

LETTERS TO THE EDITOR

Female Sexual Dysfunction and Hormonal Status in Multiple Sclerosis Patients

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We read with great interest the article by Lombardi and colleagues exploring the correlation between hormonal status and sexual function in patients with multiple sclerosis (MS), a chronic autoimmune disorder in the central nervous system (CNS) [1]. Sexual dysfunction (SD) is associated with chronic diseases [2], and is more common in women suffering from MS than in the general she population [3]. Dysregulation of the hypothalamic–pituitary–gonadal axis has also been reported in MS [4]. Therefore, studies aiming to address the correlation between hormonal status and SD in female patients with MS are justified.

Although notable percentages of blood hormonal alterations and sexual dysfunction were found in MS patients, no correlations between hormonal status and sexual function were found. The results are somewhat disappointing because a positive correlation between hormonal status and sexual function in MS might promise the use of hormones as an intervention for SD in patients with MS. Besides, we have some concerns about the study design and data analysis.

During the screening phase of the study, those who reported any pre-MS SD were ruled out [1]. Moreover, subjects with post-SD resulting from known causes other than MS should also be excluded. Because the residual disability levels of the enrolled subjects were from 2 to 6 according to the Kurtzke Extended Disability Status Scale, I am eager to know whether there is any correlation between MS severity and the Female Sexual Function Index (FSFI) or hormone levels. If yes, the disability levels may confound studies investigating the correlation between blood sexual hormones and SD measured by FSFI questionnaire.

MS is primarily an autoimmune disorder in the CNS characterized by focal infiltration of immune cells including lymphocytes and macrophages, and subsequent immune-mediated demyelination [5]. At least four clinical subtypes of MS have been identified according to their clinical courses, including relapsing–remitting MS (RRMS), which accounts for more than four of five of all MS cases, secondary progressive MS, primary progressive MS, and progressive relapsing MS [6]. The clinical course of MS subtypes is illustrated in Figure 1. I wonder whether the authors performed stratified analysis as per the clinical subtypes of MS, e.g., RRMS vs. non-RRMS. The different stages at which the subjects were when enrolled may also influence the blood hormone levels.

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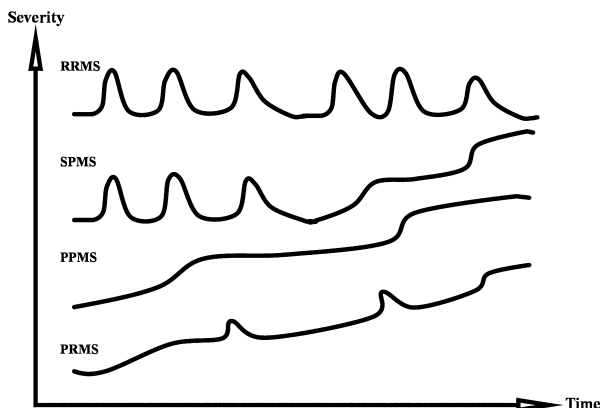


Figure 1 Four clinical subtypes of multiple sclerosis (MS) are illustrated as clinical evolution of the disease relative to time elapsing. Relapsing–remitting MS (RRMS) represents a subtype of MS with at least one clinical attack resulting from demyelination (relapsing phase), followed by complete recovery (remitting phase); secondary progressive MS (SPMS) represents a subtype of MS with symptoms continuously and gradually worsening, after a period of RRMS; primary progressive MS (PPMS) represents a subtype of MS with symptoms worsening continuously after the onset, without obvious remitting stages; progressive relapsing MS (PRMS) represents a subtype of MS with features of both PPMS and RRMS.

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Using the International Index of Erectile Function-5 to Assess Erectile Function in Epidemiological Studies

