"Getting old isn't for sissies!" This declaration is frequently seen on sweatshirts and posters in Grand Marais, the small town (population 1353) I live near in northern Minnesota. There is an abundance of older people here who embrace all aspects of life. During our winters, actual temperatures drop as low as –50 F. We don’t even talk about wind chill factors! Summer is said to begin on the 4th of July and end on the 5th. The main economic supports for the community are tourism and lumber. Like many small towns far from major cities (300 miles), we are quite self sufficient. There are theater groups, orchestras, churches, discussion groups, sports teams, multiple festivals, several gourmet restaurants, and an artists’ colony. Our older residents are heavily involved in all of these endeavors. They really enjoy life.

This issue of the Journal focuses on aging. What is aging? Who are the aged? Who are the elderly? Who are Seniors? When I was in medical school, one of the professors humorously defined an alcoholic as anyone who drank more than he did. It is all too easy to use that approach when personally attempting to apply definitions to the aged. I am 58. The government says I can start drawing on my IRA in a year. Sheeeesh! Where did the years go? I don’t feel old. My parents don’t feel old. So it must be other people!

As we age, our bodies accumulate “the slings and arrows of outrageous fortune” as a result of years, accidents, heredity, and life style choices. We develop a list of medical problems. Obesity, hypertension, diabetes, atherosclerosis, and arthritis all too often become our companions. With time, we may acquire a number of chronic prescription drugs. What is the impact of these conditions and medications on our daily lives? Do they interfere with our ability to function? In many cases, they do. Does that mean we will be unable to enjoy life? That depends. We can accept the changes, then adopt new ways of functioning. Or we can let the changes overwhelm us. The choice is ours.

The Women’s Sexual Health Foundation encourages women to educate themselves regarding sexual function, so they can make smart choices adapting to life’s changes. Not all outcomes are immutable or inevitable. The Foundation emphasizes the value of a multidisciplinary approach in diagnosis and treatment of women’s sexual difficulties. Not every problem is in your head. Not every problem is medical. Not every problem is solely due to you. Not every problem is solely due to your partner. The causes, impacts, and treatments for women’s sexual difficulties can be complex.

**A Woman’s Story** in this issue chronicles a woman’s awakening of self reliance and personal responsibility for choosing how to deal with her many medical, sexual, and relationship problems. Dr. Stephanie Buehler wrote a wonderful article addressing the truths and myths about sexuality and aging. She too advocates self education, positive adaptation, and choosing to enjoy life.

“Life should NOT be a journey to the grave with the intention of arriving safely in an attractive and well-preserved body, but rather to skid in sideways, champagne in one hand, strawberries in the other, body thoroughly used up, totally worn out and screaming ‘WOO HOO - what a ride!’”
(Continued from page 1)

An older woman I know attaches the above quote to all of her emails. I think it nicely sums up how we should deal with aging. Editor—David Ferguson, Grand Marais, MN

A Woman’s Story: Sex Over Forty: A Personal Story

This is, of necessity, a very personal story. I offer it in the hopes that some part of it will resonate for you, particularly if you are a woman of an age for whom society deems sex as unseemly, at best. But also for those of you who are approaching in the near or less near future, that age when we become invisible as sexual beings, and particularly as “sexual objects” (as offensive in some respects as this terminology might be). And for those readers who are still reveling in their sexual allure and may still be free of the creeping anxiety about loss of these attributes, in hopes that it may lessen, if only a little, those anxieties when they do arise.

For male readers perhaps you will derive some small degree of lessened anxiety about your own performance issues, which would be of value not only to you but to your partners. And to the doctors and professionals in the field of human sexuality reading this, I would hope that it might offer some insight not only into a woman’s point of view, but into some aspects of your professional roles as they affect us.

A little background history is necessary to put this story in context. I am 63, married 28 years and childless by choice. I reached perimenopause on or near my 45th birthday, having had “undiagnosed” night sweats since my mid thirties. Because of a blood clot in my early thirties while on “the pill,” I am not a candidate for hormone replacement therapy.

A year and a half ago I serendipitously discovered that I have Chronic Fatigue Syndrome (CFS) and probably have had it since puberty. The diagnosis was confirmed about a year ago. This has had a profound effect on me emotionally, relieving much guilt and negative feelings about my body, and has given me a huge sense of validation, which has been actualized in many ways. I began to see my body as worthy of care and respect and love. I began to demand treatment for chronic medical problems which had been undiagnosed or misdiagnosed/treated by doctors and/or neglected by me for many years. I made significant changes in my diet which had the instant effect of bringing my irritable bowel syndrome under control. I began to open up emotionally in relationships in which I had previously been “in hiding”, an aspect of my character I now realize permeated every aspect of my life since adolescence or earlier. I stopped blaming myself for perceived failings and learned how to pace myself rather than push myself (although this is still difficult). I became less in denial about my cardiomyopathy of viral etiology and other medical issues. And I made the decision to enter sex therapy!

I did this because I became unwilling to accept anorgasmia (the inability to reach orgasm, in my case under any circumstances) as my lot in life. Previous attempts to do this had failed for a variety of reasons, all amounting, in the end, to a conviction that it wasn’t worth the effort, that I wasn’t worth the effort.

