

CHAPTER-I

INTRODUCTION

‘Samadoshasamagniscasamadhatu mala kriyaha’

Women from all walks of life, and from all parts of the world, are beginning to appreciate the benefits of yoga. In modern society, women's roles have expanded considerably. All women would like to be beautiful enough to admiring stares. Women generally tend to take greater interest in their health and beauty than men. But only a few women recognize that yoga is the perfect way to get healthy and beautiful, and is also the ideal way to lead a happy life. True beauty comes from inner health, strong heart and inner organs that function well. This is only possible through the dedicated practice of yoga. A lean and well toned body makes a women look and feel more beautiful. Incorrect posture or slouching makes women look unnecessarily obese or awkward. Yoga has the capacity to help women feel happy and confident from the inside (**Asana Andiappan 2004**).

Good health is defined by Hathayoga Pradipika as Slim (lissome) body, joyous face, sonorous voice, sparkling eyes, positive good health, virility, exuberance of vitality and radiance and purity of nervous system are the characteristics of a Hatha yogi.

1. HEALTH

The term lifestyle means, the Way of Life'. Lifestyle is composed of cultural and behavioral patterns and life-long personal habits (e.g., smoking, alcoholism and sedentary life style) that have been developed through process of socialization. Many

In 1986, the WHO, in the Ottawa Charter for Health Promotion, said that health is "a resource for everyday life, not the objective of living. Health is a positive concept emphasizing social and personal resources, as well as physical capacities". Overall health is achieved through a combination of physical, mental, emotional and social well-being which together is commonly referred to as the health triangle (**WHO, 1980**).

The person who always eats wholesome food, enjoys a regular lifestyle, remains unattached to the objects of the senses, gives and forgives, loves truth, and serves others, is without disease in the total of body, mind and spirit. It includes physical health, mental health, emotional health, and social health.

1.2 PCOD

Polycystic women characterized by irregular or no menstrual periods, acne, obesity, and excess hair growth. PCOS is a disorder of chronically abnormal ovarian function and hyperandrogenism (abnormally elevated androgen levels). It affects 5-10% of women of reproductive age.

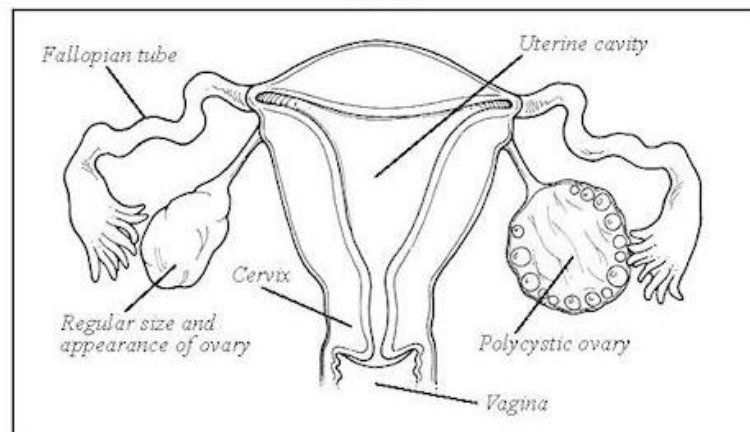


Figure 1: Normal ovary and PCOD ovary

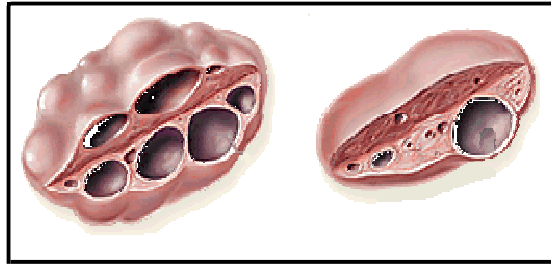


Figure 2: Comparison

Many women have polycystic ovaries without having the syndrome (without the symptoms). Maximum women have the syndrome, but have very normal looking ovaries in ultrasound and also the suffered women, higher levels of the hormone testosterone (or other male hormones) are higher than normal, which results in many of the typical symptoms.

1.2.1 TYPES OF PCOS

THERE ARE FIVE MAIN TYPES OF PCOS

The function of the external female reproductive structures (the genitals) is twofold: to enable sperm to enter the body and to protect the internal genital organs from infectious organisms. The main external structures of the female reproductive system are shown in the figure 3.