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The article entitled “A survey of obesity and erectile dysfunction of young men conscripted into the military in Taiwan” by Chao et al. [1] reported that 17.6% (64/364) of the subjects (ages 19–24 years) had erectile dysfunction (ED), defined by the score of the International Index of Erectile Function-5 (IIEF-5) <22. They also demonstrated very strong associations of ED and obesity (defined by body mass index ≥ 27 kg/m²) and low testosterone (T) levels (defined by serum total T level < 12.1 nmol/L) with an odds ratio (OR) of 84 (95% confidence interval [CI] 16–436) and 680 (95% CI 108–4,260), respectively. Public health programs may benefit for applying these data in preventing obesity among young men. However, the strong correlations between ED and obesity and low serum T levels are not consistent with other relevant studies. Most observational studies in elderly men did not find a significant correlation between ED and serum T levels. In a study on healthy young men (ages 20–40 years), the ability to maintain penile erection during sexual intercourse did not significantly decrease when mean serum total T level was as low as 1.9 nmol/L in experimentally hypogonadal state [2]. Relative risk of obesity for ED was reported to be <3 in most observational studies. A study in 1,181 younger Danish men (ages 20–45 years), the OR of obesity for ED was 2.74 (95% CI 1.1–6.8) [3]. It seems necessary to scrutinize the methodology of Chao et al.’s study.

The original diagnostic evaluation of the IIEF-5 was based only on men who reported having attempted sexual intercourse in the 4-week period before filling out the questionnaire [4]. Men who had no sexual activity during the reference period are suitable to answer the IIEF-5 only when they had clinically diagnosed ED or were involved in a stable relationship [4]. In Chao et al.’s report, stable relationship was not required for eligibility of the subjects, and only the subjects who had never had sexual intercourse were excluded [1]. In a survey using International Index of Erectile Function-15 (IIEF-15) to assess erectile function among 137 medical students (ages 17–35 years) who had no history of sexual dysfunction and 81% of whom had an intimate relationship, 34% appeared to have ED [5]. After removing the subjects who answered a zero-score (= no sexual activity) in any item of the IIEF-15 from the analysis, nobody had ED.

Low T levels may be related to hypoactive sexual desire and lack of sexual activity. In Chao et al.’s report, 72% (46/64) of the men with ED were obese, and 63% (46/72) of the obese men reported having sexual intercourse less than once per month [1]. It seems quite possible that the strong associations of ED and obesity and low T levels were merely the reflection of the high correlations between no sexual activity and obesity and low T levels.

I recommend that subjects with a zero-score response in any item of the IIEF-5 be excluded from the analyses before

they are categorized as having ED in epidemiological studies for ED.

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Degarelix: An Antagonist to GnRH—Theoretical and Treatment Considerations in Paraphilia

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Degarelix is an antagonist that blocks gonadotropin-releasing hormone (GnRH) receptors at the level of the pituitary gland. As a result, follicle-stimulating hormone and luteinizing hormone secretion is acutely and chronically reduced with resultant

decrease in testosterone acutely and chronically from the testes. It was discovered by Ferring Pharmaceuticals and its first important therapeutic utilization was in the treatment of prostate cancer. It has been shown to rapidly reduce and continue to suppress test-

osterone production and subsequently lower prostate-specific antigen levels more promptly and just as effectively as GnRH [1]. More importantly degarelix bypasses the initial surge in testosterone and its physiologic stimulation that occurs with GnRH [2]. This is thought to be its therapeutic advantage over GnRH, and this makes sense physiologically. Degarelix has been approved by the Food and Drug Administration in 2008 for the treatment of prostate cancer and is currently used for this condition.

This article is intended to present a focused, narrow area of treatment, namely the role of degarelix in the psychopharmacologic treatment of paraphilias. Paraphilias, as defined by the Diagnostic and Statistical Manual of Mental Disorders, Fourth edition, revised [3], are recurrent sexual urges, fantasies, or behaviors involving nonhuman objects, suffering or humiliation, children or other nonconsenting persons that occur over the course of at least 6 months, which cause clinical distress or impairment in social, occupational, or other important areas of functioning. The current treatment of paraphilias ideally involves a combination of psychotherapy and pharmacologic therapy [4]. Because normative and paraphilic sexual behavior has been shown to be under neuroendocrine and endocrine influence, it is reasonable to assume that sexual behavior can be influenced by neuroendocrine and endocrine factors. In male humans, a reduction of testosterone levels by castration [5] or use of a testosterone-lowering drug [6] have reduced paraphilic urges and behavior and have been the cornerstone of pharmacologic treatment of paraphilias.

