins of the body going out with the air. In this way he should continue to inhale deeply through his nostrils and exhale through the mouth. When inhaling he should think that abundant natural energy is entering the body. And while exhaling he should imagine that all the waste is draining out from the body. He should take a bit longer to exhale than to inhale. He should continue to breathe like this about 6 to 10 times.
4. Then he should breathe normally through the nostrils. Then he should breathe very slowly. He should take a bit longer to exhale than to inhale. After he breathes in this way for 5/6 times, his body will feeling heavier.
5. The meditator should continue to breathe normally and simply watch the breathing. She/he should visualize the air entering through the nostrils, filling the lungs and coming out again. He should focus the entire attention on breathing, but not control it. He should just let it flow normally and simply watch the breathing. After visualizing the breathing in this way for 1 to 2 minutes, he will start to feel his body becoming heavier.
6. Now the meditator should say in his mind the special code words to enter the Quantum Home, 'RELAX, RELAX, RELAX'. He is then totally relaxed. He imagines that his body does not exist anymore. What exists is his consciousness and mind. Now the mind has reached the Alpha on the way to

Quantum Home the home of peace and happiness. Then he says in his mind “from the Alpha Station I will go to my Quantum Home, my home of peace and happiness which is in the deeper level of mind. As long as I am there all unnecessary external sound will make my concentration deeper. However if there is any fire, earthquake, theft or any dangerous situation or emergency I will automatically return to my external conscious level from any level of mind and take quick appropriate measures”.

7. Now the meditator starts the countdown to reach the Quantum Home. He reaches the Quantum Home by counting down from 19 to 0. As he counts 19, he should begin the Quantum journey and when he counts 0 he should reach the Quantum Home, the home of peace and happiness. As he counts 19, he should feel and visualize a cool, soothing blue light showering on him. He should imagine that a long path of light has been created. This path leads to the deeper level of mind. Then he should count 18, 17, 16, 15, 14, 13, 12, 11 and say in his mind ‘I am going deeper through this path of light’ Again he should count 10, 9, 8, 7, 6 and then 5, 4, 3, 2, 1, 0. After he counts 0, he should say in his mind, ‘I have reached my Quantum home’ and feel infinite joy.
8. At this point the meditator should look around the surroundings of his Quantum Home. He should smell each flower and compare the color or one with the other, hear the singing of the birds and look around as far as eyes the go. He should walk on the sea-beach and hear the ripple of the waves. He should look at all the details of the surroundings and touch them, feel them.
9. Then he should enter the living room of the Quantum Home and sit comfortably. The interiors of the Quantum Home can be decorated in any way one wishes. The living room of the Quantum Home will be very frequently used. It may be used for practicing goal visualization or monchhobi, giving autosuggestions and doing affirmations etc. From this room one can go to one’s Healing Center through the corridor at the right hand corner. One can also go to the command center through the left hand corner.

10. Quantum Home is in a deeper level of mind. Every word in this level of mind has a tremendous effect. When one reaches the Quantum Home, the body automatically starts to relax. The immune system improves and the brain and nervous system are more alert and tranquil. The mind readily accepts any 'autosuggestion' in this level. Therefore, the meditator says in his mind "in the future, whenever with the intention to meditate I close my eyes and say or hear the word, 'Relax! Relax! Relax!' all the unnecessary functions of my mind and body will stop and I will be completely relaxed. Then whenever I count from 19 to 0, I will reach my Quantum Home". One may also give some other positive auto suggestions to the mind, such as "from now onwards I will always feel relaxed. I will easily concentrate on any subject any time I desire. I will keep my mind and body healthy. I will keep myself completely free from the influence of all kinds of negative and reactive thoughts and words. Positive and pro-active thoughts and action will bring my welfare. I will get whatever I want through, pro-active thinking. Day by day in every way I am getting better, healthier and happier". Meditators may compose their own auto-suggestion according to their mental and physical needs. But they should always remember to use positive words in it. Every word said in this level of mind will be transformed into energy.
11. After spending a splendid time in the Quantum Home the meditator will return to reality. He begins this process by taking a long breath. Then he says to himself 'after counting from 0 to 7, I will be wide awake. I will feel lively and excellent both mentally and physically.' Then he counts '0-1'. He takes a deep, long breath.' 2-3'. He takes another deep, long breath. '4-5'. He should take another long breath. Then he should say in his mind, 'after I count to 7, I will be wide awake and feel completely healthy and happy. I will not feel any pain or discomfort on my shoulders, neck and head or in any part of my body. I will feel completely agile and happy both mentally and physically. '6-7'. He opens the eyes, slowly moves his head and shoulders, slowly moves his hands. He

stretches his legs, and says loudly and joyfully, 'I am feeling better; I am feeling better and better'.

Course contents of Quantum Method

The Quantum Method Course covers the following topics (Mahajataq, 2000):

1. **Healthy Breathing:** Increased energy and vitality through proper breathing.
2. **Relaxation:** Attaining a stress-free life by learning to relax the body and mind.
3. **Quantum Home: Creating the Alpha Station:** the starting point in your journey towards your Quantum Home, and the Quantum Home: the place where your mind is most peaceful and creative, in the meditative level.
4. **Autosuggestions:** Learning about autosuggestions and their use for self development.
5. **Detoxifying your mind: Phase 1:** Letting go of negative emotions you have been harboring for a long time, such as anger, grudges, sorrow, guilt etc.
6. **Detoxifying your mind: Phase 2:** Letting go of fear and negative attitude.
7. **Being Proactive:** Learning to decide the right course of action in the light of your goals and values without being unduly influenced by others. Learning to start with what you have instead of waiting for what you lack.
8. **Affirmations:** Learning to use affirmations to change the program in your brain and create a new life.
9. **Falling asleep easily:** Learning how to fall asleep easily without medicine or drugs.
10. **Activating the mental alarm clock:** waking up spontaneously at a pre-set time.
11. **Bouncing out of bed:** overcoming the habit of going back to sleep after waking up.
12. **Instant energy and vitality:** Learning how to snap out of fatigue and weariness in an instant.

13. Instant calm: Learning how to instantly calm down.
14. Instant relief from headaches.
15. The zero-in method : Learning techniques for total concentration.
16. Better Memory:
 1. Better memory.
 2. The Hook system: a technique for remembering names.
 3. Down the memory lane: reviving lost memories.
17. Quanta Sound and Sign: Learning to use the Quanta sound and sign for:
 1. Speed reading and learning.
 2. Instant control over stress, anxiety, fear, anger and hunger.
 3. Optimum use of inner strength in any crisis or emergency.
18. Hemispheric Synchronization: Better connectivity between neurons, better creativity.
19. Monchhobi or Goal Visualization: Attracting success and good fortune.
20. Quantum Healing Center: Learning how to heal yourself.
21. The five Quantum Laws of Health: Attaining good health with proper breathing, healthy food, strong digestion, exercise, sound excretion. Learning techniques for weight control.
22. Overcoming addiction: Giving up smoking, drugs or any other kind of addiction.
23. Being one with nature: Progressing spontaneously on the path of peace, health and success by being one with nature.
24. Command Center and Inner Guru: Activating the invisible rhythm of nature to work for the benefit of yourself and others. Using it for diagnosing and healing diseases, resolving misunderstandings and other beneficial purposes. Receiving psychic protection and inner guidance from Inner Guru.
25. Wisdom (knowledge + insight + foresight): Awakening the spontaneous ability to make the right decision at the right time.

26. **Happy Family Life:** Using the command centre to create better intimacy with parents and family members.
27. **The Five Quantum Laws of Success:** Creating success by applying the five Quantum Laws: thankfulness, monchhobi (goal visualization), charity, persistence and togetherness. Creating a *jibon chobi* (the ultimate vision of life) for a fulfilling life.
28. **Monchhobi for the Nation:** Believing we can be one of the top ten nations in the world by 2025 and start working towards that goal.

History of Meditation

The concept of meditation has come to public attention recently; but if we look through the pages of history we find that there was awareness and knowledge with regard to it in ancient time also. In fact meditation was not confined to any region, religion, culture or a particular group of individuals. It was a worldwide practice, having its roots in ancient world society. In ancient Egypt the Pyramid was used as a chamber of initiation into practice of meditation (Rashid, 2003). 'The Egyptian Book of the Dead' reveals that a system of progressive harnessing of psychic energies was being practiced for spiritual regeneration (Cited in Rashid, 2003).

Similar information can be seen in "Tibetan Book of the Dead", Plato's "Phaedo" and "The Divine Pymander of Hermes Trismegistus". In ancient Greece meditation was learnt through initiation into a secret society that preserved the truths and revealed to them progressively in the form of graded series of mysteries (Cited in Rashid, 2003).

The Essenes, who were a brotherhood of spiritual aspirants living in Palestine and some regions of Egypt emphasized techniques of physical and mental purification. The meditative practices followed by Essenes resembled Indian meditative practices (Cited in Rashid, 2003).

Origin of meditation in ancient China can be seen amongst the followers of Taoism, who underwent different meditative practices that were similar to yogic practices of meditation (Cited in Rashid, 2003).

In Christianity, importance of meditation can be seen in the writings of Christian mystics like Albert Magmus - a 13th century figure. Reference to meditation is there in the Bible and other texts. Many practices which are part of prayer and worship include activities which come under meditation (Cited in Rashid, 2003).

Practice of meditation can be seen in Buddhism which is widespread in different parts of the world. A large number of Buddhist meditation practices can be traced - from very simple to the magical. It has one of the richest cultures of meditation. Meditation techniques used by Buddhists differ according to the school of Buddhism. The main schools of Buddhism are southern Buddhism, Tibetan Buddhism and Zen Buddhism (Cited in Rashid, 2003).

Within the Indian context, meditation has its roots in the Pre-Aryan period which dates back to nearly 3000 years B.C., during the time of Indus-valley civilization. Meditative practices like Upasana which are even at present in practice were found in Vedic religion. Patanjali, who lived in second century B.C., codified all existing theoretical aspects of yoga. He gave eight aspects of yoga, and meditation was one amongst these eight aspects (Cited in Rashid, 2003).

Meditation can also be seen deep rooted in Sufism. The history of Sufism is a history of the spiritual, theological and literary movements inside Islam. Muhammad PBUH is the first link in the spiritual chain of Sufism, and his ascension through the heavens into the divine presence became the prototype of the mystic's spiritual ascension into the intimate presence of God (Cited in Rashid, 2003).

Meditation in Bangladesh

The history of meditation is more than a thousand years old here. For long it has been within esoteric trappings and practiced as a cultic technique among groups of special people like Saints, Darvishes, and Muni- Rishis. Meditation has been a part of the Hindu, Buddhist and Muslim spiritual traditions in the subcontinent for centuries. Several famous mystics from the 19th and 20th centuries practiced meditation. Islamic meditation, or Morakabba, has existed in the Indian subcontinent since the spread of Islam here in the 12th century (Anon, 2009).

It is not long since meditation in Bangladesh took its modern form, simplified and divested of its esoteric trappings and religious overtones. In Bangladesh, the pioneer in this field, who contributed a lot by introducing meditation in his clinical practice, is Professor M.U. Ahmed, an eminent educationist and clinical psychotherapist of the country. Prof. M.U. Ahmed first introduced meditation as a tool for promoting health and fostering mental and physical wellbeing. Later, western forms of meditation, such as the Silva Method, were also introduced in Bangladesh (Anon, 2009).

Following Professor M.U. Ahmed's footsteps, a number of intellectual persons started to practice meditation and occultism during late 70s. Among them were eminent artist late Kamrul Hasan, artist Rashid Chowdhury, eminent economist Dr. Akhlaqur Rahman, Obeid Zagirdar etc. At the same time research was going on to make the process of meditation more simplified and more effective under the active supervision of a person named Shahid-El-Bukhari Mahjataq. As a result of this deliberate effort and intensive experimentation for twelve years, Quantum Method, the first comprehensive and scientific meditation technique of the country was offered for public in 1993 (Anon, 2009).

Mahajataq learnt meditation by taking part in a wide range of meditation and self development courses within and outside of Bangladesh. He also learnt from Sufi mystics and Buddhist monks. He was greatly influenced by Professor M. U.

Ahmed's effort to divest meditation of its esoteric trappings and use it for the benefit of ordinary people.

After a decade of research and testing the 1st batch of Quantum Method was held in 7th January 1993. On 1st January 1993, the first Bengali meditation cassette was published. In 1994, "Quantum Method", a book explaining Quantum Method meditation was published. In 1996, Quantum Foundation was established in an effort to organize those practicing Quantum Method Meditation (Anon, 2009).

The completion of 350 Quantum Method Courses was an outstanding accomplishment in the history of meditation practice. For the first time in the world the developer of a meditation or self-improvement course conducted 350 courses by himself. Today there are more than 1, 50,000 Quantum Graduates, i.e. people who have participated in the four days Quantum Method Course. Many more people are practicing Quantum Method Meditation without having taken part in the course.

Definition of Subjective Well-being

Subjective Well-being (SWB) is a broad category of phenomena that includes people's emotional responses, domain satisfactions, and global judgments of life satisfaction'' (Diner et al., 1999). Subjective well-being consists of two distinctive components (Diener, 1994): (a) an affective part, which refers to both the presence of *positive affect and the absence of negative affect*, and (b) a cognitive part. The affective part is a hedonic evaluation guided by emotions and feelings, while the cognitive part is an information based appraisal of one's life for which people judge the extent to which their life so far measures up to their expectation's and resembles their envisioned ideal life.

Subjective well-being can be simply defined as the individual's current evaluation of his/her happiness. Such an evaluation is often expressed in an affective term: when asked about subjective well-being, participants will often say, "I feel good" (Schwartz & Strack, 1999) Subjective well-being is thus, at least in part, a proxy for a global affective evaluation.

Bradburn et al. (1965) take subjective well-being to be constituted by three irreducible components: Positive affect, absence of negative affect and satisfaction. Others appear to allow for a greater number. Hence: 'Well-being which we define as people's positive evaluations of their lives, includes positive emotion, engagement, satisfaction and meaning' (Diener & seligman, 2004 ; Keserbir & Diener, 2008).

According to Diener (1984), SWB is the product of summed pleasurable and un-pleasurable moments, a person is happy because he or she experiences more pleasurable moments than un-pleasurable moments (Brief, et al., 1993). SWB is as the product of internal traits and psychological process (Diener, 2000; Watson, 2000), such as dispositions, goals, coping styles, and adaptive processes (Diener et al., 1999).

Mental wellness is a cornerstone of overall health and well-being (World Health Organization, 2001). Mentally well people are able to cope with inevitable stress and strain of daily life and have the resilience to rebound from challenging events such as trauma, tragedy, threats or other significant sources of stress (American Psychological Association, 2006).

A growing body of research reports that spiritual well-being plays a significant role in mental wellness, specifically in bolstering resilience to challenging life events (Sherrill & Larson, 1988; Cohen et al., 2003; Cotton et al., 2005) found that spirituality comprises three distinct aspects: resilience, tranquility and resistance to disorientation. In addition the authors found that these aspects are positively associated with mental well-being, positive affect, satisfaction with life and hope.

Other experts also report that spirituality is associated with increased coping, greater resilience to stress, an optimistic life orientation and lower levels of anxiety (Pardini et al., 2000; Bartlett et al., 2003; Kinsel, 2005). Epidemiological studies have consistently reported protective effects of spiritual beliefs on mental health (Levin, 1994; Hassed, 2000; Koenig et al., 1998; Koenig, 2001).

Many authors have utilized the concept of Subjective Well-Being to analyze people's reflection of their own mental status. According to Goldenson (1984), mental health is a state of mind characterized by emotional well-being, relative freedom from anxiety or other disabling symptoms and a capacity to establish a constructive relationship with the ordinary demands and stresses of life.

On the other hand, Ryff et al., (1995), have proposed a theoretical model of well being which encompasses six distinct dimensions of mental health: autonomy, environment mastery, personal growth, positive relations with others, purpose in life and self acceptance.

Similarly, Sahoo & Bidyadhar (1988), state that at least four dominant factors influence the way people evaluate their own subjective mental health. They call these elements evaluation of positive affective experience, feeling of personal competence in handling negative experience and a feeling of personal competence in deriving positive experience.

Subjective well-being is an important aspect of one's psychological disposition. It is a mental state that helps a person to maintain equilibrium, anchored in hope and optimism, even during the adversities of life (Khurana et al., 2000).

Thus the term 'subjective well-being' (SWB) refers to people's evaluations of their lives, including cognitive judgments, such as life satisfaction; and affective evaluations (moods and emotions), such as positive and negative emotional feelings. People are said to have high SWB if they are satisfied with their life conditions, and experience frequent positive emotions and infrequent negative emotions. SWB is the psychological term for 'happiness' and is preferred due to the many connotations of the latter term.

Subjective well-being researchers explore the full range of psychological well-being such that focus upon the factors that keep one from being depressed and factors that lead one to become elated. This trend is not surprising because happiness and life satisfaction are major goals for most people.

Recently the excellent reviews of the history and philosophy of happiness and wellbeing have begun to appear in psychological literature (Diener, 2000; willson, 1967). Psychologists believe well-being is constructed out of the three components: 1) Life satisfaction, 2) Positive affect, and 3) Negative affect. The rating of wellbeing is irreducibly subjective.

In comprehensive reviews of the literature on subjective well-being, Diener (1984); Diener et al. (1999) repeatedly found that well-being has three hallmarks: life satisfaction, pleasant affect, and negative affect. Myers & Diener (1995), in their paper entitled '*Who is happy?*', define high subjective well being as frequent positive affect, infrequent negative affect and a global sense of satisfaction with life. Based on the above discussion an operational definition of well-being may include the following: Firstly, it may be understood as a scientific sounding term for what people usually mean by happiness. Secondly it refers to what and how people think and feel about themselves, i.e. the cognitive and affective conclusions they reach when they evaluate their existence. Thirdly, it involves the individual's entire condition, i.e. psychological, social and spiritual aspects of existence. And fourthly, well-being is a relative state of affairs relative to the situation as well as to the value of the particular culture one belongs to.

The approach of understanding happiness and well-being differs from eastern and western perspectives. Eastern approaches are grounded in introspection and arduous self examination. In contrast to western psychologists who rely more on observation of behavior, the eastern view of life is understood as full of suffering and frustration. The means that eastern approaches recommend to overcome distress are discipline and self-control.

Components of subjective well-being

There are three primary components of SWB. They are (Diener et al. 1997):

- a) Satisfaction
- b) Pleasant affect
- c) Low levels of unpleasant affect.

SWB is structured such that three components from a global factor of interrelated variables. Each of the three major facets of SWB can in turn be broken into subdivisions.

a) Satisfaction: It can be divided into satisfaction with the various domains of life such as recreation, love, marriage friendship, and so forth, and these domains can in turn be divided into facets

b) Pleasant affect: It can be divided into specific emotions such as joy, affection and pride.

c) Unpleasant affect: Unpleasant affect can be separated into specific emotions and moods such as shame, guilt, sadness, anger, and anxiety.

Each of the subdivisions of affect can also be subdivided even further. SWB can be assessed as the most global level, or at progressively narrower levels.

Characteristics of Subjective Well-being

There are three cardinal characteristics of SWB (Diener, 1994).

First, In the field of well-being it covers the entire range from agony to ecstasy. It focuses individual differences in levels of positive well-being and it also focuses on undesirable states such as depression or hopelessness. Thus the field of SWB includes the undesirable states that are treated by clinical psychologists, but is not limited to the study of their undesirable states. In other words, the field is concerned not just with the causes of depression and anxiety, but also with the factors that differentiate slightly happy people from moderately happy and extremely happy people.

Second, In the definition of SWB, it is defined in terms of the internal experience of the respondent. An external frame of reference is not imposed when assessing

SWB. Although many criteria of mental health are dictated from outside by researchers and practitioners (e.g., maturity, autonomy, realism), SWB is measured from the individual's own perspective. If a woman thinks her life is going well, then it is going well within this framework.

This characteristic of focusing on the respondent's point of view differentiates the field of SWB from traditional clinical psychology. In the other field, weight is given to people's own perceptions of their lives, but oftentimes people seem to have a problem even if they themselves do not realize it. In the field of SWB, a person's beliefs about his or her own well-being are of paramount importance. Naturally, this approach has both advantages and disadvantages. Although it gives ultimate authority to our respondents, it also means that SWB can't be a consummate definition of mental health because people may be disordered even if they are happy. Thus, a psychologist will usually consider measures in addition to SWB in evaluating a person's mental health.

Finally, SWB is the field that focuses on long-term states, not just momentary moods. Although a person's moods are likely to fluctuate with each new event, the SWB researcher is most interested in the person's moods over time. Often, what leads to happiness at the moment may not be the same as what produces long-term SWB.

A growing body of evidence suggests that high well-being and life satisfaction significantly improve life within the four areas of health and longevity, work and income, social relations, and social benefits (Diener & Biswas-Dener, 2008; Lyubomirsky et al., 2005).

Health and Longevity: There are some studies which provide evidence that subjective well-being improves both health and longevity. In general, people who report high subjective well-being also report better health and fewer unpleasant

physical symptoms (Roysamb et al., 2003) Furthermore, an individual with higher subjective well-being tend to have stronger immune systems and better cardiovascular health (i.e. fewer heart attacks and less artery blockage), to engage in healthier behaviors, such as wearing seatbelts and sunscreen and to have fewer lifestyle diseases, such as addictions to alcohol or drugs (Diener & Biswas-Diener, 2008).

Work & Income: Benefit of high SWB lies in the fact that people who attain it are likely to earn more money than others, regardless of occupation (Diener et al., 2002). And they enjoy their work more (Lyubomirsky et al., 2005). This result indicates that well-being causes economic and career success (Graham & Pettinato, 2002). Moreover happy workers also tend to have higher levels of organizational citizenship, which means they are more likely to do tasks not required by their job, such as helping co-workers (Donovan, 2000; Diener & Biswas-Diener, 2008).

Social Relationship: High SWB has been consistently correlated with high levels of social relationships. Individuals who have a greater number of friends and family members tend to have higher levels of SWB. Individuals, who have higher well-being, have closer and more supportive social relationships than individuals with low baseline life satisfaction (Diener & Biswas-Diener, 2008). Experimental evidence shows that supportive relationships are a causal factor in high SWB.

People are simply happier when they are among other people (Kahneman & Krueger, 2006) Evidence shows that people with high SWB tend to have higher levels of self-confidence, warmth, leadership ability, sociability and more friends. People with high SWB actually generate their own social support systems (Cunningham, 1988; Isen, 1987).

Social benefits: High SWB not only benefits individuals, but also benefits society as a whole. People who experience high levels of well-being on average tend to have more trusting, co-operative, and pro-peace attitudes, stronger support for democracy, and lower levels of intolerance for immigrants and racial groups (Tov & Diener, 2008; Diener & Tov, 2007).

Therefore while well-being of citizenry may result from a structurally sound society, high levels of SWB can contribute towards a more stable, productive and effectively functioning society as well.

People might increase their SWB by the control of their thoughts. For example, perhaps SWB can be increased by believing in a larger meaning or force in the universe. Support for this proposition comes from the finding showing that on average religious people are happier than nonreligious people (e.g. Ellison, 1991; Myers, 1992; Pollner, 1989). Further, SWB is higher if a person concentrates on attainable goals, and does not focus attention exclusively on distant, difficult goals (Emmons, 1986, 1992). Finally, one can heighten SWB by being optimistic about one's future (Scheier & Carver, 1993).

Theories of Subjective Well-being

In order to explain the nature of Subjective Well-Being (SWB) different theories have been provided by different investigators. Most important of these theories are as follows:

Economic theory of well-being

In the field of psychology, the relationship between SWB and economic solvency has been explored theoretically and empirically.

The following theories are concerned to individual SWB and income status or solvency.

Relative theory

According to the economic view of well-being, a higher level of income is associated with higher levels of well-being. While income is increased, a greater number of needs are satisfied and thus a higher standard of well-being is achieved. Esterlin (1974) sustains that the impact of income on Subjective well-being depends on standards that change over time according to the individual's expectations and social comparisons.

This is why, a factor such as the relationship between the present and previous economic condition and the individual's wealth could influence an individual's happiness regardless his/her income level. (Diener & Diener, 1996; Parducci, 1968).

Absolute theory

It is supposed that there is a positive relationship between SWB and satisfaction of basic needs Veenhoven (1988, 1991). Usually in all societies, people of higher economic background or with higher income levels can easily satisfy their basic

needs and demands such as –food, clothing, housing, traveling, health, amusement etc. They thus deserve a higher SWB than of the people of marginal income level.

Adaptation theory

According to Veenhoven (1991) Absolute theory refers to a positive relationship between SWB and satisfaction of basic needs. Adaptation Theory differs with the absolute theory in some respect. It emphasize on the emotional depth or capabilities of the individual to adjust him to changing circumstances as positive and negative events (Brickman et al., 1978). Therefore, individuals having strong emotional balance or adaptation capabilities supposed to be happier even in adverse situation of low earnings.

Aspiration theory

The aspiration theory refers to the degree of satisfaction/dissatisfaction experienced by a person. It is related to the ratio of individual's satisfied desires with the total desires. Those individuals, according to this theory, who believe that their desires are fully satisfied, are supposed to be happier than the individuals who feel they have unsatisfied desires, regardless of their income levels. This approach to the concept of happiness takes into consideration that not only the degree of satisfaction needs (in relation to income) but also the individual's total desires (also in relation to income) are related to happiness.

A research conducted by Myers & Diener, (1996), found that higher the income, higher is the degree of SWB. In a study Diener et al. (2003) showed that, some differences in SWB between nations appear to be due to the fact that people differentially value SWB. Thus people may trade some about of positive emotion in order to obtain other things they value.

Cognitive Theory

In cognitive theories of well-being and ill-being developed as a part of behavioral science. Amongst the theories, the attribution theory of depression is well acknowledged. According to the cognitive theory, the individuals, who are depressed, do believe that negative incidents of events are very likely to continue to occur in their life and global and stable matters usually cause such incidents.

Depressed individuals are fond of perceiving the earth in self-defeating ways. Beck (1967) has identified that in connection to SWB, individuals can shrink or amplify their emotion by that they think and thus experience heightened or reduced intense emotions (Larsen et al., 1987).

Coping Theory of SWB

The theory of coping has been developed based on the assumption to cope with the problems by the individuals. It is assumed that individuals who feel happy, initiates thoughts and behaviors that are adaptive and helpful. In contrast, the individuals, who on average are unhappy, cope with the events and circumstances in more drastic and destructive ways.

For example, happy individuals are more likely to view the positive side of affairs, offer prayer, struggle directly with problems and if necessary seek help from others.

On the other hand, unhappy individuals are more likely to engage themselves in fantasy, like to blame others for what has happened problematic. They also avoid working in troubles (McCrae & Costa, 1986).

Religious values or social morals can control the thought process of the individual. Thus, it is assumed that SWB can be enhanced if the individual abide by the religious values or social morals. One-research finding shows that on average, those who are by nature religious are happier than of those who are non-religious (Myers, 1992, Pollner, 1989). Another research finding indicates that those people have higher happiness that concentrates on attainable goals and does not focus their attention exclusively on too huge goals or difficult goals (Emmons, 1986, 1992). Positive optimism can also enhance one's happiness in future (Scheier & Carver, 1993).

It is assumed that some intervening Variables such as temperament, cognition, intelligence etc often become the prominent factors to establish a correlation between cognitive factors and well-being

Social Comparison Theory of SWB

The Social comparison theory has been proposed by Easterlin (1974) on SWB. He stated that people in nations do not differ in SWB because the inhabitants of the nation compares only with each other on attributes as wealth and income. This is why the comparatively more and more rich people are likely to be happier than poorer people of the same nation or country, but nations do not differ in SWB.

In this connection, it is important to mention that people of Bangladesh were the happiest people in the world in the year (2002/03) according to a survey conducted by the British Survey Institute.

People having similar income and living either in wealthier or in poorer neighborhoods, do not differ (Diener et al., 1993). People used to earn moderately, were about equally happy whether either in a poorer or wealthier neighborhood lived. When an individual is inferior to others on different criterion, the environment doesn't produce happiness by the social comparison theory. By this theory, people selectively choose others to compare happiness (Taylor, Wood & Lichtman, 1983). Often people create an imaginary person with whom compares in order to achieve own objectives.

Context Theory of SWB

Veenhaven (1991) first proposed the Context Theory of SWB. In his research findings he states that SWB is achieved when the individual finds that the satisfaction of basic and universal human needs are fulfilled. In this connection, Veenhaven mentioned the basic needs such as hunger, thirst, warmth etc. The context theory emphasizes on the variables based on the circumstances in which people live in. These variables are time, person, good or bad life events etc. All these variables influence the happiness of the individual. Context theory also emphasizes on the variables that influence the person's happiness and ideas and estimation about counterfactual alternative situation. Conscious aims of the individual are the foundation of the context theory. Changeable factors and their magnitude such as good or bad determine the context models, not the biological universals.

Judgment Theory of SWB

A number of theories propose that happiness is synthesized from a comparison between some standard and actual conditions. When actual conditions exceed the standard, happiness is the result. In relation to satisfaction, such comparisons may be conscious. In the case of affect, a comparison with a standard may occur in a

non-conscious way. The judgment theories usually do not predict what events will be positive or what negative. This theory does help to predict the magnitude of affect that events will produce. One way to separate the judgment theories is based on the standard that is used. In the light of social comparison theory, one can use other people as the standards. If a person is found better than others, that person will be satisfied or happy (Emmons et al., 1983; Michalos, 1980). According to adaptation (Brickman et al. 1978) and the range-frequency theory (Parducci, 1968), an individual's past life is used to set the standard. If the individual's current life exceeds this standard, that person will probably be happy. The individual may also acquire a standard in other ways. For example, the individual might aspire to achieve a certain level of attainment based on self-concept on what that person is told by his/her parents.

Adaptation theory is based on a standard derived from an individual's own experience. While current events are better than the standard, the individual will perhaps be happy. However, if the good events continue, adaptation will occur, the individual's standard will rise so that it eventually matches the newer events (Brickman & Campbell, 1971). Thus, according to adaptation theory recent changes produce happiness and unhappiness because a person eventually adapts to the overall level of events. Thus, adaptation predicts that changes in income and so forth are much more important to happiness than the average level of the events. An individual's standard will eventually move up or down to any level or circumstance; it is only departures from this level that can produce affect.

A provocative theory of happiness based on laboratory models of human judgment was developed by Parducci (1968). It was named 'The range- frequency model'. This model predicts a precise standard against which incoming events are judged. In laboratory settings, this theory outperforms adaptation level approaches. This theory has the most interesting implications for persons who have skewed

distribution of events. It predicts that the highest level of happiness may occur for those who have a negatively skewed distribution of events. According to previous explanation and description the average level of goodness of the events happening to a person does not influence happiness, because the person sequentially adapts himself to the events.

