## A Standardized Diagnostic Interview for Hypoactive Sexual Desire Disorder in Women: Standard Operating Procedure (SOP Part 2)

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#### ABSTRACT —

*Introduction.* Taking into account that Hypoactive Sexual Desire Disorder (HSDD) is a patient-reported symptom and that the disorder is in general the result of the interaction of biological and psychosocial factors (see part 1), it is necessary to provide healthcare professionals with an operating procedure that is patient centered and multidimensional.

*Aim.* Describing a patient-centered and multidimensional standard procedure to diagnose and manage HSDD on a primary care level.

Methods. Review of the literature. Semistructured interview and description of process.

**Result.** The interactive process with the patient follows several steps: initiation, narrative of the patient to understand the individual profile of the disorder, differentiating questions, descriptive diagnosis, exploration of conditioning biomedical, individual psychological, interpersonal, and sociocultural factors (including biomedical examinations), establishment of a biopsychosocial comprehensive explanatory diagnosis, which can be summarized in a nine-field matrix. This matrix will serve as orientation for therapeutic interventions adapted to the individual person. These interventions should always be based on basic counseling as a basis of treatment. Then adapted to the individual condition specific hormonal treatments (mainly estrogen and testosterone alone or combined) can be used after exclusion of contraindications. In patients with predominant psychosocial factors contributing to HSDD individual or couple psychotherapy is indicated. Psychopharmacological drugs are in development and partially investigated and will add to the therapeutic possibilities in the future.

*Conclusion.* This model can serve as an ideal basis for the approach to the female patient with HSDD. It can be adapted to the individual clinical setting. **Bitzer J, Giraldi A, and Pfaus J. A standardized diagnostic interview** for Hypoactive Sexual Desire Disorder in women: standard operating procedure (SOP part 2). J Sex Med 2013;10:50–57.

Key Words. Hypoactive Sexual Desire Disorder; Standard Operating Procedure; Semistructured Interview and Examination

**D** ue to the lack of objective criteria, the importance of subjective experience, and the multifactorial etiology of Hypoactive Sexual Desire Disorder (HSDD), it is necessary to use a diagnostic pathway that takes those characteristics into account.

The diagnostic pathway ideally leads through the following steps [1,2]: initiation, narrative, differentiating questions, descriptive sexual medical diagnoses, exploration of the background (conditioning factors, the comprehensive explanatory sexual diagnosis), and finally the formulation of a comprehensive explanatory diagnosis, which will orientate the individual therapy.

This semistructured interview is thought as a basic orientation for the practitioner. It should be used together with the information given in part 1 of this manuscript. It describes an ideal procedure which in individual cases has to be adapted to the woman, her life situation and cultural background, and the provider setting and professional background.

### Initiation

A physician-patient discussion about sexual problems is likely very different from one about blood pressure:

- It can be uncomfortable for both physician and patient.
- There is no real example of an "ideal" conversation.
- There is a lack of clarity regarding definition, assessment, and objective measures.
- There is a lack of training, interview time, and possible cultural barriers.

The challenge of talking appropriately with patients about sex needs to be met because sexual problems:

- Are highly prevalent.
- May affect overall well-being and self-image more than many other conditions.

Most patients feel a sense of relief when they understand that their sexual problems are common. Therefore, it is the responsibility of the physician to initiate the conversation and to use appropriate communication skills. Communication skills include the use of open questions, encouragement, generalizing and normalizing the issue of sexuality.

## Recommendation

Patients may feel emotional barriers in discussing their sexual problems with physicians.

Physicians should be proactive in encouraging patients to talk about their sexual problems.

Physicians should use specific communication patterns to facilitate initiation, like invitation, waiting and giving time, mirroring, generalizing, etc.

The use of a brief screener can also facilitate initiation of a conversation about sexual issues. Several clinically useful screeners include the decreased sexual desire screener [3], eventually combined with the female sexual distress scale revised [4].

# The Narrative—Understanding the Individual Profile of HSDD

The narrative describes the story of the patient in her own words. It allows the physician to get insight into the world of the patient (her feelings and thoughts) by listening to the content, the words used, the tone, the phrasing, the pauses, etc. The physician must be able to understand the **individual profile of the desire problem** and the **multifaceted phenomenology** of each individual case.

