Chapter I
Introduction

1. Introduction

India is a country with a rich historical tradition and culture. Though every culture has its own unique approach towards health, the best and the easiest way to keep oneself in fit form, is exercise. The most ancient rishis and sages knew the secret of good health and practiced various techniques, not only to keep them fit but also to be free from diseases. However these ancient practices died a slow death and the only known form of exercise was working in the fields and doing household chores. (Saggar, S. K., 1995).

In India the situation is quite alarming. The profile is changing rapidly. The World health Organization (WHO) has identified India as one of the nations that would have most of the lifestyle disorders in the near future. Nowadays, not only are lifestyle disorders becoming more common, but they are also affecting the younger population. Hence, the population age for risk shifts from 40+ year, to 30+ year, or even younger. Already considered the diabetes capital of the world, India now appears headed towards gaining another dubious distinction of becoming the lifestyle-related disease capital as well. All India Institute of Medical Sciences and Max Hospital have indicated that the incidence of hypertension, obesity and heart disease is increasing at an alarming rate, especially in the young, urban population. According to doctors, a sedentary lifestyle combined with an increase in the consumption of fatty food and alcohol is to blame for cases of obesity, diabetes, and hypertension. (http://www.indg.in/health/women-health/lifestyle-disorders/).

Lifestyle

Modern automated society uses many labour saving devices, such as elevators, escalators, washing machines and so on. Workers are more productive as a result of labour saving equipment, and life in general is much easier with so many forms of labour saving technology available. Indeed most of us can make it through the day with very little physical activity. It is known that individuals, who do not participate in regular exercise or physical activity, have an increased chance of developing cardio
vascular disease. In fact, sedentary lifestyle has been classified as a primary risk factor in cardiovascular disease approaching towards hypertension. (Fletcher, 1992)

Occupational studies also have shown a high incidence of heart disease in people involved in only sedentary work. Studies also indicate, however, that people who are physically active in their leisure time expend at least 2000 calories per week in sports, other physical activity and have reduced risk of coronary heart disease. Modern life has removed man from nature’s benign and rhythmic influence. The internal rhythms, the inherent clock work like nature of the nervous and endocrine systems, have become imbalanced through the effect of stress and tension, resulting in feeling of discomfort and lack of well-being and leading to diseases related to their professions. (Bailey, A., 2009).

**Professions**

In today’s technologically advanced world there are different professions. Every profession requires different abilities, skills, domain knowledge, and attitude. One’s profession has a great role to play in the lifestyle of an individual basically because of the nature and kind of the job. The professions many a times dictate the routine of an individual. (Hamzah, A., R., Chen, W., & Xiang, W., 2010)

**Women’s Health**

A woman's health is her total well-being, not determined solely by biological factors and reproduction, but also by effects of work load, nutrition, stress, war and migration, among others. (Vander, K. A, 1991)

Women's health issues have attained higher international visibility and renewed political commitment in recent decades. While targeted policies and programs have enabled women to lead healthier lives, significant gender-based health disparities remain in many countries. With limited access to education or employment, high illiteracy rates and increasing poverty levels are making health improvements for women exceedingly difficult.

Gender-equitable approaches to health are needed to enable women’s full participation in the planning and delivery of health services. The health of families and communities are tied to the health of women, the illness or death of a woman has serious and far-reaching consequences for the health of her children, family and community. Healthy Women, Healthy World embodies the fact that as custodians of
family health, women play a critical role in maintaining the health and wellbeing of their communities. (UNFPA, 2005).

**Modern Indian Women**

The status of women in modern India is a sort of paradox. If on one hand she is at the peak of the ladder of success, on the other hand she is mutely suffering the violence afflicted on her by her own family members. As compared with the past, women in modern times have achieved a lot but in reality they have to still travel a long way, their path is full of roadblocks. Women have left the secure domain of their homes and are now in the battlefield of life, fully armored with their talent, and have proven themselves. But in India they are yet to get their dues. The Gender ratio of 2001 census shows that the Indian society is still prejudiced against the female. There are 933 females per thousand males in India according to the census of 2001, which is much below the world average of 990 females per thousand males. There are many problems which women in India have to go through daily. These problems have become a part and parcel of life of Indian women. (http://www.mapsofindia.com/culture/indian-women.html)

Women in modern India have achieved a lot but in some spheres they still have a great deal to achieve. Today we find that they ignore themselves, they need to give themselves some quality time every day, this means with respect to their health and fitness. Some working women suffer from lifestyle diseases. 53 per cent of them skip meals and go for junk food due to work pressure and deadlines. In a survey conducted by the Associated Chamber of Commerce and Industry, in 2001, 68 per cent of working women in the age bracket of 21-52 years were found to be afflicted with lifestyle ailments such as obesity, depression, chronic backache, diabetes and hypertension. The report further said that as 27 per cent of females in urban India were employed, their health issues are a major concern both for society and business. The study also said that long hours and working under strict deadlines cause up to 75 per cent of working women to suffer from depression or general anxiety disorder, compared to women with lesser levels of psychological demands at work.(http://indg.in/health/womenhealth)

The modern Indian urban mother might be overly worried about the health of her child and the wellbeing of her family but she is among the most neglected persons in her house. Juggling hard between her career and domestic responsibilities she fails to
take time off for her health checkup. The results can often be disastrous (Mishra, V., 2010).

Today women have proved their mettle in every field and in every sphere. They are not just moving, but marching ahead with remarkable zeal and gusto. Every day they play myriad roles and take on a thousand responsibilities with amazing ease. Silently yet smilingly, they lead a very tough and strenuous life. Researcher salutes this everlasting spirit of womanhood and wishes every woman a fit and active life.

Teaching as a Profession
Teaching as a profession is mostly chosen by women. Teaching consists of many multifarious, interrelated activities; these include updating of knowledge and keeping in touch with latest information with respect to methodology and scientific perspective. Teachers also need to have administrative and management skills to deal with their peer management.

Women have other responsibilities along with teaching. They have to maintain their other responsibilities too like family, children, spouse, and household chores as well as maintaining personal and professional life, which is not an easy task. Specially talking about Mumbai which is a metropolitan city, people are always tied up in heavy schedules having busy lifestyles. Thus teachers in Mumbai too have a hectic life, reaching school on time after traveling long distances, performing various responsibilities both at home and at school. This indeed leaves them with practically no time for themselves. But at the same time, it is of paramount importance to see that they are physically as well as mentally fit.

The world of fitness and exercise is becoming increasingly complicated and often time consuming. Each training method has benefits when practiced correctly, it is to discover a comprehensive method of fitness training to maintain and strengthen the essential functionality of the human body throughout life. Since there are enormous responsibilities on the teachers’ shoulders, the increase in stress could lead to hypokinetic diseases. For female teachers, excess and unwanted weight is one of the greatest challenges and health risks facing most women. A women’s fitness program that is individually customized is normally very expensive because it usually requires hiring a personal trainer. It is a fact that most women cannot afford it because it costs thousands of rupees, as well as time as fitness has the least priority in teachers’ lives.
Lack of motivation and their very busy schedule leave them very unfit more so functionally unfit.

Since, each one has different reasons and needs, due to the structure of their bodies and their personal history of how they use their body; Functional Fitness programs were customized to meet specific individual needs. While it is possible to develop generic routines that would benefit everyone, it is also possible to customize exercise routines in ways that it would help the specific needs of each individual. Thus, Functional Fitness can be both generic and customized. To know more about functional fitness one must understand physical fitness.

1.1 Physical Fitness

Physical fitness means many things strength, vigorous vitality, capacity for work, and so on, but these are all partial views of fitness, which is a very wide term to be viewed and understood in its broad perspective. Physical fitness is a general term, but, a focal point in the area of measurement and evaluation is fitness, there are various definitions of fitness which emphasize different perspectives, these are presented below:

- Medical-dictionary portrays Physical fitness as a state of physiologic wellbeing that is achieved through a combination of good diet, regular physical exercise, and other practices that promote good health. (http://medical-dictionary.thefreedictionary.com)
- According to free dictionary, physical fitness is good physical condition; being in shape or in condition. (http://www.thefreedictionary.com/physical+fitness)
- Physical fitness means one is physically fit, free from illness, and able to function efficiently and effectively, to enjoy leisure, and to cope with emergencies. (Oxford Food & Fitness Dictionary, 2012)
- Physical fitness is a state of well-being with low risk of premature health problems and energy to participate in a variety of physical activities. (Howley & Frank., 2012)
- Physical Fitness is commonly defined as, the capacity to carry out the day’s activities without undue fatigue. However, as automation increased leisure time, changes in lifestyles following the industrial revolution rendered this definition insufficient. In current contexts, physical fitness is considered a measure of the
body’s ability to function efficiently and effectively in work and leisure activities, to be healthy, to resist hypokinetic diseases, and to meet emergency situations. (http://www.fitness.gov/digest_mar2000.htm)

The definition cited above sums up that fitness is broadly conceived of as ones capacity to survive and live effectively in his environment; in other words, ability (a) to carry out daily tasks with alertness and vigor, without undue fatigue. (b) Physical fitness is a state of physiologic wellbeing. (c) good physical condition; being in shape (d) to function efficiently and effectively, to enjoy leisure, and to cope with emergencies. (e) low risk of premature health problems (f) ability to function efficiently and effectively in work and leisure activities, to be healthy, to resist hypokinetic diseases. To conclude, physical fitness definition is very much oriented towards physical ability, the ability to meet physical challenges, whether related to work, sport, recreation, combat, or other life activities, for a layman, frail man who is challenged by daily functional activities such as climbing stairs, taking out the trash or even getting up out of a chair. In short, physical fitness has a preventive and maintenance focus, both for acquiring good health; most experts agree that physical fitness is both multidimensional and hierarchical.