I came of sexual age in the 1950’s, a product of a sexually (and otherwise) dysfunctional family in a sexually dysfunctional culture and age. My mother was herself anorgasmic and burdened generally with negative attitudes. Our relationship was poor, bordering on nonexistent. My father also had many negative attitudes, but in particular, he conveyed double messages that a woman was a slut if she pursued sexual expression and gratification, but also women were expected to service the sexual needs of men. I tried to comply on both counts, but never quite managed to get the hang of it. And so to sex therapy.

Therapy, which in my circumstances occurs once every three weeks and is continuing, has been extraordinarily beneficial on many levels. For those of you whose psychological history may replicate mine in some ways, I highly recommend it, providing you are psychologically motivated and committed. I did become orgasmic, against all the odds, perceived or otherwise, of age, physical illness, negative experiences and expectations, and history. There have also been major setbacks - progress in this as in most important endeavors in life has not been a straight forward one. Therapy continues.

Perhaps the most enduring benefit for me has been/will be the enormous change in my attitudes towards my own body and sexuality and, indeed that of others, of both sexes, of all ages. It is not possible to put into words how liberating that has been. And it is the foundation for so much more. Whatever else does or doesn’t occur, this has changed me forever.

To middle-aged and older women, I want to say a number of things. Whether your experience resembles mine, or whether you have enjoyed your sexuality to the fullest but lately have found it less satisfactory for whatever reason, or you anticipate this occurring in the future, I want to say first, age, in itself, in my experience is not an issue unless you

(Continued on page 3)
actively or passively choose to let it be. In this respect we women are far more fortunate than men.

My therapist told me an extraordinary story about a woman in her 80’s dying of cancer in a nursing home. She had dutifully endured a joyless marriage without sexual gratification all her adult life. Now she was on morphine to control her pain. The morphine had the additional benefit of libidinal disinhibition, and she had discovered that, in the dying days of her life she could give herself sexual pleasure at will. But the staff was having difficulty dealing with this behavior and called in a consultant, who happened to be my therapist. After some consultation and education of the staff, and a tube of slippery stuff for the old lady, the story ended happily for all concerned.

Many women have the mistaken belief that their sexuality must diminish or die with menopause. They assume dire changes to their libido and to their genitalia. My experience contradicts both. My libido, which always appeared to be on the point of extinction, did indeed appear to do an absolute flat liner. Eighteen years on, I now know that it has always been there, just waiting to be liberated. As for the physiological changes of menopause, these are by no means inevitable. Where they do occur there are, in most cases, pharmacological and medical interventions available. In my own case I was astounded and delighted to discover that the expected genital atrophy and loss of ability to lubricate have not, to date, materialized, in spite of early menopause, inability to utilize HRT, and total disuse of my equipment (the use it or lose it theory). It was my attitudes and expectations that created the problem, not my body.

Relationship problems are another area fraught with difficulties and none more so than mine. In my husband’s case, age— he is ten+ years older and age does matter for men—an enlarged prostate gland, and anxiety and other psychological issues have all conspired to render him unavailable. As a consequence I find myself married, yet effectively without a sexual partner, a situation which many older women face.

It also goes without saying that my issues have had a serious impact on the relationship, in, and out of bed. One worth noting in this context is my long held conviction that our sexual difficulties were essentially entirely my fault. From puberty on I “knew” that I was “frigid”, a horrifically damaging word from a destructively inaccurate concept, and I just assumed and expected with all the certainty of medical authoritativeness that this would always be so. It was a guaranteed self fulfilling prophecy.

In therapy I have learned a number of things that have a bearing on our relationship. The first of course is that the whole business about frigidity is a load of rubbish. A second is that my husband brings issues to the relationship that are just as negative and destructive in their consequences as mine are. And by my assuming all the blame and guilt, I have enabled him to emotionally and behaviorally go Scot free while reinforcing and perpetuating my own guilt-ridden belief system. But even as I was doing this, I was also using it to not take responsibility for fixing my part. If you take the position that there is no hope, you don’t have to take responsibility for doing anything about it. You can sit back and let the self fulfilling prophecy “prove” you are right.

The absence of a participating partner, for whatever reason(s), could easily be construed as a further reason not to exercise one’s own options and responsibility. “Why bother if he can’t/won’t/doesn’t exist”. Partly such a conclusion requires one to assume that expression of one’s sexuality is only legitimate within the context of a relationship. Therefore if there is no relationship, effectively or actually, there can be no explicit expression of one’s sexuality, which then must be denied, consciously or unconsciously. For some this may involve religious and/or moral issues, which, if consciously and thoroughly evaluated and subscribed to, will suprervene. Short of this, they act as just another excuse for abrogation of responsibility.

What I have come to understand is that pleasure, so long as it does not actively harm another, is a blessing, a force for good in its own right. The fact that the clitoris serves no reproductive or Darwinian purpose other than the production of sexual pleasure materially demonstrates this truth. Nor does the clitoris seem to lose its potential to function in this capacity even with advanced age. This would appear to give us a huge advantage over men.

