Psychometric Analysis of the Personality Traits of Husbands Suffering from First Night Erectile Dysfunction

Thesis
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List of Abbreviations

ED Erectile dysfunction

EPQ Eysenck Personality Inventory Questionnaire

GABA Gama Amino Butyric Acid

GAD Generalized Anxiety Disorder

ICD-10 International Classification of Diseases

ICI Intracorporeal injection

IIEF International Index of Erectile Function questionnaire

IIEF-5 The abridged form of the International Index of Erectile

Function questionnaire

MAOIs Monoamine oxidase inhibitors

NO Nitric oxide

NOS Nitric oxide synthase

OCD Obsessive-compulsive disorder

PAIRS Psychological and Interpersonal Relationship Scales

PTSD Post-Traumatic Stress Disorder

SES Sexual Excitatory Scale questionnaire

SIS Sexual Inhibitory Scale questionnaire

SK2 Small conductance, calcium-activated potassium channels

type 2

SSRIs Selective serotonin reuptake inhibitors

STAI Spielberger State-Trait Anxiety Inventory

TCAs Tricyclic antidepressants

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Introduction

First night impotence or first night erectile dysfunction (ED) can be defined as the failure to be successfully involved in sexual intercourse at the beginning of marriage, particularly in the first few nights. While its exact causes are not yet elucidated, many studies recognize this problem as related to performance anxiety which has been emphasized as a major cause of psychogenic erectile dysfunction (ED) (*Crowe & Jones*, 1992). In a recent study, the etiology of first night impotence was estimated as 68.3% psychogenic, (*Badran et al*, 2006).

Performance anxiety includes the adoption of a spectator role in which the individual's attention is focused predominantly on sexual performance and away from erotic stimulation (*Masters & Johnson*, 1970). Other etiological factors were reported in several studies including cultural and social factors.

Psychometrics is the field of study concerned with the theory and technique of educational and psychological measurement, which includes the measurement of knowledge, abilities, attitudes, and personality traits and the study of differences between individuals and between groups of individuals. Measurement of these unobservable phenomena is difficult, and much of the research and accumulated art in this discipline has been developed in an attempt to properly define and quantify such phenomena (*Michell*, 1999).

A study, done in Cairo University, discussed the relation of first night impotence to different attitudes and behavioral factors, concentrating on the major etiological factors of first night impotence as psychogenic, organic and female related factors, studying affection, attention and attitude, with no attention has been given to its relation to the variants of personality traits (Badran, 2006). In Egypt, as well as in many developing countries first night impotence is not an uncommon problem. Many cultural myths and social beliefs affect men's psychosexual maturation. These issues are related primarily to the superior role of males over females during sexual intercourse and the proportional relation between sexual potency and manhood. Consequently, large pressures are imposed on both sexes attempting sexual relation during their first wedding nights (Kar & Varma, 1978).

Aim of the work

The aim of this work is to find out the relation between psychogenic first night erectile dysfunction and the varieties of personality traits through a designed psychometric questionnaire.

Psychodynamics of Erectile dysfunction

First night impotence or first night erectile dysfunction (ED) can be defined as the failure to be successfully involved in sexual intercourse at the beginning of marriage, particularly in the first few nights. While its exact causes are not yet elucidated, many studies recognize this problem as related to performance anxiety which has been emphasized as a major cause of psychogenic erectile dysfunction (ED) (*Perelman*, 2003).

In a study, done in Cairo University, the etiology of first night erectile dysfunction was estimated as 68.3% psychogenic. This study discussed the relation of first night erectile dysfunction to different attitudes and behavioral factors, concentrating on the major etiological factors of first night erectile dysfunction as psychogenic, organic and female related factors, studying affection, attention and attitude (*Badran*, 2006) with no attention has been given to its relation to the variants of personality traits; the issue we are trying to investigate in the current study.

Erectile dysfunction

Erectile dysfunction is defined as the persistent failure to develop or maintain erection of sufficient rigidity for penetrative (or satisfactory) sexual intercourse (or performance) (*National Institute of Health (NIH)*, 1993). A recent definition is the consistent or recurrent inability of a man to attain and/or maintain penile erection sufficient for sexual activity. A 3-months minimum duration is accepted for establishment of the diagnosis. In some instances of trauma or surgically induced ED (e.g. post radical prostatectomy), the diagnosis may be given prior to 3 months.

Important elements in the definition are the persistence of the complaint for a period of at least three months, the inability of the patient to both achieve and maintain an erection in the presence of adequate sexual stimulation and lack of attainment of satisfactory sexual performance (Lewis et al., 2004).

ED represents a social problem occurring in ~50% of the general male population aged between 40 and 70 years. The incidence of ED increases with age (75% >70 years old), and the disease frequently occurs in the presence of organic diseases such as chronic renal (20-100%) or hepatic failure (50-70%), diabetes (27.5-60%), hypertension (46%), Peyronie's disease (35%), hypercholesterolaemia/atherosclerosis (33%), ischaemic heart disease (16%) and depression (*Schiavi and Rehman*, 2000).