Fitness means being able to perform physical activity. It also means having the energy and strength to feel as good as possible. Getting more fit, even a little bit, can improve health. One doesn’t have to be an athlete to be fit. People who cannot do much can work toward some level of fitness that helps them feel better and have more energy. Physical fitness focuses on health-related fitness, which helps to feel best and lowers risk for certain diseases. Making small changes in daily lifestyle helps to improve fitness. (Miller & Allen, 2000)

Since the researcher is focusing on women fitness, Bailey, A. (2009) found that women are frequently associated with many subjective complaints including vasomotor symptoms, sleep disturbance, alteration in mood, lowered libido, and musculoskeletal pain. All of these symptoms could lead to a lower quality of life. Physical fitness has the ability to alleviate or even eliminate the effect of most of these. Women engaged in regular exercise in order to achieve better physical fitness.
1.1.1 Types of Physical Fitness

Physical fitness can be divided into two separate kinds:

- HRPF (Health related physical fitness)
- SRPF (Skill related physical fitness)

These in turn have a subset of different factors, those are amenable to training. HRPF and SRPF both require regular exercise and proper nutrition and rest.

![Figure 1.1: Types of Physical Fitness](image)

### 1.1.2 Health-Related Physical Fitness

Health-related physical fitness consists of those components of physical fitness that have a relationship with good health. The components are commonly known as cardiovascular fitness, muscular strength, muscular endurance flexibility, and body composition. HRPF means the organic systems of the body are healthy and function efficiently, so one is able to engage in vigorous tasks and leisure activities. It exerts a positive influence on several risk factors associated with cardiovascular diseases, and it is effective in reducing the risk of back pain, diabetes, osteoporosis, and obesity. In addition, it is an effective way to manage emotional stress. In other words, HRPF enables one to look better, feel better and enjoy a healthy, happy and full life. (Miller, D. K., 2006). Clarke, H. H. (1993) further substantiates by adding that possessing
good health-related fitness is related to lower risk of illness and improved quality of life.

1.1.3 Skill-related Physical Fitness
SRPF is the ability to perform efficiently in sports, daily activities and work-related activities. SRPF may provide same benefits as HRPF, but it also renders motor skills required in sports and specific types of jobs. For this reason, SRPF is sometimes referred to as athletic-performance-related physical fitness, or motor fitness. In addition to five components of HRPF the SRPF includes agility, balance, coordination, power, reaction time and speed. (Miller, D.K., 2006). Clarke, H. H. (1993) further validates that enhanced health-related fitness lowers the risk of hypokinetic diseases. Skill-related fitness components are assessed with performance measures.

1.1.4 Benefits of Physical Fitness
Benefits of Physical Fitness can be listed as follows.

- Controls One Weight
- Fights Chronic Disease
- Builds Strength, Increases Energy
- Get Better Sleep
- Improves Ones Mood
- Physical activity results in the strengthening of one bones and muscles
- Maintains sound psychological state, thus preventing us from mental diseases.
- Physical fitness coupled with a healthy lifestyle is one of the vital factors.
- Look Good

As physical fitness is responsible for the overall well-being of an individual, the maintenance of physical fitness is important.(http://www.buzzle.com/articles/benefits-of-physical-fitness.html) The manifold benefits of physical fitness can come into effect only through regular physical activity. These benefits require one to engage in some form of daily exercise.

Research has indicated that being physically inactive increases the risk for disease, disability and even death. Most of the health problems are linked to being inactive, if
one wants to live longer and even in old age hopes to maintain a high level of physical fitness one must be active. Hardly, a small percentage of the population is doing activity and exercise for the development of physical fitness. Global warming, pollution etc. cause hypo kinetic diseases and diseases related to bones. If physical fitness would be well maintained, then one can say good bye to various diseases. (Sagar, 1995)

The conventional perception of physical fitness has now been researched and viewed in new light. The concept of Functional Fitness has now made its way in this area. This concept has emerged due to lifestyle changes and its impact in terms of hypokinetic and metabolic changes. It concerns the fitness requirement of an individual with reference to his lifestyle needs.

1.2 Functional Fitness

Functional Fitness is the ability to perform normal daily activities around the house or at work, without undue fatigue. (http://www.healthline.com/hlbook/art-glossary) Functional Fitness means that the goal of working out, is preparing one’s body so it can perform daily activities -- walking, bending, lifting, and climbing stairs -- without pain, injury or discomfort. Fitness; 'Functional Fitness' Means Training for One Real Life. (Leopold, A.K., 2004). Importance of Functional Fitness can be understood better by understanding Principles of Functional Fitness which are as follows:

• **Posture** is Fundamental to aligning one’s body throughout Life: Posture is the essence of how one can move through any activity in life. Regardless of what one is doing, if their posture is incorrect or weak then they will not perform well and are exposed to injury. Posture is not static, it is dynamic. Posture is revealed in the way in which one can orient themselves to everyday life (Brian, A., 2009)

• **Breathing** is the Essence of Physical, Mental, Emotional and Spiritual awareness. Breathing deeply affects the quality and condition of body, mind, emotions and spirit. Breathing and posture are inseparable. To breathe poorly is to have poor posture; to have poor posture means to breathe poorly. Learning to breathe properly and to strengthen the breath through the confluence of everyday life is essential to Functional Fitness. (Brian, A., 2009)

• All Movement Originates in the **Core** of the Body: The core area, or centre, of the body is the site of the internal organs. The core development means the integrated
and coordinated development of muscles, internal organs, posture, and breathing.
To have a strong and flexible core means something significantly more than to
have strong and flexible abdominal muscles (though this is important); a strong
core means that all movement is precise, aligned, open, rhythmic and free. (Brian,
A., 2009)

- The Ultimate Target of Functional Fitness is **Mobility**: Functional fitness
  embraces the anatomy of movement. It is a program of exercise designed to
  strengthen and support specific kinds of movements in life (walking, standing,
  sitting, lifting, reaching, etc.). Exercises, therefore, have a direct correlation to
  specific movements in everyday life. Therefore, the exercises must naturally
  influence and transition into the desired motion. If for example one is attempting
  to make a correction in ones gait, then specific exercises would be used that
  eventually blend into the act of walking itself.

- Functional Fitness is naturally **Integrative**: The creation of a functional fitness
  program is integrative in nature, that is, knowledge and methods used in a wide
  variety of disciplines are the raw material for functional fitness. Body movement
  itself is naturally integrative and therefore functional fitness does not focus on
  isolating muscle groups, but instead is designed to facilitate movement in a
  balanced manner across a range of muscle groups. A key idea is to practice
  exercises that focus on “opposite” motions. For example, if one practices the
  Pilates Roll-Up, one should immediately follow this with an exercise designed to
  extend the back in the opposite direction. This is the only real way to achieve
  muscular balance and coordination. (Brian, A., 2009)

All the five principles need
to be applied in a functional fitness program. Integrating Functional Fitness
exercises in everyday movement would be essential.

The Core of the body is the part of the body between the spinal muscles at the back,
and the abdominal muscles in the front [multifidus and rectus abdominus]. Various
International Studies show that the stronger and more balanced the Core, the better the
posture, the kinesiology and ergonomics of movement, and fewer the chances of
injury to the appendicular and axial skeleton. It is also important to note that other
than brain, all the organs of the body lie in the Core or adjacent to it. So a strong Core
will not only stimulate the enclosed organs like liver, pancreas, kidneys, intestines etc
but also the heart and lungs by the action of adjacent diaphragm. (Brain, A., 2009)
All Functional Fitness exercises need to be specifically designed to improve a particular kind of motion emulated by the body. For example, exercises are being used to help correct a problem with a person’s gait, then the integration of those exercises means that the way in which the person walks in everyday life is eventually changed permanently, without this kind of transference, the benefit of the exercises is minimized. (Brian, A., 2009).

A Functional Fitness program originates an idea about structural integrity, postural integrity, balanced muscular development, correct stretching techniques, injury prevention, alignment and precision of motion. In other words, functional fitness is akin to physiotherapy with the exception that one does not need to be recovering from an injury; Functional Fitness is both lifelong and life wide. One of the most important aspects of a functional fitness program is that it is specifically designed to eliminate chronic or repetitive use, injuries. In other words, Functional Fitness programs serve to increase the strength and flexibility of the natural functioning of the body. There is a great need for fitness programs that focus on developing balanced strength and flexibility associated with correct functional movement. Waiting for an injury to occur is not a good strategy for learning the value of Functional Fitness. (Burton, C., 2007)

1.2.1 Basic Areas of Functional Fitness

- **Fundamental Movements**: The first level of a Functional Fitness program is focused on basic movement and body positions that one and all inevitably experience throughout one’s lives. The three general orientations to movement and positions are: 1) Recumbent: Positions and movements while body is lying down, as well as partial recumbent positions (e.g. plank position); 2) Seated: Chair, Floor, various leg/torso positions; 3) Upright: Standing / Squatting / Bending / Lifting / Reaching / Walking / Running. Precision, balance and alignment throughout all of the above positions and movements should be taught at an early age in life and constantly improved upon throughout one’s entire lives. This is the baseline level of Functional Fitness.

- **Targeting Unique Movements**: The next level of Functional Fitness could be more activity specific. For example, the golf swing requires a complex movement around the axis of the spine that, if done incorrectly, can result in chronic injuries. A functional fitness program customized for golf would include a range of
corrective exercises that serve to preserve the body while improving the quality of
the golfer’s swing motion. The golf swing is a “total body movement” which
incorporates every muscle, ligament, and joint in one’s body to execute the swing.
As a result, it is best to train the body as a unit, integrating the entire
neuromuscular system in one’s golf fitness program rather than isolating specific
muscle groups. (Cochran, 2008).

- **Total Body Movement**: Any body movement is a “total body movement” since,
in fact, the entire body is always involved in any motion to some degree. Further,
muscular coordination across a range of motion is more important than isolating
the strength of a single muscle group in a more limited range of motion. Positions
whether in walking, are abstract notions only; one is always moving through them
in a constant dynamic.

Approach of Functional Fitness is not only for fitness purpose but is also a holistic
consideration.

- **A Holistic Perspective**: A holistic approach to fitness would naturally include
fitness that is physical, mental, emotional and nutritional.

- **Integrated Movements**: Many of everyday actions and movements lie outside
one’s own awareness. For example, walking is a physical activity one can often
take for granted. One does not tend to focus and concentrate on how one is
walking. But incorrect habits of walking can lead to significant problems later in
life.