Another popular form of judgment theory is aspiration level, which contributes that happiness will be dependent on the discrepancy in a person's life between actual conditions and aspiration. Investigator Wilson (1960) agreed that happiness depends on the ratio of fulfilled desires to total desires. According to this theory high aspirations are as much a threat to happiness as are bad conditions. As the ancient Cyrenaics noted, no person can be rich whose desires for money can never be met. The level of aspirations perhaps comes from an individual's prior experiences, goals and so forth. Esterlin (1974) outlined the dramatic difference in aspirations for income between people in various countries. Recall that Gibbs (1973) attributed the declining happiness of more fortunate blacks in the U.S. to the rising aspirations of that group. Although evidence supports the idea that discrepancy between actual conditions and the level a person aspires to correlates with happiness, this relationship does not appear to be strong (Emmons et al., 1983; Wilson, 1960).

One question related to all judgment theories is whether comparisons occur only within in domains (e.g., income) or generalize across domains. Dermer et al., (1979) found that comparison did not generalize to all areas. It is also found that making a negative standard salient led to increase satisfaction, it also led to more negative affect. Thus, the positively affect did not simply increase as satisfaction judgments rose.

Telic (Endpoint) Theories of SWB

Telic or endpoint theories of subjective well-being refers that well-being is achieved when some sort of goals or needs are reached (Diener, 1984). It is found from the study of Wilson (1960) that the 'Satisfaction of needs causes happiness and conversely the persistence of unfulfilled needs causes unhappiness' More related research shows that SWB seems to be related to needs and goals. The amount or quantity of wealth or resources seems related the needs and desires have been assessed and are correlated with the degree of SWB. The causes of SWB are not universal; it also differs depending on values and desires of the respondents.

Many investigators were concerned with questions related to Telic theories of well-being. For example, happiness is achieved either by satisfaction in one's desires or by suppressing those. In this regard, the Hedonistic philosophers have recommended the fulfilment of desires and the Ascetic philosophers have recommended the extinction of desires. Which desires and goals are more valuable and what balance should be assessed between different types of desires? Are specific desires deleterious to happiness? Perhaps one of the most important questions is whether happiness comes from already having one's desires fulfilled or from having recently achieved a desire or from the process of moving toward desired objects. In this connection, Scitovsky (1976) stated, "Being on the way to those goals and struggling to achieve them are more satisfying than is the actual attainment of the goals".

The Telic theories have been derived from different origins of the striving. According to need theory, there are some certain inborn or learned needs that the person seeks to fulfill. The person may or may not be aware of the inborn or learned needs. Nonetheless, it is presumed that happiness follows the fulfilment of these needs. On the other side, Goal theories are based on some specific desires of which the person is aware. The person is consciously seeking certain goals and the

fulfilment of those results is happiness (Michalos, 1980). It is assumed that goals and needs are related in that the underlying needs may lead to specific goals.

There might be certain values that can lead a person to specific goals. Needs are perhaps universal such as those proposed by Maslow, or they may differ markedly from individual to individual such as those cited by Murray. There is a widespread term that the fulfilment of certain needs, goals and desires are somehow related to happiness.

It is usually assumed that goals and desires are felt more consciously than needs. Individuals have had the experience of feeling happy when they achieve some important goal. In this regard, a key question is whether goal fulfilment leads to longer-term differences in SWB between persons, rather than just short-term mood elevations. Some of the theorists (Chekola, 1975) argued that happiness depends on the continuing fulfilment of one's life plan, the total integrated set of person's goals. Some goals may be in conflict with others. Thus, according to the life plan approach, happiness depends on two key related factors: harmonious integration of one's goals and fulfilment of these goals.

There are several shortcomings to the current Telic approaches. They have rarely been formulated in a clear way and then tested. Many of these approaches are not falsifiable. Sometimes needs or goals are described in a circular way depending on the observations the concept is to explain. Clear measures of needs and goals are needed, and longitudinal methodologies would help indicate whether achieving the goals actually heightens SWB. In a study conducted by Gordon (1975), compared the importance of various types of resources and examines how the need for these may have developed in childhood. Theoretical works such as this is needed in which various types of goals or needs and their fulfilment are related to various types of SWB. Formulations such as Bentham's law of diminishing marginal

utility can be tested empirically in relation to SWB. One limitation to the law of marginal utility is that it seems to apply to some things (e.g., money) but not to others (e.g., skills).

The above Telic approaches treat different goals as equivalent in relation of their ability to produce SWB. It is possible that the contents of goals differ in connection to efficacy in producing SWB. Besides, some of the goals may be more beneficial than the others. Veenhoven (1991) proposed that aims related to universal human needs are those that produce long-term SWB. According to this theory, people cannot be happy when experiencing chronic hunger, danger or isolation. In this perspective, some goal strivings and success may not produce SWB because they are based on superficial desires that are not based on complex human needs. In contrast, according to Veenhoven obtaining food and other biological needs is more likely to be predictive of SWB.

Chapter-II

Review of Related Literature

Chapter - 2

REVIEW OF RELATED LITERATURE

The purpose of this chapter is to provide an overview of the main findings of important empirical studies on the effects of meditation on its practitioners. First we review the findings of empirical studies on physiological effects of meditation. We then focus briefly on the findings of previous studies on psychological effects of meditation. Lastly we shall highlight some of the findings on the relationship between meditation and subjective well-being.

A review of the scientific literature on meditation reveals that a large number of studies have been conducted to investigate different physiological effects of meditation on its practitioners, the studies of Transcendental Meditation (TM), Zen Buddhist sitting, Herbert Benson's "relaxation response," and other calming forms of meditation indicates that meditation generally lowers the heart rate. The results of such studies vary to some degree due to different kinds of subject groups and various experimental procedures. One study shows an average decline of seven beats per minute among their subjects and some showing two or three beats per minute among the subjects. Bagga & Gandhi (1983) found an average decline of fifteen beats per minute among some subjects.

Bono (1984) in his study observed reduction of heart rate during TM which was greater than the reduction resulting from sitting quietly while closing the eyes. Delmonte (1984f) found that heart rates of fifty two subject slightly lowers during meditation than rest. Holmes et al. (1983) found that meditators had lowered heart rates during TM practice; they did not feel lower arousal than those who were simply resting as control subjects.

Pollard & Ashton (1982) conducted a study with sixty subject dividing them into six groups in a comparison of heart rate decrease obtained by visual feedback,

auditory feedback, combined visual and auditory feedback, instructions to decrease heart rate without biofeedback, sitting quietly, and abbreviated relaxation training. They also studied a comparison group of meditators with a minimum of six years of experience. The results they found that there was no advantage of a heart rate decrease task for subjects receiving visual, auditory, or combined biofeedback, though all groups showed evidence of a decline in heart rate over the testing session. The meditation group showed the greatest overall decline, with a decrease in heart rate of approximately seven beats per minute, where as they found three beats per minute for the groups using biofeedback techniques.

Lang et al. (1979) found that meditators who practice advanced TM for more than four years their heart rate decreased at 9%. Bauhofer (1978) found that the heart rates of longer experienced TM meditators were lower than less experienced TM meditators. Glueck & Stroebel (1975), Wallace & Benson (1972), Wallace et al. (1971c), and Wallace (1971) reported that the heart rate decreased from three to five beats per minute during Transcendental Meditation. Reduced heart rates during meditation are reported by Paul (1969), Karambelkar et al. (1968), Anand & Chhina (1961), Wenger & Bagchi (1961), Bagchi & Wenger (1957), and Das & Gastaut (1955).

Delmonte (1984f) examined fifty-two subjects and found that meditators showed a significantly greater increase in digital blood volume during meditation than rest. Jevning, Wilson, & O'Halloran (1982) tested muscle and skin blood flow and metabolism during states of decreased activation in TM. They concluded after concerned studies that acute decline of forearm oxygen consumption has been observed during an acute; wakeful behaviorally induced rest/relaxation state.

Linden et al. (1996) did a Meta Analysis of 23 previous studies on effect of meditation on heart disease and found that the results were uniformly positive

across studies. Adding mind-body interventions to standard treatment of cardiac disease reduces the number of deaths from heart attacks by 41% and the chance of heart attacks recurring by 46%.

Cort (1989) took the hypothesis that the effect of meditation on hypertension may be due to differences in compliance to the meditation regimens. His study of fifty-one black adults supports the claim that greater compliance to a meditation program leads to greater decreases in blood pressure.

Wallace et al. (1983b) studied and measured systolic blood pressure. They used a standard mercury sphygmomanometer on 112 transcendental meditators. The subjects had a mean systolic blood pressure 13.7 to 24.5 less than the population mean. They found that meditators with more than five years of experience had a mean systolic blood pressure 7.5 lower than meditators with less than five years of experience.

Bagga and Gandhi (1983) studied a group of eighteen subjects. They were equally divided into a TM, Shavasana (relaxing while lying on one's back), or control group. After a practice of 12 weeks, both TM and Shavasana groups showed significant declines in systolic blood pressure as high as 10 mmHg, but the control group demonstrated no decline.

Simon et al. (1977) studied five borderline hypertensives who were taught TM. After they learned the technique and practiced it for an average of thirty-two weeks, their mean blood pressure decreased from 153/101 mmHg to 138/92 mmHg.

Stone & DeLeo (1976) conducted a study on fourteen hypertensives. They were taught a "Buddhist" meditation that involved counting breaths in five twenty-

minute training sessions over six months. Five hypertensives were used as controls. While supine, the treatment group had mean blood pressure reductions of 9 mmHg systolic/8 mmHg diastolic. While upright, the treatment group had mean blood pressure reductions of 15 mmHg systolic/10 mmHg diastolic. While supine, the control group had mean blood pressure reductions of 1 mmHg systolic/2 mmHg diastolic. While upright, the control group had mean blood pressure reductions of 2 mmHg systolic/0 mmHg diastolic.

Benson & Wallace (1972a) conducted a study on twenty-two hypertensives with no meditation experience. They were given the standard TM training. Their mean blood pressure before meditation was measured 150/94 mmHg. Their mean blood pressure was reduced to 141/87 mmHg. after four to sixty-three weeks of meditation practice.

A study conducted by Linden, & Chambers (1994), they found that the effect of mind-body treatments- including meditation, was comparable to drug treatments in reducing both systolic and diastolic blood pressure. In another study conducted by Shapiro et al. (1997), they found that patients of hypertension who received 6 weeks of progressive muscle relaxation and other cognitive behavioral therapy required much less medicine than those who did not. Most hypertension patients can bring their blood pressure back to the safe zone by practicing meditation only.

Researchers Rainforth et al. (2007) did an updated systematic review of the previously published studies dealing with the impact of meditation and similar stress reduction techniques on blood pressure. They identified 107 studies dealing with the subject. They did a Meta analysis of 17 randomized control trials covering 960 patients, and found that the Transcendental Meditation program was

associated with significant reductions in blood pressure, as well as improvements in other cardiovascular risk factors and clinical outcomes.

The above evidence shows that many patients with moderate hypertension improve with meditation. As these studies involved different types of meditation, different levels of meditation experience among subjects, and different kinds of measurement, this is why the mechanisms mediating the improvement are uncertain. Most studies indicate that benefits reduce without continued practice. Thai researcher Chaipanont (2008) did a study with 50 type-2-diabetic patients to whom he introduced and taught meditation after breakfast. The result revealed that meditation practice and self care help to lower the blood glucose level significantly in type-2-diabetic patients after having meal. He also showed that meditation reduces the systolic and diastolic blood pressure in diabetic patients.

Experimental evidence indicates that meditation leads to an increase in alpha rhythms (slow, high amplitude brain waves extending to anterior channels and frequency ranges from eight to thirteen cycles per second). A large number of study used several types of meditation, with subject groups of one to more than fifty including beginners and Zen masters (Delmonte, 1984f; Daniels & Fernhall, 1984; Stigsby et al., 1981; Lehrer et al., 1980; Wachsmuth et al., 1980; West, 1980a; Dostalek et al., 1979; Corby et al., 1978; Pelletier & Peper, 1977b; Elson et al., 1977; Kasamatsu et al., 1957; Kras, 1977; Fenwick et al., 1977; Glueck & Stroebel, 1975; Williams & West, 1975; Woolfolk, 1975; Banquet, 1972, 1973; Wallace et al., 1971c; Akishige, 1970; Wallace, 1970) and reach the conclusion that meditation increases alpha rhythms.

It is observed that the brainwave pattern of long-term meditators includes strong bursts of frontally dominant theta rhythms (five to seven cycles per second),

during meditation meditators reported peaceful, drifting, and generally pleasant experiences with intact self-awareness (Jacobs and Luber, 1989; Delmonte, 1984f; West, 1979a; Hebert & Lehmann, 1977; Elson et al., 1977; Pelletier & Peper, 1977b; Fenwick et al., 1977; Banquet & Sailhan, 1977; Levine, 1976; Glueck & Stroebel, 1984; Krahe & Tenoli, 1975; Hirai, 1974; Banquet, 1972, 1973; Wallace & Benson, 1972; Wallace et al., 1971b; Wallace 1971; Dunn et al., 1999).

It is observed that during deep meditation, sometimes experienced subjects exhibit bursts of high-frequency beta waves (twenty to forty cycles per second). Such sudden autonomic activation is often associated with the yogic ecstasy or a state of heightened concentration by the meditators, which is accompanied by an acceleration of heart rate (West, 1980a; Peper and Ancoli, 1979; West, 1979a, Corby et al., 1978; Fenwick et al., 1977; Banquet, 1973; Kasamatsu & Hirai, 1963, 1966; Anand et al., 1961a; and Das & Gastaut, 1955). Surwillo & Hobson (1978) recorded six Protestant adults EEGs during prayer. They tried to discover whether the pattern was slower than during rest. They did not find any evidence of EEGs slowing during prayer; rather they found the opposite in the majority of subjects. They speculated that this phenomenon was similar to that observed in experienced meditators during deep meditation.

EEG synchronization/coherence in connection to the allocation of alpha activity between the four anatomically distinct regions of the brain—left, right, anterior, and posterior—perhaps indicates the effectiveness of meditation. Orme-Johnson et al. (1977b) reported it is positively correlated with creativity. Such neural ordering has been reported in the following studies: Jevning & O'Halloran (1984), Badawi et al. (1984), Orme-Johnson & Haynes (1981), Dillbeck & Bronson (1981).

A large number of studies report that meditation leads to a heightened perceptual awareness, in which the EEGs remain responsive to repeated stimuli such as clicks or light flashes instead of habituating to them: Delmonte (1984b); McEvoy et al. (1980); Williams & West (1975); Hirai (1974); Wada & Hamm (1974); Banquet (1973); Orme-Johnson (1973); Gellhorn & Kiely (1972); Naranjo & Ornstein (1971); Wallace et al. (1971b); Wallace (1971); Akishige (1970), Kasamatsu & Hirai (1963, 1966); Anand et al. (1961a); and Bagchi & Wenger (1957).

Warrenburg (1979); Hirai (1974); Banquet (1973) also reported cortical specificity of response.

Benson (1983a) studied with nineteen subjects who practiced the relaxation response technique twice daily for thirty days were found increased norepinephrine levels without any increase in heart rate or blood pressure. He reported that the relaxation response technique reduces central nervous system responsivity to norepinephrine. In another research Benson (1989) concluded that reduced norepinephrine end-organ responsivity in perhaps the mechanism through which physiologic changes persist after the elicitation of the relaxation response. Mills et al. (1990) studied and measured functional lymphocyte beta-adrenergic receptors and found lower levels in TM meditators supporting Benson's hypothesis.

Engle (1983), assessing on Benson's work, agreed that the relaxation response is a useful technique to modify physiological functions, but it is difficult to understand the mechanisms that mediate its effect. Before this study, Hoffman et al. (1982) in their study assessed sympathetic nervous system activity in experimental subjects, allowing them to practice the relaxation response. Equally allowed in control subjects who were exposed to graded orthostatic and isometric stress during

monthly hospital visits. Finally they found higher concentrations of norepinephrine for experimental subjects and no changes for controls.

Sudsang et al. (1991) investigated and concluded decreased cortisol levels measured after meditation in inexperienced meditators. From other similar studies Werner et al. (1986) have reported adrenal hormones decreases during meditation.

Many other studies have found decreased cortisol levels in meditators versus controls with the level of effect increasing with duration of meditation practice. Among them Ahuja et al. (1981); Jevning et al. (1978a, 1978d); Udupa et al. (1975); and Jevning et al. (1975).

Werner et al. (1986), in an investigation with group of eleven subjects in the TM-Sidhi program found decreased TSH, growth hormone, and prolactin levels and no consistent change in cortisol, T3 or T4. Jevning & Wilson (1977) found in this study of TM practitioners that T3, T4 and insulin levels did not change during meditation, whereas TSH levels declined dramatically.

A large numbers of studies have reported significant declines of blood lactate during meditation up to 33% and a rate of decline nearly four times faster than the rate of decrease among people resting or in a premeditation period: Bagga et al. (1981), Jevning et al. (1978c), Jevning & Wilson (1977), Benson (1975), Benson et al. (1973a, 1973b), Orme-Johnson (1973), Wallace and Benson (1972), Wallace et al. (1971a), and Wallace (1971).

Bagga et al. (1981) investigated a group of forty female medical students. They practiced TM and yoga, and reported that their average serum cholesterol decreased from 196.3 mg/dl to 164.7 mg/dl. Cooper & Aygen (1979) in their

study measured serum cholesterol levels at the beginning and end of an eleven-month period for twelve hypercholesterolemic subjects who practiced TM. They followed equally for thirteen months on eleven hypercholesterolemic controls who did not practice the technique. The result of paired comparisons showed a significant reduction in fasting serum cholesterol levels for those subjects who practiced meditation.

From different studies it is found that oxygen consumption is reduced during meditation (in some cases up to 55%), carbon dioxide elimination is also reduced (in some cases up to 50%), the respiration rate is lowered (in some cases to one breath per minute when twelve to fourteen breaths per minute are normal), and thus minute volume is also lowered (Sudsuang et al., 1991; Kesterson, 1986; Wolkove et al., 1984; Cadarette et al., 1982; Hoffman et al., 1981b; Jevning et al., 1978c; Peters et al., 1977a, 1977b; Benson et al., 1977a; Davidson, 1976; Benson et al., 1975c; Hirai, 1974; Benson et al., 1974a; Benson et al., 1973a; Treichel et al., 1973; Watanabe et al., 1972; Goyeche et al., 1972; Wallace et al., 1971b; Allison, 1970).

Studies have also been conducted to investigate the psychological effects of meditation on its practitioners.

In order to study the relationship between meditation and visual sensitivity Brown et al. (1984a, 1984b) tested Buddhist meditation practitioners for visual sensitivity before and immediately after a three-month retreat during which they practiced mindfulness meditation for sixteen hours in each day. A control group composed of the staff at the retreat center was similarly tested. Visual sensitivity was defined in two ways: by a detection threshold based on the duration of simple light flashes and a discrimination threshold based on the interval between successive

simple light flashes. All light flashes were presented tachistoscopically and were of fixed luminance. Practitioners could detect shorter single-light flashes after the retreat and required a shorter interval to differentiate between successive flashes correctly. The control group did not change on either measure. Phenomenological reports indicate that mindfulness practice enables practitioners to become aware of some of the usually pre-attentive processes involved in visual detection. The findings support the statements found in Buddhist texts on meditation concerning the changes in perception encountered during the practice of mindfulness.

Heil (1983) from his findings concluded that the practice of meditation increases visual imagery ability. Shapiro (1980a) and Shapiro & Giber (1978) noticed enhanced perceptual sensitivity. Walsh (1978) reported that meditation decreased perceptual noise. Blasdell (1977), Orme-Johnson et al. (1977a), and Orme-Johnson (1973) found that TM increased perceptual motor performance. Linden (1973) found that regular practice of meditation is associated with a significant enhancement of attentive ability, as assessed by the Embedded Figures Test and the Rod and Frame Tests.

Dillbeck (1977b) experimented on the effects of the regular practice of TM on habitual patterns of visual perception and verbal problem solving, and hypothesized that two weeks of TM practice would tend to free the subjects from inhibitory effects of those patterns, while allowing an improvement in their efficient use when required. The subjects in his study were sixty-nine university students who either practiced TM, relaxed, or added nothing to their daily schedule for two-week periods. The general hypothesis was supported for tasks involving a tachistoscopic identification of card-and-letter sequence stimuli, but not for a verbal problem-solving task involving anagram solutions.

Pagano & Frumkin (1977) investigated that TM meditators demonstrated enhanced ability to remember and discriminate musical tones. Shaw & Kolb (1977), Davidson et al. (1976a, 1976b), and Udupa (1973) also found that meditators seemed to have better auditory receptivity and perceptual discrimination than controls. In a similar work Martinetti (1976) concluded that practitioners of TM may have learned to focus their attention to a level at which thresholds for pertinent perceptual cues such as binocular disparity may be lowered. He reported that the concomitant increase in response sensitivity would account for the superiority of meditators at signal detection in the Ames Trapezoid Illusion, where meditators were twice as sensitive as controls. Nolly (1975) found that meditating subjects perceived a greater number of objects on a stimulus slide than did non meditating controls.

Jedrczak et al. (1986) in an investigation found that the number of months of practice of the TM-Sidha program significantly predicted higher performance on two measures of perceptual motor speed. Robertson (1983) measured fractionated reaction time for fourteen subjects to identify the short- and long-term effects of TM on neuromuscular integration. He found no significant immediate pre- to post treatment effect, but a significant cumulative effect over days. Faster total reaction time was noted due to a decrease in premotor time, though he observed an increase in motor time. Warshall (1980) in his experiment observed a significant reduction in reflex latency and reflex motor time in TM practitioners, and indicated increased peripheral neurological efficiency. Holt et al. (1978) found that TM increased the speed of visual-choice reaction time. Sinha et al. (1978) also observed a consistent decline in reaction time following Vipashyana meditation for three groups of police officers. Shaw & Kolb (1977), Blackwell et al. (1976), Appelle & Oswald (1974), and Wandhofer & Plattig (1973) reported

that the increased alertness developed through meditation resulted in improvement of reaction time.

Bono (1984) investigated on sixteen beginning TM meditators and observed that the meditators made a significant shift toward field independence after six months of TM practice. He tested simultaneously, a group of twenty control subjects; they made a significant shift toward field independence after merely sitting quietly with eyes closed for twenty minutes. He reported that relaxation and calmness are crucial factors involved in the fluctuation of this perceptual style, perhaps along with a practice effect.

Numerous studies have shown that meditation improves attention, creativity and memory.

For example, Tang et al. (2007) found that attention can improve with short trainings in meditation.

Researcher Pagnoni & Cekic (2007) of Emory University found that meditation had a positive impact on the gray matter volume in the brain, especially a part called the putamen, which is strongly involved in attentional processing.

Researchers Brefczynski-Lewis et al. (2007) of the Medical College of Wisconsin found that during meditation, the networks in the brain related to discursive thoughts and emotions are less activated, while the ones related to attention are more activated.

Researchers also found that meditation improves memory. For example, researchers Waqstaff et al. (2004) of the University of Liverpool found that focused meditation facilitated free recall of an event without an increase in errors.

In another study, researcher Manjunath & Telles (2004) divided 60 children aged between 11 to 16 in two equal groups of thirty. One attended a yoga camp including meditation, relaxation, yogic breathing and postures, while the other attended a fine arts camp. Both groups were tested for verbal and spatial memory before and after the interventions. The group attending the fine arts camp showed no change, while the yoga group showed a significant increase of 43% in the spatial memory test scores.

Lesh (1970a, 1970c), studied Zen meditation and the development of empathy in counselors. He found that the experimental group that practiced Zazen achieved significant improvement in empathic ability. The two control groups did not.

Sweet & Johnson (1990) investigated and developed a meditation-based program to develop empathy called MEET (Meditation Enhanced Empathy Training) for using in training of mental health professionals and in treatment protocols. Anecdotal reports of effectiveness have been positive and confirmatory research is planned.

Other researchers reported that meditation enhances empathy and sensitivity [Reiman (1985), Shapiro (1980b), Kornfield (1979), Walsh (1978), Kohr (1977a, 1977b), Shapiro and Giber (1978), Pelletier (1976a, 1978), Davidson et al. (1976a, 1976b), Griggs (1976), Kubose (1976), Van den Berg & Mulder (1976), Leung (1973), Udupa (1973), Osis et al. (1973), Banquet (1973), Van-Nuys (1973), Nidich et al. (1973), and Maupin (1965)].

In an experiment Cowger & Torrance (1982), studied twenty-four college undergraduates who experienced Zen meditation and a group of ten subjects who experienced similar training in relaxation. Both groups were administered pre-

and posttests of the Torrance Tests of Creative Thinking. The meditators attained statistically significant gains in increased consciousness of problems, perceived change, invention, sensory experience, expression of emotion and feeling, synthesis, unusual visualization, internal visualization, humor, and fantasy. Those experiencing relaxation training exposed statistically significant drops in verbal fluency, verbal originality, figural fluency, and figural originality; also gained statistically significant sensory experience, synthesis, and unusual visualization. A Linear Models Procedure was used to compare the changes registered by the meditation and relaxation groups. The result showed that the change of the meditation group exceeded those of the relaxation group on perceived change resulting from new conditions, expression of emotion, internal visualization, and imagery.

In different times Several TM researchers reported that meditation and creativity are linked. Ball (1980) pointed that students participating in the TM-Sidhi program showed significant development in creativity. Orme-Johnson & Granieri (1977) found significant increases in originality and fluency of visuo-spatial creativity using the Torrance Test of Creative Thinking. They showed that their subjects improved significantly on the fluency and creativity subscales of the Torrance Test of Creative Thinking, and that these improvements were significantly correlated with the number of experiences of siddhis.

Gelderloos et al. (1990b) investigated the nature of the relationship between experiences of transcendental consciousness and psychological health, and found that experience with TM and the TM-Sidhi program was positively related to a general measure of psychological health.

Zika (1987) in his study compared hypnosis with two forms of meditation and a placebo treatment for their effects on the Personal Orientation Inventory (POI). He found that Hypnosis and TM were significantly more effective in facilitating self-actualization with hypnosis showing a slightly stronger effect. Result support research suggesting that hypnosis and meditation are similar in promoting psychological health.

Bono (1984) in his study measured the self-concept (the relationship between one's real and ideal self) of a group of sixteen subjects practicing Transcendental Meditation and a group of twenty control subjects. He found that the meditators showed a dramatic increase in self-regard. He found no significant difference between long- and short-term meditators. Since the meditators had a significantly lower score on self-concept than controls before TM instruction, the author speculated that those choosing to practice TM have greater dissatisfaction with self and are more ready for a change; in this they resemble individuals seeking psychotherapy or other forms of help, so other disciplines of self-improvement may work as well as TM in improving their self-esteem.

In another study Fehr et al. (1977) took forty-nine subjects practicing the TM technique. They were given the Freiburger Personality Inventory and were found less nervous, less aggressive, less depressed, less irritable, more sociable, more self-confident, less domineering, less inhibited, more emotionally stable, and more self-reliant than a comparison group constructed from available age and sex norms. They were normally extroverted.

Fehr (1977) administered the Freiburger Personality Inventory to a group of thirty-seven subjects three times: before they learned the TM technique, approximately

seven weeks later, and approximately fifty-five weeks later. At the time of the last testing, twelve subjects had discontinued meditation and were treated as a control group. At the third testing, the twenty-five meditating subjects showed significantly better scores than the control group on the following five scales: nervousness, depression, irritability, inhibition, and neuroticism.

Vanden Berg & Mulder (1976) conducted two studies and examined changes in personality brought about by the practice of TM. First, short-term meditators were compared with non meditating controls on the Netherlands Personality Inventory. They found significant reductions in physical and social inadequacy, neuroticism, depression, and rigidity in short-term meditators, and found no change occurred in the control group. The second study compared long-term meditators with non meditating students on the Netherlands Personality Inventory, Quality Inventory, Self-Esteem Inventory, Self-Actualization Inventory, and Ego Strength Scale. They pointed that long-term meditators showed remarkably higher levels of self-esteem, satisfaction, ego strength, self-actualization, and trust in others, as well as improved self-image as measured by the Self-Ideal Self Scale of the Quality Inventory.

Contemporary studies indicate that meditation and practices such as Progressive Relaxation reduce both acute and chronic anxiety.

Delmonte (1985b) in a review of the literature on meditation and anxiety reduction, and pointed that those who practice meditation regularly tend to show significant decreases in anxiety, although meditation does not appear to be more effective than other types of intervention, such as hypnosis [Edwards (1991) and Eppley et al. (1989)].

Kabat-Zinn et al. (1992) in a group of twenty-two study participants screened with a structured clinical interview and found to meet the DSM-III-R criteria for generalized anxiety disorder or panic disorder with or without agoraphobia. All the subjects participated in an eight-week meditation-based stress reduction and relaxation program with a three-month follow-up period. This study found significant reductions in anxiety and depression scores and a reduction in panic symptoms after treatment for twenty of the subjects—changes that were maintained at follow-up.

Flinton (1998) conducted an experiment on 42 adolescent boys residing in a camp for juvenile delinquents were separated into two groups that participated in (reverse order) an eight-week meditation program condition that taught progressive relaxation, concentration techniques, and mindfulness meditation and an eight-week video/discussion group condition. There was a significant reduction in anxiety and an increase in internal locus of control (as measured by the Brief Symptom Inventory and Pugh's Prison Locus of Control Scale) after participation in the meditation program, with no changes in the video/discussion control condition.

Disayavanish (1995) conducted an experiment on an experimental group of 100 meditators and a control group of 50 non-meditators in Chiangmai, Thailand participated were assessed pre/post vipassana mediation retreat. Results demonstrated that compared to the control group, participants in the meditation program showed reduced levels of psychopathology based on the following SCL-90-R variables: obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism.

Somatization did not appear to be affected by the meditation treatment. Gender did not appear to moderate the treatment effect.

Edwards (1991) conducted a meta-analysis to determine the effects of meditation and hypnosis techniques on psychometric measures of anxiety. The main measure employed in the evaluated research was the State-Trait Anxiety Inventory. The analysis included twenty-one hypnosis studies and fifty-four meditation studies. It was found that both techniques were effective in reducing measures of state anxiety. It was also found that measures of trait anxiety, meditation was more effective.

Kindlon (1983) selected thirty-five undergraduate volunteers randomly assigned them to either a meditation group or a sleep/rest control group balanced for expectancy to compare the function of these treatments in the alleviation of test anxiety. Self-report, performance, and measured physiological indices, as moderated by gender, Scholastic Aptitude Test score, frequency of practice, repression, and expectancy of relief. The treatments were equally effective in reducing test anxiety.