The external female reproductive organs

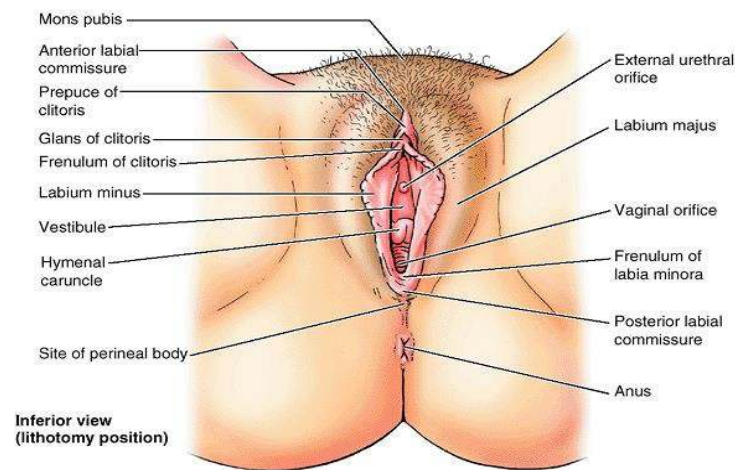


Figure 3: External female reproductive organs

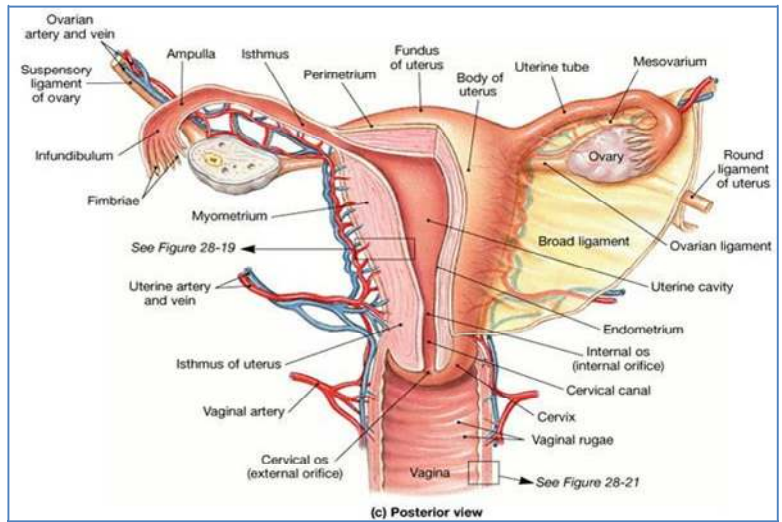


Figure 4: Internal female reproductive organs

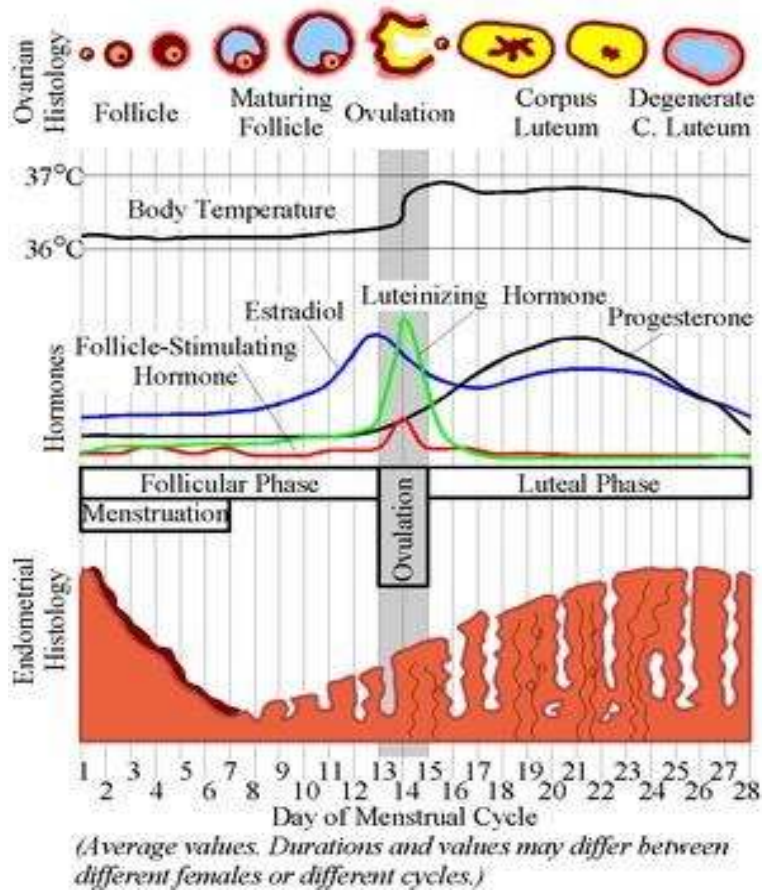


Figure 5: Compare ovarian histology and uterine histology

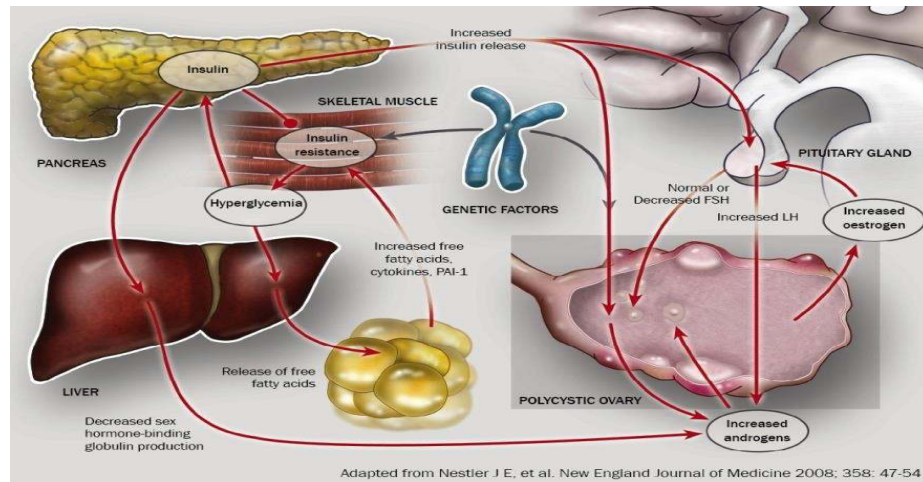


Figure 6: Relationship between Diabetes Mellitus and PCOS

- Diabetes
- 4 to 7 times higher risk of heart attacks
- High Blood Pressure or Hypertension
- High Cholesterol
- High Lipids
- Sleep Apnea
- Risk of endometrial cancer
- Higher rate of Miscarriages
- Higher risk of Gestational diabetes
- Obesity which can also lead to low self-esteem and depression
- Liver disease
- Infertility or Subf
- (endometrial cancer),
- Obesity
- Ovarian cysts

- Follicular cysts (type of Ovarian cysts)
- Enlarged ovaries
- Subfertility (type of Ectopic pregnancy)
- Infertility
- Female infertility
- Insulin resistance
- Type 2 diabetes
- Gestational diabetes - during pregnancy
- Depression
- Mood swings
- Poor self-esteem
- Hyperinsulinaemia
- Testosterone levels raised (serum)
- Dehydroepiandrosterone sulphate levels raised (plasma or serum)
- Hirsutism
- Acanthosis nigricans
- Sex hormone binding globulin levels low (serum)
- Female infertility
- Amenorrhoea
- Increased abdominal weight
- High levels of triglycerides.
- Low levels of good cholesterol, or HDL
- High blood pressure
- High fasting blood sugar

Table-I

COMPLICATIONS OF PCOS

Short-term complications	Long-term complications
The chronic unopposed complications related to PCOS	Endometrial hyperplasia and carcinoma Metabolic syndrome
Menstrual irregularities	Cardiovascular disease
Infertility	T2DM/Impaired glucose intolerance
Hyperandrogenism	Nonalcoholic steatohepatitis (NASH)
Obesity	Hyperlipidemia
Insulin resistance and Hyperinsulinemia	Pregnancy complications
Obstructive sleep apnea (OSA)	Stress