- **Every Body is Unique**: Since each of us has different needs due to the structure
of one’s bodies and one’s personal history of body use and injury, Functional
Fitness programs are customized to meet specific individual needs.( Brain, A.,
2009)

- **High Performance Training**: Functional Fitness can also be applied to specific
sports activities, For example, golfers would benefit from a customized Functional
Fitness program designed specifically to improve the strength, flexibility and
endurance of the physical motions associated with the golf swing. (Gubernatrix,
In Functional Fitness, most of the time, one should be standing on one’s own two feet and supporting one’s own weight so as to lift anything. (Gina, S., 2003.)

1.2.2 Importance of Functional Fitness

The clear concept of Functional Fitness is its focus on integration, coordination, balance, and correct movement. With this type of fitness, the goal is for different muscle groups to work together in close coordination. Functional exercises are much more difficult than traditional fitness exercises, which often involve machines that do not require the performer to balance the body or coordinate movements. (James, H., 2010). Functional Fitness training simply replaces the isolated movements of traditional strength training with a more integrated exercise regimen that incorporates the entire kinetic chain. In essence, Functional Fitness involves training for everyday life. (Cannone, J., 2008)

Functional Fitness is the physical capacity to meet real-life physical challenges. A person who has achieved Functional Fitness is capable of integrating different muscle groups and relying on endurance and full-body strength to perform natural, physical tasks. One who is functionally fit should not only be able to perform exercises, but should also be capable of real-life activities, such as carrying a heavy suitcase up a flight of stairs or engaging in physical combat. (Kenneth, 2012)

Functional Fitness emphasizes getting more of the body involved in a move, with multiple muscle and joint activities that combine upper- and lower-body movements, or require lifting and twisting. It refers to the stability (holding strength) and mobility of the central zone or cone of the body so that the body can perform exercise from its safest, strongest and most effective position. Exercise can be highly destructive over time when done incorrectly, even though one believes that they are improving fitness. (http://www.wisegeek.com/what-is-functional-fitness.htm)

1.2.3 Benefits of Functional Fitness

Benefits of Functional Fitness include all the benefits of regular exercise, plus many additional advantages. One of the main goals beyond preparing individuals for real-life physical demands is to improve posture and correct improper body movement patterns. Functional exercises can break many of the body’s bad habits and teach individuals to use all muscles in proportion, rather than relying consistently on certain
muscles and not using others at all. Functional exercise tends to cause fewer injuries than other types because of its focus on correct movement. Becoming functionally fit can also relieve physical problems such as low energy, back pain, headaches, and joint pain. Sometimes these problems can be completely eliminated. Some proponents of this type of fitness say it can also alleviate depression. (http://www.wisegeek.com/what-is-functional-fitness.htm).

- Increases flexibility
- Improves circulation
- Improves balance and coordination
- Helps alleviate lower back pain
- Helps improve cardiovascular health

Functional Fitness training allows to work muscles in different planes (hitting different angles) and building strength in those stabilizer muscles as well as the main target muscle. Gymnasium machines are pre set using only the muscle and angle that the machine allows. Multi-plane exercises are more complex movements and more closely mimic movements that are used in everyday life (Ellis, N., 2012). The characteristics of Functional Fitness are:

- **Simple to Complex**: one should start with simple, and then progress to more complex exercises only after mastering the basic movements of each exercise.

- **Known to Unknown**: The training environment should begin with controlled, low-neuromuscular-demand exercises and then proceed to less-controlled, more proprioceptive challenging environments.

- **Low Force to High Force**: Train lower-force, more controlled movements until one can master those movements, then proceed to higher-force, ballistic movements.

- **Static to Dynamic**: one should start with exercises in a stationary stance, then as those movements are mastered, add more dynamic movements should be added so as to help one become more efficient and enable one to cope with the tasks of day to day life much easier. (http://www.womenswellnessweekcaptive.com/program-description)

Focusing on Functional Fitness importance, benefits and concept, researcher has chosen five components of Functional Fitness to evaluate the effect of customized
program on secondary school teacher. These five components are Aerobic Endurance, Agility, Flexibility, Balance and Muscular Strength. Functional Fitness will improve by improving these components of Functional Fitness through tailor made programs on secondary school teachers in Mumbai. The ways and means to improve these selected components are described below.

1.2.4 Ways and Means of Improving Functional Fitness

- Aerobic Endurance
Aerobic Endurance is the ability to perform repetitive, moderate to high intensity movement for a prolonged period of time (http://www.fitefitnessconsultants.com). Aerobic Endurance is the ability to perform large muscle, whole body physical activity of moderate to high intensity for relatively long period of time (Miller, D.K., 2006). Aerobic (or endurance) training improves cardiovascular endurance by increasing both maximal cardiac output and ones muscles ability to extract oxygen from the blood. Thus, a training program designed to improve one’s cardiovascular endurance was designed. The researcher has chosen, Pranayama and Omkar chanting as means to improve Aerobic Endurance, both these interventions improve the oxidative capacity of one’s working muscles and overload the circulatory system. As with all training programs, specificity is crucial.

- Agility
Agility is the ability to change direction, without loss of speed and/or accuracy. (Ketul, 2011). The maneuverability of the body is the ability to rapidly change the position and direction of the body or body parts. (Miller, D.K., 2006). To improve agility, there is a need to develop lateral and linear mechanics. That means movements which show training made up of forward, backward, upward movements along with landing, accelerating, and decelerating need to be used. Agility also can be improved through direct instruction, training, and practice of agility drills. These movements are all a composite part of SuryaNamaskar as well as Assistive yoga, which compelled the researcher to incorporate them in the design modules. Both balance and core strength are essential for a development of agility.
• **Flexibility**

Flexibility is the ability to move joints through their entire range of motion, from a flexed to an extended position. (Quinn, E., 2010). It is also defined as the ability to move the body joints through a maximum range of motion without undue strain. (Miller, D.K., 2006). Flexibility takes on a deeper significance should one be planning on using one’s body well beyond the average expiration date. Although flexibility is somewhat dependent on genetics, gender, and age, there is a lot we can do to improve what nature has bestowed upon us. A little bit of time dedicated to improving soft tissue mobility will result in worthwhile benefits.

**Major Benefits of Stretching:**

Greater range of motion ROM means less joint pain and stiffness. Improved posture will make look and feel better. Reduced risk of injury is all about longevity. More power, need to say more. Enhanced recovery from training. (Howard, J., & Poertner, G., 2012).

**Clue to Training Flexibility**

For improving flexibility, first of all engaging the core for a few minutes and, also warming up the body before beginning any stretching routine is essential. Second, good form should be observed so as not to cause an injury. Thus, after ensuring that muscles are effective, targeted stretching is a must for maximum performance. The researcher has selected SuryaNamaskar and Assistive Yoga, as means to improve flexibility as they focus on targeting the muscles to increase performance.

• **Balance**

Balance is the ability to maintain desired body posture and position while standing or moving on a stable or unstable surface. Static balance is keeping balanced while still. (Caspersen, C J, Powell, K. E., & Christenson, G. M., 2009). Balance is the ability to maintain equilibrium against the force of gravity. Static Balance is the ability to maintain equilibrium while stationary and is often thought of as steadiness. (Miller, D.K.2006). Balance training repairs damaged pathways to the brain, strengthens weakened stabilizing muscles, and teaches the body new strategies for keeping itself upright. Jumping over puddles, standing on a ladder to change light bulbs, snowboarding, and riding on the bus (standing up) all require balance, so a little improvement just makes one’s life easier. (Sugar, F., 2008).
• **Strength**

Strength is the greatest amount of force that muscles can produce in a single maximal effort. (Rokukaze, 2012). Muscular Strength is the ability of muscles or muscle group to exert maximum force. (Miller, D.K., 2006.). Muscular Strength the ability of a muscle to produce force; it is measured by the amount of weight you can lift in one repetition. (Dbasuk, 2012). Muscular strength is one’s ability to exert maximal force (using maximum or near maximum resistance) during limited repetitions. There are three basic ways to improving strength. But, the researcher has considered only body weight as the resistance, which is safe and less expensive method.

Body-weight exercises use the weight of one's body as resistance. Exercises such as push-ups, sit-ups, jumping jacks, chin-ups, and leg lifts are well suited for this type of program. The advantage is that one can perform these exercises just about anywhere without the need for equipment. Machine-weight exercises allow one to control resistance as well as isolate specific muscles.

Free-weight exercises allow one to control resistance, isolate specific muscles, and improve one’s muscle balance using (at a minimum) a bench and some weights. Factors that affect the training should include reps, sets, weight, speed of exercise, rest interval, sequence, range of motion, and frequency of exercise. (Siller, G., 2010).

There are many predefined and standard ways of improving Functional Fitness. However, the Indian traditional forms would also be beneficial. The researcher is of the opinion that, these forms would have greater acceptance, would be better received and would provide an answer to improving quality of life.

As, the researcher has had a long experience of working in Guru Nanak High School (15 years) she stands witness to the lack of health awareness in teachers. Also, it has been observed that fitness has the least priority in their lives. Financial constraints, lack of motivation and their very busy schedule leave them very unfit more so functionally unfit. The challenge is to find a viable solution which would be easy to follow, scientifically designed, but which would be financially affordable. There is a need to design, and establish the efficacy of different traditions forms. The crucial point was to design a customized program for these teachers which would aim at improving Aerobic Endurance, Agility, Flexibility, Balance and Muscular Strength. Traditional, low cost effective programs could be SuryaNamaskar, Omkar Chanting, Assistive Yoga, and Pranayama. Hence, two modules were structured as Module I.
(SuryaNamaskar and Omkar Chanting.) and Module II (Assistive Yoga and Pranayama), the rational for selecting these forms have discussed below.