DeBerry (1982) arranged a group of thirty-six female volunteers, participated in a twenty-week study designed to evaluate the effects of meditation/relaxation on symptoms of anxiety and depression. 83% subjects were widows. They were selected because of complaints of anxiety, nervousness, tension, fatigue, insomnia, sadness, and somatic complaints. They were randomly assigned into three groups: (1) relaxation/meditation, (2) relaxation/meditation with a ten-week follow-up consisting of practice using relaxation/meditation tapes daily and (3) a pseudo relaxation control group each consists members N=12. The first two

treatment groups received one week of baseline evaluation, ten weeks of weekly thirty-minute training sessions. The 2nd group received a ten-week follow-up, with taped relaxation sessions. The control group followed an identical schedule for ten weeks but did not participate in the follow-up. The Spielberger Self-Evaluation Questionnaire and the Zung Self-Rating Depression Scale were administered to the treatment groups before treatment, at the end of the ten weeks of training, and again at the end of the follow-up period. In comparison to the control group, the treatment groups manifested a significant pre- to post-treatment decrement for both state and trait anxiety. When the treatment groups were compared as to the efficacy of the follow-up practice sessions, it was found that the practice group continued to show a decrement in state anxiety while the non-practiced group exhibited a return toward baseline levels. For both groups, trait anxiety continued to decrease. In terms of depression, there was a tendency toward a decrease in mean symptom scores that failed to reach significance. Yet, when questions that correlated highly with anxiety and somatic symptoms were removed and analyzed separately, a significant pre- to post-treatment decrement was reported.

Woolfolk et al. (1982) in his study recruited thirty-four subjects from advertisements in local newspapers. They received training in meditation or progressive relaxation, or were assigned to a control group. They were also tested by the SCL-90, IPAT Anxiety Inventory, and the Lehrer-Woolfolk Anxiety Symptom Questionnaire. Subjects' behavior was also rated weekly by a spouse or roommate. Over time result showed that the Progressive Relaxation and meditation treatments significantly reduced the stress symptomatology.

Throll (1981) administered the Eysenck Personality Inventory, the State-Trait Anxiety Inventory, and two questionnaires on health and drug usage on thirty-nine subjects before they learned TM or progressive relaxation. They were tested immediately after they had learned either technique and then retested five, ten, and fifteen weeks later. In the pretest no significant differences were found between groups for any of the psychological variables. At posttest the TM group displayed more significant and comprehensive results (decreases in Neuroticism/Stability, Extraversion/Introversion, and drug use) than of the progressive relaxation group. Both groups exposed significant decreases in State and Trait Anxiety.

Thomas and Abbas (1978) in their study used the Middlesex Hospital Questionnaire (that measures free-floating anxiety and obsessions) and the Spielberger State-Trait Anxiety Inventory; they found TM and progressive relaxation equally effective in reducing anxiety among a group of anxious subjects.

Stern (1977) administered the Trait Anxiety Scale of Spielberger's State-Trait Anxiety Inventory to an experimental group of thirty-seven subjects practicing the TM technique and to a control group of fifteen subjects not practicing TM. The meditators were found to be significantly less anxious than the nonmeditators.

Kanas & Horowitz (1977) in their study experimentally tested the claimed stress-reducing effects of TM. Two stress based films were shown to two groups of sixty meditators and nonmeditators. Their stress response was observed through the use of cognitive and affective measures, using content analysis techniques and self-ratings scale. A third group of subjects who signed to be initiated into TM rated them significantly more emotionally distressed on several self rating scales than

either a control group or other meditators. There was a trend for meditators who meditated during the experiment to show less stress response to the films than meditators who were told not to meditate. However, this difference was significant on only one measure, a subjective stress scale.

Goleman & Schwartz (1976) in another study compared meditation and relaxation to justify their ability to reduce stress reactions creating a laboratory threat situation. They assigned Thirty experienced meditators and thirty controls both meditated and relaxed, with eyes closed or with eyes open, then watched a stressor film. They assessed stress response by phasic skin conductance, heart rate, self-report, and personality scales. They found that the meditators habituated heart rate and phasic skin-conductance responses more quickly to the stressor impacts and experienced less subjective anxiety (using the Activity Preference Questionnaire, State-Trait Anxiety Inventory, and Eysenck Personality Inventory).

Hjelle (1974) conducted a study on fifteen experienced TM meditators and twenty-one novice meditators. He administered Bendig's Anxiety Scale, Rotter's Locus of Control scale, and Shostrom's Personal Orientation Inventory of self-actualization. The prediction was experienced meditators were significantly less anxious and more internally controlled than beginning meditators. Similarly, experienced meditators were significantly higher, i.e., more self-actualized, on seven of Shostrom's twelve subscales.

Nidich et al. (1973) introduced the State-Trait Anxiety Inventory A-State Scale to eight experimental subjects and nine control subjects two days before the experimental subjects began learning the TM technique. After six weeks the subjects were asked to carry out a demanding task; immediately afterward the

control group was instructed to sit with eyes closed and the experimental group to meditate for fifteen minutes. Then the anxiety scale was readministered. Result shows mean anxiety scores for the two groups were not significantly different on the first administration of this test. At the second administration of the test, the reduction in anxiety was significantly greater for the meditators.

Alexander et al. (1993), Weinstein and Smith (1992), Snaith et al. (1992), Fulton (1990), Coleman (1990), Traver (1990) and many other researchers also reported that meditation reduces anxiety.

Studies have been conducted to investigate the relationship between Meditation and Subjective Well-being.

Nathawat (1996) conducted a study and found that meditation appears to be useful procedure for alleviating stress or way of enhancing psychological well-being. He concluded that the role of meditation in enhancing long-term happiness or psychological well-being needs to be explored in more depth by clinical & health psychologists.

Shapiro (1992) found that meditation brings greater happiness and joy, positive thinking, increased self-confidence, effectiveness (getting things done), and better problem-solving skills.

A research was conducted by Kim et al. (2008). They examine the relation of meditation to power and well-being in Korean adults. Using a quasi-experimental design, meditation was provided through a chakra meditation music program over a 4 week period. The Power as Knowing Participation in Change Tool and the Well-Being Picture Scale were used, after being translated into Korean. They found Statistical significant interaction effects of power and group ($p < .001$), and

well-being and group ($p < .05$). Meditation has a potential to facilitate power and well-being in the human and environmental field patterning process.

Carmody & Baer, (2007) investigated the relationships between home practice of mindfulness meditation exercises and levels of mindfulness, medical and psychological symptoms, perceived stress, and psychological well-being. This was an 8-session group program for individuals dealing with stress-related problems, illness, anxiety, and chronic pain. Participants completed measures of mindfulness, perceived stress, symptoms, and well-being at pre- and post-MBSR, and monitored their home practice time throughout the intervention. Results showed increases in mindfulness and well-being, and decreases in stress and symptoms, from pre- to post-MBSR. Time spent engaging in home practice of formal meditation exercises (body scan, yoga, sitting meditation) was significantly related to extent of improvement in most facets of mindfulness and several measures of symptoms and well-being. Increases in mindfulness were found to mediate the relationships between formal mindfulness practice and improvements in psychological functioning. They suggested that the practice of mindfulness meditation leads to increases in mindfulness, which in turn leads to symptom reduction and improved well-being.

In a study, researcher Lutz et al. (2008) showed that regular meditation practice helps keep emotional balance and well being by improving attention and memory.

Gelderloos, (1987) reported that meditation increased psychological health as indicated by unifying ability, autonomy, intrinsic spirituality, creativity, directedness, well-Being, and integration of the personality.

20 patients (mean age 38 yrs) undergoing long-term (from 1 to 10 yrs) individual dynamic-explorative Psychotherapy participated in a 10-wk group meditation

program. Result shows that significant improvements in the well-being of subjects as rated by themselves and their individual psychotherapists. Subjects and therapists identified similar areas of improvement, such as anxiety and depression. Therapists reported marked improvement in the development of insight. Results indicate that meditation can be an important adjunct to psychotherapy (Kutz et al., 1985a,1985b).

Aron et al. (1981) reported that meditation increases intelligence; increases self-confidence; increases sociability; improve psychological health; increase social maturity.

There is a vast panorama of ancient literature that suggests various ways of enhancing happiness & subjective well-being. Meditation is figured as one of the important technique in this direction (Carrington & Ephron, 1975; Vahia et al., 1975).

Assessment of the subjective well being and anxiety levels after a brief lifestyle modification educational program based on the principles of yoga showed improvement of both the parameters in two separate studies (Sharma et al. 2004; Gupta et al. 2006). A separate study conducted on 38 patients revealed that the intervention was effective in reducing the state anxiety in males but anxiety as a trait was more effectively reduced in females (Singh et al. 2003). With the same lifestyle intervention, serum lipids and fasting plasma glucose levels were found to be improved in ninety-eight subjects (Bijlani et al. 2005). These studies suggest that a yoga-based short educational program positively modifies the people's subjective well being and anxiety levels.

Kingston et al. (2007) conducted a study to investigate the effect of mindfulness meditation practice on pain tolerance, psychological well-being, and physiological

activity. Result shows that mindfulness meditation practice increases pain tolerance, psychological well-being, and physiological activity.

Recent research by prominent neuroscientists in the United States has shown that for experienced meditators, activity in the area of the brain associated with happiness is more persistent. Moreover, it also appears that experienced meditators don't get nearly as flustered, shocked or surprised by unpredictable events as do non-meditators. (Owen Flanagan, *New Scientist*, 24 May 2003).

77 patients with fibromyalgia participating in a 10-wk mindfulness meditation-based stress reduction program showed improvement on measures of global well-being, pain, sleep, fatigue, and the experience of feeling refreshed in the morning, medical symptom checklist, psychiatric symptoms (SCL-90 Revised), coping strategies, fibromyalgia impact, and attitudes toward fibromyalgia (Kaplan et al., 1993).

Smith et al. (1995) studied 36 undergraduate volunteers, and found that meditation had a positive effect as part of a 'happiness enhancement program'. A three-year study with 22 subjects showed positive effects on people diagnosed with anxiety disorders, using a meditation-based stress reduction intervention (Miller et al., 1995).

Jedrczak (1985) reported that meditation enhanced creativity and intelligence. A study examines the impact of yoga, including physical poses, breathing, and meditation exercises, on quality of life (QOL), fatigue, distressed mood, and spiritual well-being among a multiethnic sample of breast cancer patients by Moadel et al., (2007). They investigated on 128 randomly assigned patients, recruited from an urban cancer center. Result of the study suggests that yoga is associated with beneficial effects on social functioning among a medically diverse

sample of breast cancer survivors. Among patients not receiving chemotherapy, yoga appears to enhance emotional well-being and mood and may serve to buffer deterioration in both overall and specific domains of QOL.

Aron & Aron (1982) reported that meditation bring greater marital adjustment. Another study on The influence of the Transcendental Meditation program on the marital dyad, Marcus (1977) showed that meditation decreased nervousness, increased sociability, energy, and enthusiasm; increased ability for spontaneous expression of warmth and affection; Increased ability to be sympathetic, compassionate, and understanding, increased ability to be objective, fair-minded, and reasonable; increased tolerance and acceptance of others; increased self-discipline, decreased impulsiveness, increased emotional maturity; decreased proneness toward anxiety.

Kam-Tim (1995) found that meditation brings increased creativity, increased fluid intelligence (increased ability to perceive complex relations, more effective use of short term memory, improved ability to reason abstractly), increased field independence, increased constructive thinking, improved emotional coping, improved behavioral coping, improvements on categorical thinking, increased flexibility of attitude and increased tolerance of others, and also decreased state and trait anxiety.

In their research Hanley & Spates (1978) found that the effect of Transcendental Meditation in the meditators' are more positive conception of human nature, more positive self-image, higher levels of tolerance, greater sociability, less pronounced feelings of social inadequacy.

Throll & Throll (1977) shows that meditation increases in: ego strength, emotional stability and maturity, emotional harmony and absence of regressive behavior,

emotional strength, intelligence, self-sufficiency and resourcefulness, contentment, enthusiasm for work, trust, tolerant and participating attitude, more confident attitude, creativity. And meditation decreases in: depression, decreased over-reactionary behavior, lessening of unwelcome thoughts or compulsive habits, anxiety and tension.

Smith et al. (1995) investigated factors associated with Massage, Abbreviated, Progressive Muscle Relaxation (PMR), Yoga Stretching, Imagery and Meditation amongst 940 practitioners, who describe their technique experience. Major relaxation related qualities were found namely ability to experience joyful affects and appraisals, being distant and calm, awareness, prayerfulness, acceptance, being untroubled and silent. Somatic specificity models predict calmness and non-tension, yoga stretching, breathing and meditation are associated with awareness, only meditation with prayerfulness and all techniques except PMR with joyful affect. Results are consistent with cognitive behavioral relaxation theory, treatment, training, assessment and research. A revised model is presented with three global dimensions: tension-relief, passive-disengagement and passive engagement.

Ott et al. (2005) reviewed 9 research articles published in the past 5 years and 5 conference abstracts published in 2004. Most studies were conducted with breast and prostate cancer patients, and the mindfulness intervention was done in a clinic-based group setting. Consistent benefits of mindfulness meditation -- improved psychological functioning, reduction of stress symptoms, enhanced coping and well-being in cancer outpatients--were found.

Cameron et al. (2007) conducted a study and assessed the efficacy of a group intervention in altering emotion regulation processes and promoting adjustment in

women with breast cancer. They used a design with 10 alternating phases of availability of the intervention versus standard care, they assessed women participating in one of three conditions: a 12-week group intervention (N = 54); a decliner group who refused the intervention (N = 56), and a standard care group who were not offered the intervention (N = 44). The intervention included training in relaxation, guided imagery, meditation, emotional expression, and exercises promoting control beliefs and benefit-finding. Emotion regulation processes and adjustment were assessed at baseline, 4 months (corresponding with the end of the intervention), 6 months, and 12 months. At 4 months, intervention participants (compared to decliners and standard care participants) reported greater increases in use of relaxation-oriented techniques, perceived control, emotional well-being, and coping efficacy, and, greater decreases in perceived risk of recurrence, cancer worry, and anxiety. Intervention participants also reported relatively greater decreases in emotional suppression from baseline to 12 months. Finally, they suggested that the intervention had a delayed impact on these tendencies.

Pradhan et al. (2007) conducted a pilot study to assess the effect of a Meditation training program, Mindfulness-Based Stress Reduction (MBSR), on depressive symptoms, psychological status, and disease activity in patients with Rheumatoid Arthritis (RA) through a randomized, waitlist-controlled. They randomized participants to either an MBSR group, where they attended an 8-week course and 4-month maintenance program, or to a waitlist control group, where they attended all assessment visits and received MBSR free of charge after study end. Participants received usual care from their rheumatologists throughout the trial. Self-report questionnaires were used to evaluate depressive symptoms, psychological distress, well-being, and mindfulness. Evaluation of RA disease activity (by Disease Activity Score in 28 joints) included examination by a

physician masked to treatment status. Sixty-three participants were randomized: 31 to MBSR and 32 to control. At 2 months, there were no statistically significant differences between groups in any outcomes. At 6 months, there was significant improvement in psychological distress and well-being and marginally significant improvement in depressive symptoms and mindfulness. There was a 35% reduction in psychological distress among those treated. Results indicate that, significant improvements in psychological distress and well-being were observed following MBSR plus a 4-month program of continued reinforcement. Mindfulness meditation may complement medical disease management by improving psychological distress and strengthening well-being in patients with RA.

Al-Hussaini et al. (2001) conducted a study to assess the effect of Vipassana meditation on physical and psychological health. The subjects were attending of a 10 days Vipassana meditation course. Self assessments of health-related parameters and physical and psychological symptomatology were collected from them before and immediately after the course. A control group did not take part in the meditation sessions but was tested for a similar time interval. The result shows that – immediately after their 10-day training, the Vipassana participants assessed themselves significantly higher than their levels prior to the course, suggesting that Vipassana meditation practice had significantly improved their physical and psychological well-being. The control group did not exhibit such changes.

Davidson & Goleman (1977) noted that individuals who practiced meditation achieved a higher score on various indices of psychological well-being and on hypnotic susceptibility.

Hall (1999) found that, meditation can reduce anxiety, increase well-being, reduce psychological distress and improve cognition. Among other positive outcomes,

meditation has been credited with reducing blood pressure, anxiety, addiction and stress, while relaxation response has been shown to decrease sympathetic nervous system (SNS) activity, metabolism, pain, anxiety, depression, hostility and stress. It is concluded that while findings from cognitive neuroscience on the subject of visual imagery can be used to elucidate genres of meditative practice that focus on internal visualization sequences, certain integral aspects of meditation forever will remain beyond scientific grasp.

Alexander et al., 1989 reported that meditation increased efficiency and productivity, improved work and personal relationships, reduced anxiety, reduced job worry and tension, improved job satisfaction, improved general health, enhanced sleep and reduced fatigue, reduced cigarette and liquor consumption, increased physiological stability during task performance.

Chapter-III

Objectives of the Study

Chapter – 3

OBJECTIVES OF THE STUDY

A survey of the literature reveals that a large number of studies have been conducted on Transcendental Meditation, Zen Meditation, Herbert Benson's 'relaxation response' to investigate their influence on their practitioners. It has been found that meditation lowers the heart rate. Bagga & Gandhi (1983), Bono (1984), Delmonte (1984f), Pollared & Ashton (1982), Lang et al. (1979), wallace (1971) also found similar findings in their studies.

It has been found that, meditation decreases blood pressure, Cort (1989), Wallace et al. (1983b), Rainforth et al. (2007), Shapiro et al. (1997) also found similar findings in their studies.

Experimental evidences indicate that meditation increases alpha rhythms of the brain. Orme-Johnson et al. (1977 b) reported that it is positively correlated with creativity.

It is evident that several psychological results that are opposite to stress are produced by meditation. From some research, researchers found the fact that stress induced adrenal hormone levels do not fall consistently in the blood of meditators. Benson (1983 a), Benson (1989), Mills et al. (1990), Engle (1983), Werner et al. (1986) also reported that during meditation adrenal hormone decreases.

Anxieties have been associated with high blood lactate concentrations and high blood pressure, and the infusion of lactate in the blood has been found to produce symptoms of anxiety. Bagga et al. (1981), Benson et al. (1973 a, 1973 b), Jevning and wilson (1977), and other researchers reported that blood lactate declines during meditation.

The view of most contemplative teachings is that meditation can reduce the turbulence and distress of ordinary life. The inner turnings of the mind's substance, the citta-vritti as are described in patanjali's yoga sutras, can be calmed so that a clearer and deeper apprehension of inner and outer worlds might ensure. This calming also enhances a growing efficiency of mind and body and a concomitant reduction in the organism's consumption of energy. The contemplative transformation embedded in Hindu, Buddhist, Taoist and other teachings, that correspond to the contemporary studies of meditation's effects on breathing. Some about forty studies states that during meditation oxygen consumption is as well as that carbon dioxide elimination and respiration rate are also reduced, thus minute volume is lowered. Other studies showed that oxygen consumption was decreased at a fixed intensity in subjects working, and that meditators can often suspend breathing longer than control subjects without apparent ill effects

Findings of the studies strongly suggest that meditation lowers the body's need for energy and the oxygen to help metabolize it. Such calming of the organism, happens for the most part in quiet meditation of the TM or Zagen type, that does not happen in active, high-arousal practices such as Ananda Marga Yoga.

From different studies Sudsuang et al. (1991), Kesterson (1986), Wolkove et al. (1984) and many other researchers found that oxygen consumption and carbon dioxide elimination are reduced and respiration rate is lowered during meditation.

Many other researchers such as Brown et al. (1984 a, 1984 b), Heil (1983), Shapiro (1980 a), Linden (1973), Nolly (1975) have found that meditation increases perceptual ability.

Contemporary studies indicate that meditation reduces both acute and chronic anxiety. Delmonate (1985b), Kabat-Zinn et al. (1992), Flinton (1998), Disayavianish (1995) and many other researchers also reported that meditation reduces both types of anxiety. Researchers Solberg et al. (1996), Sarang et al. (2007) found that Meditation reduces stress and anxiety, improves attention, memory, creativity, job performance.

Researchers Sing et al. (2008), Barnes et al. (2003), Barnhofer et al. (2007) and many other researchers found their studies that meditation corrects various types of behavioral problems.

Meditation reduces psychological distress, anxiety and improves cognition quality of life and increases psychological well-being. For example, Nathawal (1996) found that meditation alleviates stress and enhances psychological well-being. Similar findings have been reported by Kim et al. (2008), and Shapiro (1992). The latter investigator concluded that meditation enhances happiness and joy, positives thinking, self confidence, effectiveness and problem solving skill. These findings were also reported by many other investigators.

Thus a careful survey of the related literature reveals that meditation reduces high blood pressure, anxiety, addiction and stress of the people. The relaxation response has also been shown to decrease activity of sympathetic nervous system, metabolism, pain, depression, hostility and stress. It has also been observed that there are inverse relationships of subjective well-being with anxiety, stress and depression.

Thus the preceding overview of the literature suggests that the relationship between Subjective well-being and meditation by Quantum Method can be

investigated. The broad objectives of the study were to investigate the effect of Meditation on Subjective well-being of the individual. The specific objectives of the present study may be stated as follows.

1. To investigate the effect of meditation by Quantum Method on overall Subjective well-being status of the respondents.
2. To investigate the effect of mediation by Quantum Method on different dimensions of Subjective well-being status of the respondent.

Hypothesis of the study

On the basis of the findings of previous studies, theoretical perspective and above discussion, the following hypothesis is formulated to test in the present study:

“Meditation by Quantum Method increases Subjective Well-being of the individual”.

Chapter-IV

Methods

Chapter-4

METHODS

Design of the Study

The study was conducted to investigate the effect of Meditation by Quantum Method on Subjective Well-being. Repeated Measurement design was employed in this study. First Subjective Well-Being Questionnaire of Nagpal and Sell (1985) was administered on 307 individuals who came to participate in meditation by Quantum Method –courses (pre meditation). The questionnaire was again applied on the same subjects after the completion of the course of 40 hours duration (post meditation I). The subjects were again tested after practice of 6 months (post meditation II) and also after practice of 12 months (post meditation III) using the same questionnaire. Comparisons were made among the obtain scores of Subjective Well-being scale employing t- test

Materials used for collecting data

In this study the data collection was done using the following materials.

- a) Personal information Blank,
- b) The Bangla version of the Subjective Well-being Questionnaire.

These two materials were presented together in the form of a booklet.

a) Personal information blank

This part of the instrument contained personal information including the age, sex, occupation, frequency of practice of Meditation etc. (Appendix- A).

b) Subjective Well-being Questionnaire

A Bangla adaptation of the short version of Nagpal and Sell (1985) Subjective Well-being Questionnaire was used to measure the Subjective Well-being of the

respondents. The authors identified eight theoretical areas of concern by using factor analysis. These were:

i) Subjective well-being- positive affect

Here, items were included on specific life concern such as health, education, work, standard of living, family and friends, as well as some items reflecting the perception of well-being in an overall perspective.

ii) Subjective well-being- negative affect

Most of the items here were inverses of the questions relating to positive affect. Some items reflected the most frequently reported complaints in 'psychological cases'. These intended to elicit the respondent's general unhappiness and his/her worries or regrets about particular life concerns.

iii) Mental mastery over self and environment

Here it was assumed that a respondent's feeling of his/her performance in matters requiring the exercise of mental mastery may also be an important area.

iv) Rootedness, belongingness

It was hypothesized here that the perception of sharing values, beliefs, and qualities of inner life may also form a special dimension of well-being.

v) Structural and cohesive aspects of the family

The structural aspects of family life and democratic functioning in the family are related to each other and have a substantial impact on well-being.

vi) Density of social network

Items in this were meant to elicit information on perceived well-being from the social networks other than the family group.

vii) Security in health and socio-economic crisis

The questions in this area were meant to cover the respondent's feelings of security in the case of various crisis situations.

viii) **Expectation-achievement harmony**

Items in this area were meant to explore an area of well-being through of as particularly important, viz., the extent to which long-term expectations in life had been met by actual achievements.

The questionnaire consists of 82 items covering the above-mentioned areas. Thus it measures of Subjective Well-being. (Dimension wise item arrangement and total items of each of the eight dimensions have been shown in appendix-D). The aim of these questions was to evoke patterns of emotional evaluation. In contrast to the questions relating to negative affect elicited the respondent's unhappiness or worries or regret about a particular life concern. In general, the questions were structured in a manner to permit three response categories, sometimes four. The scale represents very positive affirmation (e. g., very happy); positive feelings (e. g., quite happy); neutral or negative assertion (e. g., not so happy); and in some cases not applicable. Similarly, the response categories on the negative questions like worry over some things very much, to some extent, not so much were meant to cover a very bad feeling up to a neutral or positive feelings. Thus, the response scales were drafted to discriminate between the moments of positive or of negative feelings about the concern in question, the end point in each case being a state without feelings. One copy each of Bangla and English versions of the questionnaire are enclosed with the thesis as appendix-B and appendix-C respectively.

Scoring of the Subjective Well-being Questionnaire

The different categories of response were scored according to the following manner-

<i>Response categories</i>	<i>Score</i>
1. Very good, very happy, very much, Most of the times Quite deeply, Quite often, Yes	1
2. Quite good, Quite happy, To some extent, No	2
3. Not so good, Not so much, Not so happy, Hardly ever, Rarely/Never	3
4. Not applicable	4

Items of the questionnaire were scored 1, 2, 3, or 4 according to response categories indicated by the respondents in the test booklet. The response categories of 76 items were 1 to 3 and 6 items were 1 to 4. So, the maximum possible score for a respondent is 252 and the minimum is 82. The middle score point of the scale is 167. (Possible score range and middle point of each of the eight dimensions have been shown in appendix-D). A respondent's total score is the sum of the numerical values of responses to all items. High total scores indicate poor Subjective Well-being and low total scores indicate better Subjective Well-being.

Some information about the Bangla version of the Subjective Well-being Questionnaire

Bangla version of the Subjective Well-Being Questionnaire of Nagpal and Sell (1985) was developed by Hamida Akter Begum (1990). In developing the Bangla version of the questionnaire, each item was translated and adapted in Bangla and was judged by three psychologists and an English language expert of the Dhaka University independently. The final form of the questionnaire was adopted on the basis of agreement of all the judges. This Bangla version of the Subjective Well-being Questionnaire was earlier used in different studies (Mahmuda, 1998; Begum, & Mahmuda, 1999; Khan, 2004; Muhammad, 2008) in Bangladesh before using it in the present study.

Sample

The sample of the present study consists of 307 respondents. They were selected from the participants' who came from different areas of Bangladesh to participate in different batches (25 batches) of Quantum Method Meditation Courses. These courses held at different times and in different places of Bangladesh such as - Dhaka, Chittagong, Sylhet, Khulna, Rajshahi and Jessore. Among the participants 174 were male and 133 were female. Their age ranges were from 18 to 68 years. They were of a wide variety of professional identity and educational backgrounds. It can be pointed out that 1195 individuals were tested in pre meditation test.

Among them 307 continued their practice of Meditation by Quantum Method. These 307 practitioners constituted the sample of the study.

Procedure

During the first arrival of the Meditation seeking participants to the Quantum Foundation, they were first registered to participate in the Course. After the registration, they were requested individually to take part as respondent in the present study. Those who agreed to take part were then requested to fill-up the Personal Information Blank. The participants were then requested again to respond to the Bangla version of the Subjective Well-Being questionnaire. This was the first phase (Pre-Meditation) of data collection.

In the second phase (Post-Meditation -I), the Subjective Well-Being questionnaire was employed on the same respondents after their completion of 40 hours of Meditation Course.

In the third phase of the study (Post-Meditation-II), the Personal Information Blank was altered in accordance to the requirements of the present study. And the Subjective Well-Being questionnaire was again employed on the same respondents after six months of completion of the second phase.

Finally, in the fourth phase (Post-Meditation-III), the same Information Blank (as third phase), and the Subjective Well-Being questionnaire was further employed after the completion of the six months of the third phase and/or the completion of 12 months of completion of the second phase.

The Bangla version of the Subjective Well-Being questionnaire is self administering in nature. No specific instruction was given to the literate respondents. The respondents went through the instruction given on the front page of the booklet. The instruction given on the front page was as follows:

“People are different. They live in a variety of situations and they do not feel the same way about life and the world around them. From a practical viewpoint, it is

important to know how different persons feel with regard to their day-to-day concerns such as their health, family, work, etc. Such knowledge is necessary if an improvement in the quality of life of people is to be brought about.

This is a questionnaire on how you feel about some aspects of your life and about your life as a whole. Each question may be answered by any one of the given categories by putting a circle 'O' around the number which seems to represent your feelings best. For example, in the first question if you feel your general health is very good and you feel physically fit, please put a circle around the response 'very good' O. At times you may find that your feeling is not represented perfectly by any one of the given response categories. In such cases, just choose the one closest to what you think.

You may find that some questions appear repetitive. Nonetheless, please answer them all. You don't need to have your answers agree with each other.

This questionnaire may appear rather long to you. But if you work as fast as you comfortably can, you will find that it does not really take very long to fill in.

All information given by you will be treated as confidential and will be used only for research purposes. Thank you."

The illiterate or lower academic backgrounds of respondents were verbally informed the instructions given on the questionnaire booklet and the items of the questionnaire by the researcher. They were then asked to give their opinion. According to the opinions, the researcher marked the answer. Thus the data were collected.

After the respondents had completed their task according to the instructions, the questionnaire booklets were collected from the respondents.

Chapter-V

Results

Chapter-5

RESULTS

The study was designed to investigate the effect of meditation by Quantum Method on Subjective Well-being (SWB) of the individual. Repeated measurement design was used in this study. Bangla version of the Subjective Well-being Questionnaire of Nagpal and Sell (1985) was administered on the subjects before their participation in a course of meditation of forty hours duration (pre meditation). The test was again applied on the same subjects after the completion of the course (post meditation-I). The subjects were again tested after practice of six months (post meditation-II) and also after practice of twelve months using the same test (post meditation-III).

The Subjective Well-being Questionnaire of Nagpal and Sell (1985) measures eight dimensions of Subjective Well-being separately, the overall well-being may also be measured. The score of each respondent on each of the eight dimensions as well as overall scores were computed separately for each application. In order to analyze the effect of independent variable comparisons were made among the four sets of the scores on overall subjective well-being employing t- test.

