

model' was meant to resolve that, as well as to circumvent the residual misinterpretation that biology is devalued. But if social is included, what about cultural? Indeed, the list could include economic and other factors. Moreover, these factors can impinge on the organism only via the psychological apparatus.

- 'Psychosomatic medicine' also has the virtue of historical continuity that includes a mass of research documentation.
- Paralleling major biomedical advances that elucidated the etiology and pathogenesis of disease, psychosomatic medicine undertook a search for specific psychological causative factors. Dunbar was a pioneer here too, observing that patients with several medical disorders had distinctive personality traits which she concluded were aetiological. Others developed similar formulations. The identified diseases were termed 'psychosomatic.'
- This effort peaked with the contributions of Franz Alexander (1950). As a psychoanalyst, he focused on unconscious processes, but his work was far more elaborate and sophisticated than others. Most importantly and enduringly, he clarified that no purely psychological mechanism could explain the physiological processes of internal organs. Instead, Alexander reported that 'specific dynamic constellations' of motivations, defenses, and emotions characterized patients with each of a series of 'psychosomatic' diseases, and that life experiences which matched the vulnerabilities inherent in the particular constellation precipitated that illness. He also linked each constellation to specific physiological processes mediated through autonomic neural pathways that plausibly explained the pathogenesis of that disease.
- The brilliance of this work captured the imagination of many, and it became a major force in psychosomatic medicine. Belief developed that psychotherapy might cure 'psychosomatic diseases'.
- The evidence of correlations between psychological and somatic processes is extensive.
- When important meanings are attached to inputs, emotions are activated. These further affect body functions. The original response becomes a stimulus, too. In studying organismic function, what is defined as stimulus, and what as response, is arbitrary; it depends on what part of the process is being examined and at what point in time. Nor is this a simple chain of stimulus-response pairs. A network of actions follows, in which some responses affect one organ, some another, and some both, while some of these influences are stimulating and others inhibitory; and the succeeding responses become additional stimuli of the same variegated nature. Because many life events have more than one meaning, several such networks may be in process simultaneously. In most instances, then, a stimulus sets off a transacting web of responses and new stimuli with both psychological and somatic components.
- The endocrine and immune systems also serve as integrators of organismic function, directly and in their inter-relationships with each other and the brain. Pituitary secretions, which control many other endocrines, are themselves subject to control by hormones and neurotransmitters from the hypothalamus. Psychological stress is associated with stimulation of adrenocortical hormones via the pituitary, as well as neutrally mediated adrenaline release from the adrenal medulla. The distinction between neurotransmitters and hormones is blurred: Active neuropeptides and

## Psychiatric Aspects of Infertility and IVF

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- Involuntary childlessness has been a social stigma and has caused emotional trauma and relationship strain. The distress of barrenness impels individuals to seek a remedy, most typically a medical remedy, because realignment of social relationships is the least attractive alternative for individuals, couples, and communities.
- Infertility affects between 80 and 168 million people worldwide; approximately 1 in 10 couples experience either primary or secondary infertility. Primary infertility (involuntary childlessness) rates are 1 to 8%, whereas rates of secondary infertility (the inability to have another child) are significantly higher, at 35%. Compared with the middle of the twentieth century, when 50% of infertility was considered to be unexplained or attributable to psychosomatic disorders in the female partner (e.g. conflicted feelings about motherhood, her mother, or sexuality), today, 10% of infertility is unexplained, 50% is attributable to female factors, 35% to male factors, and 5% to other factors (e.g. both partners).
- Whatever the cause, most medical treatments for infertility are geared toward women, who bear a disproportionate share of the treatment burden. Global rates of infertility vary dramatically, from a prevalence rate of about 5% in developed countries to more than 30% in sub-Saharan Africa. The wide variance in prevalence rates contributes to the emotional experience of infertility; specifically, where infertility is experienced, impacts how it is experienced.
- “Stratification of infertility” refers to the barriers to infertility treatment which, understandably, impact the infertility experience and include economic, social welfare, and public health issues (e.g. poverty, malnutrition, obesity, smoking, and sexually transmitted diseases); ignorance of reproduction, sexual health, or fertility preservation; or lack of availability or access to high-quality medical treatments.
- Additionally, in many patriarchal societies (e.g. Middle Eastern and African), male-factor infertility does not exist; it is an unacceptable diagnosis, thereby increasing the psychosocial stress of male-factor infertility for men (because of the increased stigma and secrecy) and for women, who have few roles in society apart from motherhood.
- Medical treatments facilitate parenthood through assisted reproductive technologies, such as *in vitro* fertilization (IVF), intrauterine inseminations (IUI), intracytoplasmic sperm injection (ICSI), and third-party (e.g. donated gametes or embryos, gestational carriers, surrogates), to an ever-increasing range of individuals and couples seeking biologic parenthood (e.g. married or committed couples, gay or lesbian couples, or solo parents).

whether a hysterectomy is the best option for her. If she values a free, independent and active lifestyle highly, her choice might be different from that of a woman whose self-esteem is embedded in the notion of being fertile. The issue of age for the outcome of hysterectomy is not clearly understood.

- Further studies are needed before we fully understand how a hysterectomy can affect a woman's QoL and psychological health. There is also a need to illuminate the relationship between different surgical procedures and the patients' QoL. Studies are also needed to identify risk factors for developing a poor QoL after a hysterectomy.

### RECOMMENDED READING

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1. Bernhard LA. Consequences of hysterectomy in the lives of women. *Health Care Women Int* 1992;13(3):281–91.
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# Psychological Issues in Gynaecological Cancers

CHAPTER

15

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## INTRODUCTION

Cancer is one of the leading causes of disease in the world. The worldwide burden of cancer is estimated to be 14 million new cases per year. This number may rise to approximately 22 million in the next 20 years.<sup>1</sup> Gynaecological cancer is a common type of cancer. There is uncontrolled growth of abnormal cells originating in the female reproductive organs, including the cervix, ovaries, uterus, fallopian tubes, vagina, and vulva. Each cancer has its own set of risk factors, signs and symptoms, prevention and treatment modalities. A diagnosis of cancer can be emotionally and psychologically challenging and the needs of every patient must be addressed properly.

Cervical cancer is the fourth most common cancer in women all over the world. It is the second most common cancer in women living in regions that are less developed. World Health Organization (WHO) estimated approximately 570,000 new cases of cervical cancer globally (estimations for 2018), with approximately 318,000 deaths (representing 7.5% of all female cancer deaths). More than 85% of these deaths occurred in low- and middle-income countries.<sup>3</sup>

In India cervical cancer is the second most common cancer among women (Table 15.1).

Cervical cancer is a public health problem and account for one quarter of the worldwide burden of cervical cancers. It is the one of the leading causes of cancer

**Table 15.1: Incidence of cancers among women in India<sup>2</sup>**

Site	Age-adjusted ratio
Breast	25.1
Cervix	21.2
Ovary	6.7
Oral cavity	6.4
Oesophagus	5.5
Stomach	3.4
Gallbladder	3.2
Leukaemia	2.9
Lung	2.7
Corpus uteri	2.5