It follows that if you wish to continue to enjoy your sexuality and you do not have a sexual partner who is willing and able to provide the necessary stimulation, you need to take responsibility for providing that stimulation for yourself, physically and mentally. For many younger women this is a foregone conclusion. But for many women of my generation it appears to be anything but. The differences in these attitudes by age groups demonstrate to what degree these attitudes are learned. Sexuality is a birthright, anchored in our physiology, our clitoris and other genital organs. Beliefs and attitudes have to be learned, can enhance or destroy our lives, and can be learned or unlearned.
if required. Responsibility to do this lies squarely with us.

Some women will feel, with or without justification, that if their present partner does not meet their sexual needs, that it is their partner’s problem, not hers. I had to learn that it was not all my problem; they may need to learn that it is not all the other person’s problem. In both cases, we need to take responsibility for our 50% of whatever goes on in our relationships. This is true at any age and for younger women, taking responsibility may mean learning to communicate one’s own needs more effectively. As we and our partners grow older, new problems arise. We may believe that we are physically less attractive, which may or may not be a shared perception of our partner. Where it is, and if it can’t be addressed directly, relationship therapy might be in order. If this also is rejected maybe it is time to ask ourselves why we would continue to participate in, and be defined by, such destructive attitudes. Everybody ages; nobody is less lovable because of it.

But very possibly a man’s rejection of his partner on this basis masks his own very deep anxiety about his own perceived or actual failing sexual prowess. While our libido may very well be as high or higher than ever, his physiological ability to maintain an erection may cease altogether or at best dwindle over time. If Viagra is not the answer, then other adjustments will have to be made, and the woman may find and suggest other ways (there are many) of maintaining a sexual relationship that is physically and emotionally rewarding. So many men in our culture have the crippling belief that if they can’t perform penetrative sex they are useless. Well, it’s true that if he wants to make a baby it won’t be as much fun for either of them. Short of that, a little re-education might go a long ways towards both partners’ continued enjoyment. There are even cases where paralyzed men have learned how to achieve orgasm in other parts of their body.

For many women, particularly of my generation, part of the problem is lack of awareness of alternatives, of choices. It is difficult to define the existence of a problem if one is unaware that there are alternatives, that choices do exist. In a society which still is very patriarchic, many women, myself being an example, still need “permission” from enlightened others, be they sexual partners, clergy, or particularly the medical profession. The latter, one would expect, ought to be at the forefront of this endeavor. They have the requisite knowledge, jurisdiction and above all, authority to be proactive in this respect. Yet it is astonishing to me how badly they often respond even if a woman takes the initiative. I recently had the experience of consulting a gynecologist trainee with respect to a problem that had arisen: spontaneous orgasms. Not surprisingly, this doctor was clueless. Much less excusably, he was unable to say the word “orgasm”, referring instead repeatedly to “them” in a most awkward and obviously embarrassed way. And let me hasten to add, not for my benefit. And this was a gynecologist-to-be who had just physically examined me regarding another problem. Subsequent to this event, my own gynecologist, this man’s boss and the specialist head of the gynecology department of a regional hospital, stated to me in writing that he had no expertise in this area and no knowledge of to whom to refer me, and therefore further consultation with him would be unproductive. Actually I had not yet had a consultation with him about this problem.

Well, at least he was honest. Only trouble was, it made me feel like a leper and a pervert in his eyes, as someone he anticipated would behave highly inappropriately if he allowed me into his presence. At first I felt like I would rather die of ovarian cancer than ever be so humiliated by this man again. I can now say that if it came to that, I would not allow him so much power over my life ever again.

One has to learn to take responsibility for one’s own life, for no matter what someone else may think, ultimately only I can be responsible for myself.

Anonymous

Questions and Answers

Q---How may aging impact a woman’s sexuality? Do you have any tips for helping with these changes?

A---Here are some common changes that may occur.

Genitals atrophy or shrink
Vulva may become thinner
Pubic hair may start to thin and gray
Vaginal blood flow and lubrication may decrease
Vaginal elasticity decreases
Vaginal wall thins
Vaginal pH increases which may increase the

(Continued from page 3)

(Continued on page 5)
possibility of vaginal infections and burning when your partner ejaculates

Orgasms may be less intense and take longer to occur

Clitoris may have less blood flow not react to stimulation as quickly, and there may be clitoral shrinkage

Breasts are less sensitive to stimulation

Urinary incontinence may occur during sex

Sex drive may be diminished

**Tips and Solutions**

First we advise that you speak with your healthcare provider if any of the above listed changes are of concern to you. Take this tip sheet with you to your visit to help with your discussion.

**Dryness and Decreased Blood Flow**

Estrogen may increase blood flow to the vagina, vulva, clitoris and the genital area. Estrogen can help with vaginal dryness and increase sensitivity to the clitoris. Although estrogen comes in the form of oral pills and patches, it is also available for vaginal application in the form of creams (Estrace), small tablets (Vagifem), and a vaginal ring (Estring or Femring). Vagifem is for vaginal health and little if any of the estrogen in Vagifem is absorbed by the body.

