# Chapter 8 Research-Based Applied Psychophysiology: Yoga for Women's Health

#### R. Nagarathna

Swami Vivekananda Yoga Anusandhana Samsthana, India

#### Ritu Chaku

Swami Vivekananda Yoga Anusandhana Samsthana, India

#### **ABSTRACT**

Several common problems of women seem to be on the increase due to the changing life style of urbanization and material progress. Alarming increase in the prevalence of many non-communicable diseases of women such as PMS, mastalgia, PCOS, complications of pregnancy, menopausal syndrome and breast cancer have become a major challenge in all countries round the globe. This chapter covers the principles and practice of yoga in some of these common conditions specific to women. The chapter covers the conceptual basis of yoga in these conditions with a proposed yoga model of the disease and the recommended yoga module for each of these conditions. This chapter covers the principles and practices of yoga in some of the common life style related health problems of women such as premenstrual syndrome (PMS), pregnancy, polycystic ovarian syndrome (PCOS), peri-menopausal difficulties and breast cancer, under the following headings: the rationale for using yoga, practically applicable yoga modules and a summary of the published research work.

#### INTRODUCTION

This chapter covers the principles and practices of yoga in some common life style related health problems of women such as premenstrual syndrome (PMS), pregnancy, polycystic ovarian syndrome (PCOS), peri-menopausal difficulties and breast cancer, under the following headings: the rationale for using yoga, practically applicable yoga modules and a summary of the published research work.

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#### PREVALENCE OF COMMON WOMEN'S PROBLEMS

Several common problems of women seem to be on the increase due to the changing life style of urbanization and material progress that is affecting women's health adversely. Increasing prevalence has been documented in these conditions. Wrong dietary habits, tobacco smoking, consumption of alcohol, drug abuse, lack of exercise and psychosocial stresses increase the risk of developing many of the non communicable diseases in women (Vaillant et al., 2001; Fraser et al., 2001; Steyn, Fourie, & Bradshaw, 1992).

#### **Premenstrual Syndrome and Mastalgia**

Premenstrual syndrome (PMS) and mastalgia are common problems that most women experience that may start in adolescence itself. Sattar (2014) reported increasing prevalence of mastalgia from 1996-2011 with a pooled prevalence of 47.8% that varied from 12% in France to 98% in Iran. Mastalgia has a prevalence of 68% (Ader, South- Paul, Adera, & Deuster, 2001) while it is 11% for cyclical mastalgia in the US (Ader & Browne, 1997); In Canada and UK the reported prevalence is 51.5% and 32% respectively (Brown, White, Brasher, & Scurr, 2014). India appears to be similar to Europe with a reported prevalence of 51% (Joshi, Pandey, Galvankar, & Gogate, 2010) to 54% (K, 2014) in adult urban population. Sukanya et al. (2015) observed the prevalence of mastalgia as 47.33% among 748 young females from 4 nursing colleges in Karnataka, India.

#### **Polycystic Ovarian Syndrome (PCOS)**

PCOS is the most common endocrine abnormality of reproductive-aged women today, affecting anywhere between 2% to 26% of the population based on the criteria used and therefore potentially represents a significant financial burden to our health care (Nidhi, 2012a). It seems to vary widely in different countries. In USA, two studies that used NIH criteria had documented prevalence rates of 4 percent in a population of 400 women (Azziz et al., 2004) and 6.6 percent in women from a south-eastern university (Knochenhauer et al., 1998). More recent studies have shown a prevalence rate of 14.9% according to NIH criteria, 29.34% by using Rotterdam criteria and 17.4% when they used PCOS Society criteria. The prevalence rises further when individual major criteria are considered: oligo-anovulation (40.9%), hyperandrogenism (25.4%), polycystic ovaries (25.4%) in Caucasian population (Carmona-Ruiz, Saucedo-de, Moraga-Sanchez, Romeu-Sarro, 2015).

Although it appeared that the prevalence in Asian countries was lower with a reported prevalence of 2.4 percent in China (Chen et al., 2008) and 6.3 percent (Rotterdam's criteria) in Srilanka (Kumarapeli, Seneviratne, Wijeyaratne, Yapa, & Dodampahala, 2008), more recent studies have shown alarming results. Out of 52 South Africa (SA) and 52 Caucasian infertility patients, SA women were younger, with six-fold greater odds of PCOS than controls. Although not obese, they demonstrated abundant metabolic disease (insulin resistance, diabetes and dyslipidemia) and endometrial disease including hyperplasia and polyps (Kudesia, Illions, & Lieman, 2016).

#### **Pregnancy Complications**

Although rigorous antenatal care has reduced the overall maternal mortality rate in most developed countries, prevalence of pregnancy complications are on the rise globally with severe consequences.

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