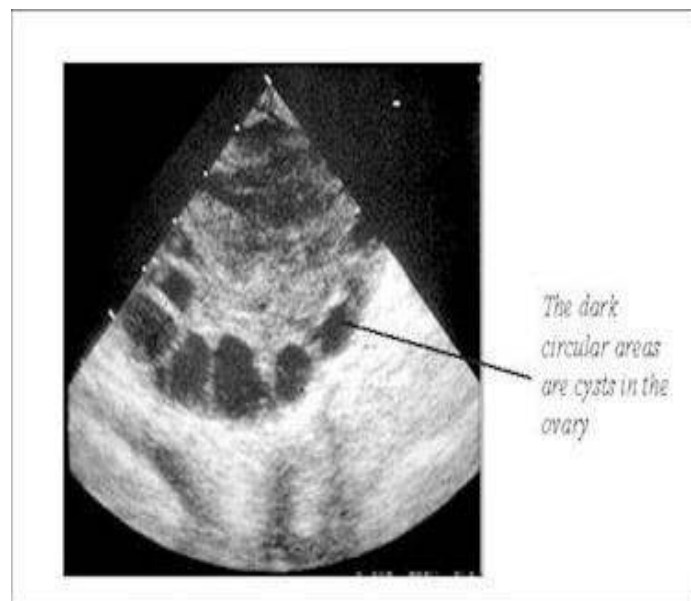


Figure 7: Ultrasound scan photo

- 3-Beta-Hydroxysteroid Dehydrogenase Deficiency
- Acromegaly
- Adrenal Carcinoma

- Amenorrhea
- Congenital Adrenal Hyperplasia
- Cushing Syndrome
- Gigantism and Acromegaly
- Hyperprolactinemia
- Hyperthyroidism
- Hypothyroidism
- Ovarian Tumours
- Ovarian hyperthecosis
- Congenital adrenal hyperplasia (late-onset)
- Drugs (eg, danazol, androgenic progestin's)
- Hypothyroidism
- Patients with menstrual disturbances and signs of hyperandrogenism
- Idiopathic hirsutism
- Familial hirsutism
- Masculinizing tumors of the adrenal gland or ovary (rapid onset of signs of virilization)
- Cushing syndrome (low K⁺, striae, central obesity, high cortisol; high androgens in adrenal carcinoma)

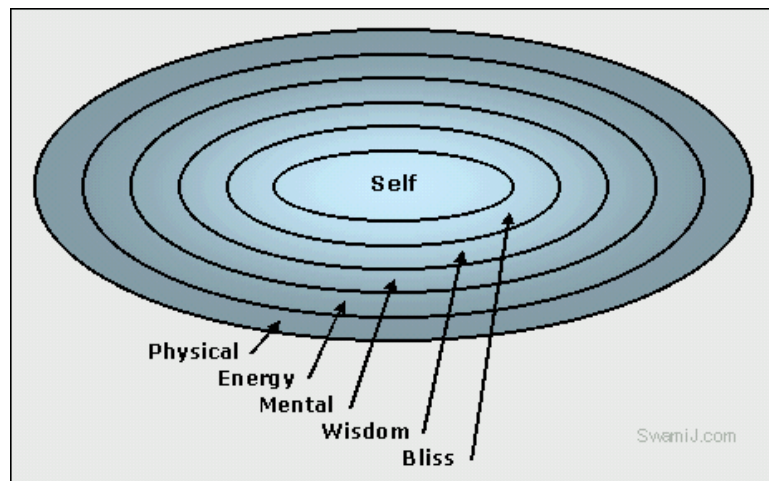


Figure 8: Koshas

Table – II

(Five Pranas)

Prana	Chest
Apana	Bowel movement
Samana	Digestion
Vyana	Throughout the body
Udhana	Chest (control food and air)

Table – III

(Five UpaPranas)

Naga	Hiccup
Korma	Eye blinking
Krikara	Sneeze, cough
Thevathatta	Yawning
Thananjaya	After death

Table – IV (Koshas)

Sanskrit	Translation	Explanation	Activated by
Anna-Maya Kosha	full of food	Physical body	Asanas
Prana-Maya kosha	full of energy	Energetic body	Pranayamas
Mana-Maya Kosha	full of instinct & emotion	Psychic body	Relaxation with affirmations
Vijnana- Maya Kosh	full of knowledge	Consciousness body	Ethics and moral
Ananda-Maya Kosha	full of bliss	Transcendental body	Meditation