Replens is a non estrogen vaginal moisturizer, and there are water-based lubricants and silicone-based lubricants that may be helpful.

**Decreased Sensitivity and Arousal and Low Desire**

Androgens such as testosterone may help with decreased desire and genital sensation. Testosterone is not FDA approved for use in women, but may be used off label. However, blood levels should be monitored closely while on testosterone.

Zestra and ArginMax are nonprescription products that have gone through double blind placebo controlled studies and may also be helpful.

**Medications**

Some medications such as certain antidepressants, cardiovascular and antihypertensive medications, antihistamines, hormonal products including birth control pills, and narcotics may impact sexual function. Before stopping any medication, speak with your provider, if you are concerned it is causing your sexual difficulty.

**Smoking**

If you smoke, stop. Smoking decreases blood flow.

For more tips and solutions go to The Women’s Sexual Health Foundation website at www.Twshf.org

---

**The Truth about Sexuality and Aging, Stephanie Buehler, PsyD**

**Fact or fiction?**

- Lack of sexual interest is a natural part of aging.
- Declining estrogen levels mean loss of libido.
- Illness puts the brakes on sexual activity.
- An older woman who enjoys sex is disgusting.
- Couples lose interest and get bored with one another as they age.

**Answer: All of the above statements are fiction!**

Many fictions swirl around the topic of sexuality and aging. For nearly every woman in her 40s, 50s, or beyond who complains of diminished desire and pleasure, there is another woman who feels sexually vibrant as she ages. As a psychologist, I can have one perimenopausal woman in my office at 10 a.m. telling me that she’d as soon read a novel as make love, and a postmenopausal woman at 11 a.m. stating that she likes sex more than ever now that the kids are gone. What makes the difference? Is it hormonal, psychological, or both? This article explores common reasons that women’s sexual function may be affected by age and includes remedies, some which can readily be put into action, and some which may require medical or psychological intervention.

Laumann et al.1 established that 43% of all women aged 18 to 59 experience sexual dysfunction, and that poor physical and emotional health are major contributing factors. Complaints of sexual dysfunction appear to increase as women age, rising

*(Continued on page 6)*
to 51% among women who are sexually active. From these numbers, we can conclude that sexual complaints are common to women, and not necessarily due to aging. Common specific complaints of older women include decreased libido, decreased arousal, less satisfying orgasm, dyspareunia (pain with intercourse), and problems related to organ prolapse and incontinence. Many middle-aged women who have such complaints blame menopause and hormonal changes. However, according to a study of 200 women from the Massachusetts Women’s Health Study, other factors such as health, marital status, mental health, smoking, and a partner’s ability to function sexually had a greater impact on women’s sexual functioning than menopause status.

Nonetheless, hormonal factors can have a negative effect on quality of life, which may in turn affect sex drive. A perimenopausal woman with declining estrogen up half the night with cold sweats may become exhausted—a state not exactly conducive to romance. The androgen chemicals, principally testosterone, also naturally decline with age. Symptoms of low testosterone include decreased libido, decreased sensitivity in the clitoris and nipples, and lack of energy. However, earlier this year one research team demonstrated that androgen levels, as measured in their study, do not appear to be correlated with female sexual dysfunction. A recent statement from the North American Menopause Society takes the position that “postmenopausal women who report decreased sexual desire may be candidates for testosterone therapy, but they should first be evaluated for other causes of sexual concerns [including] psychosocial issues…psychological disorders…medical conditions…or medication use (including antidepressants and alcohol).” Ultimately, the risks and benefits of hormonal replacement therapy must be weighed by each woman and her physician (hopefully someone expert in sexual medicine), with the least intrusive interventions (e.g., mind / body interventions for coping with menopausal symptoms) considered before turning to medical interventions.

Medical complaints also are a common barrier to sexual pleasure. As everyone ages, there is more susceptibility to degenerative and chronic illnesses. Conditions such as arthritis not only bring pain, but a diminished sense of self-esteem and a negative effect on one’s body image that in turn adversely affect one’s sexuality. Diabetes, for example, can cause loss of circulation and with it loss of sensation in the genitals. Cancer can cause profound fatigue that may be difficult to overcome.

Side effects from medications such as chemotherapy, pain relievers, and antidepressants can also contribute to a loss of sexual enjoyment. A woman who faces medical challenges need not give up a satisfying sex life—but she and her partner may need to make some adjustments. These range from learning to schedule sexual activity at better times of the day or week, experimenting with new positions, using “props” like cushions and pillows, or trying activities such as masturbation (alone or participating with one’s partner) or oral activities with one’s partner. Broadening one’s definition of “sexual activity” to include holding hands, cuddling, caressing, kissing, and sensual massage without expectation of orgasm can also be very helpful—and comforting. Switching medications, say from Prozac to Wellbutrin, can also be considered, as the latter antidepressant may not have the same quelling effect on libido and orgasm.