Several aspects of the desire problem should be attended to with great care:

- **Dimensions**: This refers to the internal comparison a woman makes regarding her desire problem. Is it less desire compared with the partner's desire? Less than in past experience? Less than she might perceive other women's to be? Less than some internal ideal of desire that she might have?
- Elements and composition: Which parts of the desire experience are affected, such as internal (cognitive and emotional elements e.g., fantasies, daydreams, feeling sexy, feeling sexual appetite) or external behavioral elements (active seeking of sexual stimuli and/or sexual activity with or without partners).
- The distress caused by the low desire: This can be elucidated by asking the patient what the impact of low desire is on her individual mental well-being, the relationship, and her general quality of life?

## **Differentiating Questions**

After understanding the individual profile of the HSDD, the physician needs to differentiate clinical subtypes. The following subtypes are of importance and can be differentiated by questions:

- 1. Has this lack of interest in sex always been there? Was it different before? When did you consider your desire was sex good for you? Subtypes: Primary (lifelong) vs. secondary (acquired)
- Did the loss of desire develop gradually or occur abruptly? Subtypes: Gradually developing vs. related to specific events
- 3. According to your experience, is the lack of desire related to specific situations? Are there situations in which you feel desire and interest in sex? Is the lack of desire related to your partner, for example, does your partner have sexual difficulties like premature ejaculation or erectile dysfunction, or is the lack of desire related to specific behaviors of your partner, such as a lack of adequate stimulation? Is it related to the appearance or attractiveness of your partner, or some other

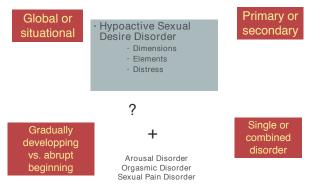


Figure 1 The descriptive diagnosis of Hypoactive Sexual Desire Disorder

difficulty (e.g., level of communication) with your partner?

Subtypes: Generalized or situational

4. When you engage in sexual activities do you have difficulties getting aroused (emotionally and physically)? Do you have difficulties experiencing orgasm? Do you feel pain when you masturbate or have sexual intercourse? Subtypes: Single or combined

## Recommendation

The physician should use open questions in the beginning to encourage the narrative of the patient. The physician should use direct questions to differentiate between different clinical subtypes of HSDD.

## The Descriptive Diagnosis of HSDD

At this stage in the interview the physician can establish a descriptive diagnosis of HSDD which describes the dimensions, elements, the degree of bother or distress, the possible combination with arousal disorder, orgasmic disorder, sexual pain disorder, and distinguish between primary vs. secondary, global vs. situational, gradually developing vs. abrupt beginning, and single vs. combined disorder (see Figure 1).

## **Exploring Conditioning Factors**

The multifactorial etiopathogenesis of HSDD is well documented in the literature (see above). Two major groups of conditioning factors can be distinguished:

1. Biomedical factors which can be subdivided into diseases, drugs, and hormones.

2. Psychosocial factors which can be subdivided into individual psychological factors, relationship factors, sociocultural, and economic factors.

### Recommendation

The exploration of conditioning factors should be based on, and oriented toward, a comprehensive biopsychosocial concept of sexual health and include biomedical, individual, psychological, relationship, and sociocultural factors. Potential biomedical and psychiatric conditions should be ruled out before psychological factors are ruled in.

## **Biomedical Factors**

#### History

- Diseases and drug (see part one and Table 1)
- Hormones (see part one and Table 1)

Table 1	Biomedical factors affecting sexual desire (for				
references see text)					

Disease and drug use Hypo- or hyperthyroidism Urinary incontinence Diabetes Coronary artery disease Hypertension Arthritis Spinal cord injuries, multiple sclerosis, neuromuscular disorder Parkinson's disease Dementia Schizophrenia Major depression Pituitary tumors and hyperprolactinemia Cancer Anxiety Medications Hormones Estrogens Progestins Androgens Oral contraceptives Menopausal transition Postpartum period

Individual psychological and interpersonal factors affecting sexual desire (for references see text)

Negative early environment Sexual abuse and emotional neglect in childhood Traumatic experiences during puberty Perceived distress Distraction Performance anxiety (concerns) and anxious apprehension Expectations of a negative experience Relationship factors Partners sexual dysfunction Global dissatisfaction with the relationship Communication deficits These medical factors should be assessed by detailed medical and sexual history, and eventually a physical and genital examination.