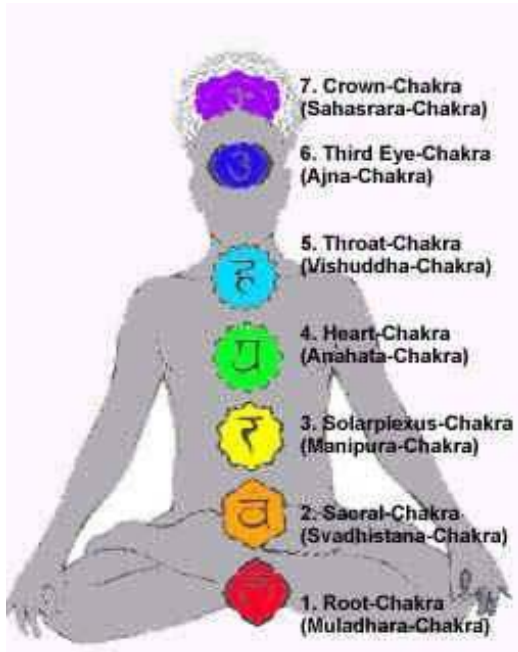


Figure 9: Chakras

1.3 YOGA FOR HEALTH

This ATHI (stress) spread from one place to and occupy the entire body known as Vyathi (diseases). If stress occurs in the Astral body (sukshumarira) it reflects in the physical body (sthoolasarira). So as the result the entire body became prey to deadly diseases and disorder (**Yogachariya Sundaram, 2004**).

1.4 CLASSICAL LITERATURE THE ORIGIN OF YOGA

1.4.1 RAMAYANA

"The RAMAYANA is also an allegory for the principles of Yogic living. Lord Rama was the supreme Yogi: firmly wedded to Dharma, or Righteous Living; an upholder of satya, or Truth at all costs. A supreme ascetic, or tapasin, he was firmly in control of his senses. His one-pointed mind manifested itself in his 'skill in action' as a warrior, a king, a husband, a son, a friend and a companion. Lord Rama is the role model for all

yogic qualities.

The RAMAYANA is a 'practical yoga manual' showing mankind how to live a spiritual life. Proper attitudes to take towards all the challenges of worldly life are elaborated in detail in the work. "**Iyengar. B. K. S., (2001)**

1.5 WOMEN AND YOGA

Women from all walks of life, and from all parts of the world, are beginning to appreciate the benefits of yoga. In modern society, women's roles have expanded considerably. All women would like to be beautiful enough to attract admiring stares. Women generally tend to take greater interest in their health and beauty than men. But

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1.5.1 BENEFITS OF YOGA

Yoga is a science that has been practiced for thousands of years. The benefits are grouped into three categories i.e. psychological benefits, physiological benefits and biochemical effects. This is based on the regular practice of traditional asana, pranayama and meditation **(Swami Sivananda, 2002)**.

1.5.2 PHYSICAL & PHYSIOLOGICAL BENEFITS

Self-actualization, Social skills, Well-being, Concentration, Memory, Attention, Learning efficiency, Mood improves and where as Anxiety and Depression decrease.

1.5.3 PSYCHOLOGICAL BENEFITS

Stable autonomic nervous system equilibrium, Galvanic Skin Response (GSR), Cardiovascular efficiency, Respiratory efficiency, Grip strength, whereas Pulse rate, Respiratory rate, Blood Pressure, EMG activity decreases.

1.6 OBJECTIVES OF THE STUDY

1. To explore whether yogic practices with diet modifications shows any changes on selected physical, physiological and Psychological variables among Oligomenorrhea Adult women.
2. To analyze the effect of yogic practices not diet modifications on selected physical, physiological and Psychological variables in Oligomenorrhea women.

1.7 REASONS FOR THE SELECTION OF THE TOPIC

Adult women with Oligomenorrhea, because in this modern world the lifestyle and food habits are changing day by day. Hence most of the women are affected by Oligomenorrhea. To make the good idea to the women 's the researcher has selected this research. The researcher chosen the yogic practices with and without diet modifications to identify the changes on physical, physiological and Psychological variables among Adult women with Oligomenorrhea. Physical, Physiological and Psychological variables are needed to analyze the various changes take place in their physical and mental level before and after the training period.

The researcher took this topic because there are lacks of literature and limited studies in this field and especially for Oligomenorrhea women and to find out the effect of yogic practices with and without diet modifications separately on Adult women with Oligomenorrhea.

1.8 REASONS FOR THE SELECTION OF THE VARIABLES

Oligomenorrhea women are increasing day by day because of current life style and food habits and lack of exercises. Oligomenorrhea women have Flexibility, Systolic blood pressure, Body mass index, Resting Pulse Rate, stress, adjustment and anxiety test etc. Thus the investigator has chosen these variables for the present study. Physical, physiological and Psychological variables are selected as dependent variables where yogic practices with and without diet modifications are selected as independent variables.

