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FEMALE SEXUAL FUNCTION

Toward a More Evidence-Based Nosology and Nomenclature for Female Sexual Dysfunctions—Part I

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ABSTRACT

Introduction: A *nomenclature* is defined as a classification system for assigning names or terms in a scientific discipline. A *nosology* more specifically provides a scientific classification system for diseases or disorders. Historically, the nosologic system informing female sexual dysfunction (FSD) has been the system developed by the American Psychiatric Association in its *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III through DSM-5). Experts have recognized limitations of its use in clinical practice, including concerns that the DSM-5 system does not adequately reflect the spectrum and presentation of FSD.

Aim: To review the central considerations and issues that underlie the development of a new evidence-based nomenclature that reliably and validly defines the categories of FSD and will effectively function in clinical and research settings, serve as a basis for *International Classification of Diseases* (ICD) codes, and provide regulatory guidance for interventions designed as FSD treatments.

Methods: The International Society for the Study of Women's Sexual Health conducted a 2-day conference on nomenclature for FSD in December 2013. Key opinion leaders representing diverse areas of expertise discussed ideal characteristics, existing DSM definitions, and current and future ICD coding to develop consensus for this new nomenclature.

Main Outcome Measure: A comprehensive appreciation of the parameters and characteristics essential to a new FSD nomenclature and terminology that will serve as the principal nosology for the description and diagnosis of FSD.

Results: A critical appraisal of the essential elements of a classification system for diagnosing FSD was accomplished. The applicability of DSM-5 FSD definitions was challenged; and the considerations for developing a new nomenclature were discussed, including comorbidities, clinical thresholds, alternative etiologies, and validity.

Conclusion: The essential elements for developing a valid, reliable, credible, and clinically applicable nosology for FSD were enumerated as a preamble to constructing the actual nosologic system (Part II).

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Key Words: Female Sexual Dysfunction; Nomenclature; Nosology; *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*; Female Sexual Interest Arousal Disorder; *International Classification of Diseases*

INTRODUCTION

A *nomenclature* is defined as a classification system for devising or choosing names or terms, or the rules for forming these terms, particularly in a scientific discipline. A *nosology* is defined more specifically as a scientific classification system for diseases or disorders. *Diagnosis* is the procedure of identifying a disease or disorder through an active process involving examination, patient history, and supportive data based on a particular nosologic system.

During the past three decades the nosologic system informing the arena of female sexual dysfunction (FSD) has been the system developed by the American Psychiatric Association in its *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III

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through DSM-5).[1] Although serviceable and recognized by the large majority of health care professionals and sexual medicine experts in the United States, FSD experts have recognized the limitations of the application of the DSM system in clinical practice. There have been concerns that the DSM-5 system does not adequately reflect the myriad nuances and distinctions that characterize the spectrum and presentation of FSD, in part because it arises from a system designed to characterize psychiatric disorders.[2–4]

With this awareness in mind, the International Society for the Study of Women's Sexual Health (ISSWSH) conducted a 2-day conference on nomenclature for FSD in Annapolis, Maryland in December 2013. The directive given the conference attendees, all national and international experts in sexual medicine, was to develop a new evidence-based nomenclature that reliably and validly defines the various categories of FSD and do so in a fashion that will enable it to (i) function effectively in clinical and research settings, (ii) function as a basis for *International Classification of Diseases* (ICD) codes, and (iii) provide regulatory guidance for interventions designed as treatments for various conditions that fall under the domain of FSD. After the 2013 conference, the Fourth International Consultation on Sexual Medicine met in Madrid, Spain in June 2015. Conclusions of this meeting, including recommended definitions of sexual dysfunctions and their levels of evidence, were published in 2016.[5]

Ideally, a nosology, or system of diagnostic classification, is based on knowledge of etiology, pathogenesis, and clinical phenomenology. Unfortunately, this is rarely the case with FSD. Historically, FSD diagnoses have been made primarily based on clinical presentation and patient-reported history, which means that definitive criteria for assigning one or another diagnostic label, or any diagnosis at all, are usually lacking. In addition, it is very common for more than one FSD syndrome to be present simultaneously, with the assignment of primary or secondary status based on the temporal onset of the conditions or their relative importance to the patient.

Although this diagnostic precision is not unique to FSD, it does raise an important question: If one is going to construct a new classification system for FSD, what is the best nosologic model to use? Ideally, the system would possess the capability of optimally separating diagnostic groupings from one another and accurately distinguishing individuals who qualify for a diagnosis from individuals whose presentations represent variations of normal sexual functioning. To answer this question effectively, one must first establish the fundamental nature of FSD.

NOSOLOGIC MODEL FOR FSD

Throughout most of medicine, the prevailing nosologic model is a *categorical* model in which the clinician assigns the case to one of multiple categories or groupings based on the presenting clinical picture, history, patient report, and any laboratory and other assessments. There are many categorical models, ranging from the traditional categorical paradigm in which the patient's presenting clinical picture must match a specified set of necessary and sufficient criteria to more probabilistic models that specify that a particular number or subset of characteristics must be present to justify the diagnosis in question.

All categorical models tend to make the assumption, implicit or explicit, that the diagnostic categories that comprise the nosologic system are *discrete entities* with natural boundaries and a clear separation between them, which Kendell and Jablensky[6] referred to as "zones of rarity." The validity of this assumption regarding FSD is very much open to challenge; however, this fact does not disqualify categorical paradigms from serving as a basis for a nosology for FSD.

Another class of models frequently proposed as an alternative to categorical systems is *dimensional* models. Although there are numerous types of dimensional models, ranging from very simple four-point Likert scales representing singular concepts such as symptom severity, to complex models based on elaborately determined multivariate architectures, they all represent the patient's status as quantitative scores on at least one relevant dimensional construct. Dimensional models possess the capacity to introduce more precision to the diagnostic process and inherently avoid the "discrete entity" and "comorbidity" problems associated with categorical systems. For example, in a dimensional system, "comorbidity" can be appreciated and represented as a variation in pattern across the relevant dimensions underlying the diagnostic system. The major problem with dimensional systems, beyond determining what the "core" constructs comprising the system will be, is that they tend to be cumbersome in clinical practice, which often calls for discrete yes-or-no decisions. It is possible to develop a system that represents a blend of categorical and dimensional models, and there are a number of proponents of such systems.[7]

Beyond various incarnations of categorical and dimensional systems, there is a third, less well-known, approach to nosology that is referred to as *prototype matching*. In prototype-matching systems, instead of enumerating relevant symptoms to arrive at a diagnosis, the clinician determines the degree to which a patient's clinical presentation matches a paragraph written to describe the disorder (using a five-point scale ranging from 1 = no match to 5 = very good match). There are categorical and dimensional aspects to prototype-matching systems and the option for "subthreshold" levels of the condition. Proponents of prototype-matching models argue that the approach has significant advantages over more traditional approaches, including the fact that it represents a more natural way for humans to classify complex presentations. It is reliable and easy to use and includes dimensional and categorical aspects.[8] Prototype matching appears to represent an intriguing approach to nosology that is still early in its development.

DSM-IV-TR VS *DSM-5* SYSTEMS

Current controversies regarding the changes from the DSM-IV-TR to DSM-5 have their genesis in the reality that we