#### Genital Examination

A genital examination is not necessary in all women suffering from HSDD.

Genital examination is indicated in cases of secondary HSDD related to endocrine changes and HSDD combined with other dysfunctions especially sexual pain.

The gynecological examination should include:

- Vulva: Check for labial and clitoral structure and morphology (agglutination between small labia, fissures, etc.); check for atrophy, lichen, inflammation; check for painful points in the vestibulum by touching with a Q-tip.
- Vagina: Check for atrophy, pH, signs of infection, descensus, cysto—and rectocele. High pH can be a sign of disturbed balance of bacterial colonization of the vagina, and this can cause unpleasant discharge and discomfort.
- **Pelvic floor**: Check for hypertonicity of pelvic floor muscles, muscular insufficiency, ability to voluntary contract pelvic floor muscles.
- Uterus: Check for fixed retroflexion, painful sensations especially of uterosacral ligaments, fibromas.
- Adnexal region: Check for pain on examination, adnexal masses.

Ultrasound examinations to assess uterine adnexal pathology are only recommended in cases where the gynecological examination shows some abnormality.

Usually there is no indication for laboratory investigation. Estrogen deficiency can be detected by history and physical exam. Androgen deficiency can be also detected by history and checking into the combination of symptoms. Other tests for glucose, thyroid hormone, prolactin, and reproductive hormones like follicle stimulating hormone (FSH) and luteinizing hormone (LH) could be conducted to rule out metabolic or pituitary dysfunction, although as a rule blood tests should be taken only when there is a clinical indication.

#### Recommendation

Biomedical factors should be assessed by:

• Medical history to rule out diseases and drugs, endocrine changes, or treatments.

• Physical and especially gynecological examination (to assess vulva vaginal disorders, uterinal ovarian disorder). There is usually no indication for laboratory or imaging techniques.

#### Individual Psychological Factors

Research has shown that a large group of psychological factors can lead to low sexual desire (see part one and Table 1)

- Sexual abuse and emotional neglect.
- Negative or aversive first sexual experiences.
- Traumatic experiences during puberty.
- Performance anxiety and anxious apprehension.
- Stress, anxiety, depression, attention deficit disorders.
- Negative sexual self-image and low self-esteem.
- Personality and obsessive-compulsive disorders.

As described in part 1 the individual psychological factors can be subdivided in those which occur early in life and predispose to later low desire or even sexual aversion and those factors that may trigger or maintain hypoactive desire.

Early emotional neglect and abuse may have a long-standing impact on the woman's self-concept regarding her body and her sexuality with the possible consequence of a feeling of alienation, body image disorder, and sexual identity problems, which may predispose for low desire.

Emotions like anger, anxiety, or sadness act as immediate distancing factors, blocking excitatory mechanisms and activating inhibition (see dual models part 1).

Adding to these affective factors typical cognitive distortions like anticipation of failure, expectation of negative responses by the partner, catastrophizing contribute to the inhibition.

#### Recommendation

Psychological factors including early abuse or neglect, separation stress, depressive and anxious mood, performance anxiety, body image disturbance should be explored. Immediate factors like anger, anxiety, sadness, and cognitive distortions are very important to assess as contributing factors that are amenable to short-term interventions.

An assessment of personality traits may be helpful to understand the way the patient reacts to changes in her sexual life. However, there are limits to how much the clinician can improve personality dispositions.

### Relationship Factors

There is a strong association between sexual function and satisfaction with feelings for a partner. A

 Table 2
 Semistructured Interview, Biopsychosocial Matrix

	Biomedical		Psychological		
	Chronic diseases and drugs	Hormonal factors	Intraindividual	Interpersonal	Sociocultural
Predisposing Distant Indirect Precipitating Trigger Maintaining Proximate Direct					

partner's sexual dysfunction can lead to HSDD in women. The duration of a relationship may also have a negative impact, along with sexual activity that has become routine, and if a lack of communication among the partners about the likes and dislikes of their sexual life (see above).