1.3 Yoga

The word yoga comes from the Sanskrit word "yuj", meaning to unite or to integrate. Yoga is about the union of a person's consciousness and the universal consciousness. It is an ancient Indian knowledge dating back to more than 5,000 years ago. The oldest physical discipline in existence known to humankind, Yoga brings stability to the body and the wavering mind. It increases the lubrication of joints, ligaments and tendons of the body. Studies in the field of medicine suggest that Yoga is the only form of physical activity that provides complete exercise to the body, because it massages all the internal organs and glands. This in turn reduces the risk of many diseases.

Yoga can create a positive permanent difference to the lifestyle of anybody practicing it on a regular basis. Through yoga one can maintain a balance of emotions, action, and intelligence. Exercise, Breathing, and Meditation, these are the 3hree main yoga
strips. Yogic exercises improve circulation, stimulate the abdominal organs, and put pressure on the glandular system of the body (Stewart). Exercise leads to better fitness and overall health. (Tonya, H., 2009)

Swami Vivekananda has defined Yoga as – Yoga is a means of compressing one's evolution into a single life or a few months or even a few hours of bodily existence. (Dubey, S., 2008). The authoritative ancient text of Yoga i.e. Yoga sutra of Patañjali and Gita, is Yoga defined as transcending the mind for Self-realization or Equanimity of mind. According to Patañjali, Yoga is the restraint of modifications of Mind; realizing the ultimate reality (Dubey, S., 2008).

Bhagavad-Gita defines Yoga as Yoga is skill in action. योगः कर्मसु कौशलम्' - भगवद्गीता II/48 also “Equanimity of mind, “समत्वं योग उच्यते” भगवद्गीता II/ (Dubey, S.,2008).

The meaning of yoga is expansive and varies depending on the practitioner there is no rigid definition for the word. The meaning will evolve throughout one own practice of yoga. The amazing thing about Yoga is that its positive effects on the health and mind are visible over time. Another specialty about Yoga is its wide choice of asanas. No visible side effects are associated with the practice of Yoga on a regular basis. All one needs to know is the most appropriate exercises meant for the structure of one body, while choosing the asanas of the activity. In addition, one needs to know the right way of performing the asanas, because any wrong attempt can cause sprains and injuries. (http://yoga.i loveindia.com/what-yoga.htm.)

Yoga designs to strengthen and tone as well as fortify and cleanse the body and mind, it is excellent to heal and balance the entire body. Yoga can also help us gently get in touch with one emotion to release any old feelings of hurt, anger and guilt. It is an excellent tool for managing the emotions of change. (Iyenger, B.K. S.2006).

It is a complete system or better a Science or A way of life. Yoga being a way of life can be applied irrespective of age, gender, profession, state, conditions, problems and sufferings. Yoga can be applied in any/every human endeavor personal, professional, social, family and spiritual. Sum up the true nature with these, as yoga is Science and art of realizing, the absolute i.e. The Ultimate Reality or Supreme Consciousness. (Dubey, S., 2008)
1.3.1 Different Types of Yoga

In the present time, more and more people, especially the Westerners, are resorting to Yoga to find cure for chronic health problems and attain a peace of mind. They are also curious about knowing what exactly is Yoga and what are included in it. To know, that differences between the most popular types of yoga, anyone can choose which type is right for them. The different types of Yoga are given below

![Types of Yoga](image)

**Hatha Yoga** in Sanskrit (an ancient classical language of India) “Ha” means “sun” and “tha” means “moon”. This type of Yoga is relatively slow paced, gentle type of Yoga and is a good place to start if one can completely new to Yoga and don’t know any of the asanas (poses). Like all types of Yoga, Hatha Yoga aims to unite the mind, body and spirit.

**Ashtanga Yoga** this is the type of Yoga that I practice on a regular basis and means “eight limbs” in Sanskrit. It’s a fast moving, intense style of Yoga practice and is based on a progressive set sequence of asanas, synchronized with the breath. Ashtanga Yoga can be quite physically demanding as one constantly moves from one asana in the sequence to the next, so one will find that it will improve one’s stamina as well as one’s flexibility and strength.

**Power Yoga** this is a western interpretation of Yoga and is based on Ashtanga Yoga. A Power Yoga class may not necessarily stick to the exact sequence of poses like Ashtanga Yoga does, but it does involve practicing a series of poses without stopping and starting.

**Iyengar Yoga** this type of Yoga is based on teachings by B.K.S Iyengar and concentrates on the correct alignment and form of the body. Unlike Ashtanga Yoga, there is an emphasis on holding each pose for a long period of time rather than
moving constantly from one pose to the next. Iyengar Yoga uses props such as blocks and straps to help align the body into the different poses.

**Vinyasa Yoga** Vinyasa means breath synchronized movement and is another fast paced type of Yoga, with an emphasis on breathing. A practice typically starts with sun salutations and moves on to more intense stretching. Throughout the practice each pose is balanced with a counter pose.

**Bikram Yoga** known as “Hot Yoga” is practiced in a room heated to 105 degrees, with a humidity of around 40%. Generally a sequence of 26 different poses is practiced during a Bikram Yoga class and the hot temperature helps to loosen muscles. Due to the high temperature most people sweat a lot during the class and this helps to cleanse the body of toxins.

**Artistic yoga** Artistic yoga is an innovative, dynamic and powerful system of yoga, propounded by Bharat Thakur. It combines ancient yogic techniques (asana, pranayama, dandhas, kriyas and madras) with modern cardio-vascular training and partner stretches that work on the individual at every level, the physical level where flexibility, strength and endurance are the primary goal, to the mental and spiritual level where awareness of the body, alertness and meditation bring about a complete transformation. (http://www.yoga.am/2012/04/24/the-different-types-of-yoga-in-brief/).

Focusing at subjects’ fitness, objectives and discussing with experts the researcher decided to select the B. K. S. Iyenger asana with props, and has named it as Assistive yoga. Based on objectives and discussion, this module (Module II: Assistive yoga and Pranayama) was formulated. It was so designed that female teachers could do it easily with minimum expenditure, Assistive yoga was included in the customized program for improvement of Functional Fitness. To familiarize the subjects with assistive yoga, they were acquainted with the exact meaning, uses and how it would help to improve Functional Fitness.

**1.3.2 Assistive yoga**

Assistive Yoga differs from most of its counterparts in that it utilizes a wide variety of props, all designed to make the postures (asanas), as low impact, easy, and relaxing as possible. This is the Yoga of surrender; surrender of the body, mind, and, eventually, the spirit itself. Life sometimes appears to work against, rather than for favor, and this struggle leads to stress, exhaustion, and even a low level of constant, latent anger.
This continued background noise of negativity becomes a steady drain on energy levels, which will only continue to grow, if not addressed. A session should be started with some mild warm-ups, to prepare the body for holding poses, for an extended period of time. During the actual holding of the pose, props – such as blankets, pillows, blocks, chair, rope, bolsters, walls, towels, or mats, be adjusted, as needed, until the sweet spot of comfort and support is reached. (Paul, J., 2011)

1.3.3 Assistive Yoga (Asana with Props)
Across the world (Eichenholz, C.D., 2012), there is now a growing awareness that alternative therapies are more conducive to health than conventional ones. This would help all those who want to change their lives through yoga. Assistive yoga props serve two basic support roles: they can “prop up” (support the shape of a pose from below), or they can “anchor” (stabilize the shape of a pose, preventing both effort and movement). These asanas are based on the three basic human postures that of standing, sitting or lying down but they are not series of movements to be followed mechanically. They have a logic which must be internalized if the pose is to be practiced correctly by using a few simple props. Layman with different capabilities can gradually build up strength, confidence and flexibility without threat of strenuous injury. These yoga techniques could also help those with specific ailments. Regular practices build up the body’s inner strength and natural resistance, and help to alleviate pain. (Iyenger, B. K. S., 2006).

Rope, chair, blankets and bolsters can be arranged in many shapes and heights to support from below, in supported bridge pose and reclining bound angle pose, the primary anchoring props are straps and sandbags. (Shameem, A., 2007). The ancient yogis used logs of wood, stones, and ropes to help them to practice asanas effectively. Extending this principle, Yogacharya B.K.S.Iyengar invented props which allow asanas to be held easily and for a longer duration without strain. (Iyenger, B. K. S., 2006) succeeding Yogacharya B.K.S.Iyengar, researcher has use rope, chair, bolster and blanket as props for her investigational module that was Module II.

1.3.4 The Importance of Yoga Props
The B.K.S. Iyengar method of using props in Hatha yoga practice introduced thousands to the benefits of yoga. Light on Yoga: The Bible of Modern Yoga, Iyengar stresses that the use of props encourages individuals to listen to their bodies
and gain a better understanding of the mind-body-spirit connection. Proper form is critical, but the body takes a journey through yoga. Iyengar's philosophy provides beginners a way to progress through a pose gradually with the help of prop aids. This is far more beneficial than being intimidated by a pose and giving up. (Iyengar, B. K. S., 2006). Assistive Yoga asana improves the flexibility of the spine, corrects alignment of the shoulders; relieves backache, gastritis, indigestion, acidity, flatulence; massages and tones the pelvic organs, corrects the effects of a sedentary lifestyle or faulty posture, assists treatment of neck sprains, reduces stiffness in the neck, shoulders and knees, strengthens the ankles and tones the ligaments of the arms and legs. (Anandayoga, 2011)

A yoga prop is any object that helps to stretch, strengthen, relax, or improve the alignment of the body. It helps to sustain the practice of asana for a longer duration, and conserves energy. These props allow asanas to be practiced in relaxed way. Household items come in handy when one needs to customize for additional support such as walls, chair, stool, blocks, bolsters, blanket, and belt to help. Many practitioners discovered that props could help deepen their explorations. (Claudia Cummins) (Iyengar, B. K. S., 2006)

In Assistive yoga, props are used for supporting the body so that one can hold poses for longer, allowing one to open one’s body through passive stretching. The postures are usually adapted from supine or seated yoga poses with the addition of blocks, bolsters, and blankets to eliminate unnecessary straining. For instance, a seated forward bend (paschimottanasana) can be done with a bolster or several folded blankets on top of the legs so that one forward bend is fully supported with the entire torso resting on one props. (Pizer, A., 2012)

1.3.5 Benefits of Assistive yoga

Assistive yoga improves important systems of the body including: Skeletal, muscular, nervous, endocrine, respiratory, cardiovascular, digestive, urinary, reproductive and lymphatic. Assistive yoga is more renewing than a nap. Sleep is unconscious relaxation. One often falls asleep with the same tension in one body and mind as when one is first lying down. When one awakes, one could have a sore back or neck, gripping jaws, or headaches. Because assistive yoga is conscious relaxation, consciously observing habits of tension and where they create imbalance, they can be controlled.
Assistive yoga is more energizing than a cup of coffee. Coffee is a stimulant that actually creates tension, and tension depletes energy. Through Assistive yoga, one lets go of tension, allowing natural energy to flow more freely. Assistive yoga complements regular work out, deep relaxation promotes optimum circulation and respiration. The long holds in an assistive practice cultivate the calm necessary for mental and physical stamina. Assistive yoga enhances flexibility, in a passive supported pose, muscles have the time to release and lengthen, instead of being pulled into stretches, which can create contraction, resistance and even spasm.