Widely held erroneous beliefs about aging and sexuality may also contribute to sexual complaints by women transitioning through menopause. Many women mistakenly believe that diminished sexual interest is always part of aging. This can lead to disgust about having sex as (and with!) an older person, or even fearing that sexual activity can lead to or exacerbate health problems. Other barriers to treatment include embarrassment—often due to cultural and religious beliefs about sexuality—about talking with one’s physician about sexual problems and lack of knowledge about appropriate services and treatment for various conditions that interfere with sexual function.

Women who have problems with incontinence or pelvic organ prolapse, for example, endorse greater sexual activity and enjoyment after appropriate treatment for each condition. Thus, women need to be educated in three areas. First, they need to be reassured about their ability to enjoy sexual activity in various forms throughout the lifespan. Second, learning about the prevalence and types of problems women face will normalize an individual woman’s experience and diminish embarrassment. Finally, women need to know treatment options, such as using a hormonal cream and lubricants that can relieve painful intercourse due to vaginal changes, or learning Kegel exercises to increase satisfaction during intercourse, perhaps with the help of a physical therapist trained in biofeedback.

Physical issues aside, poor mental health can disrupt sexual enjoyment at any age. The persistent stigma of mental health problems and lack of knowledge make aging women more apt to put blame
on hormonal changes than their mental state. Depression or anxiety that has gone untreated can become chronic and somewhat more difficult to overcome in older women, but for most these conditions are still quite treatable. One of the hallmark signs of depression is no longer enjoying what was once pleasurable. Doesn’t this sound like loss of libido? If a woman once enjoyed sex but no longer does, she needs to consider an assessment by a mental health professional. Anxiety (excessive worry) and stress (feeling overwhelmed) can also rob one of pleasure if they are not appropriately managed. Cognitive behavioral therapy, sex therapy, and education, along with medications if needed, are the treatment options of choice.

Relationship issues must also be considered. Many women who complain about a lack of sexual activity in fact have partners who cannot function sexually and are too embarrassed to get help. A woman in such circumstance should volunteer to accompany her spouse to see a physician, as getting educated about and discussing treatment options together can make a couple feel closer and more in control of their sexuality. Of course, medications such as Viagra are not necessarily the cure-all they are touted to be. The overall health of the couple’s relationship must also be considered. Does the couple communicate about what is happening to their bodies, and their relationship, as they age? Is one partner bored but the other too reticent to delve into new sexual territory? Are there deeper fears about the health of one’s partner and even the possibility of losing one’s partner altogether? A referral to a sex therapist who is trained in family or couples therapy can be instrumental in helping a couple grow and develop sexually.

Of course, this presumes that a woman has a sexual partner. But even a single older woman can have a sexual relationship with herself. Exploration of one’s body, allowing one’s self the pleasure of a sexual fantasy, and using masturbation are not out of the question for an aging woman. Cultural and religious taboos aside, sexual pleasure can increase one’s sense of physical and psychological well-being. It doesn’t much matter whether one has a partner or not to have its benefit.

The truth is that we are sexual beings from birth to death, but as with any other aspect of human development, how we experience and express our sexuality changes over time. After all, the many hours of lovemaking that one had in one’s twenties may not be feasible or desirable in one’s sixties—and so what? As a woman grows older, perhaps she can appreciate new pleasures, bringing companionship and intimacy to the forefront, and deepening her relationship into something more mature and satisfying. The touch of an older woman’s hand on her partner’s cheek may be much sweeter than, as Masters & Johnson said, “body parts and friction,” could ever be.

References


11. Miller HB, Hunt JS. Female sexual dysfunction: review of the disorder and evidence for available
Sexual Medicine Article


Oral contraceptives (OCs) have been widely used since the 1960s with great efficacy. A number of reports have linked OC usage with decreased sexual function. The exogenous estrogen in OCs inhibits ovarian production of testosterone and induces liver production of sex hormone binding globulin (SHBG) which reduces the levels of bioavailable or free testosterone. The implications of this effect are of great interest. The authors have investigated retrospectively the relationship of OC usage to female sexual dysfunction (FSD) in premenopausal women who presented to their outpatient clinic with complaints of sexual dysfunction. The goal of this study was to investigate changes in SHBG levels after discontinuation of OCs. I have summarized their paper below. Editor.

Methods

“A total of 124 premenopausal women with sexual health complaints for >6 months met inclusion/exclusion criteria. Three groups of women were defined: (i) “Continued-Users” (N = 62; mean age 32 years) had been on OCs for >6 months and continued taking them; (ii) “Discontinued-Users” (N = 39; mean age 33 years) had been on OCs for >6 months and discontinued them; and (iii) “Never-Users” (N = 23; mean age 36 years) had never taken OCs.

Results

Sex hormone-binding globulin values in the “Continued-Users” were four times higher than those in the “Never-User” group (mean 157 ± 13 nmol/L vs. 41 ± 4 nmol/L; P < 0.0001). Despite a decrease in SHBG values after discontinuation of OC use, SHBG levels in “Discontinued-Users” remained elevated in comparison with “Never-Users” (64 ± 4 vs. 35 ± 4, N = 26; P < 0.0001 for >120 days).