Table 1: The results of the comparisons among different tests (t test) on total scores

Variables compared	N	Mean	SD	Standard error of difference	t	df	Level of significance
Pre and Post 1	307	165.99	13.56	0.6658	10.004	306	P <0.001
	307	159.33	12.54				
Pre and Post 2	307	165.99	13.56	0.9247	10.899	306	P <0.001
	307	155.91	16.14				
Pre and Post 3	307	165.99	13.56	0.8125	15.583	306	P <0.001
	307	153.33	11.71				
Post 1 and Post 2	307	159.33	12.54	0.8130	4.203	306	P <0.001
	307	155.91	16.14				
Post 1 and Post 3	307	159.33	12.54	0.7227	8.302	306	P <0.001
	307	153.33	11.71				
Post 2 and Post 3	307	155.91	16.14	0.6962	3.710	306	P <0.001
	307	153.33	11.71				

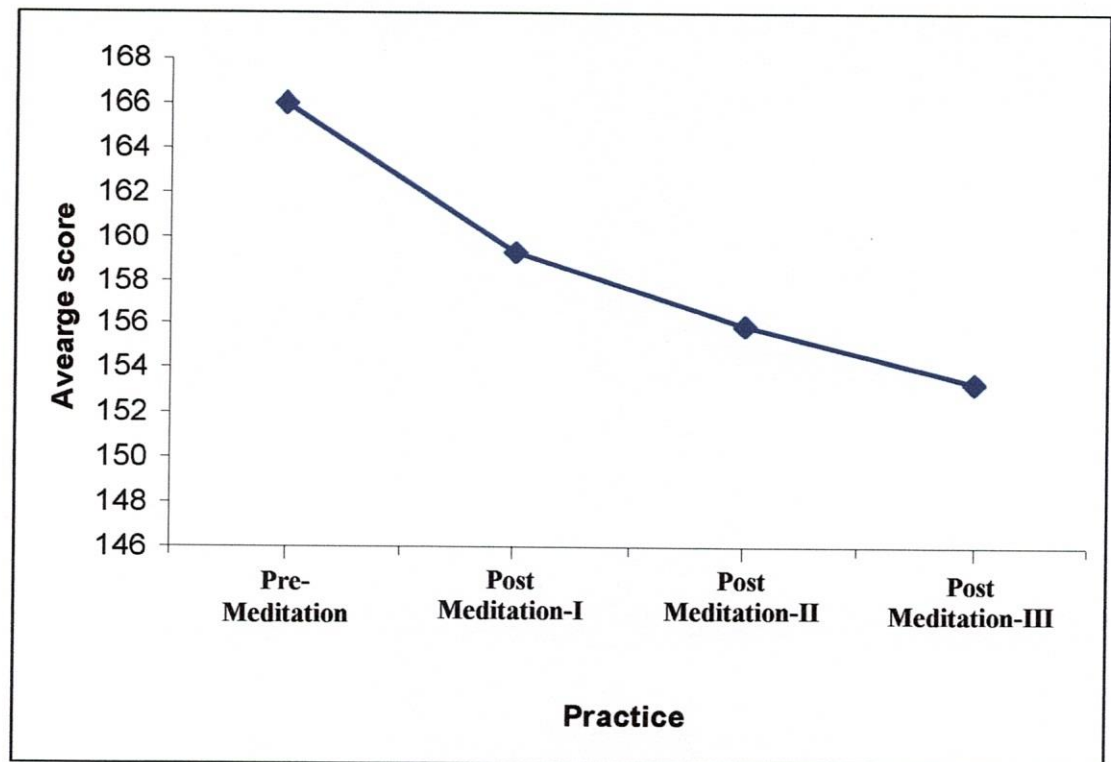


Fig: 1: Overall mean scores of SWB as a function of degree of practice.

Table -1 presents the results of t- test on overall scores. The results have also been plotted in fig: -1. The fig: -1 indicates a gradual declination of overall mean score as a function of degree of practice of meditation. The table -1 shows that the overall mean score of subjective well-being of post meditation -I was significantly lower than that of pre meditation ($p < 0.001$). It has been found that the overall mean score of subjective well-being of post meditation -II was significantly lower than those of pre meditation ($p < 0.001$) & post meditation -I ($p < 0.001$). The results also show that the overall mean score of post meditation -III was significantly lower than those of pre meditation ($p < 0.001$), post meditation -I ($p < 0.001$) & post meditation -II ($p < 0.001$). Thus the fig: -1 and the results presented in Table -1 suggest that subjective well-being of the practitioners gradually increases as a function of their degree of practice.

Table 2: The results of the comparisons among different tests (t test) on scores of SBW- positive affects

Variables compared	N	Mean	SD	Standard error of difference	t	df	Level of significance
Pre and Post 1	307	30.38	6.22	0.2912	18.736	306	P <0.001
	307	24.93	5.30				
Pre and Post 2	307	30.38	6.22	0.3478	18.748	306	P <0.001
	307	23.84	5.41				
Pre and Post 3	307	30.38	6.22	0.3690	20.478	306	P <0.001
	307	22.82	5.45				
Post 1 and Post 2	307	24.93	5.30	0.2961	3.652	306	P <0.001
	307	23.84	5.41				
Post 1 and Post 3	307	24.93	5.30	0.3228	6.510	306	P <0.001
	307	22.82	5.45				
Post 2 and Post 3	307	23.84	5.41	0.2784	3.662	306	P <0.001
	307	22.82	5.45				

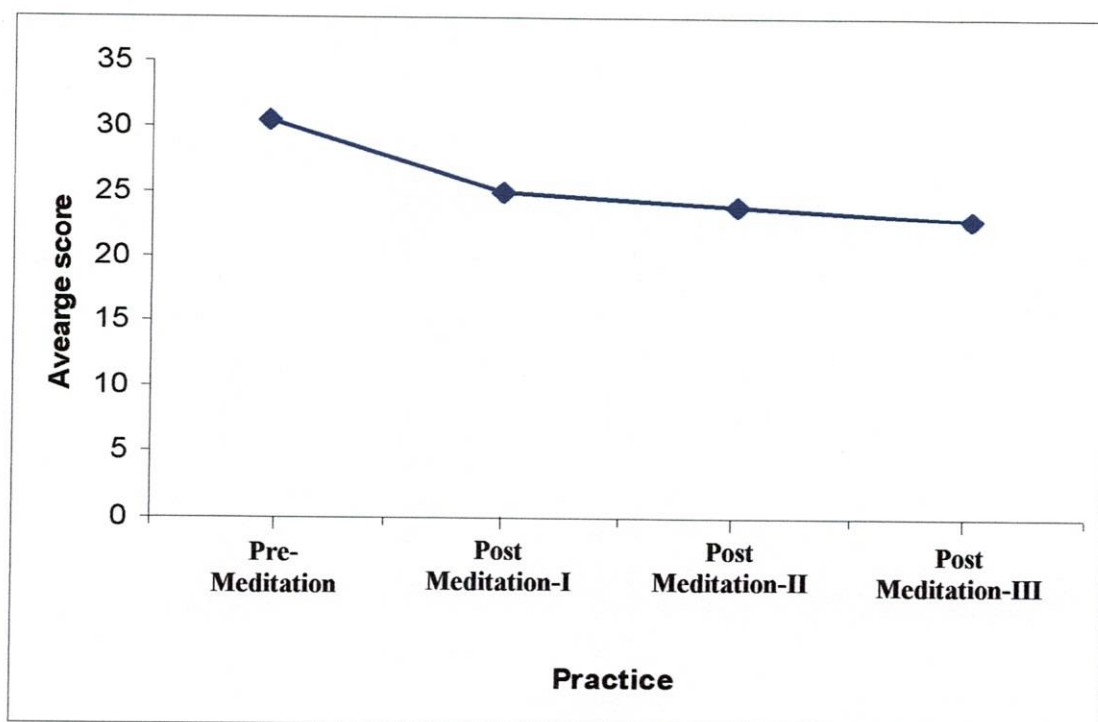


Fig: 2: Mean scores on SWB positive affect as a function of degree of practice.

The effect of independent variable on each dimension of subjective well-being was also analyzed employing t- test. First, the effect of meditation on subjective well-being positive affect was analyzed. Table -2 present the results of t- tests on subjective well-being positive affect scores. The results have also been plotted in fig: -2. The fig: -2 indicate a gradual declination of subjective well-being positive affect score as a function of degree of practice of meditation. The table -2 shows that mean score of subjective well-being positive affect of post meditation -I was significantly lower than that of pre meditation ($p < 0.001$). It has been found that the mean score of SWB positive affect of post meditation -II was significantly lower than those of pre meditation ($p < 0.001$) & post meditation -I ($p < 0.001$). The results also show that the mean score of SWB positive affect of post meditation -III was significantly lower than those of pre meditation ($p < 0.001$), post meditation -I ($p < 0.001$) & post meditation -II ($p < 0.001$). Thus the fig: -2 and the results presented in Table -2 suggest that subjective well-being positive affect of the practitioners gradually increases as a function of their degree of practice.

Table 3: The results of the comparisons among different tests (t test) on scores of SBW- negative affects

Variables compared	N	Mean	SD	Standard error of difference	t	df	Level of significance
Pre and Post 1	307	42.01	7.51	0.3813	-16.154	306	P < 0.001
	307	48.17	7.38				
Pre and Post 2	307	42.01	7.51	0.4690	-4.292	306	P < 0.001
	307	44.02	7.67				
Pre and Post 3	307	42.01	7.51	0.4609	-3.399	306	P < 0.001
	307	43.57	7.03				
Post 1 and Post 2	307	48.17	7.38	0.4396	9.433	306	P < 0.001
	307	44.02	7.67				
Post 1 and Post 3	307	48.17	7.38	0.4465	10.285	306	P < 0.001
	307	43.57	7.03				
Post 2 and Post 3	307	44.02	7.67	0.3653	1.222	306	NS
	307	43.57	7.03				

NS = Non significant

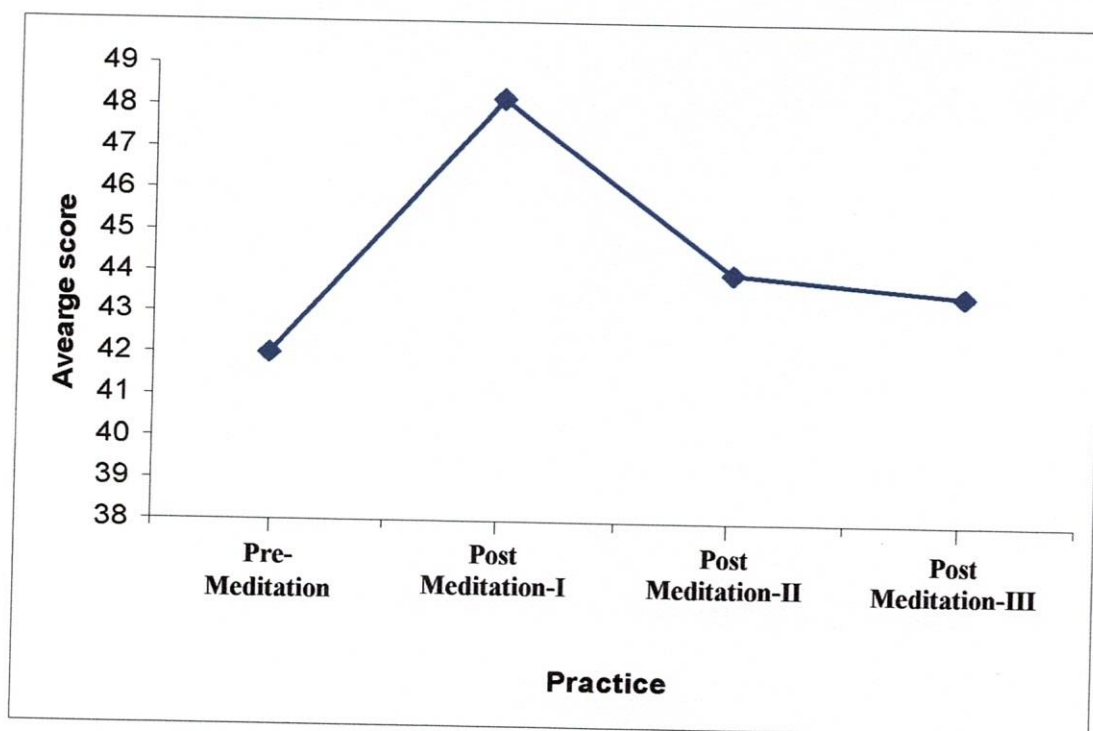


Fig: 3: Mean score on SBW- negative affect as a function of degree of practice.

Then, the effect of meditation on subjective well-being negative affect was analyzed. The results have been presented in Table -3. The results have also been plotted in fig: -3. The fig: -3 indicate a fluctuation of the score of subjective well-being negative affect as a function of level of practice. Table -3 shows that the mean score of post meditation-I is significantly higher than that of pre meditation ($p < 0.001$), post meditation -II ($p < 0.001$) & post meditation -III ($p < 0.001$). The mean score of post meditation -II is also found to be significantly higher than those of pre meditation ($p < 0.001$) & post meditation -III ($p < 0.001$). But there is no significant difference between the scores of post meditation -II & post meditation -III.

Table 4: The results of the comparisons among different tests (t test) on scores of mental mastery over self and environment

Variables compared	N	Mean	SD	Standard error of difference	t	df	Level of significance
Pre and Post 1	307	27.64	3.55	0.2205	5.258	306	P < 0.001
	307	26.48	3.12				
Pre and Post 2	307	27.64	3.55	0.2354	8.332	306	P < 0.001
	307	25.67	3.50				
Pre and Post 3	307	27.64	3.55	0.2408	9.200	306	P < 0.001
	307	25.42	3.28				
Post 1 and Post 2	307	26.48	3.12	0.2055	3.898	306	P < 0.001
	307	25.67	3.50				
Post 1 and Post 3	307	26.48	3.12	0.2268	4.652	306	P < 0.001
	307	25.42	3.28				
Post 2 and Post 3	307	25.67	3.50	0.2419	1.050	306	NS
	307	25.42	3.28				

NS = Non significant

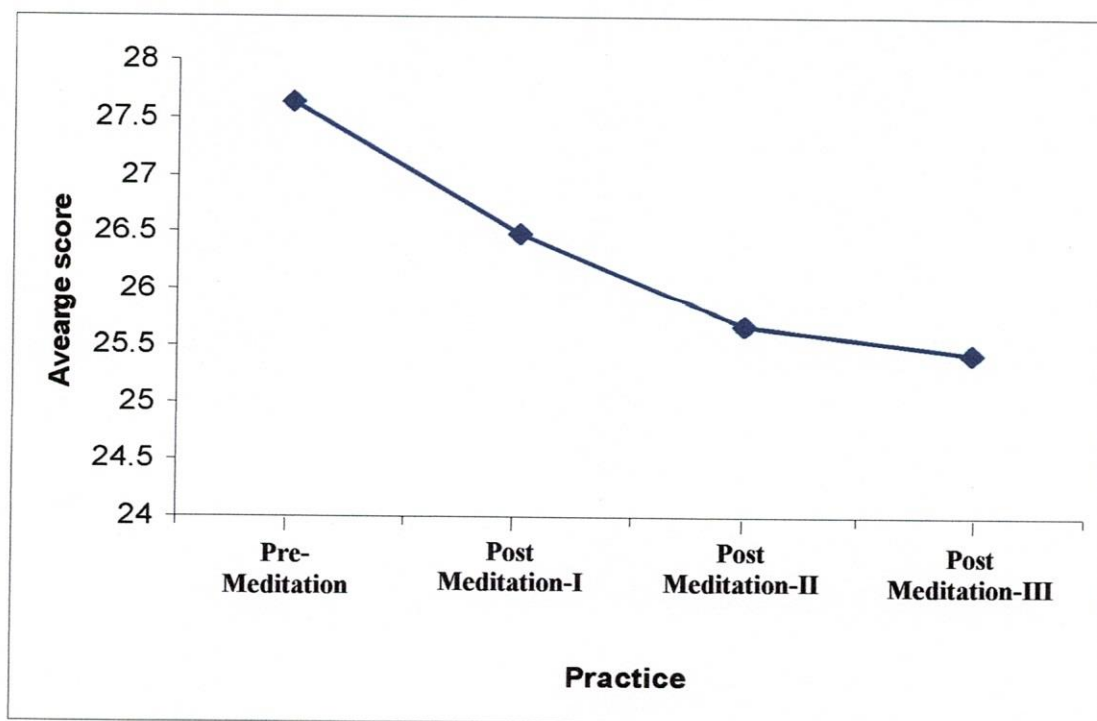


Fig: 4: Mean scores on mental mastery over self and environment as a function of degree of practice.

The effect of meditation on mental mastery over self and environment was analyzed and presented in table -4. The results have also been plotted in fig: -4. The fig: -4 indicate a gradual declination of scores on subjective well-being mental mastery over self and environment as a function of degree of practice. The table -4 shows that mean score of mental mastery over self and environment of post meditation -I was significantly lower than that of pre meditation ($p < 0.001$). It has been found that the mean score of mental mastery over self and environment of post meditation -II was significantly lower than those of pre meditation ($p < 0.001$) & post meditation -I ($p < 0.001$). The result also shows that the mean score of mental mastery over self and environment of post meditation -III was significantly lower than those of pre meditation ($p < 0.001$), post meditation -I ($p < 0.001$) although there was no significant difference between post meditation -II & post meditation -III. Thus the fig: -4 and the result presented in Table -4 suggest that subjective well-being on mental mastery over self and environment of the practitioners gradually increases as a function of their degree of practice.

Table 5: The results of the comparisons among different tests (t test) on scores of rootedness, belongingness

Variables compared	N	Mean	SD	Standard error of difference	t	df	Level of significance
Pre and Post 1	307	13.05	2.90	0.1610	16.811	306	P < 0.001
	307	10.35	2.71				
Pre and Post 2	307	13.05	2.90	0.1652	19.732	306	P < 0.001
	307	9.79	1.84				
Pre and Post 3	307	13.05	2.90	0.1690	22.622	306	P < 0.001
	307	9.23	1.69				
Post 1 and Post 2	307	10.35	2.71	0.1477	3.749	306	P < 0.001
	307	9.79	1.84				
Post 1 and Post 3	307	10.35	2.71	0.1530	7.305	306	P < 0.001
	307	9.23	1.69				
Post 2 and Post 3	307	9.79	1.84	0.1012	5.570	306	P < 0.001
	307	9.23	1.69				

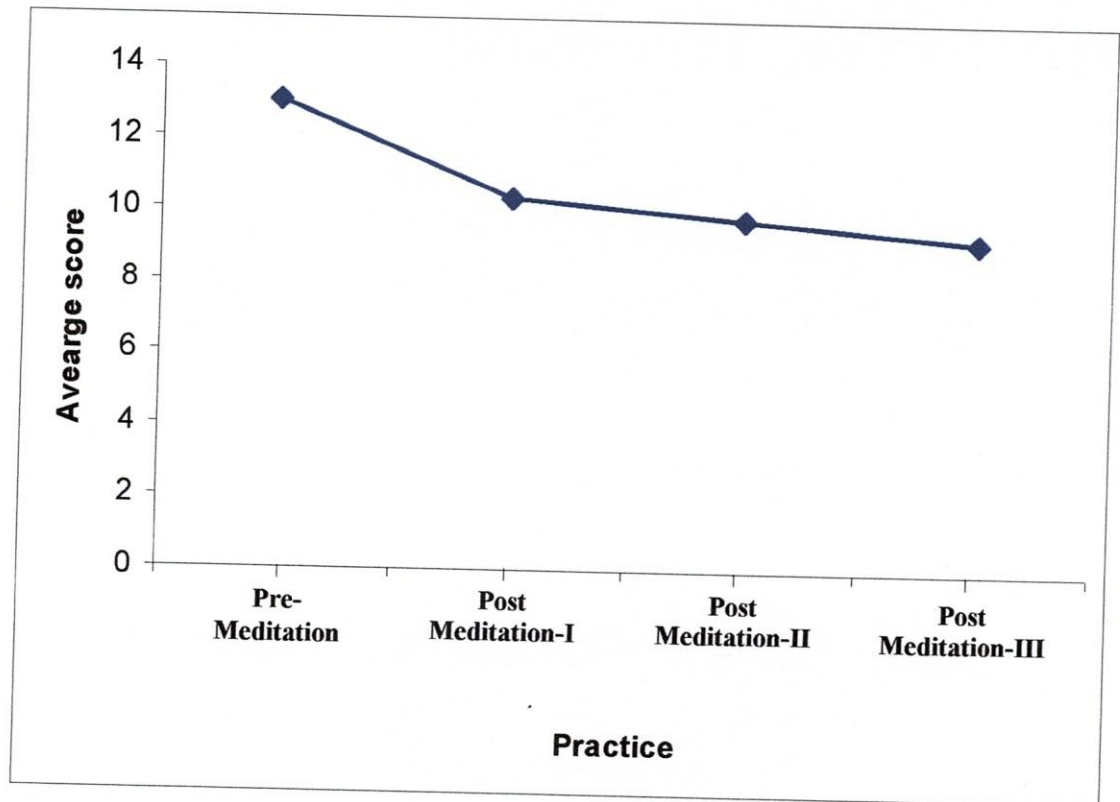


Fig: 5: Mean scores on Rootedness, belongingness as a function of degree of practice.

The results of t- test on scores of rootedness, belongingness have been presented in table -5. The results have also been plotted in fig: -5. The fig: -5 indicate a gradual declination of score on rootedness, belongingness as a function of degree of practice of meditation. The table -5 shows that mean score of rootedness, belongingness of post meditation -I was significantly lower than that of pre meditation ($p < 0.001$). It has been found that the mean score of rootedness, belongingness of post meditation -II was significantly lower than those of pre meditation ($p < 0.001$) & post meditation -I ($p < 0.001$). The result also shows that the mean score of rootedness, belongingness of post meditation -III was significantly lower than those of pre meditation ($p < 0.001$), post meditation -I ($p < 0.001$) & post meditation-II ($p < 0.001$). Thus the fig: -5 and the result presented in Table -5 suggest that subjective well-being on rootedness, belongingness of the practitioners gradually increases as a function of their degree of practice.

Table 6: The results of the comparisons among different tests (t test) on scores of structural and cohesive aspects of the family

Variables compared	N	Mean	SD	Standard error of difference	t	df	Level of significance
Pre and Post 1	307	13.34	2.77	0.1525	8.907	306	P < 0.001
	307	11.98	2.31				
Pre and Post 2	307	13.34	2.77	0.2052	14.559	306	P < 0.001
	307	10.35	2.49				
Pre and Post 3	307	13.34	2.77	0.1822	22.759	306	P < 0.001
	307	9.19	1.62				
Post 1 and Post 2	307	11.98	2.31	0.1625	10.021	306	P < 0.001
	307	10.35	2.49				
Post 1 and Post 3	307	11.98	2.31	0.1549	18.004	306	P < 0.001
	307	9.19	1.62				
Post 2 and Post 3	307	10.35	2.49	0.1577	7.355	306	P < 0.001
	307	9.19	1.62				

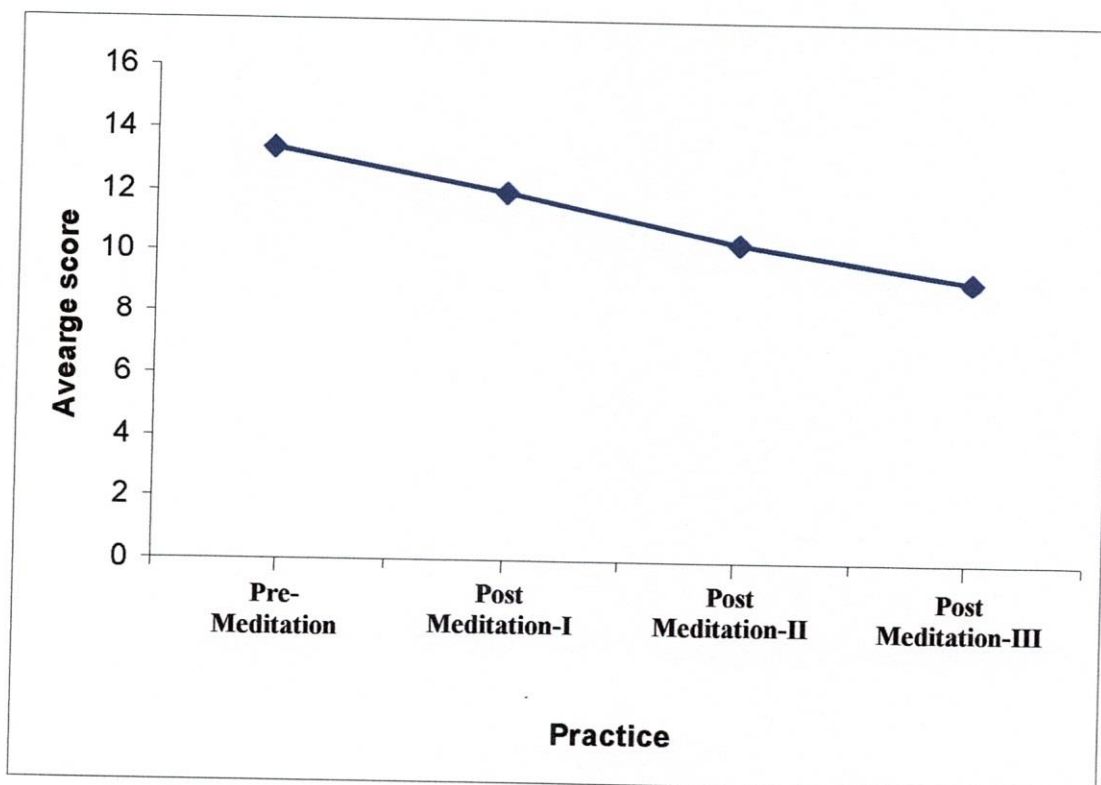


Fig: 6: Mean scores on Structural and cohesive aspects of the family as a function of degree of practice.

The effect of meditation on structural and cohesive aspects of the family was analyzed. The results of t- test on score of structural and cohesive aspects of the family have been presented in Table -6. The results have also been plotted in fig: -6. The fig: -6 indicate a gradual declination of structural and cohesive aspects of the family score as a function of degree of practice of meditation. The table -6 shows that mean score of structural and cohesive aspects of the family of post meditation -I was significantly lower than pre meditation ($p<0.001$). It has been found that the mean score of structural and cohesive aspects of the family of post meditation -II was significantly lower than those of pre meditation ($p<0.001$) & post meditation -I ($p<0.001$). The result also shows that the mean score of structural and cohesive aspects of the family of post meditation -III was significantly lower than those of pre meditation ($p<0.001$), post meditation -I ($p<0.001$) & post meditation-II ($p<0.001$). Thus the fig: -6 and the result presented in Table -6 suggest that subjective well-being on structural and cohesive aspects of the practitioners gradually increase as a function of their level of practice.

Table 7: The results of the comparisons among different tests (t test) on scores of density of social network

Variables compared	N	Mean	SD	Standard error of difference	t	df	Level of significance
Pre and Post 1	307	13.54	2.45	0.1407	6.738	306	P <0.001
	307	12.59	2.79				
Pre and Post 2	307	13.54	2.45	0.1594	13.220	306	P <0.001
	307	11.43	1.99				
Pre and Post 3	307	13.54	2.45	0.1697	18.902	306	P <0.001
	307	10.33	1.99				
Post 1 and Post 2	307	12.59	2.79	0.1572	7.377	306	P <0.001
	307	11.43	1.99				
Post 1 and Post 3	307	12.59	2.79	0.1795	12.597	306	P <0.001
	307	10.33	1.99				
Post 2 and Post 3	307	11.43	1.99	0.1224	8.993	306	P <0.001
	307	10.33	1.99				

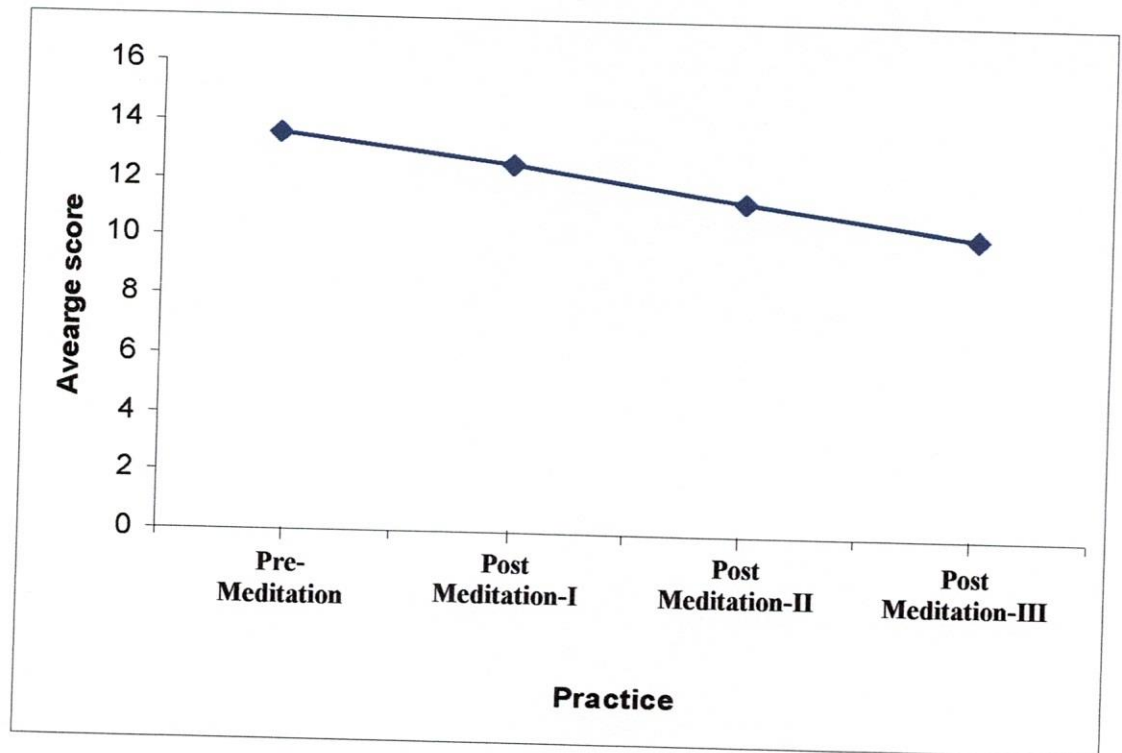


Fig: 7: Mean scores on Density of social network as a function of degree of practice.

The effect of meditation on density of social network was analyzed and presented in table -7. The results of t- test on score of density of social network have been presented in Table -7. The results have also been plotted in fig: -7. The fig: -7 indicate a gradual declination of score on density of social network as a function of degree of practice of meditation. The table -7 shows that mean score of density of social network of post meditation -I was significantly lower than that of pre meditation ($p < 0.001$). It has been found that the mean score of density of social network of post meditation -II was significantly lower than those of pre meditation ($p < 0.001$) & post meditation -I ($p < 0.001$). The result also shows that the mean score of density of social network of post meditation -III was significantly lower than those of pre meditation ($p < 0.001$), post meditation -I ($p < 0.001$) & post meditation-II ($p < 0.001$). Thus the fig: -7 and the result presented in Table -7 suggest that subjective well-being on density of social network of the practitioners gradually increases as a function of their level of practice.