1.9 STATEMENT OF THE PROBLEM

The purpose of the study was to find out effect of yogic practices with and without diet modification on selected physical, physiological and psychological variables among Adult women with Oligomenorrhea

1.10 HYPOTHESIS

1. It was hypothesized that there would be significant changes in Ex.Gr,I (Yogic practices included diet) group than the control group (C.G) on selected risk factors among Adult women with Oligomenorrhea.
2. It was hypothesized that there would be significant changes in Ex.Gr,II (Yogic practices not included diet) group than the control group (C.G) on selected risk factors among Adult women with Oligomenorrhea.
3. It was hypothesized that there would be significant changes between yogic practices with and without diet modifications groups on selected risk factors among Adult women with Oligomenorrhea.

1.11 SIGNIFICANCE OF THE STUDY

1. The findings of the study would help to explore the status of the yogic practices with and without diet modifications among Adult women with Oligomenorrhea.
2. This study would bring out the effect of yogic practices with and without diet modifications among Adult women with Oligomenorrhea.
3. This study will describe the changes in physical, physiological and Psychological variables due to yogic practices with and without diet modifications among Adult women with Oligomenorrhea.
4. This study would give an idea in maintaining the flexibility.
5. This study would give an idea in maintaining the normal level of Systolic blood pressure, Body mass index, Resting Pulse Rate.
6. This study would give an idea in maintaining the normal level of stress, anxiety and adjustment.
7. The findings of the study would help to adopt the suitable training programme to maintain the good health for Adult women with Oligomenorrhea.
8. The findings of the study would be helpful for the further research studies, also helpful for the academy of Adult women with Oligomenorrhea.

1.12 DELIMITATIONS

The following delimitations were taken:

1. Confined to Adults who have women with Oligomenorrhea.
2. Their age was ranging from 25 to 35 years.
3. Total numbers of subjects were 45 Adult women with Oligomenorrhea, in which

15 for experimental group I (yogic practices with diet modifications), and 15 for experimental group II (yogic practices without diet modifications) and 15 for control group (C.G), were taken for the study.

4. The subjects were selected from Sholinganallur, Chennai.
5. The subjects were given to the training of yogic practices with and without diet modifications.
6. The study was conducted on dependent variables such as physical, physiological and Psychological variables such as Flexibility, Systolic blood pressure, Body mass index, Resting Pulse Rate, stress, adjustment and anxiety.
7. The experimental period was fixed as 16 weeks and five days in a week between 6 am to 8 am.

1.13 LIMITATIONS

1. The socio-economic status was not taken into consideration.

1.14 MEANING AND DEFINITION OF THE TERMS

1.14.1 YOGA

The term yoga comes from a Sanskrit word which means yoke or union.

(Stuart Ray Sarbacker, 2005).

1.14.2 DIET

The crucial part of healthy eating is a balanced diet. A balanced diet or a good diet means consuming from all the different food groups in the right quantities. Nutritionists say there are five main food groups.

1.14.3 PHYSICAL

1.14.3.1 FLEXIBILITY

Flexibility is the measure of movement in all joints or all series of joints, and length in muscles that cross the joints. It is variable between individuals, particularly in terms of differences in muscle length of multi-joint muscles.

1.14.4 PHYSIOLOGICAL VARIABLES

1.14.4.1 SYSTOLIC BLOOD PRESSURE(SBP)

Blood pressure is defined as the force of pressure which the blood exerts against the walls of the blood vessels

1.14.4.2 BODY MASS INDEX(BMI)

BMI is a summary measure of an individual 's height and weight, calculated by dividing a person 's weight in kilograms by the square of their height in meters.

1.14.4.3 RESTING PULSE RATE (RPR)

Heart Rate (HR) is one of the simplest and most informative of the cardiovascular parameters.

1.14.5 PSYCHOLOGICAL VARIABLES

Psychology is the science of the mind and soul. It is the study of human nature science of the mind and soul. Psychology is the study of human nature scientifically and rather than formulate condition.

1.14.5.1 STRESS

The psychological sources of stress not only diminish our capacity for adjustment but also may adversely affect our health.

1.14.5.2 ANXIETY

Anxiety is a psychological and physiological state characterized by cognitive, somatic, emotional, and behavioral components.

1.14.5.3 ADJUSTMENT

The adjustment refers to the behavioral process of balancing conflicting needs, or needs against obstacles in the environment.