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WOMEN, STRESS AND ANXIETY

Amanda is 32 years old and has two children, a toddler and a baby. She is a chartered accountant, lives in an estate in northern Johannesburg, and works full-time as a financial director for a company. She is married, and her husband works in Dubai. He comes home every three months, and theoretically, she can visit him there every three months. Her parents are divorced, and her mother also works full time to support herself. Her father is in New Zealand, and she isn't in touch with him.

She consulted me with symptoms of extreme exhaustion, and a need to sleep all the time. She wasn't sleeping well at night, even taking into consideration her children's interrupted sleep. Her appetite fluctuated daily and she would either forget to eat or binge at night on junk food. Time for shopping and meal preparation was limited and take

away meals and microwave meals were the order of the day. She had no libido, and the marital relationship was strained, distant and worsening. One big concern for her was her short temper with her children. There was no time for exercise.

At work, she was struggling to concentrate, her memory was impaired, and her boss had called her in because they were worried about decreased efficiency and productivity. She was also irritable towards colleagues and had been tearful and emotionally erratic in several meetings.

Amanda is a composite of many young women who consult me daily and her story is a common one. The generation of women who are now working and raising children, is the first where most women work. In previous generations, working wives were the exception. If they had young children, they stayed at home. They sometimes went back to work after their children had left home but

women working outside the home were not the norm.

Girls leaving school were also not generally encouraged to freely choose a profession. Teaching and nursing, maybe, but not medicine, engineering, actuarial sciences, or any scientific or maths based career. This has also changed significantly.

However, it has put huge strain on these young women. Biologically, as women, they are twice as vulnerable to depression as men. They are also living in a world that is more stressful and complex than ever before.

Older women are also working for longer, one reason being the high rate of divorce. They then have to fend for themselves after many years out of the workplace. There are more single women in their thirties and forties in the workplace. They are often workaholics, whilst still longing for a partner and family life. Because of the isolating urban environment, they are very lonely.



less than 7. This coincides with the worldwide obesity epidemic. If you sleep less than 6 hours, there is a 50% higher chance of weight gain. There is also higher activity of the stress system. This leads to shortening of telomeres in our DNA, which means accelerated ageing and stress related illness.

The effect of stress and anxiety on the brain is detrimental. Our brains are neuroplastic organs that form millions of new connections all the time. Brain Derived Neurotrophic Factor (BDNF) is a growth factor that sustains the viability of neurones. Stress possibly targets the gene for BDNF and may repress expression of this gene. Stress can lower serotonin levels, and can acutely increase and then chronically deplete, both noradrenaline and dopamine. These changes and lack of BDNF may lead to atrophy of neurones in the hippocampus and prefrontal cortex. Hippocampal atrophy has been reported in major depression and anxiety disorders.

Genetic risk factors are also involved, but they are diverse and complex. So why are women different from men, who also face long working hours, stress, traffic and isolation?

BECAUSE OF OUR HORMONES!

Estrogen:

This hormone is considered to be a modulator of all three monoamines, and has a profound effect on mood. Estrogen also has an effect on GABA, and glutamate. It seems to work through binding to estrogen receptors in the cell nucleus, and ultimately activate gene expression in the neuron. Estrogen activates BDNF and thereby helps growth in the brain. It inhibits GABA, thereby activating pyramidal neurones. These neurones release glutamate. This is a cyclical process that changes throughout the menstrual cycle.

Estrogen levels also change dramatically over a woman's life cycle, in relation to various reproductive events. Such shifts are linked to the onset or recurrence of major depressive

episodes. The incidence of depression rises during puberty, as estrogen rises. It falls again after menopause, when estrogen levels fall. During the childbearing years, when estrogen is high and cycling, the incidence of depression is two to three times as high in women as men.

The highest risk periods are postpartum, and perimenopausal. This perimenopausal period can last five to seven years, so it's a prolonged risk.

Psychosocial Stressors:

There are also psychosocial stressors that aggravate the biological vulnerability.

1. Sedentary life style: One study in women showed a clear link between inactivity and depression. Women who sat more than 7 hours a day, had a 47% higher risk of depression than those who sat for less than 4 hours. Those who did no physical activity, had a 99% higher risk than those who exercised.
2. Long work hours. Women who worked more than 60 hours a week had three times the risk of heart disease, cancer and diabetes and asthma.
3. Sleep deprivation: In the past 50 years, we have gone from sleeping 8,5 hours a night, to

4. Overuse of technology. Time spent online in South Africa is just under five hours every day. This can lead to inactivity, obesity, sleep deprivation and loss of human touch.
5. Traffic congestion, which increases every year. This means more sitting, less time and less sleep.
6. Poor nutrition and eating habits

CONSEQUENCES OF STRESS

1. Increased incidence of chronic lifestyle diseases as well as anxiety and depression
2. Sleep deprivation and chronic exhaustion
3. Divorce, parenting problems, work problems
4. Accelerated ageing.

Many modern women are battling with stress, anxiety and all the consequences related to this. There are also more single people than ever before in our history, and loneliness has become an epidemic. People are living longer, especially women, and ageing and age related illnesses are common.

Women have more opportunities than ever before, but also more challenges, and the expectation that they can do everything and be superwoman, excelling at work and as parents and partners, creates high and unsustainable stress levels. They also feel the need to be perpetually young, thin, wrinkle free and immaculately dressed at all times. That is why the aesthetic medicine practices are booming, and that is why women are getting more and more stressed and ill.

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References available on request