Foundation for advanced Yoga Practice: assistive poses are a good way to prepare for Pranayama (breathing exercises). Taking time for oneself, even if one can do only one pose for maximum minutes, assistive yoga will help to unlock tension and to improve one’s inner and outer balance. (Lorna, S., 2012). Other benefits are assistive yoga provides healing for the body and the mind. It is especially useful when one needs to eliminate fatigue and stress that result from ones daily activities. It can also help one recover from illness and injury or overcome emotional depression and anxiety that are caused by traumatic events such as divorce, loss of job and death of a beloved.

Assistive yoga is important to prepare the nervous system to operate at its highest level, and also to reboot a system after hectic work of or high work pressure situations. Assistive Yoga (which includes a blend of breathing tools and therapeutic assistive yoga postures) is an adjunct to performance enhancement. This helps to relax and balance the nervous system so that one’s natural talent and ability to focus can emerge. Assistive Yoga Therapeutics helps to reinforce muscle memory, deepen mental calm, facilitate relaxation, and promote restful sleep. It is also a highly effective means of immune system enhancement, and promotes injury rehabilitation. (Cook G., Burton, L. & Fields, K., 2012). Assistive yoga can activate the parasympathetic nervous system, which enables automatic control of the body. As such, the regular nervous system will be at rest, and the muscles will become more relaxed. Constant practice of assistive yoga will make one’s body less vulnerable to stress-related illnesses and help one achieve optimal health. (http://www.fitday.com)

Researcher has chosen Shoulder Retraction with Rope Jacket, Bharadvajasana, AdhomukhaSvanasana, Padangusthasana, SuptaVirasan these asanas for treatment. All asanas of assistive yoga provide holistic health support and good physical conditioning, in addition to promoting spiritual awareness, Assistive yoga balances the Nervous System to operate at its highest level. Focusing on importance and
benefits of assistive yoga, especially its effectiveness at reversing the effects of burnout, exhaustion, and fatigue, Assistive Yoga parallels Pranayama, where patience is necessary for success, recharging and inner stillness.

1.3.6 Pranayama
When the Breath wanders, the mind is unsteady, but when the Breath is still, so is the mind still. “Hatha Yoga Pradipika”. (http://www.abc-of-yoga.com/pranayama). Breathing is life. It is one of one most vital function. One of the Five Principles of Yoga is Pranayama or Breathing Exercise which promotes proper breathing. From a Yogic point of view, proper breathing is to bring more oxygen to the blood and to the brain, and to control Prana or the vital life energy. Pranayama Yoga also goes hand in hand with the Asanas. The union of these two Yogic Principles is considered as the highest form of purification and self-discipline, covering both mind and body. (http://www.abc-of-yoga.com/pranayama).

Goldsmith removes the impurities of gold by heating it in the hot furnace, by strongly blowing the blow-pipe, so also the Yogic removes the impurities of the body and the Indriyas as by blowing their lungs, i.e., by practicing Pranayama. (Mandlik, Y.V.V., & Ramesh, V., 2011)

1.3.7 Pranayama - (From Hatha Yoga and Ashtanga Yoga)
Pranayama is control of Breath. "Prana" is Breath or vital energy in the body. On subtle levels prana represents the pranic energy responsible for life or life force, and "ayama" means control. So Pranayama is "Control of Breath". One can control the rhythms of pranic energy with pranayama and achieve healthy body and mind. Patanjali in his text of Yoga Sutras mentioned pranayama as means of attaining higher states of awareness; he mentions the holding of breath as important practice of reaching Samadhi. Hatha Yoga also talks about types of pranayama which will make the body and mind healthy. (Sivananda, S.S., 2000)

1.3.8 Types of Pranayama
Five types of prana are responsible for various pranic activities in the body. They are Prana, Apana, Vyan, Udana & Samana. Out of these Prana and Apana are most important. Prana is upward flowing and Apana is downward flowing. Practice of
Pranayama achieves the balance in the activities of these pranas, which results in healthy body and mind.

Types of Pranayama (Gharote M. L., & Devnath, P., 2000)

| Suryabhedana | Ujjayi | Sitali | Sitkari | Bhastrika | Bhramari | Murccha | Plavini |

Figure 1.4: Types of Pranayama

1.3.9 Nadi Shodhan or Anuloma Viloma (Alternate Nostril Breathing)
Right nostril is Pingala Nadi (Sun principle or body); left nostril represents Ida nadi (moon principle or mind). In alternate nostril breathing, one inhales through right and exhales through left then inhales through left and exhales through right nostril. This purifies the Ida and Pingala nadis. This purification brings balance to body and mind. The metabolic processes are balanced. (http://www.healthwealth.in/pranayama.html). The purpose of the Alternate Nostril Breathing is to balance the physical energy and mental energy. It is recommended for all types of problems. As Hatha Yoga principle says that the health conditions are due to imbalance between this Ida and Pingala. Alternate nostril breathing balances these two forces.

1.3.10 Anuloma Viloma: The Scientific Confirmation
Medical science has recently discovered the nasal cycle, something that was already discovered by the Yogis thousands of years ago. A modern scientist found out that we do not breathe equally through both nostrils, which nostril is much easier to breathe through than the other at any particular time. Each nostril alternates about every three hours. Scientists also discovered that the nasal cycle corresponds with brain function. The electrical activity of the brain was found to be greater on the side opposite the less congested nostril. The right side of the brain controls creative activity, while the left side controls logical verbal activity. Research showed that when the left nostril was less obstructed, the right side of the brain was predominant. Similarly when the right nostril was less obstructed the left side of the brain was predominant.
Medical science has not quite caught up with the ancient Yogis yet. The Ancient Yogis even went one step further. They observed that a lot of diseases were due to disturbances of the nasal cycle or if a person breathes for too long through one nostril. To prevent and correct this condition, they developed the Alternate Nostril Breathing
Technique. This clears any blockage the airflow in the nostrils and reestablishes the natural nasal cycle. For example, the Yogis have known for a long time that prolonged breathing through the left nostril only (over a period of years) will cause Asthma. They also know that this so called incurable disease can be easily treated by teaching the patient to breathe through the right nostril until the Asthma is cured and prevent it from recurring by doing the Alternate Nostril Breathing Technique. The Yogis also believe that Diabetes is caused, to a large extent, by breathing mainly through the right nostril. (http://www.abc-of-yoga.com/pranayama/basic/viloma.asp).

Medical science has proved that practicing anulom vilom pranayam for about 10-15 minutes a day can cure diseases: Hypertension or high blood pressure, Diabetes, Migraine Pain, Asthma, Bronchitis (http://www.healthnwealth.in/pranayama.html)

**Advantages of Anulom Vilom Pranayam**

- Increased oxygen makes one calm and peaceful.
- Relieving stress, fever, eye concerns and ear issues.
- Improving blood circulation.
- Treating migraine, blockages in the arteries of the heart and chronic sinus problems.
- Transforming negative thoughts to positive.
- Controlling obesity.
- Streamlining metabolism.
- Treating conditions of constipation, gastric, acidity, allergic problems, asthma, diabetes, gastric problems and snoring.
- Cleansing Nadis, making one’s body healthy, strong and functioning.
- Treating the conditions of rheumatism, gout, diseases pertaining to urinary and reproductive organs. (Sharma, H., 2012)

**Other benefits of alternate nostril breathing are:**

- Proper supply of oxygen is ensured and carbon dioxide is effectively removed.
- More oxygen is made available per breath, making the breathing most efficient.
- Blood is purified of toxins. Very effective for stress management.
- Helps in reducing the anxiety, depression and other mental illnesses. Also it reduces hyperactive disorders related to mind.
• Balancing Ida and Pingala removes all the blockages in the pranic energy channels, which may lead to spiritual awakenings. It gives all the benefits of deep breathing as well. (http://www.webindia123.com/yoga/pranayama.htm)

Assistive Yoga parallels Pranayama, and the same amount of patience or non-attachment to outcome, is necessary for success. Eventually, the mind will become silenced, and that blissful state of inner restoration and peace will become open to one. Assistive Yoga will be excellent for anyone in need of recharging and inner peace. (Paul, J., 2011).

Understanding the sedentary lifestyle of the secondary school teachers and for improving their Functional Fitness, the Researcher developed customized program, with experts’ guidance, which could provide a viable solution for the subject’s literacy and performance in Functional Fitness, leading to an improvement of lifestyle,

1.3.11 Chanting of Omkara

Various Vedic texts including the Sutras, the Brahmanas and the Aranyakas have used the word 'yoga' in the sense of conjunction or connection. AUM also written as OM and called Pranava, meaning: ‘that which runs through Prana’, is the most important and sacred word for Hindus. Its prolonged intonation is associated with primeval sound through which the universe was created. It is thought to contain all things. It consists of three syllables: A U M, which is sounded progressively from the throat to the lips. The three sounds are considered to symbolize many items, but perhaps most importantly the three states of consciousness: waking, dreaming & deep sleep. The entire symbol represents the fourth state, which is awareness of spiritual identity. A U M is the most important root mantra and is thus chanted at the beginning of prayers, mantras and rituals. (Chidananda, S.S., 1991).