Table 8: The results of the comparisons among different tests (t test) on scores of security in health and socio-economic crisis

Variables compared	N	Mean	SD	Standard error of difference	t	df	Level of significance
Pre and Post 1	307	9.94	1.77	0.09985	7.308	306	P <0.001
	307	9.21	1.86				
Pre and Post 2	307	9.94	1.77	0.1217	12.342	306	P <0.001
	307	8.43	2.08				
Pre and Post 3	307	9.94	1.77	0.1250	16.051	306	P <0.001
	307	7.93	2.04				
Post 1 and Post 2	307	9.21	1.86	0.1167	6.613	306	P <0.001
	307	8.43	2.08				
Post 1 and Post 3	307	9.21	1.86	0.1244	10.265	306	P <0.001
	307	7.93	2.04				
Post 2 and Post 3	307	8.43	2.08	0.1328	3.802	306	P <0.001
	307	7.93	2.04				

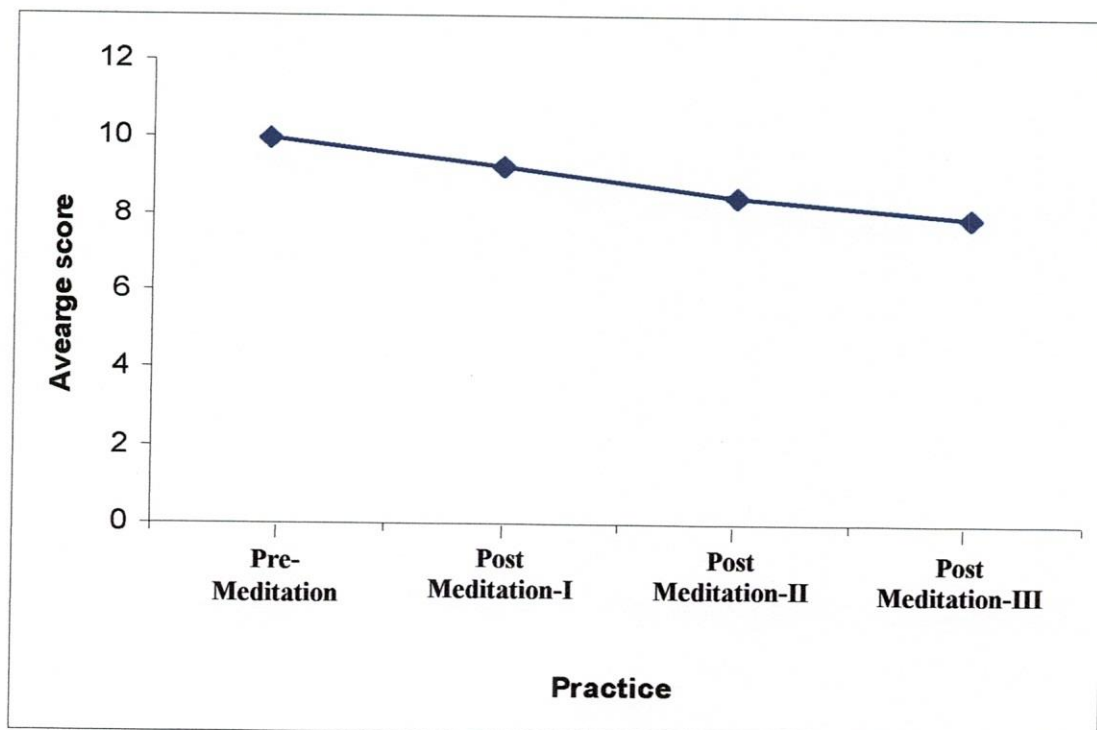


Fig: 8: Mean scores on Security in health and socio-economic crisis as a function of degree of practice.

The effect of meditation on security in health and socio-economic crisis was analyzed and presented in table -8. The results of t- test on score of security in health and socio-economic crisis have been presented in Table -8. The results have also been plotted in fig: -8. The fig: -8 indicate that there is a gradual declination of score on security in health and socio-economic crisis as a function of practice of meditation. The table -8 shows that mean score of security in health and socio-economic crisis of post meditation -I was significantly lower than that of pre meditation ($p<0.001$). It has been found that the mean score of security in health and socio-economic crisis of post meditation -II was significantly lower than those of pre meditation ($p<0.001$) & post meditation -I ($p<0.001$). The result also shows that the mean score of security in health and socio-economic crisis of post meditation -III was significantly lower than those of pre meditation ($p<0.001$), post meditation -I ($p<0.001$) & post meditation-II ($p<0.001$). Thus the fig: -8 and the result presented in Table -8 suggest that subjective well-being on security in health and socio-economic crisis of the practitioners gradually increases as a function of their level of practice.

Table 9: The results of the comparisons among different tests (t test) on scores of expectation – achievement harmony

Variables compared	N	Mean	SD	Standard error of difference	t	df	Level of significance
Pre and Post 1	307	16.70	3.22	0.1713	14.202	306	P <0.001
	307	14.26	3.16				
Pre and Post 2	307	16.70	3.22	0.1940	19.778	306	P <0.001
	307	12.86	2.40				
Pre and Post 3	307	16.70	3.22	0.2317	21.829	306	P <0.001
	307	11.64	2.93				
Post 1 and Post 2	307	14.26	3.16	0.1915	7.332	306	P <0.001
	307	12.86	2.40				
Post 1 and Post 3	307	14.26	3.16	0.2221	11.818	306	P <0.001
	307	11.64	2.93				
Post 2 and Post 3	307	12.86	2.40	0.1881	6.493	306	P <0.001
	307	11.64	2.93				

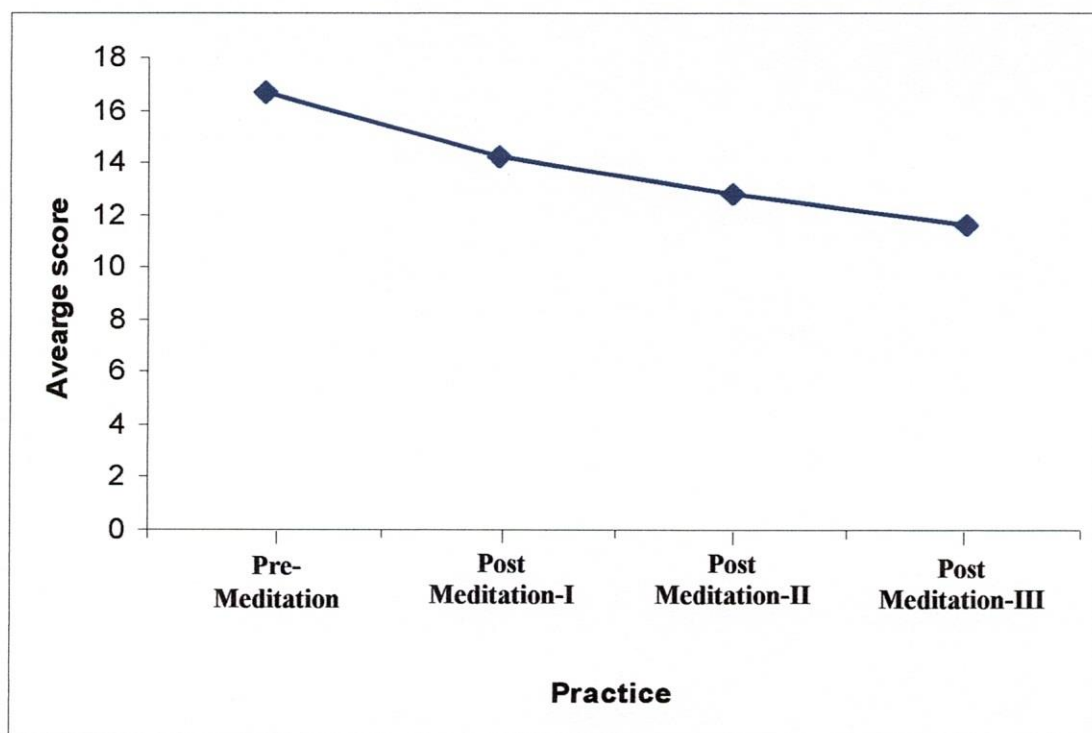


Fig: 9: Mean scores on Expectation – achievement harmony as a function of degree of practice.

Finally, the effect of meditation on expectation-achievement harmony was analyzed. Table -9 present the results of t- test on expectation-achievement harmony scores. The results have also been plotted in fig: -9. The fig: -9 indicate a gradual declination expectation-achievement harmony score as a function of practice of meditation. The table -9 shows that mean score of expectation-achievement harmony of post meditation -I was significantly lower than that of pre meditation ($p < 0.001$). It has been found that the mean score of expectation-achievement harmony of post meditation -II was significantly lower than those of pre meditation ($p < 0.001$) & post meditation -I ($p < 0.001$). The result also shows that the mean score of expectation-achievement harmony of post meditation -III was significantly lower than those of pre meditation ($p < 0.001$), post meditation -I ($p < 0.001$) & post meditation-II ($p < 0.001$). Thus the figure -9 and the result presented in Table -9 suggest that subjective well-being on expectation-achievement harmony of the practitioners gradually increases as a function of their level of practice.

Chapter-VI

Discussion & Conclusion

Chapter-6

DISCUSSION AND CONCLUSION

The aim of the present study was to investigate the effect of Meditation by Quantum Method on Subjective Well-Being (SWB) of the individual. The SWB of the respondents was measured by administering a Bangla version of SWB questionnaire of Nagpal and Sell (1985), before their participation in a course of Meditation of forty hours in duration (Pre Meditation). The test was applied again on the same subjects after completion of the course (Post Meditation-I). The SWB of the subjects was again measured after practice of six months (Post Meditation-II) and also after practice of one year administering the same test (Post Meditation-III).

It was hypothesized that "Meditation by Quantum Method increases the Subjective Well-Being of the individual". The Independent variable of the study was 'Meditation by Quantum Method' and the dependent variable was the 'Subjective Well-being of the individual'. In order to analyze the effect of independent variable on dependent variable comparisons were made among the four sets of overall scores. Comparisons were also made among the four sets of scores on each dimension of SWB.

It was expected that the overall SWB score of the respondents would decrease gradually as a function of degree of practice of Meditation by Quantum Method. In the result, overall SWB mean score was found to decrease gradually from Pre Meditation to Post Meditation –III. These results suggest that overall subjective well-being of the practitioners' increases gradually as a function of degree of practice of Meditation by Quantum Method. Thus, the results of the study are found similar to the hypothesis.

Similar decline of scores as a function of degree of practice was also found in case of eight dimensions. Only in case of negative affect there was fluctuation of scores as a function of degree of practice. These results also support the hypothesis.

The results of the study are consistent with those of other investigators who conducted research on different types of meditation. As for example, Nathawat (1996) concluded from the results of his study that meditation increases psychological well-being. Lutz et al. (2008) showed that regular meditation practice helps to keep emotional balance and well-being by improving attention and memory.

Kingston et al. (2007) found that mindfulness meditation practice increases pain tolerance, psychological well-being, and physiological activity.

A large number of investigators (Orme-Johnson, 1973; Alexander et al., 1983; Kabat-Zinn et al., 1985; Simon et al., 1974; Brooks & Scarano, 1986; Singh et al., 2003; Al-Hussaini et al., 2001) reported similar findings, from their studies on the effect of meditation on SWB or on the determinants of SWB. Shapiro (1992) reported that practice of meditation brings greater happiness and joy, positive thinking, increased self confidence, effectiveness and better problem solving skills. Other researchers reported beneficial effects that include enhanced acceptance, compassion and tolerance to self and others (Dua & Swinden, 1992), more relaxation, resilience, and better ability to control feelings (Scheier & Caiver, 1993). Atwood & Maltin (1991) claim that meditation optimizes the process of memory. Hall (1999) found that, meditation can reduce anxiety, increase well-being, reduce psychological distress and improve cognition.

Kam-tim (1995) found that meditation brings increased creativity, increased fluid intelligence (increased ability to perceive complex relations, more effective use of short term memory, improved ability to reason abstractly), increased field

independence, increased constructive thinking (improved emotional coping, improved behavioral coping, improvements on categorical thinking; increased flexibility of attitude and increased tolerance of others), and also meditation decreased state and trait anxiety.

In their research Hanley & Spates (1978) found that the effect of Transcendental Meditation is the meditators' are more positive conception of human nature, more positive self-image, higher levels of tolerance, greater sociability, less pronounced feelings of social inadequacy.

Throll & Throll (1977) shows that meditation increases in: ego strength, emotional stability and maturity, emotional harmony and absence of regressive behavior, emotional strength, intelligence, self-sufficiency and resourcefulness, contentment, enthusiasm for work, trust, tolerant and participating attitude, more confident attitude, creativity. And meditation decreases in: depression, over-reactionary behavior, lessening of unwelcome thoughts or compulsive habits, anxiety and tension.

Aron & Aron (1982) reported that meditation bring greater marital adjustment. Meditation Improved Family Life and Family Health (Chen, 1984).

In another study Marcus (1977) found the meditation's benefits for married couples: Meditation decreased nervousness (Increased Composure and Relaxation); increased sociability, energy, and enthusiasm; increased ability for spontaneous expression of warmth and affection; increased ability to be sympathetic, compassionate, and understanding; increased ability to be objective, fair-minded, and reasonable; increased tolerance and acceptance of others; increased self-discipline, decreased impulsiveness (increased emotional maturity); decreased proneness toward anxiety.

Meditation increased efficiency and productivity; improved work and personal relationships; reduced anxiety; reduced job worry and tension; improved job

satisfaction; improved general health; enhanced sleep and reduced fatigue; reduced cigarette and liquor consumption; increased physiological stability during task performance (Alexander et al., 1989)

Benson (1983a) studied with 19 subjects; they practiced the relaxation response technique twice daily for thirty days. Result found that Norepinephrine levels are increased without any increase in heart rate or blood reassure. He reported that the relaxation response technique reduces central nervous system responsively to Norepinephrine.

It is also evident that several psychological effects that are opposite to stress are produced by Meditation. Some researchers concluded that stress induced adrenal hormone level do not fall consistently in the blood of meditators. All these findings suggest that practice of meditation increases the well-being of the practitioners.

The findings of the present study appear to fit the theoretical model of Telic theory. According to this theory SWB is achieved when some sort of goals or needs are reached. It has been found that satisfaction of needs causes happiness and persistence of unfulfilled needs causes unhappiness. Thus SWB seems to be related needs and goals. The amount of wealth or resources seems related to needs, and desires have been correlated with the degree of SWB. However the causes of SWB are not universal. It also differs depending on values and desires of the individual. Meditation by Quantum Method increases SWB by modifying the values and desires of the respondents / practitioners.

The finding of this research can also be interpreted in terms of Coping theory. This theory is based on the idea that happy people initiate thoughts and behaviors that are adaptive and helpful in order to cope with problems. On the other hand unhappy people cope in destructive ways. Meditation by Quantum Method

increases SWB of the individual by enhancing inner capacity to cope with the problems.

Therefore, it can be concluded that the present study is mere an attempt to investigate the effect of Meditation by Quantum Method on SWB of the practitioners. It can be pointed out here that no research has yet been conducted on Meditation by Quantum Method. It is a scientific effort of the researcher to initiate an empirical investigation. It is also expected that further investigations would explore this field more effective, interesting, meaningful and rewarding. Consequently, the findings of the present study will contribute to the people of Bangladesh who would exercise Meditation by Quantum Method. It can be pointed out here that a large number of people of Bangladesh are already involved in the exercise of Meditation by Quantum Method.

Future investigation on Meditation by Quantum Method should take some precautionary measures. These are suggested as follows:

1. The future investigations on Meditation by Quantum Method should take into account of discontinuation of Meditation practice by its practitioners.
2. The investigation should consider the age factor of the practitioners.
3. The investigation should also consider the cultural aspects of the practitioners.
4. Future research on Meditation should take into consideration of different determinants of Subjective Well-Being.
5. The academic backgrounds of the practitioners are another important factor that may influence the Subjective Well-Being of the practitioners. This factor should also be considered in future research on Meditation.
6. Finally, the factors that influence well-being of the individual are Socio-economic condition of the subject. This factor should equally be considered in future research.

References

REFERENCES

- Ahuja, M. M. S., Karmarkar, M. G., & Reddy, S. (1981). TSH, LH, Cortisol Response to TRH and LH-RH and Insulin Hypoglycemia in Subjects Practicing Transcendental Meditation. *Indian Journal of Medical Research*, *74*, 715-720.
- Akishige, Y. (1970). *Psychological Studies on Zen.* Tokyo: Zen Institute of the Komazawa University.
- Alexander, C. N., & Sands, D. (1993). Meditation and Relaxation. In *McGill's Survey of the Social Sciences: Psychology*, ed. R.H. McGill. Pasadena, CA: Salem Press.
- Alexander, C. N., Davies, J. L., Newman, R. I. & Chandler, H. M. (1983). "The effects of Transcendental Meditation on cognitive and behavioral flexibility, health, and longevity in the elderly: An experimental comparison of the Transcendental Meditation program, mindfulness training, and relaxation." Department of Psychology and Social Relations and Graduate School of Education, Harvard University, Cambridge, Massachusetts, U.S.A., and Macquarie University, North Ryde, New South Wales, Australia.
- Alexander, C. N., Swanson, G. C., Rainforth, M. V., Carlsle, T. W., & Todd, C. C.(1989). The Transcendental Meditation program and business: a prospective study. *Journal of the Iowa Academy of Science*, *96*(A32).
- Al-Hussaini, A., Dorvlo, A. S. S., Antony, S. X., Chavan, D., Dave, J., Purecha, V., Al-Rahbi, S., & Al-Adawi, S. (2001). Vipassana Meditation: A Naturalistic, Preliminary Observation in Muscat, SQU, *Journal for Scientific Research: Medical Sciences*, *3*(2), 87-92.
- Allison, J. (1970). Respiratory Changes during Transcendental Meditation. *Lancet*, *1*, no. 7651, 883.

- American Psychological Association (2006). The road to resilience. <http://www.apahelpcenter.Org/featuredtopics/feature.php?id=6> [20 Sept. 2007]
- Anand, B. K., & Chhina, G. S. (1961). Investigations on Yogis Claiming to Stop Their Heart Beats. *Indian Journal of Medical Research*, **49**, 90–94.
- Anand, B. K., Chhina, G. S. & Singh, B. (1961a). Some Aspects of EEG Studies in Yogis. *Electroencephalography and Clinical Neurophysiology*, **13**, 452-456.
- Anonymous (2009). Quantum Uccach, Yoga Foundation, Dhaka, Bangladesh. pp.144.
- Appelle, S., & Oswald, L. E. (1974). Simple Reaction Time as a Function of Alertness and Prior Activity. *Perceptual and Motor Skill*, **38**, 1263-1268.
- Aron, A., Orme-Johnson, D., & Brubaker, P. (1981). The Transcendental Meditation program in the college curriculum: A 4-year longitudinal study of effects on cognitive and affective functioning. *College Student Journal*, **15**(2), 140–146.
- Aron, E. N., & Aron, A. (1982). Transcendental Meditation program and marital adjustment. *Psychological Reports*, **51**, 887–890.
- Atwood, J. D., & Maltin, L. (1991). "Putting Eastern philosophies into Western psychotherapies." (Vol. 45). US: Assn for the Advancement of Psychotherapy.
- Badawi, K., Wallace, R. K., Orme-Johnson, D., & Rouzere, A. M. (1984). Electrophysiologic Characteristics of Respiratory Suspension Periods Occurring during the Practice of the Transcendental Meditation Program. *Psychosomatic Medicine*, **46**(3), 267-276.
- Bagchi, B. K., & Wenger, M. A. (1957). Electrophysiological Correlates of Some Yogi Exercises. *Electroencephalography and Clinical Neurophysiology*, **7**, 132–149.
- Bagga, O. P., & Gandhi, A. (1983). A comparative study of the effect of Transcendental Meditation (T.M.) and Shavasana practice on cardiovascular system. *Indian Heart J*, **35**(1), 39–45.

- Bagga, O. P., Gandhi, A. & Bagga, S. (1981). A Study of the Effect of Transcendental Meditation and Yoga on Blood Glucose, Lactic Acid, Cholesterol and Total Lipids. *Journal of Clinical Chemistry and Clinical Biochemistry*, **19**(8), 607-608.
- Ball, O. E. (1980). "The Effect of TM and the TM-Sidhi Program on Verbal and Figural Creativity (TTCT), Auditory Creativity (S and I), and Hemispheric Dominance (SOLAT)." Unpublished doctoral dissertation, University of Georgia.
- Banquet, J P., & Sailhan, M. (1977). Quantified EEG Spectral Analysis of Sleep and Transcendental Meditation. In *Scientific Research on the Transcendental Meditation Program: Collected Papers, Vol. 1*, eds. D.W. Orme-Johnson and J.T. Farrow. New York: M.E.R.U. Press.
- Banquet, J. P. (1972). EEG and Meditation. *Electroencephalography and Clinical Neurophysiology*, **33**: Netherlands: Elsevier Science. 454.
- Banquet, J. P. (1973). Spectral Analysis of the EEG in Meditation. *Electroencephalography and Clinical Neurophysiology*, **35**, 143-151.
- Barnes, V. A., Bauza, L. B., Treiber, F. A. (2003). Impact of stress reduction on negative school behavior in adolescents. *Health Qual Life Outcomes*, **23**(1), 10.
- Barnhofer, T., Duggan, D., Crane, C., Hepburn, S., Fennell, M. J., Williams, J. M. (2007). Effects of meditation on frontal alpha-asymmetry in previously suicidal individuals. *Neuroreport*, **18**(7), 709-712.
- Bartlett, S., Piedmon, T. R., Bilderback. A., Matsumoto, A. K., & Bathon, J. M. (2003). Spirituality, well-being, and quality of life in people with rheumatoid arthritis. *Arthritis and Rheumatism*, **49**, 778-783.
- Bauhofer, V. (1978). *Physiological Cardiovascular Effects of the Transcendental Meditation Technique*. Ph.D. thesis.
- Beck, A. T. (1967). "Depression: Clinical, experimental, and theoretical aspects." New Work: Hoeber.

- Begum H. A., & Mahmuda, A. (1999). Psychological Well-being in Bangladesh as a Function of Socio-Economic Status, Sex and Place of Residence. In Sugiman. T., Karasawa, M., Liu, J. H., & Ward, C. (Edited) Progress in Asian Social Psychology, (Volume II): Theoretical and Empirical Contributions. Seoul, Korea, Kyoyook-Kwahak-Sa Publishing Company, 317-326.
- Benson, H. (1975). *The Relaxation Response*. New York: William Morrow, 1975.
- Benson, H. (1981b). Effect of the Relaxation Response on Oxygen Consumption during Exercise. *Clinical Research*, **29**, 207.
- Benson, H. (1983a). The Relaxation Response and Norepinephrine. *Integrative Psychiatry*, **1**, 15-19.
- Benson, H. (1989). The Relaxation Response and Norepinephrine: A New Study Illuminates Mechanisms. *Australian Journal of Clinical Hypnotherapy and Hypnosis*, **10**(2), 91-96.
- Benson, H., & Wallace, R. (1972a). Decreased Blood Pressure in Hypertensive Subjects who Practiced Meditation. *Circulation* 46, no. 1, *supplement*, **11**, 130.
- Benson, H., Beary, J. F., & Carol, M. P. (1974a). "The Relaxation Response." *Psychiatry*, **37**, 37-46.
- Benson, H., Dryer, T., & Hartley, L. (1977a). Decreased Oxygen Consumption at a Fixed Work Intensity with Simultaneous Elicitation of the Relaxation Response." *Clinical Research*, **25**, 453A.
- Benson, H., Malvea, B., & Graham, J. (1973a). Physiologic Correlates of Meditation and their Clinical Effects in Headache: An Ongoing Investigation. *Headache*, **13**(1), 23-24.
- Benson, H., Rosner, B. & Marzetta, B. (1973b). Decreased Systolic Blood Pressure in Hypertensive Subjects Who Practiced Meditation. *Journal of Clinical Investigation*, **52**, 8.

- Benson, H., Steinert, R., Greenwood, M., et al. (1975c). Continuous Measurement of O₂ Consumption and CO Elimination during a Wakeful Hypometabolic State. *Journal of Human Stress*, **1**, 37-44.
- Bijlani, R. L., Vempati, R. P., Yadav, R. K., Ray R. B., Gupta, V., Sharma R., Mehta, N., Mahapatra, S. C. (2005). A Brief but comprehensive lifestyle education program based on Yoga reduces risk factors for cardiovascular disease and diabetes mellitus. *J Alt Complement Med*, **11**, 267-274.
- Blackwell, B., Bloomfield, S., Gartside, P., et al. (1976). Transcendental Meditation in Hypertension: Individual Response Patterns. *Lancet* **1**, no. 7953: 223-226.
- Blasdell, K. A. (1977). The Effects of the Transcendental Meditation Technique upon a Complex Perceptual-motor Task. In *Scientific Research on the Transcendental Meditation Program: Collected Papers, Vol. 1*, eds. Orme-Johnson, D.W., and Farrow, J.T. New York: M.E.R.U. Press.
- Bono, J. (1984). Psychological Assessment of Transcendental Meditation. In *Meditation: Classic and Contemporary Perspectives*, eds. D.H. Shapiro, & R.N. Walsh New York: Aldine. (pp. 209-217).
- Borysenko, J. Z. (1987). *"Minding the Body, Mending the Mind."* Addison-Wesley, Publishing Company Inc. Boston.
- Bradburn, N. M., & Caplovitz, D. (1965). *"Reports on happiness."* Chicago: Aldine.
- Bradburn, N. M., & Caplovitz, D. (1965). Reports on happiness. Chicago: Aldine.
- Brefczynski-Lewis, J. A., Lutz, A., Schaefer, H. S., Levinson, D. B., Davidson, R. J. (2007). Neural correlates of attentional expertise in long-term meditation practitioners. *Proc Natl Acad Sci. USA*. **3**; **104**(27), 11483-8.
- Brickman & Campbell, D. T. (1971). Hedonic relativism and planning the good society. In M.H. Appely (ED). *Adaptation level theory: A symposium* (pp. 287-302). New York: Academic Press.

- Brickman, P., Coates, D., & Janoff-Bulman, R. (1978). Lottery Winners and Accident Victims: Is Happiness Relative? *Journal of Personality and Social Psychology*, **36**, 917-927.
- Brief, A. P., Butcher, A. H., George, J. M., & Link, K. E. (1993). Integrating bottom-up and top-down theories of subjective well-being: The case of health. *Journal of Personality and Social Psychology*, **64**(4), 646-653.
- Brooks, J. S., & Scarano, T. (1986). Transcendental Meditation in the treatment of post-Vietnam adjustment. *Journal of Counseling and Development*, **64**, 212-215.
- Brown, D., Forte, M., & Dysart, M. (1984a). Differences in Visual Sensitivity among Mindfulness Meditators and Non-meditators. *Perceptual and Motor Skills*, **58**(3), 727-733.
- Brown, D., M. Forte, and M. Dysart. (1984b). Visual Sensitivity and Mindfulness Meditation. *Perceptual and Motor Skills*, **58**, 775-784.
- Cadarette, B. S., Hoffman, J. W., Caudill, M., Kutz, I., Levine, L., Benson, H., & Goldman, R. F. (1982). Effect of the Relaxation Response on Selected Cardiorespiratory Response During Physical Exercise. *Medical Science in Sports*, **14**, 117.
- Cameron, L. D., Booth, R.J., Schlatter, M., Ziginskis, D., Harman, J. E. (2007). Changes in emotion regulation and psychological adjustment following use of a group psychosocial support program for women recently diagnosed with breast cancer. The University of Auckland, New Zealand. Copyright 2006. John Wiley & Sons, Ltd.
- Carmody, J., & Baer, R. A. (2007). Relationships between mindfulness practice and levels of mindfulness, medical and psychological symptoms and well-being in a mindfulness-based stress reduction program. *J Behav Med*, 2007 Sep 25.
- Carrington, P., & Ephron, H. S. (1975). Meditation as an adjunct to psychotherapy. In S. Arieti & G. Chazanowsky (Eds.). *New dimensions in psychiatry* (pp. 261-292). New York: Wiley.

- Carrington, P., & Ephron, H. S. (1975b). Meditation and Psychoanalysis. *Journal of American Academy of Psychoanalysis*, **3**, 43-57.
- Chaiopanont, S. (2008). Hypoglycemic effect of sitting breathing meditation exercise on type 2 diabetes at Wat Khae Nok Primary Health Center in Nonthaburi province. *J Med Assoc Thai*. Jan, **91**(1), 93-8.
- Chekola, M. G. (1975). The concept of happiness (Doctoral dissertation, University of Michigan, 1974). *Dissertation Abstract International*, **35**,4609A.
- Chen, M. E. (1984). A comparative study of dimensions of healthy functioning between families practicing the TM program for five years or for less than a year. *Dissertation Abstracts International*, **45**(10), 3206B.
- Cohen, S., Doyle, W. J., Turner, R. B., Alper, C. M. & Skoner, D. P. (2003). Emotional Style and Susceptibility to the Common Cold. *Psychosomatic Medicine*, **65**(4), 652-57.
- Coleman, S. R. (1990). Effects of Progressive Muscle Relaxation and Meditation on State Anxiety in Disturbed Children and Adolescents. *Dissertation Abstracts International*, **51**(6-B), 3125.
- Cooper, M. J., & Aygen, M. M. (1979). A Relaxation Technique in the Management of Hypercholesterolemia. *Journal of Human Stress*, **5**(4), 24-27.
- Corby, J. C., Roth, W. T., Zarcone, V. P., & Kopell, B. S. (1978). Psychophysiological Correlates of the Practice of Tantric Yoga Meditation. *Archives of General Psychiatry*, **35**(5), 571-577.
- Cort, D. A. (1989). A comparison of compliance to group meditation, individual meditation and didactic group training in a program to help lower blood pressure in Black adults. *Dissertation Abstracts International*, **50**(6), 2617.
- Cotton, S. Larkin, E, Hoopes, A, Cromer, B. A., & Rosenthal, S. L. (2005). The impact of adolescent spirituality on depressive symptoms and health risk behaviors. *Journal of Adolescent Health*, **36**, 529.