Individual psychological factors and relationship factors often interact with each other and may have an additive or even cumulative negative effect on desire.

## Recommendation

The exploration of the impact of relationship factors should include questions about:

- General satisfaction with emotional aspects of the relationship.
- Sexual dysfunction of the partner.
- The self-rated impact of the duration of the relationship.
- Communication difficulties.

## **Comprehensive Explanatory Diagnosis of HSDD**

The biopsychosocial assessment should be summarized and organized in a nine-field matrix as an explanatory diagnosis (see Table 1) [5]

- 1. Biological, psychological, and sociocultural factors.
- 2. Predisposing, triggering, and maintaining factors.
- 3. In each dimension there are factors that have a direct immediate impact on sexual function.

Distant indirect factors are those that date back in the life story of the patient but still have an impact like previous operations (biological level), early neglect and abuse (psychological level), previous traumatic experiences in relationships (relational level), education (sociocultural level).

Proximate factors, on the biological level may be drugs or hormonal changes; on the psychological level proximate factors can be ignorance, performance anxiety, distraction; on the level of the relationship it maybe the partner's way of stimulating or partner's dysfunctions (Table 2).

It is important to assess how the woman herself rates the importance of these different factors in contributing to her low desire.

According to this matrix three groups can be distinguished:

- HSDD with predominant biologically conditioned **drive deficiency** (medical endocrine and central).
- HSDD with predominant incentive and reward **motivation deficiency** (individual psychological and relational).
- HSDD with a mixed etiopathology.

## Recommendation

The assessment of biological, psychological, and sociocultural factors should lead to a comprehensive explanatory diagnosis with predisposing, precipitating, and maintaining factors which can be summarized in a nine-field matrix.

This comprehensive diagnosis allows to differentiate between different clinical types of HSDD (drive deficiency, motivation deficiency, mixed etiopathology).

## **Therapeutic Options**

## General Recommendation

## **Basic Counseling**

Treatment of HSDD should always follow and indicate approach with basic counseling and specific individualized biomedical and/or psychotherapeutic interventions. Basic counseling is an integral part of all therapeutic approaches.

Basic counseling comprises several elements:

- It gives the patient the opportunity to talk about her own sexuality.
- It may help to listen actively so the patients feel accepted and understood and get emotional relief.

- Basic counseling helps put the personal experience of one's sexuality into perspective.
- Information can be disseminated about frequency of problems, differences and similarities between female and male sexuality, knowledge about sexual physiology and anatomy, etc.

Thus counseling can increase knowledge and the sexual empowerment of the patient, and dispel myths and misinformation about human sexuality [6,7].

#### Hormonal Treatments: (See Part 1)

Hormone therapy is indicated for the following:

- HSDD with a clinically significant drive deficiency component.
- Medical conditions leading to hormone deficiency states.
- Menopause transition and aging.
- Hormonal contraception.
- Add-back therapy in patients with mixed etiology.

A large majority of studies show positive effects of hormone replacement therapy in different aspects of female sexual function and sexual satisfaction. Clinical trials with testosterone therapy in women with HSDD have shown treatment efficacy in surgically menopausal women treated with estrogen and progesterone, in naturally menopausal women treated with estrogen and progesterone, in surgical and natural menopausal women without estrogen and progesterone treatment, and in premenopausal women [8–13].

Tibolone had beneficial effects on HSDD in two studies [14,15].

DHEA has not proven effective in controlled studies. There are, however, interesting results indicating that DHEA and DHEAS may serve as important precursors for androgen production, and thus supplementation with these substances may correct some subclinical deficiencies in testosterone levels. However, side effects of chronic DHEA, including the possibility of an unknown increased risk of breast and ovarian cancer, acne, hirsutism, and menstrual irregularities, may limit its utility [16,17].