AUM is composed of 3 elements, 'a', 'u' and 'm'. Or three forces or Shakti Akara, Ukara and Makara. The fusion of these 3 elements is AUM or OM. The 3 alphabets are pronounced in series. AUM can be seen through the eyes, listened to via ears and chanted via tongue. It is somewhat simpler to concentrate on the above 3 sense organs, so it is easy to concentrate the mind directly on the object. This is achieved by fixing AUM as a target for meditation on which 3 sense organs are focused. In
addition to this the chanting of AUM has tranquilizing effect on the mind, which helps concentrate easily. (Mandlik.Y.V.V. & Ramesh, V, 2011)

1.3.12 Scientific Analysis of Om Mantra
Om mantra, when scientifically analyzed, refreshes the whole nervous system and relaxes the body. When one continuously chants the Om, ‘electric sparks’ are created within and it saves one from negative forces. It also transforms human energy into spiritual energy. Biologically, ‘A’ ‘U’ and ‘M’ are of core importance to human body. The Amen in Bible also represents the same. In Muslim religion, if one takes Bhangu El Allahu Akbar also represents Om mantra. Chanting this, they get some type of cosmic vibration in their body and by using that, they are able to cure people affected with disease. (http://poweryogacentre.com/index.php?page=omkaradhyana).

1.3.13 Advantages and Effects of Omkar Chanting:
- Cleansing the mind
- Controlling the emotions
- Improves the concentration, memory and understanding capacity
- Relaxes Physically, Mentally, and Emotionally
- Charges the surrounding atmosphere

As the Mundaka Upanishad says, Aum itievam dhyayat atmanam Svasti va paraya tamasah parastat Meditate on the Om (Aum) as one’s inner self may cross over the darkness to the other side of Om. (http://www.omved.com)

Working with the breath will ease into an asana, and certain types of breathing are said to transmute the creative energies. Pranayama and Omkar Chanting are equally necessary for all in their daily life, for good health, success and prosperity in every walk of life. The science of relaxation is a very valuable gift which would benefit to all. (Iyengar, B. K. S., 2001)

The coupling of omkar chanting with the SuryaNamaskar has been shown to increase the movement of the diaphragm and increase abdominal breathing. This leads to better oxygenation, a lower respiratory and heart rate and predominance of the parasympathetic arm of the autonomic system. These further results in a more balanced frame of mind and a feeling of wellbeing. (Kohli, P., 2007)
The importance of exercise in general and Functional Fitness in particular cannot be undermined, especially in a country like India where people hardly invest their time in fitness. The study will have far reaching impact not only on secondary teachers of Guru Nanak high school but also entire community in general. Through, this studies the researcher convey the message of Rishis (Sages) in a simple and unique manner. Research scholar has described principles for designing a Functional Fitness program to explore how the principles should be applied and what effect it would have on human body.

Breathing slow or deep does many things for health and body to remove toxins; this also delivers needed oxygen to brain and improves cardiovascular endurance. In the busy schedule of teachers the challenge is to find an easy solution to achieve Functional Fitness. Consequently researcher has selected two modules to see the effect of Functional Fitness on secondary school teachers in Mumbai, where they do not have least time to invest in going to a fitness center. Coupling SuryaNamaskar and Omkar chanting (Module I) is a viable solution for secondary school teachers from Mumbai. Another solution to improve Functional Fitness is Assistive Yoga Pranayam (Module II) These modules would be a feasible solution to improve Functional Fitness of secondary school female teachers in Mumbai.

1.4. SuryaNamaskar
The first duty of each individual is to take care of the body, which is the means (instrument) to the pursuit of spiritual life,” according to the precept of the great sages. In ancient India everything had to be in aligned with the scriptures and SuryaNamaskar and the limbs of Yoga made this possible. To the people of India the practice of SuryaNamaskar was a religious daily duty, which they believed would earn them the blessings of the Sun God which was essential for good health. In executing SuryaNamaskar correctly the sadhaka [spiritual aspirant] must include vinyasa (movement), rechaka (exhalation), and puraka (inhalation); dhyana [meditation]; dristi [sight, or gazing place]; and the bandhas [muscle locks]. If done without following the rules mentioned above this sequence can only be considered physical exercise. (http://www.yogarightnow.com/yoga-practice/the-power-of-surya-namaskara/). SuryaNamaskar, The salutation to the God Sun, is an important part of Indian traditional yogic practices. Each cycle of SuryaNamaskar is a sequence of certain ‘asanas’ The sequence of asana is such that each asana is complimentary to
the next. During SuryaNamaskar, muscles of the entire body experience stretch and pressure alternately and therefore it is said to give more benefits with less expenditure of time. (Myers, E., 1997). SuryaNamaskar is a set of Yogasanas performed sequentially along with [breath control], chanting of Mantras and in attitude of Prayer. It has been called "Sarvang Sunder Vyayam" or the best all round exercise. (Kohli, P., 2007)

Effective use of SuryaNamaskar is experienced on three levels: body, mind and intellect. The practice of SuryaNamaskar is a sort of training to one body mind and soul (Pradnya). It works with equal force on these three aspects. It gives us physical and mental health with sharp intellect. Only 35 to 40% of muscles are used in daily activities. The rest of the muscles remain inactive. SuryaNamaskar is a physical exercise where almost 95% to 97% of one’s muscles are switched on to active mode. They remain active till one recharges them next morning. Each movement of the asana should be divided into parts and performed gracefully. (Mira, 1994)

There are twelve steps in SuryaNamaskar. Five seconds for each step. It means that one SuryaNamaskar goes for one minute (and a bit more), but it is worth to experience the physical fitness that attains after one start practicing the SuryaNamaskar, at the beginning of the practice, one SuryaNamaskar consumes 02.30 KCL. This exercise burns out a lot of calories and reduces body mass and body weight. (Stephen, K., 2011).

Although it is impossible to compare the two sciences which have different aims, it may be possible to compare the tangible effects of SuryaNamaskar with those of the modern day fitness exercises. Modern Science considers the benefits of exercise under various categories. They are primarily strength development which focuses on the effects of musculoskeletal systems, endurance training which affects the cardiopulmonary system, flexibility for injury prevention and psychological benefits. researcher intend to highlight the current trends in Modern Medical Science relating to Health, such as Strength & Endurance Training, Core stability, Flexibility, Elasticity, and Imagery to point out the positive benefits of SuryaNamaskar. (Kohli, P., 2007)

1.4.1 Scientific Relevance of SuryaNamaskar

Core Stability or the strengthening of the back muscles around the spine and the diaphragm is the objective of Kinesiology. The various yoga posture of
SuryaNamaskar along with the Pranayam practices achieves this effect more easily and effortlessly. In addition to that, one gets a more balanced frame of mind and sense of wellbeing due to sun salutation. SuryaNamaskar promotes strength of mind and positive thinking, which encourages uplifting thoughts in practitioners and induces a mental awareness which helps connect them to God and the divinity within (Tiwari, O. P., 2000)

1.4.2 Benefits of Regular Practice of Sun Salutation

Increased blood oxygenation by copious lung ventilation is great for the heart; it stretches and tones one muscle keeping them supple and flexible, Clears one elimination channels helping one body rid itself of toxins. This is especially good in the morning after many hours of lack of movement during sleep (the lymphatic system eliminates toxins through movement). It stimulates and tones one Endocrine system especially the Thyroid, the master gland that controls all the other glands). Tones up the internal abdominal organs by alternate stretching, compression cycles that results in better digestion and bowel movement. Increases spine and waist flexibility. (Baride, J.P., & Sancheti, 1994)

SuryaNamaskar is least expensive with absolutely no adverse effect. It can be done without any equipment and need of space is very little. It also involves very little time and can be performed by both men as well as women. 5 to 15 minutes of practice daily is enough to obtain remarkable, fast and beneficial result. SuryaNamaskar is almost a complete sadhana in itself, containing asana, pranayama and meditation techniques with in the main structure of the practice (Sarswati, S. S., 2003)

1.4.3 The Mental Benefits of Sun Salutation

The mental benefits of Sun Salutation are similar with meditation. Sun Salutation is meditation in movement. Sun Salutation helps to: Increase one mental focus and concentration. Reduce depression, anxiety and stress by reducing key markers. Increase the quantity of “good mood” neurotransmitters like Serotonin. Increase mind to body coordination which is very good especially for older persons. Despite its ancient Hindu religious interpretations, SuryaNamaskar is no less applicable in the modern context. SuryaNamaskar is one complete set of sequential yoga posture that reaps the collective benefits of both strength and endurance training. Hence, it has
been rightly called “Sarvang SunderVyayam” or the best all round exercise. (http://www.chakrapaniayurveda.com/suryanamaskar.html)

SuryaNamaskar not only uses all body parts simultaneously but also trains the muscles by metabolic energy cycles. SuryaNamaskar gives benefits of Strength, Endurance, Flexibility and Psychological state. Through various poses all types of training viz. isotonic, isometric, isokinetic and pylonometric exercises are done for strength and power gain. By incorporating breath control, all energy systems of the body are trained, i.e. anaerobic alactic, anaerobic lactic and aerobic pathways. By changing the frequency and duration of poses for various poses, gains can be made in explosive strength or strength endurance as required by a subject. (Saraswati, S.S., 2001)

1.4.4 Benefits of SuryaNamaskar Poses

In addition to the general health benefits associated with performing SuryaNamaskar, each of the yoga poses in the series provides specific health benefits:

- **Pose 1 (and 12):** Promotes balance, stimulates the respiratory system, exercises shoulder, back and neck muscles
- **Pose 2 (and 11):** Promotes balance, promotes digestion, exercises arms and shoulder muscles, tones the spine, promotes flexibility in back and hips
- **Pose 3 (and 10):** Promotes blood circulation, tones abdominal tracts, stretches back and leg muscles, stimulates spinal nerves, stimulates lymphatic system
- **Pose 4 (and 9):** Exercises spine, strengthens hand and wrist muscles
- **Pose 5 (and 8):** Stimulates blood circulation, strengthens the heart, strengthens wrist and arm muscles, relieves neck and shoulder tension
- **Pose 6:** Strengthens leg and arm muscles, increases flexibility in neck and shoulders, stretches arms, shoulder, neck and back muscles, exercises back muscles, releases tension in neck and shoulder
- **Pose 7:** Stimulates circulation to abdominal organs, tones digestive tract, stretches upper and lower body, promotes flexibility in the back, stimulates nerves in spine
- **Poses 8 through 12** are essentially repetitions of poses 5 through 1, respectively. The health benefits of each are similar to their corresponding poses.