Conclusion

In women with sexual dysfunction, SHBG changes in “Discontinued-Users” did not decrease to values consistent with “Never-Users.” Long-term sexual, metabolic, and mental health consequences might result as a consequence of chronic SHBG elevation. Does prolonged exposure to the synthetic estrogens of OCs induce gene imprinting and increased gene expression of SHBG in the liver in some women? Prospective research is needed.”

Comment by Editor

This paper is important in showing that the SHBG elevations associated with OC usage do not subside to the levels of “Never Users,” but rather remain twice as high even 6 months after discontinuation. The authors’ call for prospective research is well taken. Patient groups that need to be examined include (i) women with no sexual dysfunction who develop FSD after starting OCs, (ii) women with no sexual dysfunction who do not develop FSD after starting OCs, and (iii) women with no FSD who never have used OCs. Longitudinal studies should gather baseline demographics, medical and sexual histories, physical examinations, questionnaires, full clinical laboratory evaluations, and hormone profiles on a large sample of women regardless of their baseline sexual function. Then these same parameters should be tracked serially over time as some of these women start OCs, and some do not. Eventually, some of the women on OCs will

(Continued on page 9)
discontinue and can be tracked for a number of years. Since the women in the United States who will use OCs at some time in their lives number in the tens of millions, this project would be an excellent opportunity for the National Institutes of Health to demonstrate that they are willing to spend taxpayer dollars on research that is really important to women.

Editor.

Announcement

The Women’s Sexual Health Foundation is pleased to announce the addition of Hilda Hutcherson, MD to its Professional Advisory Board.

Dr. Hutcherson grew up in Tuskegee, Alabama. She received her undergraduate degree from Stanford University, and graduated with honors in Human Biology. She graduated from Harvard Medical School. She completed a medicine internship at the University of California in San Francisco, and her residency in obstetrics and gynecology from Columbia University Medical Center.

Since completing her residency, she has held numerous positions and served on countless committees and boards. She is presently an Assistant Professor of Obstetrics and Gynecology and Associate Dean for Diversity and Minority Affairs at Columbia University Medical Center. As co-director of the New York Center for Women’s Sexual Health, she educates women about their bodies and sexuality. Her devotion to women’s empowerment and education is further supported by her monthly sexual health columns in Essence Magazine and Glamour Magazine. Her devotion to women’s empowerment and education is further supported by her monthly sexual health columns in Essence Magazine and Glamour Magazine. She is frequently quoted in Heart and Soul, Cosmopolitan, Upscale, Allure, and Marie Claire magazines, among others. She has appeared on Oprah, Montel, 20/20, Today, Good Morning America, the Early Show, ABC Nightly News, and numerous others.

Dr. Hutcherson is the author of 3 books: Having Your Baby: A guide for African American Women, What Your Mother Never Told You About Sex and Pleasure: A Woman’s Guide to Getting the Sex You Want Need and Deserve. She was recently named by Black Enterprise Magazine as one of America’s Leading Physicians, one of the Top Doctors in New York in the Castle Connoly Guide, and is included in the Best Doctors in America 2005-2006 database. She is married and has 4 children.

Statistics 101

Statistics is the science of assembling and interpreting numerical data. A natural division of the discipline is descriptive statistics and inferential statistics. Descriptive statistics allow the abstraction of the properties of one or more sets of observations by use of graphical, tabular, and/or numerical methods. These properties may include the concept of a typical value, the amount of variability in a set of observations, the frequency that certain values are observed, and the measurement of relationships between variables. This course will start with descriptive statistics since many of the concepts and definitions are fundamental to understanding the methods of inferential statistics.

Description can be verbal, visual, or mathematical. Each has its advantages and disadvantages. Similarly, each of us has different levels of familiarity, comfort, and aptitude for dealing with these modes of description. Accuracy and precision in using these are essential to avoiding misunderstandings when we communicate. Our choices of words, graphs, or mathematic notations will determine how well we communicate what we really mean. When we try to describe a group with a single number, this need for precision becomes clear. All of us use the word “average” in everyday language, but do we always intend the same thing? What we are trying to convey is the central tendency of a set of observations of a group. An example (fictional) will allow us to create definitions that will prove useful.

An automobile manufacturer in Japan (Nissan) wants to design and build a new model of macho sports car for the American market that will be priced so low that almost all American men could afford it. Nissan developed the prototype in Japan but knows that American men are generally taller than Japanese men. Design features like headroom, seat height and travel, pedal height, and steering wheel adjustability all depend on the driver’s height. Since Nissan wants the car to fit as many American men as possible, Rina, the designer, seeks data. She has been invited to an exhibition basketball game with dinner afterwards with some of the players from the visiting American college team. Rina brings her English tape measure with her and measures the height of the (Continued on page 10)
seven players who attend the dinner. Here are her data in inches for each player:

<table>
<thead>
<tr>
<th>Name</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ahmed</td>
<td>84</td>
</tr>
<tr>
<td>Charles</td>
<td>78</td>
</tr>
<tr>
<td>Ed</td>
<td>78</td>
</tr>
<tr>
<td>George</td>
<td>81</td>
</tr>
<tr>
<td>John</td>
<td>86</td>
</tr>
<tr>
<td>Louis</td>
<td>82</td>
</tr>
<tr>
<td>Sam</td>
<td>79</td>
</tr>
</tbody>
</table>