- Cowger, E. L., & Torrance, E. P. (1982). Further Examination of the Quality of Changes in Creative Functioning Resulting from Meditation (Zazen) Training. *The Creative Child and Adult Quarterly*, 7(4), 211-217.
- Craven, J. L. (1989). Meditation and psychotherapy. *Canadian Journal of Psychiatry*, 34, 648-653.
- Cunningham, M. W. (1988). Does happiness mean friendliness? Induced mood and heterosexual self-disclosure. *Personality and Social Psychological Bulletin*, 14, 283-297.
- Daniels, F. S., & Fernhall, B. (1984). Continuous EEG Measurement to Determine the Onset of a Relaxation Response during a Prolonged Run. *Medicine and Science in Sports and Exercise*, 16(2), 182.
- Das, N., & Gastaut, H. (1955). Variations in the Electrical Activity of the Brain, Heart, and Skeletal Muscles during Yogic Meditation and Trance. *Electroencephalography and Clinical Neurophysiology, supplement*, 6, 211-219.
- Davidson, J. M. (1976). The Physiology of Meditation and Mystical States of Consciousness. *Perspectives in Biology and Medicine*, 19(3), 345-380.
- Davidson, R. J., & Goleman, D. J. (1977). The Role of Attention in Meditation and Hypnosis: A Psychobiological Perspective on Transformations of Consciousness. *The International Journal of Clinical and Experimental Hypnosis*, 25(4), 291-308.
- Davidson, R. J., Goleman, D. J., & Schwartz, G. E. (1976a). Attentional and Affective Concomitants of Meditation: A Cross-sectional Study. *Journal of Abnormal Psychology*, 85(2), 235-238.
- Davidson, R. J., Schwartz, D., & Rothman, L. (1976b). Attentional Style under Self-regulation of Mode Specific Attention: An Electroencephalographic Study. *Journal of Abnormal Psychology*, 85, 611-621.

- DeBerry, S. (1982). The Effects of Meditation-relaxation on Anxiety and Depression in Geriatric Population. *Psychotherapy Theory, Research and Practice*, **19**(4), 512-521.
- Delmonte, M. M. (1984b). Electrocortical Activity and Related Phenomena Associated with Meditation Practice: A Literature Review. *International Journal of Neuroscience* **24**, 217-231.
- Delmonte, M. M. (1984c). Factors Influencing the Regularity of Meditation Practice in a Clinical Population. *British Journal of Medical Psychology*, **57**, 275-278.
- Delmonte, M. M. (1984f). Physiological responses during meditation and rest. *Biofeedback and self regulation*. **9**, 181-200.
- Delmonte, M. M. (1985b). Biochemical Indices Associated with Meditation Practice: A Literature Review. *Neuroscience Behavioral Reviews*, **9**(4), 557-561.
- Dermer, M., Cohen, S. J., Jacobsen, E., & Anderson, E. A. (1979). Evaluative judgments of aspects of life as a function of various exposures to hedonic extremes. *Journal of Personality and Social Psychology*, **37**, 247-260.
- Diener, E., & Seligman, M. E. P. (2004). Beyond money: toward an economy of well-being. *Psychological Science in the public interest*, **5**, 1-31.
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, **95**, 542-575.
- Diener, E. (1994). Assessing Subjective Well-Being: Progress and Opportunities. *Social Indicators Research*. **31**(2), 103-157.
- Diener, E. (2000). The science of happiness and a proposal for a national index. *American Psychologist*, **55**(1), 34-43.
- Diener, E., & Biswas-Dener, R. (2008). "Happiness: Unlocking the mysteries of psychological wealth." Malden, MA: Blackwell Publication.
- Diener, E., & Diener, C. (1996). Most people are happy. *Journal of Psychological Science*, **7**, 181-185.

- Diener, E., & Tov, W. (2007). Subjective well-being and peace. *Journal of Social Issues*, **63**, 421-440.
- Diener, E., Nickerson, C., Lucas, R. E., & Sandvik, E. (2002). Dispositional affect and job outcomes. *Social indicators research*, **59**, 229-259.
- Diener, E., Sandvik, E., Seidlitz, L., & Diener, M. (1993). The relationship between income and subjective well-being relative or absolute? *Social Indicators Research*, **28**, 195-223.
- Diener, E., Suh, E., & Oishi, S. (1997). *Recent findings on subjective well-being. Indian Journal of Clinical Psychology*, **24**, 25-41.
- Diener, E., Suh, E.M., Lucas, R.E., & Smith, H.E. (1999). Subjective Well-Being: Three Decades of progress. *Psychological Bulletin*, **125**(2), 276-302.
- Dillbeck, M. C. (1977b). The Effects of the TM Technique on Visual Perception and Verbal Problem Solving. *Dissertation Abstracts International*, **37**(10-B), 5319-5320.
- Dillbeck, M. C., & Bronson, E. C. (1981). Short-term Longitudinal Effects of the Transcendental Meditation Technique on EEG Power and Coherence. *International Journal of Neuroscience*, **14**, 147-151.
- Dillbeck, M. C., & Orme-Johnson, D. W. (1987). Physiological Differences Between Transcendental Meditation and Rest. *American Psychologist*. **42**, 879-881.
- Disayavanish, P. (1995). The effect of Buddhist insight meditation on stress and anxiety. Illinois State U, USA, Dissertation Abstracts International Section A: *Humanities & Social Sciences*, **55**(11-A), 3540.
- Donovan, M. A. (2000). Cognitive, affective, and satisfaction variables as predictors of organizational behaviors: A structural equation modeling examination of alternative models. *Dissertation Abstracts International*, **60**, 4943.
- Dostalek, C., Faber, J., Krasa, E., et al. (1979). Yoga Meditation Effect on the EEG and EMG Activity. *Activitas Nervos Superior (Praha)*, **21**(1), 41.

- Dua, J. K., & Swinden, M. L. (1992). Effectiveness of Negative-thought-reduction, Meditation, and Placebo Training Treatment in Reducing Anger. *Scandinavian Journal of Psychology*, **33**, 135-146.
- Dunn, B. R., Hartigan, J. A., & Mikulas, W. L. (1999). Concentration and Mindfulness Meditations: Unique Forms of Consciousness. *Applied Psychophysiology and Biofeedback*, **24**, 147-164.
- Easterlin, R. A. (1974). "Does economic growth improve the human lot?" In P. A. David and M. W. Reder (Eds.) Nations and households in economic growth: Essays in honor of Moses Abramovitz. New York: Academic Press, pp. 89-125.
- Edwards, D. L. (1991). A Meta-Analysis of the Effects of Meditation and Hypnosis on Measures of Anxiety. *Dissertation Abstracts International*, **52**(2-B), 1039.
- Ellis, A. (1984). The Place of Meditation in Cognitive Behavior Therapy and Rational Emotive Therapy. In D. H. Shapiro, & R. N. Walsh (Eds.), *Meditation: Classic and Contemporary Perspectives* (pp. 671-673). New York: Aldine Books.
- Ellison, C. G. (1991). Religious involvement and subjective well-being. *Journal of Health and Social Behavior*, **32**, 80-89.
- Elson, B. D., Hauri, P. & Cunis, D. (1977). Physiological Changes in Yoga Meditation. *Psychophysiology*, **14**(1), 55-57.
- Emmons, R. A. (1986). Personal strivings: An approach to personality and subjective well-being. *Journal of Personality and Social Psychology*, **51**, 1058-1068.
- Emmons, R. A. (1992). Abstract versus concrete goals: Personal striving level, physical illness, and psychological well-being. *Journal of Personality and Social Psychology*, **62**, 292-300.

- Emmons, R. A., Larsen, R. J., Levine, S., & Diener, E. (1983). "Factors predicting satisfaction judgments." Paper presented in the meeting of the Midwestern Psychological Association Convention (May), Chicago.
- Engle, B. (1983). Comments on Herbert Benson's Article (letter). *Integrative Psychiatry* (May-June 1983), 20.
- Eppley, K. R., Abrams, A. I., & Shear, J. (1989). Differential Effects of Relaxation Techniques on Trait Anxiety: A Meta-analysis. *Journal of Clinical Psychology*, 45(6), 957-974.
- Epstein, M. (1990). Psychodynamics of meditation: pitfalls of the spiritual path. *Journal of Transpersonal Psychology*, 22(1), 17-34.
- Fehr, T. (1977). A Longitudinal Study of the Effect of the Transcendental Meditation Program on Changes in Personality. In *Scientific Research on the Transcendental Meditation Program: Collected Papers, Vol. 1*, eds. D.W. Orme-Johnson and J.T. Farrow. New York: M.E.R.U. Press.
- Fehr, T., Nerstheimer, U., & Tober, S. (1977). Study of Personality Changes Resulting from the Transcendental Meditation Program: Freiburger Personality Inventory. In *Scientific Research on The Transcendental Meditation Program: Collected Papers, Vol. 1*, eds. D.W. Orme-Johnson and J.T. Farrow. New York: M.E.R.U. Press.
- Fenwick, P., Donaldson, S., Gillis, L. (1977). Metabolic and EEG Changes during Transcendental Meditation: An Explanation. *Biological Psychology*, 5(2), 101-118.
- Flinton, C. A. (1998). The effects of meditation techniques on anxiety and locus of control in juvenile delinquents. California Inst of Integral Studies, USA, Dissertation Abstracts International: Section B: *The Sciences & Engineering*, 59(2-B), 871.
- Fromm, E. (1975). Self-hypnosis: a new area of research, Psychotherapy: Theory. *Research and Practice*, 12, 295-301.

- Fulton, M. A. (1990). The Effects of Relaxation Training and Meditation on Stress, Anxiety, and Subjective Experience in College Students. *Dissertation Abstracts International* **51**(2-A), 414.
- Gelderloos, P. (1987). Psychological health and development of students at Maharishi International University: a controlled longitudinal study. *Modern Science and Vedic Science*, **1**(4), 471-487.
- Gelderloos, P., Hermans, H. J., Ahlscrom, H. H., & Jacoby, R. (1990b). Transcendence and Psychological Health: Studies with Long-term Participants of the Transcendental Meditation and TM-Sidhi Program. *Journal of Psychology*, **124**(2), 177-197.
- Gellhorn, E., & Kiely, W. F. (1972). Mystical States of Consciousness: Neurophysiological and Clinical Aspects. *The Journal of Nervous and Mental Disease*, **154**(8), 399-405.
- Gibbs, B. A. M. (1973). Relative deprivation and self-reported happiness of blacks: 1946-1966 (Doctoral dissertation, North Texas University, 1972). *Dissertation Abstracts International*, **34**, 885A. (University Microfilm No. 73-21,590).
- Globus, G. G. (1980). The conceptual foundations of responsibility. *American Journal of Psychiatry*, **137**, 417-422.
- Glueck, B. C., & Stroebel, C. F. (1975). Biofeedback as Meditation in the Treatment of Psychiatric Illnesses. *Comprehensive Psychiatry*, **16**(4), 303-321.
- Glueck, B. C., & Stroebel, C. F. (1984). Psychophysiological Correlates of Meditation: EEG Changes during Meditation. In *Meditation: Classic and Contemporary Perspectives*, Shapiro, D.H., and Walsh, R.N., New York: Aldine.
- Golderson, R. M. (1984). "Longman Dictionary of Psychology and psychiatry." Longman publishing Co, New Yourk.

- Goleman, D. (1972). The Buddha on meditation and states of consciousness, Part 2: a topology of meditation techniques. *Journal of Transpersonal Psychology*, **4**, 151-210.
- Goleman, D. (1988). *The meditative mind: The varieties of meditative experience.* G.P. Putnam & Sons. New York.
- Goleman, D. J., & Schwartz, G. E. (1976). "Meditation as an Intervention in Stress Reactivity." *Journal of Consulting and Clinical Psychology*, **44**(3), 456-466.
- Gordon, T. (1975). *Parent effectiveness training.* New York: Peter H. Wyden, Inc.
- Goyeche, J., Chihara, T., & Shimizu, H. (1972). Two Concentration Methods: A Preliminary Comparison. *Psychologia*, **15**, 110-111.
- Graham, C., & Pettinato, S. (2002). Frustrated achievers: Winners, losers and subjective well-being in new market economies. *Journal of Development Studies*, **38**, 100-140.
- Griggs, S.T. (1976). A Preliminary Study into the Effect of TM on Empathy. Doctoral diss., United States International University.
- Gupta, N.S., Khera, R.P., Vempati, R.P., Sharma, R., Bijlani, R.L (2006). Effect of yoga based life style intervention on State Trait anxiety. *Indian J Physiol Pharmacol*, **50**(1), 41-47.
- Hall, P. D. (1999). The effect of meditation on the academic performance of African American College students. *Journal of Black students*, **29**(3), 408-416.
- Hanley, C. P., & Spates, J. L. (1978). Transcendental Meditation and social psychological attitudes. *The Journal of Psychology*, **99**, 121-127.
- Hassed, C. S. (2000). Depression: dispirited or spiritually deprived? *Medical Journal of Australia*, **20**(173), 545-547.
- Heil, J. D. (1983). Visual Imagery Change during Relaxation Meditation Training. *Dissertation Abstracts International*, **43**(7), 2338.

- Herbert, R., & Lehmann, D. (1977). Theta Bursts: An EGG Pattern in Normal Subjects Practicing the Transcendental Meditation Technique. *Electroencephalography and Clinical Neurophysiology*, **42**, 387-405.
- Hirai, T. (1974). *"The Psychophysiology of Zen."* Tokyo: Igaku Shoin.
- Hjelle, L. A. (1974). TM and Psychological Health. *Perceptual and Motor Skills*, **39**, 623-628.
- Hoffman, J. W., Arns, P. A., Stainbrook, G. L., Gill, A., Frankel, F. H., Hartley, L.H., & Benson, H. (1981b). Effect of the Relaxation Response on Oxygen Consumption during Exercise. *Clinical Research* **29**: 207.
- Hoffman, J. W., Benson, H., Arns, P. A., Stainbrook, G. L., Landsberg, G. L., Young, J. B., & Gill, A. (1982). Reduced Sympathetic Nervous System Responsivity Associated with the Relaxation Response. *Science*, **215**, 190-192.
- Holmes, D. S. (1984). "Meditation and Somatic Arousal Reduction: A Review of the Experimental Evidence." *American Psychologist*, **39**(1): 1-10.
- Holmes, D. S., Solomon, S., Cappo, B. M., & Greenberg, J. L. (1983). Effects of Transcendental Meditation versus resting on physiological and subjective arousal. *Journal of Personality and Social Psychology*, **44**(6), 1245-1252.
- Holt, W. R., Caruso, J. L., & Riley, J. B. (1978). Transcendental Meditation versus Pseudo-meditation on Visual Choice Reaction Time. *Perceptual and Motor Skills*, **46**(3), pt. 1, 726.
- Isen, A. M. (1987). Positive affect, cognitive processes, and social behavior. In Berkowitz, L. (Ed.), *Advances in experimental social psychology*, pp. 203-253. San Diego, CA: Academic Press.
- Jacobs, G. D., & Luber, J. F. (1989). Spectral Analysis of the Central Nervous System Effects of the Relaxation Response Elicited by Autogenic Training. *Behavioral Medicine*, **15**, 125-132.
- Jedrczak, A., Beresford, M., Clements, G. (1955). The TM-Sidhi Program, pure consciousness, creativity and intelligence. *The Journal of Creative Behavior*, **19**(4), 270-275.

- Jedrczak, A., Toomey, M., & Clements, G. (1986). The TM-Sidhi Program, Age, and Brief Tests of Perceptual-motor Speed and Nonverbal Intelligence. *Journal of Clinical Psychology*, **42**(1), 161-164.
- Jevning, R., & O'Halloran, J. P. (1984). Metabolic Effects of Transcendental Meditation: Toward a New Paradigm of Neurobiology. *Meditation: Classic and Contemporary Perspectives*, (pp. 465-472). Eds. In Shapiro, D.H., and Walsh, R.N. New York: Aldine.
- Jevning, R., & Wilson, A.F. (1977). Altered Red Cell Metabolism in TM. *Psychophysiology*, **14**(1), 94.
- Jevning, R., Wilson, A. F., & Davidson, J. M. (1978a). Adrenocortical Activity during Meditation. *Hormones and Behavior*, **10**(1), 54-60.
- Jevning, R., Wilson, A. F., & O'Halloran, J. P. (1982). Muscle and skin blood flow and metabolism during states of decreased activation. *Psychology and Behavior*, **29**, 343-348.
- Jevning, R., Wilson, A. F., & Smith, W. R. (1978d). The Transcendental Meditation Technique, Adrenocortical Activity and Implications for Stress. *Experientia*, **34**(5), 618-619.
- Jevning, R., Wilson, A. F., Smith, W. R., et al. (1978c). Redistribution of Blood Flow in Acute Hypometabolic Behavior. *American Journal of Physiology*, **235**(1), 89-92.
- Jevning, R., Wilson, A. F., Vanderlaan, E., et al. (1975). Plasma Prolactin and Cortisol during Transcendental Meditation. In *The Endocrine Society Program, 57th Annual Meeting*, New York City: June 18-20, 1975.
- Jevning, R., Wilson, A. R., W. R. Smith, W. R., et al. (1978c). "Redistribution of Blood Flow in Acute Hypometabolic Behavior. *American Journal of Physiology*, **235**(1), 89-92.
- Kabat-Zinn, J., Lipworth, L., & Burney, R. (1985). The Clinical Use of Mindfulness Meditation for the Self-regulation of Chronic Pain. *Journal of Behavioral Medicine*, **8**(2), 163-190.

- Kabat-Zinn, J., Massion, A. O., Kristeller, J., Peterson, L. G., & et al. (1992). Effectiveness of a meditation-based stress reduction program in the treatment of anxiety disorders. US: *American Psychiatric Assn*, **149**.
- Kahneman, D., & Krueger, A. B. (2006). Developments in the measurement of subjective well-being. *Journal of Economic Perspectives*, **20**, 3-24.
- Kam-tim, S. (1995). Testing and Improving Intelligence and Creativity in the Chinese Culture with Maharishi's Vedic Psychology: Toward a Holistic & Universal Assessment. Doctoral Dissertation, Department of Psychology, Maharishi University of Management, USA.
- Kanas, N., & Horowitz, M. J. (1977). Reactions of Transcendental Meditators and Nonmeditators to Stressful Films: A Cognitive Study. *Archives of General Psychiatry*, **34**(12), 1431-1436.
- Kaplan, K. H., Goldenberg, D. L., & Galvin-Nadeau, M. (1993). The impact of a meditation-based stress reduction program on fibromyalgia. *General Hospital Psychiatry*, **15**, 284-289.
- Karambelkar, P. V., Vinekar, S. L., & Phole, M. V. (1968). Studies on Human Subjects Staying in an Airtight Pit. *Indian Journal of Medical Research*, **56**, 1282-1288.
- Kasamatsu, A., & Hirai, T. (1963). Science of Zazen. *Psychologia*, **6**, 86-91.
- Kasamatsu, A., & Hirai, T. (1966). An EEG Study on the Zen Meditation (Zazen). *Folia Psychiatrica et Neurologia Japonica*, **20**(4), 315-336.
- Kasamatsu, A., Okuma, T. & Takenaka, S. (1957). The EEG of 'Zen' and 'Yoga' Practitioners. *EEG Clinical Neurophysiology, supplement*, **9**, 51-52.
- Keefe, T. (1975). Meditation and the Psychotherapist. *American Journal of Orthopsychiatry*, **45**(3), 484-489.
- Kesebir, P., & Diener E. (2008). "In defense of happiness." In Bruni L., Comim, F., and pungo M. (Eds.), *Capabilities and Happiness*. Oxford Oxford University press PP. 60-80.

- Kesterson, J. B. (1986). Changes in Respiratory Patterns and Control during the Practice of the Transcendental Meditation Technique. *Dissertation Abstracts International*, **47**(10-B), 4337.
- Khan, M. H. A. (2004). Subjective Well-being of the Drug Addicts and Non-Addicts in Bangladesh. Ph.D. Thesis. University of Rajshahi, Bangladesh.
- Khurana, A., Dhar, P. L., & Bara, B.D. (2000). Effect of Vipassana meditation on subjective well-being of adolescent inmates of Tihar jail, Paper Present in the International conference on Buddhist Philosophy and Contemporary Issues, Roorkee, 13-15 November, 2000.
- Kim, T. S., Park, J. S., Kim, M. A. (2008). The relation of meditation to power and well-being. *Nurs Sci Q.* Jan, **21**(1), 49-58.
- Kindlon, D. J. (1983). Comparison of Use of Meditation and Rest in Treatment of Test Anxiety. *Psychological Reports*, **53**, 931-938.
- Kingston, J., Chadwick, P., Meron, D., Skinner, T. C. (2007). A pilot randomized control trial investigating the effect of mindfulness practice on pain tolerance, psychological well-being, and physiological activity. *J Psychosom Res*, **62**(3), 297-300.
- Kinsel, B. (2005). Resilience as adaptation in older women. *Journal of Women and Aging*, **17**, 23-39.
- Koenig, H. G. (2001). Religion and medicine II: religion, mental health, and related behaviors. *International Journal of Psychiatry in Medicine* **31**, 97-109.
- Koenig, H. G., Larson, D. B., & Weaver, A. J. (1998). "Research on religion and serious mental illness." *New Directions in Mental Health Services*, 81-95.
- Kohr, R. L. (1977a). Dimensionality in Meditative Experience: A Replication. *Journal of Transpersonal Psychology*, **9**(2), 193-203.
- Kohr, R. L. (1977b). Changes in Subjective Meditation Experience during a Short-term Project. *Journal of Altered States of Consciousness*, **3**(3), 221-234.
- Kokoszka, A. (1990). Axiological aspects of comparing psychotherapy and meditation. *International Journal of Psychosomatics*, **37**(1-4), 78-81.

- Kokoszka, A. (1994). A rationale for a multilevel model of relaxation. *International journal of psychosomatics*, **41**(1-4), 4-10.
- Kornfield, J. (1979). Intensive Insight Meditation: A Phenomenological Study. *Journal of Transpersonal Psychology*, **11**(1), 41-58.
- Krahne, W., & Tenoli, G. (1975). EEG and Transcendental Meditation. *Pfleuger's Archives*, 359.
- Kras, D. J. (1977). The Transcendental Meditation Technique and EEG Alpha Activity. In *Scientific Research on the Transcendental Meditation Program: Collected Papers, Vol. 1*, eds. D.W. Orme-Johnson and J.T. Farrow. New York: M.E.R.U. Press.
- Kubose, S. K. (1976). An Experimental Investigation of Psychological Aspects of Meditation. *Psychologia*, **19**(1), 1-10.
- Kutz, I., Borysenko, J. Z., & Benson, H. (1985a). Meditation and psychotherapy: a rationale for the integration of dynamic psychotherapy, the relaxation response and mindfulness meditation. *American Journal of Psychiatry*, **142**, 1-8.
- Kutz, I., Leserman, J., Dorrington, C., Morrison, C. H., Borysenko, J. Z., & Benson, H. (1985b). Meditation as an adjunct to psychotherapy: An outcome study. *Psychotherapy and Psychosomatics*, **43**(4), 209-218.
- Laesen, R. J., Diener, E., Cropanzano, R. S. (1987). Cognitive Operations associated with individual differences in affect intensity. *Journal of Personality and Social Psychology*, **53**, 767-774.
- Lang, R., Dehof, K., Meurer, K. A., & Kaufmann, W. (1979). Sympathetic activity and transcendental meditation. *J Neural Transm*, **44**(1-2), 117-135.
- Lehrer, P. M., Schoicket, S., Carrington, P., et al. (1980). Psychophysiological and Cognitive Responses to Stressful Stimuli in Subjects Practicing Progressive Relaxation and Clinically Standardized Meditation. *Behavior Research and Therapy*, **18**(4), 293-303.

- Lesh, T.V. (1970a). The Relationship between Zen Meditation and the Development of Accurate Empathy. *Dissertation Abstracts International*, **30**(11-A), 4778-4779.
- Lesh, T.V. (1970c). Zen Meditation and the Development of Empathy in Counselors. *Journal of Humanistic Psychology*, **10**(1), 39-74.
- Leung, P. (1973). Comparative Effects of Training in External and Internal Concentration on Two Counseling Behaviors. *Journal of Counseling Psychology*, **20**, 227-234.
- Leuschitz, J. K. & Hartman, V. L. (1996). Current psychology. *developmental, learning, personality, social*, **15**(3), pp. 215-222.
- Levin, J. S. (1994). Religion and health: is there an association, is it valid, and is it causal? *Social Science and Medicine*, **38**, 1475-1482.
- Levin, S. (1977). The Transcendental Meditation Technique in Secondary Education. *Dissertation Abstracts International*, **38**(2), 706-707.
- Levine, P. H. (1976). Analysis of the EEG by COSPAR: Application to TM. In *Proceedings of the San Diego Biomedical Symposium* **15**, ed. J.I. Martin.
- Linden, W. (1973). Practicing of Meditation by School Children and Their Levels of Field Dependence-Independence, Test Anxiety, and Reading Achievement. *Journal of Consulting and Clinical Psychology*, **41**(1), 139-143.
- Linden, W., & Chambers, L. (1994). Clinical Effectiveness of Non-drug Treatment for Hypertension: A Meta-analysis. *Annals of Behavioral Medicine*, **16**, 35-45.
- Linden, W., Stossel, C., & Maurice, J. (1996). Psychosocial interventions for patients with coronary artery disease: a meta-analysis. *Arch Intern Med*, **156**, 745-52.
- Lutz, A., Slagter, H. A., Dunne, J. D., Davidson, R. J. (2008). Attention, regulation and monitoring in meditation. *Trends Cogn Sci*, **12**(4), 163-9.

- Lyubomirsky, S., Laura, K., & Diener, Ed. (2005). The Benefits of Frequent Positive Affect: Does Happiness Lead to Success? *Psychological Bulletin*, **131**(6), 803-855.
- Mahatajataq, (2000). "*Quantum Method*." (1st ed.) Projapoti Prokashon, Dhaka, pp-224.
- Mahmuda, A. (1998). Effect of Education, Income, Age and Family Structure on Psychological Well-being. *Bangladesh Psychological Studies*, **8**, 19-20.
- Manjunath, N. K., & Telles, S. (2004). Spatial and verbal memory test scores following yoga and fine arts camps for school children. *Indian J Physiol Pharmacol*, **48**(3), 353-6.
- Mansion, A. O., Teas, J., Herbert, J. R., Werheimer, M. D., & Kabat-Zinn, J. (1995). Meditation, melatonin and breast/prostate cancer: hypothesis and preliminary data. *Medical Hypotheses*, **44**, 39-46.
- Marcus, S. V. (1977). The influence of the Transcendental Meditation program on the marital dyad. Doctoral dissertation, California School of Professional Psychology, Fresno, California, U.S.A. *Dissertation Abstracts International*, **38**(8), 3895-B.
- Martinetti, P. (1976). Influence of Transcendental Meditation on Perceptual Illusion. *Perceptual and Motor Skills*, **43**, 822.
- Maupin, E. W. (1965). Individual Differences in Response to a Zen Meditation Exercise. *Journal of Consulting Psychology*, **29**, 139-145.
- McEvoy, T.M., Frumkin, L.R., & Harkins, S.W. (1980). Effects of Meditation on Brainstem Auditory Evoked Potentials. *International Journal of Neuroscience*, **10**, 165-170.
- McCrae, R. R., & Costa, P. T. (1986). Personality, coping, and coping effectiveness in an adult sample. *Journal of Personality*, **54**, 385-405
- Michalos, A. C. (1980). Satisfaction and Happiness. *Social Indicators Research*, **8**, 385-422.

- Miller, J. J., Fletcher, K. & Kabat-Zinn, J. (1995). Three years follow-up and clinical implications of a mindfulness meditation-based stress reduction intervention in the treatment of anxiety disorders, *General Hospital Psychiatry*, **17**(3), 192-200.
- Mills, P. J., Schneider, R. H., Hill, D., Walton, K.G. & et al. (1990). Beta-Adrenergic Receptor Sensitivity in Subjects Practicing Transcendental Meditation. *Journal of Psychosomatic Research*, **34**(1), 29-33.
- Moadel, A. B., Shah, C., Wylie-Rosett, J., Harris, M. S., Patel, S. R., Hall, C. B., Sparano, J. A. (2007), Randomized controlled trial of yoga among a multiethnic sample of breast cancer patients: effects on quality of life. Albert Einstein College of Medicine, Department of Epidemiology and Population Health, Bronx, NY 10461, USA.
- Muhammad, N. (2008). Subjective Well-being of Majority and Minority Peoples of Bangladesh as a Function of their Gender, Education, Income and Employment Status. Ph.D. Thesis. University of Rajshahi, Bangladesh
- Myers, D. G. (1992). *The pursuit of happiness: who is happy and why.* New Yourk: William Morrow.
- Myers, D. G., & Diener, E. (1995). Who is Happy? *Psychological Science*, **6**(1), 12-19.
- Myers, D. G., & Diener, E. (1996). The pursuit of happiness. *Scientific American*. **274**(5), 70-72.
- Nagpal, R., & sell, H. (1985). Subjective Well-being. SEARO Regional Health Papers No. 7. New Delhi, World Health Organization.
- Naranjo, C., & Ornstein, R. E. (1971). *On the Psychology of Meditation.* New York: Viking.
- Nathawat, S. S. (1996). Psychological Well-Being and Meditation. *Indian Journal of Clinical Psychologists*, **23**(2).
- Nidich, S. I., Seeman, W., & Dreskin, T. (1973). Influence of Transcendental Meditation on a Measure of Self-actualization: A Replication. *Journal of Counseling Psychology*, **20**(6), 565-566.

- Nolly, G. A. (1975). The Immediate After-effects of Meditation on Perceptual Awareness. *Dissertation Abstracts International*, **36**(2-B), 919.
- Orme-Johnson, D. W. (1973). Autonomic Stability and Transcendental Meditation. *Psychosomatic Medicine*, **35**(4), 341-349.
- Orme-Johnson, D. W. (1977a). Coherence during Transcendental Consciousness. *Electroencephalography and Clinical Neurophysiology*, **43**(4), 581.
- Orme-Johnson, D. W., & Granieri, B. (1977). The Effects of the Age of Enlightenment Governor Training Courses on Field Independence, Creativity, Intelligence, and Behavioral Flexibility. In *Scientific Research on the Transcendental Meditation Program: Collected Papers, Vol. 1*, eds. D.W. Orme-Johnson and J.T. Farrow. New York: M.E.R.U. Press.
- Orme-Johnson, D. W., & Haynes, C. T. (1981). EEG Phase Coherence, Pure Consciousness, Creativity, and TM-Sidhi Experiences. *International Journal of Neuroscience*, **13**, 211-217.
- Orme-Johnson, D. W., Clements, G., Haynes, C. T. et al. (1977b). Higher States of Consciousness: EEG Coherence, Creativity and Experiences of the Sidhis. In *Scientific Research on the Transcendental Meditation Program: Collected Papers, Vol. 1*:705-712. Eds. D.W. Orme-Johnson and J.T. Farrow. New York: M.E.R.U. Press.
- Orme-Johnson, D.W. (1973). Autonomic Stability and Transcendental Meditation. *Psychosomatic Medicine*, **35**(4), 341-349.
- Osis, K., Bokert, E., & Carlson, M. L. (1973). Dimensions of the Meditative Experience. *Journal of Transpersonal Psychology*, **5**(2), 109-135.
- Ott, M. J., Norris, R. L., Bauer-Wu, S. M. (2005). Mindfulness meditation for oncology patients: a discussion and critical review. Nursing and Patient Care Services, Dana-Farber Cancer Institute, Boston, USA.
- Pagano, R. R., & Frumkin, L. R. (1977). The Effect of Transcendental Meditation on Right Hemispheric Functioning. *Biofeedback and Self-Regulation*, **2**(4), 407-415.