(http://www.hsscanada.org/index.php?option=com_content&view=article&id=68&Itemid=72)
Further the first and last postures [Siddha] in SuryaNamaskar are a replication of ideal posture of the body. This reinforces proper postural training of the kinetic chain.

1.4.5 Muscular Analysis of SuryaNamaskar

Pranamasana

Pranamasana is a position of composure, tranquility and stability. It is a symbol of that stage in man’s evolutionary development when he became upright and erect. Therefore, in pranamasana, we are concerned with the muscle responsible for maintained an erect posture. Other important muscles in which a resting tone is maintaining in order to stand in pranamasana includes:

- Calves and lower leg: soleus, tibialis anterior, popliteus
- Thighs: abductors, hamstrings (biceps femoris, semitendinous, semimembranosus)
- Trunk: Spinal and anterior abdominal muscles are essential
- Neck: anterior and posterior muscles are necessary to keep the in position and the head erect
- Scapular area: trapezius, rhomboid

The muscles responsible for the erect posture hold the spine, maintain its curvatures, work the legs, and support the head. Feet and lower legs, hips, trunk, spine, hold these postural muscles in the upright position, are worked throughout all the standing positions.

Hastauttanasana

In Hastauttanasana, positions 2 and 11 of SuryaNamaskar, the practitioner opens himself and communicates with the immense potentiality and strength that the sun represents for man. This posture has long been a part of spiritual and occult traditions invoking the grace and power of the higher forces.

The body experiences a complete anterior stretch and a slight posterior contraction, assuming a slight curve from feet to head, as though it were being stretched like a bow by powerful spiritual forces. Allow one to relax and bend with the posture. Push the chest a little forward aiming to straighten the curve of the upper back slightly. When performed in a relaxed manner, this aids in opening up to the cosmic, pranic and spiritual forces.

Maintenance of balance can be a little difficult in this posture as the action of raising the arms raises the centre of gravity. Tension results from trying too hard to push the
chest forward. Therefore it should be performed gradually at first, increasing the forward curve as one adjusts to the position. The following muscles are used to maintain this posture:

**Upper arm and shoulder:** the muscles from scapula to humerus move the limb; the teres major and minor, deltoid, coracobrachialis. The latissimus dorsi, originating from the lower six thoracic vertebrae, sacrum, posterior part of crest of ilium and lower four ribs, and taking its insertion onto the humerus also extends the arm.

**Forearm:** The triceps brachii extends the forearm.

**Wrist:** The fingers and hands are also extended by Palmaris brevis, tensing the palm, extensor digitorum communis on the humerus and inserting on the back of each finger, extend the wrist and fingers, as does the extensor carpi ulnaris, extensor carpi radialis longus and brevis.

**Back:** Trapezius and latissimus dorsi are contracted with slight emphasis on the buttocks.

**Front:** Serratus anterior on the chest expands the rib cage and increases breathing capacity. Abdominal muscle are stretched, including rectus abdominis, a strap muscle in the centre of the abdomen, running from the pubis upto the 5th, 6th 7th ribs, and external and internal oblique, transversus abdominis.

**Padahastasana**

Padahastasana pose is the complete opposite of position 2. From a powerful upward stretch we go into a powerful downward stretch. After having invoked divine forces man brings these to the earth by touching the ground and thereby transforming his earthly existence. Man surrenders to and consciously utilizes the force of gravity. Padahastasana is a passive position in which the posterior muscles of the body receive a major stretch as the trunk folds on the legs. The hands, with palms flat, are placed beside the feet or even behinds, the body so as to stretch it still further. This time the anterior muscles are passively massaged. This is an inverted position, with swadhisthana chakra at the top. The following muscles are involved:

**Trunk:** psoas and iliacus (originating from the iliac fossa to insert into the area of the psoas insertion) bend the trunk forward.

**Abdomen:** muscles are relaxed.

**Neck:** sternocleidomastoid and scalenus (from cervical vertebrae to first 2 ribs) bend the head forward.
**Back:** stretching of paravertebral muscles, latissimus dorsi (lumbar and lower thoracic), ilocostalis (lumbar, thoracic and cervical), cervical spinalis and spinalis capitis (neck), trapezius, teres major, teres minor, infraspinatus.

**Arms:** stretching of the arms and hands is as for hastauattanasana, especially triceps.

**Buttocks:** gluteus maximus and minimus are stretched.

**Legs:** hamstrings at the back of the thighs, soleus and popliteus in the calves, and also extensors of the toes which aim to maintain posture, are all exercised.

**AshwaSanchalanasana**

In this asymmetric posture, the main muscles used are those of the lower limbs. Though the centre of gravity is lowered, balance is made more difficult because the base of the posture is not wide and the posture is asymmetrical. Placing the hands beside the feet enlarges the base and improves balance. The muscles used to extend the back and head backwards are the same as for hastauattanasana, the main difference being that this movement is more pronounced and the arms are lowered to the ground. Most of the stretch of this asana is on the front of the thighs, hips, abdominal muscles, and on the back and neck. The following positions of the legs will be assumed.

**Front leg:** dorsiflexion of ankle, flexion of knee, flexion of hip. Gluteus maximus and hamstrings are stretched. Other leg muscles are relaxed.

**Back leg:** support on toes (extension), passive dorsiflexion of ankle, slight flexion of knee. Quadriceps femoris and psoas are stretched.

**Parvatasana**

The main stretch of this posture is in the back of the neck, upper back and back of the legs. The muscles involved in movement are in the arms, which are strengthened. The rest of the stretch is passive. The muscles stretched include:

**Calves:** soleus, popliteus’ Achilles, tendon (at the back of the ankle).

**Thighs:** hamstrings. The buttocks are slightly stretched.

**Trunk:** abdominal muscles are slightly tensed: the main back muscles involved are longissimus thoracis, trapezius, and latissimus in the movement of the arms). The shoulder muscles are actively contracted while the arms are kept extended and straight.
Ashtanga Namaskara
This is a position of surrender to earthly bondage and ties. The following muscles are involved:

Ankles and toes: toes are passively extended, stretching extensor digitorum longus and extensor hallucis longus, ankles are passively extended, stretching tibialis anterior (upper tibia to inside of foot).

Knees: the knees are flexed by the hamstrings at the back of the thigh.

Upper leg: psoas major and iliacus flex the thigh while psoas minor flexes the trunk.

Neck: is extended backward by longissimus cervicis (upper 4th and 5th thoracic vertebrae to 2nd to 6th cervical vertebrae), longissimus capitis (spreads from the occipital bone, 7th cervical to 12th thoracic vertebrae to scapula), is contracted. The front of the neck is stretched.

Arms: trapezius is also involved in supporting the body as are rhomboid major and minor (upper part of the back).

Bhujangasana
Bhujangasana utilizes the backward bending muscles of the back to extend the spine and neck backwards. This movement is mainly performed by the hands and arms which push the relaxed body backward into a dynamic curve. The main muscles involved are:

Arms: triceps brachii- straightens the arms.

Back: all the back muscles are compressed but not tensed in the final position.

Abdomen: stretching of abdominal muscles occurs. The buttocks are also slightly contracted in order to maintain the legs together and still.

Legs: hamstrings are flexed slightly in order to maintain leg position. (Saraswati, S.S., 2003).

Knowing about subject’s fitness level and keeping all this in mind researcher has selected Surya Namaskar as the independent variable for improving Functional Fitness. To maintain balance in the body one needs to be mediate. Module I Surya Namaskar with Chanting Omkar helps center the body and mind. It is also a breathing exercise that helps create strong lungs. "OM" is the ultimate sound, all sounds are in OM and OM is in all sounds, to improve the controlling power of state of mind. Everyone should know exactly about breathing power. Therefore researcher
has explained below, that breath is the life force, and it is connected to the physical with the spiritual.

1.5 Statement of the Problem
In today’s life, everybody is busy with their regular schedule, their family as well as office workload for office going personnel. In case of women it becomes double as they have to maintain the balance of both the places; office or school as well as home also. The fast pace (speed) of life, the mounting responsibilities, the cut throat competition, decreasing level of physical fitness, the onset of metabolic syndrome and the diseases associated with it, have brought along with it various ailments. At the same time there is an increasing demand for efficiency and productivity which have taken a toll on the lives of urbanites. It therefore becomes imperative for all city dwellers to take their health and fitness seriously and try to fit in an exercise regimen (routine). The need of the hour then is to achieve Functional Fitness which would emphasize the preservative and enhancing aspects of exercise.

This situation brings to the forefront several questions regarding Functional Fitness. Of the populace more with respect to the teaching community in the city could there be a solution to this ever nagging problem. The researcher feels that our ancient traditions and heritage could have several answers to this. Considering the life style of teachers in Mumbai, their Functional Fitness seems to be very important to improve the quality of life and efficiency in day-to-day work. The need of this research hence could be listed as follows

It is essential to first measure the level of Functional Fitness of a secondary school teacher. This would help to study their current status, give further information about their day-to-day life and other factors. This would help in providing daily movement requirement. The study of this status would further help in designing an exercise module which would be interesting, consume less time and space, thus would give the necessary results.

It was considered appropriate by the research scholar to investigate effectiveness of SuryaNamaskar, Assistive yoga, Pranayam and Omkar chanting on Functional Fitness components which include Agility, Flexibility, Balance, Aerobic Endurance and Muscular Strength. The purpose of the study is to see the effect of SuryaNamaskar, Assistive yoga, Pranayam and Omkar chanting on the selected fitness variables and
provide a solution within the frame work of insufficient time, space, finance and literacy.