Rina wants to describe this group of players’ heights. First, she calculates an average by adding all of the heights and dividing by the number of players. This is called an “arithmetic mean” or more commonly just “mean.” Although there are other kinds of means, unless it is stated otherwise, mean refers to the arithmetic mean, and it is the “average” meant by people speaking precisely. Mathematically, the notation for the mean looks like this:

$$\frac{\sum_{i=1}^{n} X_i}{n} = \bar{X}$$

The Greek capital S or sigma stands for “the sum of.” The number of players is indicated by the lower case n. The $X_i$ stands for the value of the $i^{th}$ observation of all the observations from the first ($i=1$) to the last ($i=n$). The symbol to the right is pronounced “ex bar” and stands for the arithmetic mean. In Rina’s sample, the mean is 81.14.

Another measure of central tendency is the median, the middle value in a set of observations ordered by size. Rina puts the heights in order: 78, 78, 79, 81, 82, 84, and 86. She sees the middle value is 81, which is in good agreement with the mean. Her boss asks her what is the most common height. This is the mode. In this case it is 78 which does not agree well with the mean and the median. This frequently happens with small sample sizes.

Rina also wants to know about the variability of the heights. The range is 78—86; the tallest player is only 8 inches taller than the shortest player. She wonders how much each player is different or deviates from the mean, but she doesn’t care if the difference is positive or negative. She just wants the absolute values. Then she will calculate the average deviation. Here is the table she creates.

| $X_i$ | $\bar{X}$ | $|X_i - \bar{X}|$ |
|-------|-----------|-----------------|
| 78    | 81.14     | 3.14            |
| 78    | 81.14     | 3.14            |
| 79    | 81.14     | 2.14            |
| 81    | 81.14     | 0.14            |
| 82    | 81.14     | 0.86            |
| 84    | 81.14     | 2.86            |
| 86    | 81.14     | 4.86            |

The arithmetic mean of the values in the third column is 2.45. This is called the mean deviation. It seems to estimate the variability of the values quite well. The mean ± 2 mean deviations encloses all of the observations. Rina has consulted a statistics textbook and found an equation for “variance.”

$$s^2 = \frac{\sum_{i=1}^{n} (X_i - \bar{X})^2}{n-1}$$

Rina makes another table to perform this calculation.

| $|X_i - \bar{X}|$ | $(X_i - \bar{X})^2$ |
|-----------------|-------------------|
| 3.14            | 9.86              |
| 3.14            | 9.86              |
| 2.14            | 4.58              |
| 0.14            | 0.02              |
| 0.86            | 0.74              |
| 2.86            | 8.18              |
| 4.86            | 23.62             |
The sum of the squares of the differences is 56.86 and \( n - 1 \) is 6. Thus the variance is 9.48. But the units are in square inches! And it is cumbersome to calculate using the equation above. Because of the associative property of addition, the equation above can be rearranged to a much easier form.

\[
s^2 = \frac{n \sum_{i=1}^{n} X_i^2 - (\sum_{i=1}^{n} X_i)^2}{n(n-1)}
\]

Since this is still in square inches, Rina reasons that the square root will put her back to inches, and she will have a standardized calculation of the deviation.

\[
s = \sqrt{\frac{n \sum_{i=1}^{n} X_i^2 - (\sum_{i=1}^{n} X_i)^2}{n(n-1)}}
\]

Rina calculates this as 3.08. She also notices that her statistics text calls this equation the “standard deviation,” and that her calculator has a program for calculating it if she just enters the observations. She also notes that it is often abbreviated to SD. Rina now knows the mean and standard deviation of the heights of her sample of American men, but she also knows that basketball players are not representative of the heights of all men. She will continue her research in the next chapter.

In this chapter, we have explored the concepts of samples, central tendency, and variability. As measures of central tendency, we have defined mean, mode, and median. Variability has been estimated with the range, the mean deviation, variance, and the standard deviation. In the next chapter, we will explore populations, distributions, frequencies, and graphs while applying the tools we developed in this chapter. Editor.
Program
7:00 a.m. Registration; Continental Breakfast
8:00 a.m. Opening Remarks
8:05 a.m. Resources for Your Patient with Female Sexual Dysfunction: Print, Video and the Internet
8:20 a.m. Definitions and Classifications of Female Sexual Dysfunctions and Their Applicability and Limitations in Clinical Practice
8:35 a.m. The Physical Exam: A Gynecologic Perspective
9:20 a.m. Panel Discussion
9:35 a.m. Refreshment Break
9:50 a.m. Hormonal Evaluation, Menopause and Sexual Dysfunction
10:30 a.m. Case Study: Urologic Perspective of Female Sexual Dysfunction -Interactive
11:00 a.m. The Physiology of Androgens and Androgen Therapy
11:45 a.m. Panel Discussion
12:00 p.m. Lunch
1:00 p.m. Management of Psychological Issues in Female Sexual Dysfunction
1:40 p.m. Non-hormonal Pharmacological Therapies of Female Sexual Dysfunction
2:20 p.m. Panel Discussion
2:45 p.m. Refreshment Break
3:00 p.m. How to Set Up a Female Sexual Health Clinic: Logistics and Operations
3:15 p.m. How to Set Up a Female Sexual Health Clinic: Academic Affiliation and Multidisciplinary Networking
3:30 p.m. How to Set Up a Female Sexual Health Clinic: Diagnostics and Laboratory Issues
3:45 p.m. Panel discussion: Setting Up a Female Sexual Health Clinic
4:15 p.m. Q & A
4:30 p.m. Adjourn