In contrast to DHEA, testosterone treatment in patch, transdermal spray, or gel form is associated with a significant amelioration of symptoms of HSDD in postmenopausal women [18] and gonadally intact premenopausal women with HSDD [19], or following oophorectomy [20]. Testosterone treatment is most efficacious in postmenopausal women or oophorectomized premenopausal women when given in combination with estrogen [21]. Indeed transdermal testosterone delivery has also been reported to alleviate symptoms of treatment-resistant depression and elevate mood in general [22]. It is likely that the mechanism of action of testosterone on desire is in the brain. A new formulation of testosterone combined with the PDE5 inhibitor sildenafil is also undergoing clinical trials for the treatment of HSDD [23].

#### Centrally Active Drugs (See Also Part 1)

These would be indicated for women with HSDD but for whom no major endocrine or psychosocial factors are primary to the diagnosis. Although no drugs have yet been approved for the specific treatment of HSDD, some are used off-label to promote sexual desire in women suffering from HSDD. One is the antidepressant bupropion [24], which can increase arousability, responsiveness, and sexual desire in women with major depression. It is a norepinephrine-dopamine reuptake inhibitor and an acethylcholine receptor antagonist. and may augment the activation of excitatory systems in the brain for sexual desire. Several promising drugs are currently undergoing clinical trials for the treatment of HSDD. These include the melanocortin agonist drug bremelanotide [25–27], which promotes dopamine release in the preoptic area of the hypothalamus, and flibanserin, a drug that acts at serotonin receptors to reduce the inhibitory influence of serotonin [28,29].

#### Psychotherapeutic Interventions (See Also Part 1) [30–36]

Psychotherapy is indicated when there is ambivalent motivation to be sexually active with a partner, but in which the partner does not suffer from sexual dysfunction and both partner and patient are motivated to fix the problem. The lack of desire may stem from interpersonal relationship issues, lack of knowledge and experience with sexual pleasure, low sexual self-esteem, patterns of sexual activity that have become "routine," etc.

The treatment of HSDD by psychotherapeutic interventions is not well documented as far as evidence-based medicine requirements are concerned. Although the sensate focus therapy of Masters and Johnson was reported to be successful, it had limited outcome measurements assessed in the short term. It is not clear how long the therapeutic effect lasted, or whether it translated well from the therapeutic environment back to the patients' home environment. There is only one randomized controlled trial in the past 6 years, in which group cognitive behavior therapy was shown to improve HSDD in 74% of women [35] More recent studies have reported good efficacy in treating both sexual arousal and desire disorders in women using elements of mindfulness, meditation, and yoga in addition to psychotherapy [36]. It is likely that therapeutic approaches must be tailored to the particular subtype of HSDD along with the particular needs of the patient. It is also likely that drug therapy in conjunction with psychotherapy will be beneficial for many patients, especially if the psychotherapeutic intervention can build upon a faster amelioration induced by the drug effect. Longitudinal studies assessing outcomes with various interventions are needed for treatment of HSDD.

#### Recommendation

Treatment of HSDD in women needs to be individualized integrating different interventions in a personal treatment plan.

**Basic Counseling** is an indispensable and constitutive part of care to inform, educate, and empower women (and their partners) by active listening, providing knowledge, and encouraging a dialogue with the health professional.

**General medical treatment** of an underlying clinical condition has to follow the respective guidelines.

**Hormonal treatment** options include estrogen only, estrogen–progesterone, estrogen– testosterone, testosterone only, and DHEA. These therapies are indicated in women where the clinicians determine a high probability that the desire disorder is caused by a hormonal deficiency. The precautions and contraindications as well as the possible risks of each hormonal treatment have to be evaluated together with possible benefit in a shared decision-making process together with the female patient.

Centrally acting drugs are in development or have not yet been registered.

Specialized psychosocial and psychotherapeutic interventions are indicated in women where psychological and relationship factors contribute to a large extent to the clinical problem. Various available techniques should be adapted to the patient's and the couple's psychosocial profile, their needs, and their resources.

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#### Category 3

(a) Final Approval of the Completed Article Johannes Bitzer; Annamaria Giraldi; Jim Pfaus

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