- Pagnoni, G., & Cekic, M. (2007). Age effects on gray matter volume and attentional performance in Zen meditation. *Neurobiol Aging*, **28**(10), 1623-7.
- Pardini, D. A., Plante, T. G., Sherman, A., & Stump, J. E. (2000). Religious faith and spirituality in substance abuse recovery: determining the mental health benefits. *Journal of Substance Abuse Treatment*, **19**, 347-354.
- Parducci, A. (1968). "Toward a Relation Theory of Happiness", Paper presented at 90th annual convention of the American Psychological Association (August), Washington, DC.
- Paul, G. L. (1969). Physiological Effects of Relaxation Training and Hypnotic Suggestion. *Journal of Abnormal Psychology*, **74**, 425-437.
- Pelletier, K. R. (1976a). Applications of Meditative Exercises in Enhancing Clinical Biofeedback Outcome. In *Proceedings of the Biofeedback Research Society*, Denver: Biofeedback Research Society.
- Pelletier, K. R. (1978). "Toward a Science of Consciousness." New York, Delacorte.
- Pelletier, K. R., & Peper, E. (1977b). Alpha EEG Feedback as a Means for Pain Control. *Journal of Clinical and Experimental Hypnosis*, **25**(41), 361-371.
- Peper, E., & Ancoli, S. (1979). The Two End Points of an EEG Continuum of Meditation: Alpha/Theta and Fast Beta. In *Mind/Body Integrations: Essential Readings in Biofeedback*. Eds. Peper, E., Ancoli, S., and Quinn, M. New York: Plenum.
- Peters, R. K., Benson, H., & Peters, J.M. (1977b). Daily Relaxation Response Breaks in a Working Population: 2. Blood Pressure. *American Journal of Public Health*, **67**, 954-959.
- Peters, R. K., Benson, H., & Porter, D. (1977a). Daily Relaxation Response Breaks in a Working Population: 1. Health, Performance and Well-being." *American Journal of Public Health*, **67**, 946-953.

- Pollard, G., & Ashton, R. (1982). "Heart Rate Decrease: A Comparison of Feedback Modalities and Biofeedback with Other Procedures." *Biological Psychology* **14**, 245-257.
- Pollner, M. (1989). Divine relations, social relations, and well-being. *Journal of Health and Social Behavior*, **30**, 92-104.
- Pradhan, E. K., Baumgarten, M., Langenberg, P., Handwerker, B., Gilpin, A. K., Magyari, T., Hochberg, M.C., Berman, B.M. (2007). "Effect of Mindfulness-Based Stress Reduction in rheumatoid arthritis patients." The University of Maryland School of Medicine, Baltimore, MD, USA.
- Rainforth, M. V., Schneider, R. H., Nidich, S. I., Gaylord-King, C., Salerno, J. W., Anderson, J. W. (2007). Stress Reduction Programs in Patients with Elevated Blood Pressure: A Systematic Review and Meta-analysis. *Curr Hypertens Rep. Dec*, **9**(6), 520-8.
- Rashid, S. (2003). "Role of Meditation in the Management of Certain Cardiovascular Disorders amongst Type A and Type B Patients." Ph.D. Thesis. Department of Psychology. Aligarh Muslim University, Aligarh, India, pp-3-6.
- Reiman, J. W. (1985). The Impact of Meditative Attentional Training on Measures of Select Attentional Parameters and on Measures of Client Perceived Counselor Empathy. *Dissertation Abstracts International*, **46**(6-A), 1569.
- Robertson, D. W. (1983). The Short and Long Range Effects of the Transcendental Meditation Technique on Fractionated Reaction Time. *Journal of Sports Medicine*, **23**, 113-120.
- Roth, R. (2001). *The Transcendental Meditation*.
<http://www.tmscotland.org/business>.
- Roysamb, E., Tambs, K., Reichborn-Kjennerud, E., Neale, M. C., & Harris, J. R. (2003). Happiness and health: Environmental and genetic contributions to the relationship between subjective well-being, perceived health, and somatic illness. *Journal of Personality and Social Psychology*, **85**, 1136-1146.

- Russell, E. W. (1986). Consciousness and the unconscious: Eastern meditative and Western psychotherapeutic approaches. *Journal of Transpersonal Psychology*, **18**, 51-72.
- Ryff, C. D. Keyes, C L. & Corey, L. M. (1995). The structure of psychology well being Revised, *Journal of personality and social psychology*, **69**(4), 719-729.
- Sahoo, F. M., & Bidyadhars. (1988). The subjective components of psychological well-being in Indian professions. An idiographic investigation using the lens model. Unpublished Dissertation Utkal University, Bhubancswar. India.
- Sarang, S. P., Telles, S. (2007). Immediate effect of two yoga-based relaxation techniques on performance in a letter-cancellation task. *Percept Mot Skills*, **105**(2), 379-385.
- Scheier, M. F., & Carver, C. S. (1993). On the power of positive thinking: The benefits of being optimistic. *Current Directions in Psychological Science*, **2**, 26-30.
- Schuster, R. (1975-76). Meditation: Philosophy and Practice in a Drug Rehabilitation Setting. *Drug Forum*, **5**(2), 163-170.
- Schwartz, N. & Strack, F. (1999). "Reports of subjective well-being; judgmental processes and their methodological implications." In Kahneman, D. Diener, E. Schwarty, N (eds) well-being: The foundation of hedonic psychology, New York: Russel Sage.
- Scitovsky, T. (1976). "*The joyless economy*." Oxford: Oxford University Press. (University Microfilm No. 60-6588).
- Selye, H. (1976): "*The Stress of Life*". McGraw-Hill, New York.
- Shafii, M. (1973b). Silence in the Service of Ego: Psychoanalytic Study of Meditation. *International Journal of Psychoanalysis*, **54**(4), 431-443.
- Shapiro, D. H. (1980a). Meditation and Holistic Medicine. In *Holistic Medicine*. Eds. Hastings, A., Fadiman, J., and Gordon, J., Rockville, MD: NIMH.
- Shapiro, D. H. (1982). Overview: Clinical and Physiological Comparison of Meditation and other Self-control Strategies. *American Journal of*

Psychiatry, **139**(3), 267-274.

- Shapiro, D. H. (1985). "Clinical Use of Meditation as a Self-regulation Strategy: Comments on Holmes's Conclusions and Implications." *American Psychologist*, **40**(6), 719.
- Shapiro, D. H. (1992). Adverse effects of meditation: a preliminary investigation of long-term meditators. *International Journal of Psychosomatics*, **39**, 62-67.
- Shapiro, D. H. (1994). "Examining the content and context of meditation: a challenge for psychology in the areas of stress management." *Psychotherapy and Religion Values*, **34**(4), 101-135.
- Shapiro, D. H., & Giber, D. (1978). Meditation and Psychotherapeutic Effects: Self-regulation Strategy and Altered State of Consciousness. *Archives of General Psychiatry*, **35**(3), 294-302.
- Shapiro, D., Hui, K. K., Oakley, M. E., Pasic, J., Jamner, L. D. (1997). Reduction in drug requirements for hypertension by means of a cognitive-behavioral intervention. *Am J Hypertens*, **10**, 9-17.
- Shapiro, D.H. (1980b). "Meditation: Self-regulation Strategy and Altered State of Consciousness: A Scientific/Personal Exploration." New York: Aldine.
- Sharma, R., Manjunatha, S., Bijlani, R.L. (2004), Effect of Yoga on Subjective Well Being. *Indian J Physiol Pharmacol*, **48**(5 Suppl), 238.
- Shaw, R., & Kolb, D. (1977). Reaction Time following the Transcendental Meditation Technique. In *Scientific Research on the Transcendental Meditation Program: Collected Papers, Vol. 1*, eds. Orme-Johnson, D.W., and Farrow, J.T. New York: M.E.R.U. Press.
- Sherrill, K. A., & Larson, D. B. (1988). Adult burn patients: the role of religion in recovery. *Southern Medical Journal*, **81**, 821-825.
- Simon, D. B., Oparil, S., & Kimball, C. P. (1974). The Transcendental Meditation program and essential hypertension. Hypertension Clinic and Department of Psychiatry, Pritzker School of Medicine, University of Chicago, Chicago, Illinois, U.S.A.

- Simon, D. B., Oparil, S., & Kimball, C. P. (1977). The Transcendental Meditation Program and Essential Hypertension. *In Scientific Research on the Transcendental Meditation Program: Collected Papers*, Vol. 1, Eds. Orme-Johnson, D. W., and Farrow, J. T. New York: M.E.R.U. Press.
- Simon, D. B., Oparil, S., and Kimball, C. P. (1974). The Transcendental Meditation program and essential hypertension. Hypertension Clinic and Department of Psychiatry, Pritzker School of Medicine, University of Chicago, Chicago, Illinois, U.S.A.
- Singh, N. N., Lancioni, G. E., Winton, A. S., Singh, A. N., Adkins, A. D., Singh, J. (2008). Clinical and Benefit-Cost Outcomes of Teaching a Mindfulness-Based Procedure to Adult Offenders with Intellectual Disabilities. *Behav Modif.* **32**(2), 167-181.
- Singh, Y., Vempati, R. P., Sharma, R., Yadav, R. K., Bijlani, R. L. (2003). Effect of short - term Yoga based intervention on Anxiety. Souvenir. 14th International Conference on Frontiers YOGA RESEARCH AND APPLICATIONS. *Swami Vivekananda Yoga Anusandhan Sansthan*, Bangalore, December 2003; 18-21.
- Sinha, S. N., Prasad, S. C., & Sharma, K. N. (1978). An Experimental Study of Cognitive Control and Arousal Processes during Meditation. *Psychologia*, **21**(4), 227-230.
- Smith, W. P., Compton, W. C. & West, W. B. (1995). Meditation as an adjunct to a happiness enhancement program. *Journal of Clinical Psychology*, **51**, 269-273.
- Snaith, P. (1998). Meditation and psychotherapy. *British journal of psychiatry*, **173**, 193-195.
- Snaith, R. P., Owens, D., & Kennedy, E. (1992). An Outcome Study of a Brief Anxiety Management Programme: Anxiety Control Training. *Irish Journal of Psychological Medicine*, **9**(2), 111-114.
- Solberg, E. E., Berglund, K. A., Engen, O., Ekeberg, O., Loeb, M. (1996). The effect of meditation on shooting performance. *Br J Sports Med.* **30**(4), 342-346.

- Stern, M. (1977). The Effects of the Transcendental Meditation Program on Trait Anxiety. In *Scientific Research on the Transcendental Meditation Program: Collected Papers, Vol. 1*, eds. D.W. Orme-Johnson and J.T. Farrow. New York: M.E.R.U. Press.
- Stigsby, B., Rodenburg, J. C., & Moth, H. B. (1981). Electroencephalographic Findings during Mantra Meditation (Transcendental Meditation): A Controlled, Quantitative Study of Experienced Meditators. *Electroencephalography and Clinical Neurophysiology*, **51**(4), 434-442.
- Stone, R. A., & DeLeo, J. (1976). Psychotherapeutic control of hypertension. *New England Journal of Medicine*, **2**, 80-86.
- Stroebel, C., & Glueck, B. (1977). Passive Meditation: Subjective and Clinical Comparison with Biofeedback. In *Consciousness and Self-Regulation*, eds. Schwartz, G. & Shapiro, D. New York: Plenum.
- Sudsang, R., Chentanez, V., & Veluvan, K. (1991). Effect of Buddhist Meditation on Serum Cortisol and Total Protein Levels, Blood Pressure, Pulse Rate, Lung Volume and Reaction Time. *Physiology and Behavior*, **50**(3), 543-548.
- Surwillo, W. W., & Hobson, D. P. (1978). Brain Electrical Activity during Prayer. *Psychological Reports*, **43**(1), 135-143.
- Sweet, M. J., & Johnson, C. G. (1990). Enhancing Empathy: The Interpersonal Implications of a Buddhist Meditation Technique. Special Issue: Psychotherapy and Religion. *Psychotherapy* **27**(1), 19-29.
- Tang, Y. Y., Ma, Y., Wang, J., Fan, Y., Feng S., Lu, Q., Yu Q., Sui, D., Rothbart, M.K., Fan, M., Posner, M. I. (2007). Short-term meditation training improves attention and self-regulation. *Proc Natl Acad Sci. U S A*. **104**(43), 17152-6.
- Taylor, S. E., Wood, J. V., & Lichtmen, R. R. (1983). It Could be worse: Selective evaluation as a response to victimization. *Journal of Social Issues*, **39**, 19-40.

- Thomas, D., & Abbas, K. A. (1978). Comparison of TM and Progressive Relaxation in Reducing Anxiety. *British Medical Journal*, **2**(6), 154, 1,749.
- Throll, D. A. (1981). Transcendental Meditation and Progressive Relaxation: Their Psychological Effects. *Journal of Clinical Psychology*, **37**, 776-781.
- Throll, D. A., & Throll, L. A. (1977). The effect of a three-month residence course upon the personalities of experienced meditators. Victoria University, Wellington, New Zealand.
- Tov, W., & Diener, E. (2008). The well-being of nations: Linking together trust, cooperation, and democracy. In B.A. Sullivan, M. Snyder, & J.L. Sullivan (Eds), *Cooperation: The political psychology of effective human interaction* (pp. 323-342). Malden, MA: Blackwell Publishing.
- Traver, M. M. (1990). Efficacy of Short Term Meditation as Therapy for Symptoms of Stress. *Dissertation Abstracts International* **50**(12-B), 5897.
- Treichel, M., Clinch, N., & Cran, M. (1973). The Metabolic Effects of Transcendental Meditation. *The Physiologist*, **16**, 471.
- Tyler, C. J. (1977). "Meditation, esoteric traditions: contributions to psychotherapy." *American Journal of Psychotherapy*, 394-404.
- Udupa, K. N. (1973). Certain Studies in Psychological and Biochemical Responses to the Practice of Hatha Yoga in Young Normal Volunteers. *Indian Journal of Medical Research*, **61**(2), 237-244.
- Udupa, K.N., Singh, R.H., Dwivedi, K.N., et al. (1975). Comparative Biochemical Studies on Meditation. *Indian Journal of Medical Research*, **63**(12), pp 1,676-1,679.
- Vahiya, N. S., Doongaji, D. R., & Jeste, D. V. (1975). Value of Patanjali concepts in the treatment of psychoneuroses. In S. Arieti & G. Chrzonowski (Ed.). *New dimensions in Psychiatry* (pp. 293-304). New York: Wiley.
- Vanden Berg, W. P., & Mulder, B. (1976). Psychological Research on the Effects of the TM Technique on a Number of Personality Variables. *Gedrag, Tijdschrift voor Psychologie*, **4**(4), 206-218.

- Van-Nuys, D. (1973). Meditation, Attention and Hypnotic Susceptibility: A Correlational Study. *International Journal of Clinical and Experimental Hypnosis*, **21**(2), 59-69.
- Veenhoven, R. (1988). The Utility of Happiness? *Social Indicator Research*, **20**, 334-354.
- Veenhoven, R. (1991). Is happiness relative? *Social Indicator Research*, **24**, 1-34.
- Wachsmuth, D., Dolce, T. & Offenloch, K. (1980). Computerized Analysis of the EEG during Transcendental Meditation and Sleep. *Electroencephalography and Clinical Neurophysiology*, **48**(3), 39.
- Wada, J. A., & Hamm, A. E. (1974). Electrographic Glimpse of Meditative State: Chronological Observations of Cerebral Evoked Response. *Electroencephalography and Clinical Neurophysiology*, **37**(2), 201.
- Wagstaff, G. F., Brunas-Wagstaff, J., Cole, J., Knapton, L., Winterbottom, J., Crean, V., Wheatcroft, J. (2004). Facilitating memory with hypnosis, focused meditation, and eye closure. *Int J Clin Exp Hypn*, **52**(4), 434-55.
- Wallace, R. K. (1970). Physiological Effects of Transcendental Meditation. *Reviste Brasileira de Medicina*, **8**, 397-401.
- Wallace, R. K. (1971). The Physiological Effects of Transcendental Meditation: A Proposed Fourth Major State of Consciousness. *Dissertation Abstracts International*, **31**(4), 303B.
- Wallace, R. K., & Benson, H. (1972). The Physiology of Meditation. *Scientific American*, **226**(2), 84-90.
- Wallace, R. K., Benson, H., & Wilson, A. F. (1971b). A Wakeful Hypometabolic Physiologic State. *American Journal of Physiology*, **221**, 795-799.
- Wallace, R. K., et_al, Benson, H., & Gattozzi, A. A. (1971c). Physiological Effects of a Meditation Technique and a Suggestion for Curbing Drug Abuse. In *Mental Health Program Reports*. National Institute of Mental Health. USA.

- Wallace, R. K., Silver, J. Mills, P. J., et al. (1983b). Systolic blood pressure and long-term practice of the Transcendental Meditation and TM-Sidhi program: Effects of TM on systolic blood pressure. *Psychosomatic Medicine*, **45**(1), 41-46.
- Walsh, R. N. (1978). Initial Meditative Experience: Part II. *Journal of Transpersonal Psychology*, **10**(1), 1-28.
- Wandhoefer, A., & Plattig, K. H. (1973). Stimulus-linked DC-shift and Auditory Evoked Potentials in Transcendental Meditation. *Pfleuger's Archives*, **343**.
- Warrenburg, S. (1979). Meditation and Hemispheric Specialization. *Dissertation Abstracts International*, **40**(6-B), 2892-2893.
- Warshal, D. (1980). Effects of the TM Technique on Normal and Jendrassik Reflex Time. *Perceptual and Motor Skills*, **50**(3) pt. 2, 1103-1106.
- Watanabe, T., Shapiro, D., & Ochowitz, G. E. (1972). Meditation as an Anoxic State: A Critical Review and Theory. *Psychophysiology*, **9**, 29.
- Watson, D. (2000). *"Mood and temperament."* New York: Guilford.
- Weinstein, M., & Smith, J. C. (1992). Isometric Squeeze Relaxation (Progressive Relaxation) vs Meditation: Absorption and Focusing as Predictors of State Effects. *Perceptual and Motor Skills*, **75**, 1263-1271.
- Wenger, M. A., & Bagchi, B. K. (1961). Studies of Autonomic Functions in Practitioners of Yoga in India. *Behavior Science*, **6**, 312-323.
- Werner, O. R., Wallace, R. K., Charles, B., et al. (1986). Long-term Endocrinologic Changes in Subjects Practicing the Transcendental Meditation and TM-Sidhi Program. *Psychosomatic Medicine*, **48**(1-2), 59-65.
- West, M. A. (1979a). Physiological Effects of Meditation: A Longitudinal Study. *British Journal of Social and Clinical Psychology*, **18**(2), 219-226.
- West, M. A. (1980a). Meditation and the EEG. *Psychological Medicine*, **10**(2), 369-375.

- West, M. A. (1987). *"The psychology of meditation."* Oxford: Clarendon Press/Oxford University Press.
- Williams, P., & West, M. (1975). EEG Responses to Photic Stimulation in Persons Experienced at Meditation. *Electroencephalography and Clinical Neurophysiology*, **39**(5), 519-522.
- willson, W. (1967). 'Correlates of avowed happiness'. *Psychological Bulletin*, **67**(4), 294-306.
- Wilson, W. R. (1960). An Attempt to determine some correlates and dimensions of hedonic tone (Doctoral dissertation, Northwestern University, 1960). *Dissertation Abstracts*, **22**, 2841 (University Microfilm No. 60-6588).
- Wolkove, N., Kreisman, H., Darragh, D. (1984). Effect of Transcendental Meditation on Breathing and Respiratory Control. *Journal of Applied Physiology*, **56**(3), 607-612.
- Woolfolk, R. L. (1975). Psychophysiological Correlates of Meditation. *Archives of General Psychiatry*, **32**(10), 1326-1333.
- Woolfolk, R. L., & Franks, C. M. (1984). "Meditation and Behavior Therapy. In *Meditation: Classic and Contemporary Perspectives*," Eds. Shapiro D.H. & Walsh R.N. New York: Aldine.
- Woolfolk, R. L., Lehrer, P. M., McCann, B., et al. (1982). Effects of Progressive Relaxation and Meditation on Cognitive and Somatic Manifestations of Daily Stress. *Behavior Research Therapy*, **20**, 461-467.
- World Health Organization (2001). "Mental Health: New Understanding, New Hope." Geneva: World Health Organization.
- Zika, B. (1987). The Effects of Hypnosis and Meditation on a Measure of Self-actualization. *Australian Journal of Clinical and Experimental Hypnosis*, **15**(1), 21-28.

Appendices

APPENDICES

APPENDIX-A

ব্যক্তিগত তথ্য সম্পর্কিত প্রশ্নমালা (প্রি-মেডিটেশন)

নাম.....

রেজিস্ট্রেশন নম্বরঃ

পুরুষ মহিলা

বর্তমান ঠিকানাঃ

.....

ফোনঃ..... মোবাইলঃ.....

স্থায়ী ঠিকানাঃ

পেশা (পূর্ণ বিবরণসহ).....

শিক্ষাগত যোগ্যতাঃ.....

বাসস্থানের অবস্থানঃ.....

ব্যক্তিগত তথ্য সম্পর্কিত প্রশ্নমালা (পোস্ট মেডিটেশন -১)

নাম.....

রেজিস্ট্রেশন নম্বরঃ.....

ব্যক্তিগত তথ্য সম্পর্কিত প্রশ্নমালা (পোস্ট মেডিটেশন-২, এবং পোস্ট মেডিটেশন-৩)

নাম.....

রেজিস্ট্রেশন নম্বরঃ.....

বর্তমান ঠিকানাঃ

.....

ফোনঃ..... মোবাইলঃ.....

আপনি কতবার মেডিটেশন করেনঃ

দিনে দুইবার দিনে একবার সপ্তাহে একবার শুধুমাত্র ছুটির দিনে

মাঝে মাঝে অনিয়মিত অন্য কিছু হলে নির্দিষ্ট করে লিখুন

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APPENDIX-B

জীবনযাত্রার বিভিন্ন দিক সম্পর্কিত প্রশ্নমালা নির্দেশনা

মানুষ বিভিন্ন পরিবেশে বাস করে। তাছাড়া তাদের মধ্যে বিস্তার পার্থক্য রয়েছে। তাই জীবন ও আপন জগৎ সম্বন্ধে সকলের অনুভূতি এক রকম হয় না। স্বাস্থ্য, পরিবার, কাজ-কর্ম ইত্যাদি প্রাত্যহিক বিষয়গুলো নিয়ে তাঁরা কি ভাবেন সে সম্বন্ধে জানা প্রয়োজন। জনগনের জীবনযাত্রার মান উন্নয়নের জন্য এ বিষয়ে জ্ঞানলাভের প্রয়োজনীয়তা অনস্বীকার্য।

জীবনের বিশেষ বিশেষ দিক এবং সার্বিক জীবন সম্বন্ধে আপনি কি মনে করেন সে সম্বন্ধে জানার জন্যেই এই প্রশ্নমালাটি প্রণয়ন করা হয়েছে। এতে বেশ অনেকগুলো প্রশ্ন রয়েছে। প্রতিটি প্রশ্ন মনোযোগ সহকারে পড়ুন এবং প্রদত্ত উত্তরের মধ্যে যে উত্তরটি আপনার নিজের বলে বিবেচনা করেন সেটিকে বৃত্ত (o) দিয়ে চিহ্নিত করুন। উদাহরণ স্বরূপ, প্রথম প্রশ্নের ক্ষেত্রে, যদি আপনি মনে করেন আপনার সাধারণ স্বাস্থ্য ভালো এবং শারীরিকভাবে যোগ্য, তবে অনুগ্রহ করে প্রদত্ত উত্তরের মধ্যে “খুব ভালো” (১) বৃত্তাবদ্ধ করুন। অনেক সময় মনে হতে পারে প্রদত্ত উত্তরের কোন উত্তরই আপনার অনুভূতির সাথে পুরোপুরি মিলছে না। সে ক্ষেত্রে যেটি আপনার উত্তরের সবচেয়ে কাছাকাছি মনে হয় সেটিকে চিহ্নিত করুন।

আপনার দেয়া তথ্যের গোপনীয়তা সম্পূর্ণভাবে রক্ষা করা হবে এবং তা কেবল মাত্র গবেষণা কাজে ব্যবহার করা হবে। কাজেই সম্পূর্ণ খোলা মনে উত্তর দিয়ে আমাদের প্রচেষ্টাকে সাফল্য মন্ডিত করে তুলুন।

ধন্যবাদ

প্রশ্নমালা

১. আপনার নিজের সাধারণ স্বাস্থ্য এবং শারীরিক যোগ্যতা সম্পর্কে আপনার অভিমত কি?
 - (১) খুব ভাল
 - (২) মোটামুটি ভাল
 - (৩) তেমন ভাল নয়

২. আপনার শিক্ষাগত যোগ্যতা নিয়ে আপনি কতটুকু সুখী?
 - (১) খুব সুখী
 - (২) মোটামুটি সুখী
 - (৩) তেমন সুখী নই
 - (৪) প্রযোজ্য নয়

৩. আপনার চাকুরী বা সম্পত্তি যদি খোয়া যায় তবে কি আপনি অপরের পর্যাণ্ড সাহায্য পাবেন বলে বিশ্বাস রাখেন?
 - (১) খুব বেশী
 - (২) কিছুটা
 - (৩) তেমন বেশী নয়

৪. আপনার পারিবারিক জীবন কেমন মনে হয়?
 - (১) খুব ভাল
 - (২) মোটামুটি ভাল
 - (৩) তেমন ভাল নয়

৫. আপনার সাথে আপনার স্বামী/স্ত্রীর সম্পর্ক সম্বন্ধে আপনি কি মনে করেন?
 - (১) খুব ভাল
 - (২) মোটামুটি ভাল
 - (৩) তেমন ভাল নয়
 - (৪) প্রযোজ্য নয়

৬. আপনার সাথে আপনার সন্তানদের সম্পর্ক কেমন?
 - (১) খুব ভাল
 - (২) মোটামুটি ভাল
 - (৩) তেমন ভাল নয়
 - (৪) প্রযোজ্য নয়

৭. আপনার সাথে আপনার বন্ধু-বান্ধবদের সম্পর্ক কেমন?
- (১) খুব ভাল
 - (২) মোটামুটি ভাল
 - (৩) তেমন ভাল নয়
৮. চার পাশের লোকজন আপনাকে পছন্দ করে বলে কি আপনি মনে করেন?
- (১) খুব বেশী
 - (২) কিছুটা
 - (৩) তেমন ভাল নয়
৯. আপনার কাজ কর্মে আপনি মনোযোগী হতে পারেন কি?
- (১) খুব বেশী
 - (২) কিছুটা
 - (৩) তেমন বেশী নয়
১০. সংকটময় পরিস্থিতিতেও আপনি কি নিজেকে শান্ত রাখতে এবং নিজেকে নিয়ন্ত্রণে রাখতে পারেন?
- (১) খুব বেশী
 - (২) কিছুটা
 - (৩) তেমন বেশী নয়
১১. কোন পরিস্থিতি আশানুরূপ না হলে সে পরিস্থিতিকে মোকাবেলা করতে পারেন বলে আপনার মনে হয় কি?
- (১) বেশীর ভাগ সময়
 - (২) মাঝে মাঝে
 - (৩) প্রায় কখনই নয়
১২. পরিবারের সদস্য, বন্ধু-বান্ধব অথবা প্রতিবেশীর মধ্যে এমন কেউ আছে কি যার সাথে আপনি প্রয়োজনে খোলাখুলি আলাপ করতে পারেন?
- (১) খুব বেশী
 - (২) কিছুটা
 - (৩) তেমন বেশী নয়
১৩. জরুরী অবস্থায়, যেমন, আপনার সব কিছু যদি পুড়ে অথবা চুরি হয়ে যায় তখন আপনার আত্মীয়-স্বজন অথবা বন্ধু-বান্ধব আপনাকে সাহায্য করবে বলে আপনি বিশ্বাস করেন কি?
- (১) খুব বেশী
 - (২) কিছুটা
 - (৩) তেমন বেশী নয়

১৪. অনেকটা স্বর্গীয় সুখের মত প্রচন্ড সুখের অনুভূতি কি আপনার কখনো হয়েছে?
- (১) বেশীর ভাগ সময়
 - (২) মাঝে মাঝে
 - (৩) প্রায় কখনই নয়
১৫. আপনার কি মাঝে মাঝে মনে হয় যে আপনার চার পাশের পরিবেশ এবং আপনি নিজে একই শক্তির একটি অংশ?
- (১) খুব বেশী
 - (২) কিছুটা
 - (৩) তেমন বেশী নয়
১৬. আপনার লক্ষ্যে আপনি একা নন, এই বিশ্বাস কি আপনাকে আত্ম-বিশ্বাস ও শক্তি যোগায়?
- (১) খুব বেশী
 - (২) কিছুটা
 - (৩) তেমন বেশী নয়
১৭. বৃহত্তর দলের (নিজ পরিবার ছাড়া) মূল্যবোধ, আগ্রহ অথবা বিশ্বাসের অংশীদার হতে পারা কি আপনি আভ্যন্তরীণ শক্তির উৎস বলে মনে করেন?
- (১) খুব বেশী
 - (২) কিছুটা
 - (৩) তেমন বেশী নয়
১৮. আপনিও বিশ্বমানব পরিবারের একজন একথা ভেবে মাঝে মাঝে কি আপনি সুখ অনুভব করেন?
- (১) প্রায়ই
 - (২) মাঝে মাঝে
 - (৩) কদাচিৎ/কখনও নয়
১৯. আপনি কি আপনার জীবনে ধর্মীয় সার্থকতা খুঁজে পান?
- (১) ভীষণভাবে
 - (২) কিছুটা
 - (৩) তেমন বেশী নয়
২০. আপনি কি মনে করেন আপনার জীবনকে আপনি যেভাবে পরিচালিত করতে চান সেভাবে চালিত করার ক্ষমতা আপনার আছে?
- (১) বেশীর ভাগ সময়
 - (২) মাঝে মাঝে
 - (৩) প্রায় কখনই নয়

২১. সংকটের সময় (যা আপনার স্বাভাবিক জীবনযাত্রা ব্যাহত করতে পারে) আপনি পরিস্থিতির যথার্থ মোকাবেলা করতে পারেন বলে কতখানি আত্মবিশ্বাসী?
- (১) খুব বেশী
 - (২) কিছুটা
 - (৩) তেমন বেশী নয়
২২. আপনি আপনার জীবনে যা কিছু অর্জন করেছেন সে সম্পর্কে আপনি কি মনে করেন?
- (১) খুব ভাল
 - (২) মোটামুটি ভাল
 - (৩) তেমন ভাল নয়
২৩. সাম্প্রতিক কালে আপনি যা করেছেন তাতে সামগ্রিকভাবে আপনি কতটা সুখী?
- (১) খুব বেশী
 - (২) কিছুটা
 - (৩) তেমন বেশী নয়
২৪. সবকিছু মিলে এখন আপনার দিনকাল কেমন যাচ্ছে বলে মনে করেন?
- (১) খুব ভাল
 - (২) মোটামুটি ভাল
 - (৩) তেমন ভাল নয়
২৫. এখন যেভাবে সবকিছু চলছে তাতে ভবিষ্যতে খাপ খাওয়ানোর ব্যাপারে আপনি কতটুকু আত্ম-বিশ্বাস অনুভব করেন?
- (১) খুব বেশী
 - (২) কিছুটা
 - (৩) তেমন বেশী নয়
২৬. অতীতের তুলনায় আপনার বর্তমান জীবনকে কেমন মনে করেন?
- (১) খুব সুখী
 - (২) মোটামুটি সুখী
 - (৩) তেমন সুখী নই
২৭. অন্যদের তুলনায় আপনার জীবনকে কেমন মনে করেন?
- (১) খুব সুখী
 - (২) মোটামুটি সুখী
 - (৩) তেমন সুখী নই

২৮. আপনি আপনার জীবনকে কি চিত্তাকর্ষক বলে মনে করেন?
- (১) খুব বেশী
 - (২) কিছুটা
 - (৩) তেমন বেশী নয়
২৯. আপনি কি আপনার জীবনধারাকে উপভোগ্য বলে মনে করেন?
- (১) খুব বেশী
 - (২) কিছুটা
 - (৩) তেমন বেশী নয়
৩০. আপনি আপনার জীবনকে কি মূল্যবান মনে করেন?
- (১) খুব বেশী
 - (২) কিছুটা
 - (৩) তেমন বেশী নয়
৩১. আপনার পরিবার স্বামী/স্ত্রী উভয়েই কি উপার্জনক্ষম সদস্য?
- (১) হ্যাঁ
 - (২) না
 - (৩) প্রযোজ্য নয়
৩২. আপনার পরিবারে পারিবারিক আয় কিভাবে খরচ করা হবে সে সম্পর্কে সদস্যদের মধ্যে ভালসমঝোতা আছে কি?
- (১) বেশীর ভাগ সময়
 - (২) মাঝে মাঝে
 - (৩) প্রায় কখনই নয়
৩৩. আপনি কি মনে করেন আপনার পরিবারের অধিকাংশ সদস্য ঘনিষ্ঠভাবে একেঅপরেরকাছাকাছি?
- (১) খুব বেশী
 - (২) কিছুটা
 - (৩) তেমন বেশী নয়
৩৪. যখন আপনার পরিবারে বিয়ে পাত্র/পাত্রী নির্বাচন, শিক্ষা, ব্যবসা, প্রভৃতি কোন গুরুত্বপূর্ণ বিষয়ে সিদ্ধান্ত নেয়ার প্রয়োজন হয় তখন পরিবার প্রধান পরিবারের সদস্যদের সাথে আলাপ আলোচনা করেন কি?
- (১) বেশীর ভাগ সময়
 - (২) মাঝে মাঝে
 - (৩) প্রায় কখনই নয়

৩৫. আপনি কি মনে করেন আপনি যা করছেন তার জন্য আপনার পরিবার আপনাকে মনের জোর যোগাচ্ছে?