Faculty

Course Director

Ridwan Shabsigh, M.D., Associate Professor of Urology, Columbia University College of Physicians & Surgeons; Director, New York Center for Human Sexuality, New York, New York

Guest Faculty

David M. Ferguson, Ph.D., M.D., Clinical Research Services Consulting, Grand Marais, Minnesota

Andre T. Guay, M.D., Clinical Assistant Professor of Medicine (Endocrinology), Harvard Medical School; Director, Center For Sexual Function/Endocrinology Lahey Clinic Medical Center, Peabody, Massachusetts

Lisa Martinez, R.N., J.D., Executive Director, The Women's Sexual Health Foundation, Cincinnati, Ohio

Michael A. Perelman, Ph.D., Co-Director, Human Sexuality Program; Clinical Associate Professor of Psychiatry, Reproductive Medicine and Urology, New York Weill Cornell University Medical Center; Senior Consulting Sex Therapist, New York Center for Human Sexuality, New York, New York

Columbia University Medical Center Faculty & New York-Presbyterian Hospital Staff

Hilda Hutcherson, M.D., Assistant Professor of Obstetrics and Gynecology

Michelle P. Warren, M.D., Wyeth Professor of Womens Health; Professor of Medicine and Obstetrics & Gynecology

Donations

As a nonprofit organization, The Women’s Sexual Health Foundation is supported through individual donations, memberships, and in a small measure, by the bulk sales of TWSHF brochures and the Journal. We are currently seeking to finance research projects through grants from government agencies and non-federal sources such as corporations, women’s groups, and medical organizations. However, private gifts will always be the mainstay of the Foundation.

All donations are tax deductible. The Women’s Sexual Health Foundation will send you an acknowledgement receipt for your tax records.

If you would like to make a donation, please send your contribution to:

TWSHF
PO Box 40603
Cincinnati, Ohio 45240-0603
Instructions for Authors

Manuscripts, guest editorials, questions, stories, and letters to the editor may be submitted by e-mail to David Ferguson at info@twshf.org. Microsoft Word is the preferred word processing program. Manuscripts should be 3,000 words or less. Illustrations or figures should be submitted as bitmaps and must have sufficient clarity and resolution to be legible when printed in a single column of the Journal. Photographs must be scanned at a minimum of 300 dpi and submitted as bitmaps, TIFF, or jpg files. All authors must be listed with first and last names and affiliations. Sponsorship (if any) should be indicated. Format should follow standard scientific style for an original piece of research or a review article. References should follow the format shown in the examples below:


Manuscripts and guest editorials must be in English, with spelling and phrasing consistent throughout the paper, conforming to either standard English or American usage. In order for a manuscript to be considered for publication, all named authors must agree 1) to its submission, 2) that it is not currently being considered for publication by another journal, and 3) if accepted the paper will not subsequently be published in the same or similar form in any language without the written consent of the publisher.

Questions may be submitted by anyone and may be directed to a member of the Advisory Board or simply to the editor. The Editor may need to clarify the question prior to publication, so the author must provide contact information. Authorship of a question will be published unless a specific request for anonymity is made.

Personal stories should be 1,000 words or less. The Editor may need to edit the story prior to publication, so the author must provide contact information. Each story will be published anonymously unless a specific request by the author is made.

Letters to the editor should be 500 words or less with full contact information and affiliation provided. The Editor may work with the author to refine the letter prior to publication. The Editor will decide whether a letter will be published. Authorship of a letter will be published unless a specific request is made. Authors of all material to be published will be required to complete a Transfer of Copyright form available from info@twshf.org.

For all manuscripts, guest editorials, or stories, the author will be required to sign a copyright transfer before publication can be considered in the Women's Sexual Health Journal. You may access this form by clicking on copyright transfer form.

The Editor welcomes suggestions for content, meeting notices, pertinent internet websites, breaking news, information on support groups, and publications that may be of interest to the readers.

Thank you.

Disclaimer

TWSHF recommends that you consult with your health care provider to determine appropriate treatment. TWSHF is not responsible for any consequences that occur based on information contained in this publication.
Use of Preventive Services and Variations in HIV Care How likely are women to utilize preventive health services and routine visits for HIV care? What strategies may increase utilization among this group? JAIDS: Journal of Acquired Immune Deficiency Syndromes, October 2019.

Male Sexual Dysfunction After Traumatic Spinal Cord Injury Sexual function can be negatively impacted after spinal cord injury. What are the predictive factors for dysfunction among men with these injuries? Spine, October 2019.