Numerous, large-scale epidemiological studies have published on the epidemiology of ED. Usually, age ranges were defined by decades. However, direct comparisons between studies are difficult because of divergent criteria for ED, different definitions of age ranges, and varying sample composition. In all the studies, the prevalence of ED was strictly associated with ageing. However, direct comparisons between studies have been limited because of different criteria and definitions of age ranges. Based on slightly different age ranges, **Ponholzer et al.**, (2005) found 0.4% of ED in the group of 20-30 years. In one of the few studies on the age group between 30 and 39 years, the prevalence was estimated at 2.3%. A clear increase ensued from 40-49 years (0-9.5%) to 50-59 years (2-30.8%). At 60-69 years, estimates went from 11% to 55.1%; above 70 years from 15% to rates as high as 76% (Braun et al., 2000; Bacon et al., 2003; Rosen et al., 2003; Holden et al., 2005).

Classification of Erectile Dysfunction (ED):

Erectile dysfunction is classified into organic, psychogenic and mixed types based upon the etiology of the symptoms (*Meyer et al.*, 1983).

The psychogenic and organic etiologies combine in representing the spectrum of ED, although the division recently has become less distinct. The traditional distinction between organic and psychogenic erectile dysfunction may be as inappropriate as—and more misleading than— the distinction between reflexive and psychogenic erections. Certain origins of ED may be unambiguously organic in origin, e.g. vascular problems due to diabetes or neural pathology due to spinal cord injury or prostate surgery. The psychogenic assignment does not necessarily mean that the origin is solely emotionally or psychologically based; there may be an organic basis related to neuronal circuitry and other biological regulatory factors (*Davis et al.*, 2002).

Psychogenic and organic categories of ED for practical purposes differ in presentation, severity, and association with certain environmental variables. Psychogenic ED generally is characterized by sudden onset with complete and immediate loss of sexual function, although this may vary with the partner and circumstance. The patient, with some exceptions, tends to display erections upon awakening. Organic ED typically is more gradual in onset with incremental progression of dysfunction, except ED caused by immediate traumatic events. Erections are not routinely observed with organic ED, even in the most stimulatory sexual encounters. Making the distinction may be helpful in directing ED management for the patient. If the assigned etiology is organic, the patient would primarily address co-morbid conditions contributing to the problem (*Ralph and McNicholas*, 2000).

Lizza and Rosen (2001) classified etiology of erectile dysfunction according to the report of the Nomenclature Committee of the International Society of Impotence Research as follows:

 Table (1): Etiology of (ED)
 (Lizza and Rosen, 2004)

Organic causes of	Psychogenic causes of erectile dysfunction		
erectile dysfunction			
I. Vasculogenic:	• Generalized type	Situational type	
1- Arteriogenic.		A. Partner related	
2-Cavernosal(Veno-	A. <u>Generalized</u>	• Lack of arousability in	
occlusive dysfunction).	unresponsiveness	specific relationship.	
3- Mixed.	Primary lack of sexual	• Lack of arousability due to	
II. Neurogenic.	arousability.	sexual object preference.	
	Aging-related decline in	High central inhibition due	
	sexual arousability.	to partner conflict or threat.	
	B. Generalized inhibition.	B. Performance related	
III. Anatomic.	Chronic disorder of sexual	• Associated with other sexual	
	intimacy.	dysfunction/s (for example,	
	rapid ejaculation).		
	Situational performance		
		anxiety (for example, fear of	
		failure).	
IV, Endocrinologic.		C. Psychological distress or	
		adjustment related	
		Associated with negative	
		mood state (for example,	
		depression) or major life stress	
		(for example, death of	
		partner).	

Psychogenic erectile dysfunction is defined as the persistent inability to achieve or maintain erection satisfactory for sexual performance, which is due to -predominantly or exclusively-, psychological or interpersonal factors (*Lizza and Rosen, 2001*). *Master and Johnson's (1970*) classified psychogenic etiological factors of ED as follows:

Table (2) Etiological factors of psychogenic ED.

Etiological factors of psychogenic ED						
A <u>Developmental factors:</u>	B. Cognitive factors:	C. <u>Affective (neurotic) factors:</u>	D. Interpersonal factors:			
• Maternal or paternal	• Sexual ignorance and	Anxiety, performance anxiety,	Poor communication			
dominance.	misconception.	anxiety about penile size, or	between the two spouses.			
• Conflicted parent-child relationship.	• Religious orthodoxy.	about the ability to satisfy the partner.	• Lack of physical attraction.			
• Negative parent's attitude toward sex.		•Depression it may be associated with inhibited	• Divergent sexual preference.			
• Traumatic childhood		sexual desire.				
sexual experience. • Traumatic first coital		•Phobia e.g. venerophobia, pregnophobia or feminophobia.	• Hostility.			
experience.						
• Homosexuality.			• Disgust.			
• Gender identity						
disorder.						

(Master and Johnson's, 1970).