- (১) খুব বেশী
- (২) কিছুটা
- (৩) তেমন বেশী নয়

৩৬. অধিকাংশ সমস্যা সমাধানে আপনার পরিবারকে বিশেষ সহায়ক বলে বিবেচনা করেন কি?

- (১) খুব বেশী
- (২) কিছুটা
- (৩) তেমন বেশী নয়

৩৭. গুরুতর অসুস্থ অবস্থায় আপনার পরিবার আপনাকে কিরূপ দেখাশুনা করবেন বলে আপনি মনে করেন?

- (১) খুব বেশী
- (২) কিছুটা
- (৩) তেমন বেশী নয়

৩৮. কোন সদস্যের সংকটাপন্ন অবস্থায়, যেমন কেউ যদি বয়সের কারণে অকর্মণ্য হয়ে পড়ে, তাহলে আপনার পরিবার পুরোপুরি তার ভরণপোষণ করবে বলে আপনি মনে করেন?

- (১) খুব বেশী
- (২) কিছুটা
- (৩) তেমন বেশী নয়

৩৯. আপনি যদি মারা যান বা কখনও অক্ষম হয়ে পড়েন তখন আপনার ছেলেমেয়েদেরকে যথার্থ সহায়্য করতে কেউ থাকবে না একথা ভেবে আপনি মাঝে মাঝে দুশ্চিন্তাগ্রস্ত হন কি?

- (১) খুবই
- (২) কিছুটা
- (৩) তেমন বেশী নয়
- (৪) প্রযোজ্য নয়

৪০. আপনি কি আপনার পারিবারিক জীবন নিয়ে উদ্বিগ্ন হন?

- (১) বেশীর ভাগ সময়
- (২) মাঝে মাঝে
- (৩) কদাচিৎ

৪১. আপনাদের স্বামী/স্ত্রীর সম্পর্ক নিয়ে, আপনি কি মাঝে-মাঝে উদ্দিগ্ন হন?
- (১) খুবই
 - (২) কিছুটা
 - (৩) খুব কম
 - (৪) প্রয়োজ্য নয়
৪২. আপনি কি মাঝে মাঝে আপনার সাথে আপনার সন্তানদের সম্পর্ক নিয়ে উদ্দিগ্ন হন?
- (১) খুবই
 - (২) কিছুটা
 - (৩) তেমন বেশী নয়
 - (৪) প্রয়োজ্য নয়
৪৩. প্রকৃতপক্ষে আপনার যত বন্ধু আছে আপনি তার চেয়ে অধিক সংখ্যক বন্ধু পেতে চান কি?
- (১) খুবই
 - (২) কিছুটা
 - (৩) তেমন নয়
৪৪. আপনি কি মাঝে মাঝে একজন প্রকৃত ও অন্তরঙ্গ বন্ধুর অভাব অনুভব করেন?
- (১) খুবই
 - (২) কিছুটা
 - (৩) তেমন নয়
৪৫. আপনার চার পাশের মানুষ আপনাকে পছন্দ করছে না এটা কি আপনার সার্বক্ষণিক চিন্তার বিষয়?
- (১) খুবই
 - (২) কিছুটা
 - (৩) তেমন নয়
৪৬. আপনি কি মনে করেন আপনার বন্ধু-বান্ধব/আত্মীয়-স্বজন আপনার বিপদে সাহায্য করতে এগিয়ে আসবে?
- (১) খুবই
 - (২) কিছুটা
 - (৩) তেমন নয়
৪৭. যার ওপর আপনার সম্পূর্ণ আস্থা রয়েছে এবং যার সাথে আপনি আপনার ব্যক্তিগত বিষয় ও সমস্যাগুলি নিয়ে খোলাখুলি আলাপ করতে পারেন এমন কোন ব্যক্তির অভাব অনুভব করেন কি?
- (১) খুবই
 - (২) কিছুটা
 - (৩) তেমন নয়

৪৮. যে জনগোষ্ঠী পারস্পরিকভাবে বন্ধু ভাবাপন্ন এবং সাহায্যকারী, আপনি কি নিজেকে তাদের একটি অংশ বলে মনে করেন?
- (১) খুবই
 - (২) কিছুটা
 - (৩) তেমন নয়
৪৯. যদি আপনার পরিবারে কিছু ঘটে তবে আপনি আপনার প্রতিবেশীদের সাহায্য পাবেন বলে মনে করেন কি?
- (১) খুবই
 - (২) কিছুটা
 - (৩) তেমন নয়
৫০. গুরুতর অসুস্থতায় বা দুর্ঘটনার সময় আপনার আত্মীয়-স্বজন কিংবা বন্ধু-বান্ধব আপনাকে দেখাশুনা করবে বলে কতখানি বিশ্বাস করেন?
- (১) খুবই
 - (২) কিছুটা
 - (৩) তেমন নয়
৫১. আপনি কি আপনার শরীরের বিভিন্ন অংশের যত্ননায় ভোগেন?
- (১) অধিকাংশ সময়
 - (২) মাঝে মাঝে
 - (৩) কদাচিৎ
৫২. আপনি কি হৃদপিণ্ডের ধড়পড়ানীতে অস্বস্তিবোধ করেন?
- (১) অধিকাংশ সময়
 - (২) মাঝে মাঝে
 - (৩) কদাচিৎ
৫৩. মাথা ঝিম-ঝিম করার অনুভূতি আপনার বিরক্তি ঘটায় কি?
- (১) অধিকাংশ সময়
 - (২) মাঝে মাঝে
 - (৩) প্রায় কখনই নয়
৫৪. আপনি কি মনে করেন যে আপনি খুব অল্পতেই ক্লান্ত হয়ে পড়েন?
- (১) অধিকাংশ সময়
 - (২) মাঝে মাঝে
 - (৩) কদাচিৎ

৫৫. ভাল ঘুম না হওয়ার কারণে কি আপনি অসুবিধা বোধ করেন?

- (১) অধিকাংশ সময়
- (২) মাঝে মাঝে
- (৩) কদাচিৎ

৫৬. আপনি কি মাঝে মাঝে আপনার স্বাস্থ্য সম্পর্কে উদ্ভিগ্ন হন?

- (১) খুবই
- (২) কিছুটা
- (৩) তেমন নয়

৫৭. আপনি আপনার ইচ্ছানুযায়ী বিশ্রাম নেওয়ার ব্যাপারে কি অসুবিধা বোধ করেন?

- (১) খুবই
- (২) কিছুটা
- (৩) তেমন নয়

৫৮. আপনি যখন কিছু চিন্তা করেন বা কিছু করতে চান তখন মনোনিবেশ না করতে পেরে অস্বস্তি বোধ করেন?

- (১) খুবই
- (২) কিছুটা
- (৩) তেমন নয়

৫৯. কোন কিছু আপনি যেভাবে মনে করেন যদি সেভাবে না ঘটে তবে কি আপনি সহজে ভেঙে পড়েন?

- (১) খুবই
- (২) কিছুটা
- (৩) তেমন নয়

৬০. আপনি কি সহজেই উত্তেজিত বা সংবেদনশীল হয়ে পড়েন?

- (১) খুবই
- (২) কিছুটা
- (৩) তেমন নয়

৬১. আপনি কি ছোট খাটো বিষয়ে প্রয়োজনাতিরিক্ত ভেঙে পড়েন?

- (১) খুবই
- (২) কিছুটা
- (৩) তেমন নয়

৬২. ছোট খাটো বিষয়ে আপনি মাঝে মাঝে আপনার মেজাজ ঠিক রাখতে পারেন না, এটাকে কি আপনি সমস্যা বলে মনে করেন?

- (১) খুবই
- (২) কিছুটা
- (৩) তেমন নয়

৬৩. সমালোচনা করলে আপনি সহজেই ভেঙে পড়েন কি?

- (১) অধিকাংশ সময়
- (২) মাঝে মাঝে
- (৩) কদাচিৎ

৬৪. উদ্বেগ এবং মানসিক চাপের কারণে আপনি কি বিরক্তবোধ করেন?

- (১) অধিকাংশ সময়
- (২) মাঝে মাঝে
- (৩) কদাচিৎ

৬৫. আপনি যা করছেন তাতে আপনার আত্মবিশ্বাসের অভাব আছে বলে কি আপনি উদ্বিগ্ন?

- (১) অধিকাংশ সময়
- (২) মাঝে মাঝে
- (৩) কদাচিৎ

৬৬. আপনার জীবনের বিভিন্ন অবস্থা আপনার নিয়ন্ত্রণের বাইরে বলে মনে হয় কি?

- (১) অধিকাংশ সময়
- (২) মাঝে মাঝে
- (৩) কদাচিৎ

৬৭. আপনি যা সম্পন্ন করতে চেয়েছেন তা সামান্য পরিমাণে সম্পাদিত হওয়ায় আপনি কি মাঝে মাঝে উদ্বিগ্ন হন?

- (১) খুবই
- (২) কিছুটা
- (৩) তেমন নয়

৬৮. আপনি যা পাওয়ার যোগ্য বলে মনে করেন তার চেয়ে কম সাফল্য অর্জন করেছেন বলে কি উদ্বিগ্ন হন?

- (১) খুবই
- (২) কিছুটা
- (৩) তেমন নয়

৬৯. বিনা কারণে আপনি কি মাঝে-মাঝে দুঃখ অনুভব করেন?

- (১) খুবই
- (২) কিছুটা
- (৩) তেমন নয়

৭০. আপনার পরিবারে সদস্যদের মাঝে মনোমালিন্য ও দ্বন্দ্বের কারণে কি আপনি মাঝে মাঝে উদ্ভিন্ন হন?

- (১) খুবই
- (২) কিছুটা
- (৩) তেমন নয়

৭১. আপনি কি আপনার ভবিষ্যত নিয়ে উদ্ভিন্ন?

- (১) খুবই
- (২) কিছুটা
- (৩) তেমন নয়

৭২. আপনি কি মাঝে মাঝে আপনার মানসিক সুস্থতা নিয়ে উদ্ভিন্ন হন?

- (১) খুবই
- (২) কিছুটা
- (৩) তেমন নয়

৭৩. আপনার জীবন নিরানন্দময় বা একঘেয়েমিপূর্ণ বলে কি আপনি মনে করেন?

- (১) খুবই
- (২) কিছুটা
- (৩) তেমন নয়

৭৪. আপনি কি মনে করেন আপনার জীবন দুঃখময়?

- (১) অধিকাংশ সময়
- (২) মাঝে মাঝে
- (৩) প্রায় কখনই নয়

৭৫. আপনার জীবনকে কি অপ্রয়োজনীয় বলে মনে করেন?

- (১) খুবই
- (২) কিছুটা
- (৩) তেমন নয়

৭৬. আপনি কি মনে করেন আপনার যে সব জিনিস প্রয়োজন তার অধিকাংশই আপনার আছে?

- (১) খুবই
- (২) কিছুটা
- (৩) তেমন নয়

৭৭. আপনি কি মনে করেন আপনার প্রত্যাশিত সামাজিক মর্যাদা ও জীবন যাত্রার মান অর্জন করতে পেরেছেন?

- (১) খুবই
- (২) কিছুটা
- (৩) তেমন নয়

৭৮. আপনি যা করতে চান তা কি সাধারণতঃ সম্পাদন করতে পারেন?

- (১) অধিকাংশ সময়
- (২) মাঝে মাঝে
- (৩) কদাচিৎ

৭৯. আপনার যা করতে ইচ্ছা তা করবার স্বাধীনতার ক্ষেত্রে আপনি প্রত্যাশিত সাফল্য অর্জন করেছেন বলে মনে করেন কি?

- (১) বেশ খানিকটা
- (২) কিছুটা
- (৩) তেমন নয়

৮০. আপনি যতটুকু সাফল্য লাভ করেছেন এবং এগিয়ে যাচ্ছেন সে সম্পর্কে আপনি কিরপ মনে করেন?

- (১) বেশ খানিকটা
- (২) কিছুটা
- (৩) তেমন নয়

৮১. আপনার সার্বিক জীবনযাত্রাকে বিবেচনা করে আপনি কি মনে করেন যে এটাই সে জীবন যেভাবে আপনি চলতে চেয়েছিলেন?

- (১) খুবই
- (২) কিছুটা
- (৩) তেমন নয়

৮২. যাবতীয় প্রচেষ্টার পর এখন আপনি কি মনে করেন যে আপনি জীবনে যথেষ্ট কৃতকার্য হয়েছেন?

- (১) খুবই
- (২) কিছু মাত্রায়
- (৩) তেমন নয়

APPENDIX-C

English version of the Subjective Well-being questionnaire

INSTRUCTION

People are different. They live in a variety of situations and they don't feel the same way about life and the world around them. From a practical viewpoint, it is important to know how different persons feel with regard to their day-to-day concerns such as their health, family, work, etc. Such knowledge is necessary if an improvement in the quality of life of people is to be brought about.

This is a questionnaire on how you feel about some aspects of your life and about your life as a whole. Each question may be answered by any one of the given categories by putting a circle (0) around the number which seems to represent your feelings best. For example, in the first question if you feel your general health is very good and you feel physically fit; please put a circle around the response 'very good' (1). At times you may find that your feeling is not represented perfectly by any one of the given response categories. In such cases, just choose the one closest to that you think.

You may find that some questions appear repetitive. Nonetheless, please answer them all. You don't need to have your answers agree with each other.

This questionnaire may appear rather long to you. But if you work as fast as you comfortably can, you will find that it does not really take very long to fill in.

All information given by you will be treated as confidential and will be used only for research purposes.

QUESTIONNAIRE ITEMS

1. How do you feel about your general health and physical fitness?

Very good	1
Quite good	2
Not so good	3

2. How happy are you with the education you have received?

- | | |
|----------------|---|
| Very happy | 1 |
| Quite happy | 2 |
| Not so happy | 3 |
| Not applicable | 4 |

3. Do you feel confident that you will be helped out adequately by someone in case you lose your job or your property?

- | | |
|----------------|---|
| Very much | 1 |
| To some extent | 2 |
| Not so much | 3 |

4. How do you feel about your family life?

- | | |
|-------------|---|
| Very good | 1 |
| Quite good | 2 |
| Not so good | 3 |

5. How do you feel about the relationship you and your family wife/husband have?

- | | |
|----------------|---|
| Very good | 1 |
| Quite good | 2 |
| Not so good | 3 |
| Not applicable | 4 |

6. How do you feel about the relationship you and your children have?

- | | |
|----------------|---|
| Very good | 1 |
| Quite good | 2 |
| Not so good | 3 |
| Not applicable | 4 |

7. How do you feel about the relationship you and your friends have?

- | | |
|-------------|---|
| Very good | 1 |
| Quite good | 2 |
| Not so good | 3 |

8. Do you think other people around you like you?
- | | |
|----------------|---|
| Very much | 1 |
| To some extent | 2 |
| Not so much | 3 |
9. Are you able to concentrate well on things you are doing?
- | | |
|----------------|---|
| Very much | 1 |
| To some extent | 2 |
| Not so much | 3 |
10. Are you able to remain calm and to control yourself even in critical situation?
- | | |
|----------------|---|
| Very much | 1 |
| To some extent | 2 |
| Not so much | 3 |
11. Do you feel you can manage situations even when they do not turn out as expected?
- | | |
|------------------|---|
| Most of the time | 1 |
| Sometime | 2 |
| Hardly ever | 3 |
12. Do you have someone, e.g. family member, a friend or a neighbour, to whom you can talk freely when you feel like it?
- | | |
|----------------|---|
| Very much | 1 |
| To some extent | 2 |
| Not so much | 3 |
13. Do you feel confident that relatives and/or friends will help you out if there is an emergency?
- | | |
|----------------|---|
| Very much | 1 |
| To some extent | 2 |
| Not so much | 3 |
14. Do you sometimes experience moments of intense happiness almost like a kind of ecstasy or bliss?
- | | |
|-------------|---|
| Quite often | 1 |
| Sometimes | 2 |
| Hardly ever | 3 |

15. Do you sometimes feel that you and the things around you belong very much together and are integral parts of a common force?

- Very much 1
- To some extent 2
- Not so much 3

16. Do you consider it a source of confidence and strength for you that you are not alone in what you are aiming for?

- Very much 1
- To some extent 2
- Not so much 3

17. Do you consider it a source of inner strength for you that you belong to a bigger group of people (other than the family) with whom you share common values, interests or beliefs?

- Very much 1
- To some extent 2
- Not so much 3

18. Do you sometimes experience a joyful feeling of being part of mankind as of one large family?

- Quite often 1
- Sometimes 2
- Rarely/ never 3

19. How do you feel about the religious fulfillment in your life?

- Quite deeply 1
- To some extent 2
- Not so much 3

20. Do you feel you have control over your life the way you want to?

- Most of the time 1
- Sometime 2
- Hardly ever 3

21. Do you feel confident that in case of a crisis (any thing which substantially upsets your life situation) you will be able to cope with it/face it boldly?
- | | |
|----------------|---|
| Quite deeply | 1 |
| To some extent | 2 |
| Not so much | 3 |
22. How do you feel about what you have accomplished in your life?
- | | |
|-------------|---|
| Very good | 1 |
| Quite good | 2 |
| Not so good | 3 |
23. On the whole, how happy are you with the things you have been doing in recent years?
- | | |
|--------------|---|
| Very happy | 1 |
| Quite happy | 2 |
| Not so happy | 3 |
24. Taking all things together how do you feel things are these days?
- | | |
|-------------|---|
| Very good | 1 |
| Quite good | 2 |
| Not so good | 3 |
25. The way things are going now do you feel confident in coping with the future?
- | | |
|----------------|---|
| Very much | 1 |
| To some extent | 2 |
| Not so much | 3 |
26. Compared with the past, do you feel your present life is:
- | | |
|--------------|---|
| Very happy | 1 |
| Quite happy | 2 |
| Not so happy | 3 |
27. Compared with others, do you feel your life is:
- | | |
|--------------|---|
| Very happy | 1 |
| Quite happy | 2 |
| Not so happy | 3 |

28. Do you feel your life is interesting?

- | | |
|----------------|---|
| Very much | 1 |
| To some extent | 2 |
| Not so much | 3 |

29. Do you feel your life is enjoyable?

- | | |
|----------------|---|
| Very much | 1 |
| To some extent | 2 |
| Not so much | 3 |

30. Do you feel your life is worthwhile?

- | | |
|----------------|---|
| Very much | 1 |
| To some extent | 2 |
| Not so much | 3 |

31. In your family, are husband and wife both earning members?

- | | |
|----------------|---|
| Yes | 1 |
| No | 2 |
| Not applicable | 3 |

32. In your family, is there a good agreement on how family income should be spent?

- | | |
|------------------|---|
| Most of the time | 1 |
| Sometimes | 2 |
| Hardly ever | 3 |

33. Do you think that most of the members of your family feel closely attached to each other?

- | | |
|----------------|---|
| Very much | 1 |
| To some extent | 2 |
| Not so much | 3 |

34. When there is an important decision to be taken in your family, like choice of a marriage partner, choice in education, business, etc., are other members consulted by the head of the family?

- | | |
|------------------|---|
| Most of the time | 1 |
| Sometimes | 2 |
| Hardly ever | 3 |

35. Do you consider your family a source of confidence for you in what you are doing?
- | | |
|----------------|---|
| Very much | 1 |
| To some extent | 2 |
| Not so much | 3 |
36. Do you consider your family a source of help to you in finding solutions to most of the problems you have?
- | | |
|----------------|---|
| Very much | 1 |
| To some extent | 2 |
| Not so much | 3 |
37. Do you think you would be looked after well by your family in case you were seriously ill?
- | | |
|----------------|---|
| Very much | 1 |
| To some extent | 2 |
| Not so much | 3 |
38. Do you consider that the family would be fully supporting any member in times of a crisis, e.g., if a family member becomes disabled with old age?
- | | |
|----------------|---|
| Very much | 1 |
| To some extent | 2 |
| Not so much | 3 |
39. Do you sometimes worry that there is nobody who would really help your children if you were unable to do so or if you would be no more?
- | | |
|----------------|---|
| Very much | 1 |
| To some extent | 2 |
| Not so much | 3 |
| Not applicable | 4 |
40. Do you worry about your family life?
- | | |
|------------------|---|
| Most of the time | 1 |
| Sometimes | 2 |
| Hardly ever | 3 |

41. Do you sometimes worry about the relationship you and your wife/husband have?

- Very much 1
- To some extent 2
- Not so much 3
- Not applicable 4

42. Do you sometimes worry about the relationship you and your children have?

- Very much 1
- To some extent 2
- Not so much 3
- Not applicable 4

43. Would you wish to have more friends than you actually have?

- Very much 1
- To some extent 2
- Not so much 3

44. Do you sometimes feel that you miss a real close friend?

- Very much 1
- To some extent 2
- Not so much 3

45. Is it a source of preoccupation for you that people around you do not like you?

- Very much 1
- To some extent 2
- Not so much 3

46. Do you feel your friends/relatives would help you out if you were in need?

- Very much 1
- To some extent 2
- Not so much 3

47. Do you miss a person you can have full confidence in and with whom you can talk about personal matters and problems?

- Very much 1
- To some extent 2
- Not so much 3

48. Do you feel part of a group of people who are mutually friendly and supportive?

Very much	1
To some extent	2
Not so much	3

49. If something were to happen to your family, do you think your neighbours would provide help?

Very much	1
To some extent	2
Not so much	3

50. Do you feel confident that relatives and/or friends will look after you if you are severely ill or meet with an accident?

Very much	1
To some extent	2
Not so much	3

51. Do you suffer from pains in various parts of your body?

Most of the time	1
Sometimes	2
Hardly ever	3

52. Are you disturbed by palpitation/ a thumping heart?

Most of the time	1
Sometimes	2
Hardly ever	3

53. Are you disturbed by a feelings of giddiness?

Most of the time	1
Sometimes	2
Hardly ever	3

54. Do you feel you get tired too closely?

Most of the time	1
Sometimes	2
Hardly ever	3

55. Are you troubled by disturbed sleep?

Most of the time	1
Sometimes	2
Hardly ever	3

56. Do you sometimes worry about your health?

Very much	1
To some extent	2
Not so much	3

57. Do you find it difficult to relax when you want to?

Most of the time	1
Sometimes	2
Hardly ever	3

58. Are you disturbed by the fact that your mind gets distracted when you want to do something or think of something?

Very much	1
To some extent	2
Not so much	3

59. Do you get easily upset if things don't turn out as expected?

Very much	1
To some extent	2
Not so much	3

60. Do you feel easily irritated, too sensitive?

Very much	1
To some extent	2
Not so much	3

61. Do you feel that minor things upset you more than necessary?

Very much	1
To some extent	2
Not so much	3

62. Do you consider it a problem for you that you sometimes lose your temper over minor things?

Very much	1
To some extent	2
Not so much	3

63. Do you get easily upset if you are criticized?

Most of the time	1
Sometimes	2
Hardly ever	3

64. Do you feel disturbed by feelings of anxiety and tension?

Most of the time	1
Sometimes	2
Hardly ever	3

65. Are you worried over the lack of confidence you have in what you are doing?

Most of the time	1
Sometimes	2
Hardly ever	3

66. Do you experience that the circumstances of your life are beyond your control?

Most of the time	1
Sometimes	2
Hardly ever	3

67. Do you sometimes worry about accomplishing so little of what you want to accomplish?

Very much	1
To some extent	2
Not so much	3

68. Do you worry about having less success in life than you think you deserve?

Very much	1
To some extent	2
Not so much	3

69. Do you sometimes feel sad without reason?

Very much	1
To some extent	2
Not so much	3

70. Do you sometimes worry over disharmony and conflicts between members of your family?

Very much	1
To some extent	2
Not so much	3

71. Do you worry about your future?

Very much	1
To some extent	2
Not so much	3

72. Do you sometimes worry about your mental wellbeing?

Very much	1
To some extent	2
Not so much	3

73. Do you feel your life is boring/uninteresting?

Very much	1
To some extent	2
Not so much	3

74. Do you feel your life is miserable?

Most of the time	1
Sometimes	2
Hardly ever	3

75. Do you feel your life is useless?

Very much	1
To some extent	2
Not so much	3

76. Do you feel you have most of the things you need?

- | | |
|----------------|---|
| Very much | 1 |
| To some extent | 2 |
| Not so much | 3 |

77. Do you think you have achieved the standard of living and the social status that you had expected?

- | | |
|----------------|---|
| Very much | 1 |
| To some extent | 2 |
| Not so much | 3 |

78. Do you normally accomplish what you want to?

- | | |
|------------------|---|
| Most of the time | 1 |
| Sometimes | 2 |
| Hardly ever | 3 |

79. Do you think you have achieved what you had expected in terms of the freedom to do what you want to do?

- | | |
|----------------|---|
| Very much | 1 |
| To some extent | 2 |
| Not so much | 3 |

80. How do you feel about the extent to which you have achieved success and are getting ahead?

- | | |
|-------------|---|
| Very good | 1 |
| Quite good | 2 |
| Not so good | 3 |

81. Considering your life as a whole do you think it is the life you want most to live?

- | | |
|----------------|---|
| Very much | 1 |
| To some extent | 2 |
| Not so much | 3 |

82. Considering all the efforts you have made, do you think you should have accomplished more in life?

- | | |
|----------------|---|
| Very much | 1 |
| To some extent | 2 |
| Not so much | 3 |

APPENDIX-D

ITEM DISTRIBUTION

Score

	<u>Mini. I</u>	<u>Middle I</u>	<u>Maxi.</u>
1. <u>Subjective well-being – positive affect:</u>			
Item no: 1 2 4 5 6 7 8 22 23 24 26 27 28 29 30=15	15	31.5	48
2. <u>Subjective well-being – negative affect:</u>			
Item no: 40 41 42 45 51 52 53 54 55 56			
64 65 67 69 71 72 73 74 75=19	19	39	59
3. <u>Mental mastery over self and environment:</u>			
Item no: 9 10 11 20 21 25 57 58 59 60 61 62 63 66=14	14	28	42
4. <u>Rootedness, belongingness:</u>			
Item no: 14 15 16 17 18 19 48=07	07	14	21
5. <u>Structural and cohesive aspects of the family:</u>			
Item no: 31 32 33 34 35 36 70=07	07	14	21
6. <u>Density of social network:</u>			
Item no: 12 13 43 44 46 47 49=07	07	14	21
7. <u>Security in health and socio-economic crisis:</u>			
Item no: 3 37 38 39 50=05	05	10.5	16
8. <u>Expectation – achievement harmony:</u>			
Item no: 68 76 77 78 79 80 81 82=08	08	16	24

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