The Researcher hence, has decided to conduct a study entitled, “Effect of Customized Program on Functional Fitness of Secondary School Female Teachers from Mumbai.”

1.6 Significance and Justification of the Study
For the purpose of this study significance and justification of the study is as follows:

- It would provide an easy, viable solution to the teacher community to achieve Functional Fitness in the urban setting.
- The teachers could be more energetic and this would catalyze changes in their lifestyle.
- Subjects could be free from diseases.
- Mental peace, psychological relaxation will be achieved.
- Technique is drugless and affordable.
- Omkara and SuryaNamaskar that is Module-I and Module-II with Assistive yoga and Pranayama could be promoted to be used at mass and community levels for the promotion of Functional Fitness in enhancing regular routine performance of school teachers. The knowledge evolving from this investigation may contribute to enrich the literature of fitness, Medical Sciences and Physical education.

1.7 Objectives
The study was conducted with the following objectives in perspective:

1. To measure Functional Fitness of school teachers with respect to Flexibility, Strength, Aerobic Endurance, Balance and Agility.
2. To design two modules for improving Functional Fitness viz. Module I: SuryaNamaskar and Omkara Chanting; Module II: Assistive yoga asana and Pranayama.
3. To evaluate efficiency of the modules on selected Functional Fitness factors through a controlled experiment.
4. To undertake a follow-up study for evaluating the retention effects of both Module I: SuryaNamaskar and Omkara Chanting and Module II: Assistive yoga asana and Pranayama.

1.8 Hypotheses
On the basis of the literature available so far, it was hypothesized that:

1. **H₁**: There would be significant difference in improving Functional Fitness through, Module-I SuryaNamaskar and Omkara Chanting.
   
   1.1 H₁: There would be a significant difference in improving Aerobic Endurance through Module-I
   
   1.2 H₁: There would be a significant difference in improving Agility through Module-I.
   
   1.3 H₁: There would be a significant difference in improving Flexibility through Module I.
   
   1.4 H₁: There would be a significant difference in improving Balance through Module-I
   
   1.5 H₁: There would be a significant difference in improving Muscular Strength through Module-I

2. **H₁**: There would be a significant difference in improving Functional Fitness through Module-II Assistive yoga asana and Pranayama
   
   2.1 H₁: There would be a significant difference in improving Aerobic Endurance through, Module-II.
   
   2.2 H₁: There would be a significant difference in improving Agility through Module-II.
   
   2.3 H₁: There would be a significant difference in improving Flexibility through Module-II.
   
   2.4 H₁: There would be a significant difference in improving Balance through Module-II
   
   2.5 H₁: There would be a significant difference in improving Muscular Strength through, Module-II

3. **H₁**: There would be significant difference in improving Functional Fitness among subjects undergoing customized program
1.9 Delimitations
The availability of subjects, the time involved, the financial implications and other factors prompted the researcher to delimit the problem as follows:

1. The research was delimited to female teachers.
2. The research was delimited to female teachers aged between 30 to 50 years.
3. The research was delimited to teachers in a secondary school, that of Guru Nanak High school, Guru Tej Bahadur Nagar, Mumbai.
4. The study was delimited to the interventions which comprised of Module I SuryaNamaskar with Omkara Chanting, and Module-II Assistive yoga asana with Pranayama.
5. The study was delimited to only eight weeks of training in Module- I and Module- II.
6. The study was delimited to the following Functional Fitness Variables which they were measured by the tests given below

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Variables</th>
<th>Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aerobic endurance</td>
<td>(12 minutes run and walk)</td>
</tr>
<tr>
<td>2</td>
<td>Agility</td>
<td>(T-test)</td>
</tr>
<tr>
<td>3</td>
<td>Static Balance</td>
<td>(Stork stand test)</td>
</tr>
<tr>
<td>4</td>
<td>Flexibility</td>
<td>(Sit and reach test)</td>
</tr>
<tr>
<td>5</td>
<td>Muscular Strength</td>
<td>(Modified push - ups)</td>
</tr>
</tbody>
</table>

1.10 Limitations
For the purpose of this research there were certain limitations which are beyond the control of the researcher.

1. The researcher had no control over food habits, health and daily living style of the subjects involved in the study.
2. There was no control on psychological aspects of the subjects.
3. The researcher had no control on the daily schedule at home and at school and also their extracurricular activities.
4. The researcher had no control over confounding variables which included extraneous factors such as mental fatigue, weather condition and other external disturbances.

1.11 Assumptions
The assumptions for the study were as follows:

1. The subjects will take part whole heartedly.
2. The subjects will perform the Functional Fitness test truly with full ability.
3. The institution will allow the researcher to execute the Functional Fitness test on the subjects.
4. The subjects would have necessary or optimum physical and mental fitness to undergo the test to be conducted by the researcher.
5. The subjects would have basic knowledge about researcher’s customized program.

1.12 Conceptual and Operational Definitions

Customized Program

Conceptual Definition
Core Components of a Customized Program include consultation, program development and a contact for details on creating own Customized Program. (Johnmolson, 2012)

Operational Definition
For the purpose of this study, Customized program consists of two developed Modules with an objective to improve Functional Fitness for secondary school female teachers in Mumbai.
Module – I: SuryaNamaskar with Omkara Chanting.
Module – II: Assistive yogic exercise and Pranayama.

SuryaNamaskar

Conceptual Definition
SuryaNamaskara (accepted by WHO) is a positive state of wellbeing at Physical, Mental, Social and Spiritual aspects of personality. (http://yogabharati.org)
**Operational Definition**

SuryaNamaskar is a set of twelve Yogasanas done in a sequence to specific count with proper breathing technique.

The twelve postures of SuryaNamaskar are:

1. Pranamasana,  7. Hastuttanasana,  
2. Padahastasana,  8. Ashwasanchalanasana,  
3. Parvatasana,  9. Ashtanganamaskara,  
4. Bhujangasana, 10. Parvatasana,  
5. Ashwasanchalanasana, 11. Padahastasana,  

**Omkara Chanting**

**Conceptual Definition**

Omkar Chanting is a way for relaxing Physically, Mentally, Emotionally and improving concentration. AUM is composed of 3 elements, 'a', 'u' and 'm'. The fusion of these 3 elements is AUM or OM. The 3 alphabets are pronounced in series. (Mandlik, Y.V.V., 2012)

**Operational Definition**

Omkara is the chanting of the sacred syllable’ AUM several times before or after the SuryaNamaskar. It consists of AKARA, UKARA, and MAKARA.

**Assistive Yoga**

**Conceptual Definition**

Assistive Yoga is a gentle, therapeutic style of Yoga that uses props to support the body to deepen the benefits of the poses. It is a soothing and nurturing practice that promotes the effects of conscious relaxation. (Judith, L., 2011)

Assistive Yoga is original from Yoga asanas involve extension, exertion, as well as relaxation of the body. More importantly, the aim of the movement is to align the body correctly. This also includes mental alignment, in which the mind touches each and every part of the body evenly. (Iyengar, B.K.S., 2006).

**Operational Definition**

Assistive Yoga is performing of different asanas with the help of different props. This consisted of performing asanas using, Rope Jacket, chair, bolsters, rope to perform
Shoulder Retraction with Rope Jacket, Bharadvajasana, AdhomukhaSvanasana, Padangusthasana, and SuptaVirasana.

Pranayama

Conceptual Definition
According to B.K.S. Iyengar, “Pranayama is a conscious prolongation of inhalation, retention and exhalation.” (McCollum, L., 2012)

Operational Definition
Pranayama is defined as a process of breathing that controls and regulates the breath and will consist of Anulom-Vilom Pranayam.

Anuloma Viloma

Conceptual and Operational Definition
Anuloma Viloma is also called the Alternate Nostril Breathing Technique. In this Breathing Technique, one inhales through one nostril, retains the breath, and exhales through the other nostril. (http://www.abc-of-yoga.com/pranayama/basic/viloma.asp)
Inhalation is done from one nostril, breath is sustained and exhalation is done from other nostril.

Functional Fitness

Conceptual Definition
The ability to perform normal daily activities around the house or at work, without undue fatigue. (http://www.healthline.com/hlbook/art-glossary)

Operational Definition
Functional Fitness is defined as a kind of physical fitness of secondary school female teachers that is required to carry out daily activities and is measured by their composite performance with respect to Aerobic Endurance, Agility, Flexibility, Balance and Muscular Strength.

Aerobic Endurance

Conceptual Definition
Aerobic Endurance is the ability to perform repetitive, moderate to high intensity movement for a prolonged period of time. (http://www.fitefitnessconsultants.com/fitness_components.php)
Operational Definition
The Aerobic Endurance as measured for the score on the 12 minutes run and walk test.

Agility
Conceptual Definition
The ability to change direction, without loss of speed and/or accuracy. (Ketul, 2011)
Operational Definition
Agility as measured for the score on the T test.

Flexibility
Conceptual Definition
The ability to move the body joints through a maximum range of motion without undue strain. (Miller, D.K., 2006)
Operational Definition
Flexibility as measured for the score on the Sit and Reach test.

Conceptual Definition
Static Balance
Balance is the ability to maintain equilibrium against the force of gravity. Static Balance the ability to maintain equilibrium while stationary is often thought of as steadiness. (Miller, D.K., 2006)
Operational Definition
The Static Balance as measured for the score on the Stork Stand test.

Muscular Strength
Conceptual Definition
The greatest amount of force that muscles can produce in a single maximal effort. (Rokukaze, 2012)
Operational Definition
The Muscular Strength as measured for the score on the modified push up.
Secondary School Teacher

Operational Definition

Secondary school teacher means, specialized subject trained teacher who works as a teacher in a Secondary school in Mumbai.

The researcher has tried to explain the whole study in short. All the necessary things are explained in details. The chapter II gives detailed information about the review of related literature seen during the conduct of the study.
References


http://www.aurawellnesscenter.com/tag/restorative-yoga/