Just as GnRH analogs (leuprolide acetate) have been used in the treatment of prostate cancer via its effect in lowering testosterone levels, GnRH has been used in treating paraphilias [7]. The terms chemical castration and hormonal treatment have been applied to this type of treatment. Chemical castration refers to the administration of medication or “chemicals” that reduce libido and sexual activity. The term “chemical castration” is a misnomer because not all individuals treated with these agents will lose the ability to function sexually. Hormonal treatment has medical risks and should be reserved for individuals who are diagnosed with a paraphilic disorder, which represents a significant risk of serious harm to his health or harm to others. Unfortunately, the treatment of paraphilias with Lupron has one chemical and one theoretical drawback. Lupron injections cause an initial surge in testosterone production and then a subsequent decrease in testosterone production [8]. Clinically, it is uncertain what this initial testosterone surge does in paraphilic patients, but biologically, one could hypothesize that this surge could precipitate an increase in sexual arousal, fantasies, and/or behavior. Some providers prescribe a short course of Flutamide, a nonsteroidal antiandrogen, to counteract the effects of this initial surge in testosterone. Sexual behavior involves neuroendocrine, endocrine, and neurologic events. There is some evidence in lower forms and in primates that the releasing factors produced in the hypothalamus not only have a direct effect in stimulating gonadotrophs in the pituitary gland, but also have extrapituitary effects in the central nervous system [9]. Preliminary results in marmosets have shown that GnRH has independent extrapituitary central nervous effects in promoting sexual behavior [10]. Although preliminary, these results can be interpreted to mean that GnRH may have a dual role in regulating sexual arousal, fantasies, and behavior. On the one hand, its neuroendocrine characteristics can lead to an endocrine cascade, which results in testicular testosterone production. On the other hand, it is possible that GnRH has neurotransmitter characteristics that regulate sexual arousal and behavior through its higher central nervous system centers.

Degarelix, being an antagonist to GnRH, then may have a dual side of action in treating paraphilias. On one hand it stops testosterone production through negative feedback inhibition of GnRH. On the other hand, by virtue of its block of GnRH receptors at the pituitary gland, it could also block the extrapituitary effect on sexual behavior.

If this is true, then degarelix could be a very important chemotherapeutic agent in the armamentarium of treating paraphilias. As always, the benefit-risk ratio must be considered in any treatment plan of paraphilia. Candidates for hormonal treatment should undergo a baseline medical examination, which includes blood tests, electrocardiogram, blood pressure, weight, and a bone mineral density scan prior to treatment. Both degarelix and GnRH have the following potential side effects: bone mineral loss, hot flashes, nausea, weight gain, blood pressure variations, decreased testicular volume, sweating, muscle tenderness, and depressive symptoms. Because the side effect profile of degarelix seemed to be no worse than those of GnRH, it could be safely used in human treatment of paraphilias. Continued neuroendocrine and endocrine research can only help us better understand the underlying physiology of sexual behavior and, in turn, the treatment of paraphilic sexual thoughts and behaviors.

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Response to Ahlers et al. *J Sex Med.* May 2011;8(5):1362–1370

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I read the recent manuscript by Ahlers et al. [1] with great interest. Nearly two-thirds of this cohort of 367 German men aged 40–79 endorsed interest in one or more of seven paraphilia-associated sexual arousal patterns (PASAPs), and nearly half (44%) reported having engaged in paraphilic sexual activity. Less than 2% reported distress from their interest [1].

Interestingly, general life satisfaction and sexual life satisfaction did not differ between men with or without PASAP. Although single status (present in just 17% of the study cohort) and lower subjective health were associated with PASAP, limitations of this study design make it impossible to ascribe either situation to the presence of PASAP or even to determine whether being single was a source of distress [1]. These same limitations make it impossible to determine what proportion of men who had engaged in fetishistic, transvestic, masochistic, sadistic, and voyeuristic activities had done so with a consenting partner.

The DSM-IV TR states that paraphilias may lead to “self-injury and social and sexual relationships may suffer if others find the unusual sexual behavior shameful or repugnant or if the individual’s sexual partner refuses to cooperate in the unusual sexual preference.” The manifest flaws of this definition are readily apparent in that there is no sexual act that does not carry the potential for injury to self, injury to others, and/or nonconsent. The definition of “deviant sexuality” in this context is not only arbitrary but factually inaccurate based on the reported prevalence of paraphilic interest and activity [1–3]. Few modern sexual health experts would deem activities such as oral sex and homosexual activity as “unusual” despite the precedents that such activities were historically classified as not only unusual but indicative of serious psychopathology [4].

I share the authors’ concern about individuals who seek to or have engaged in sexual activities of any kind with partners who are unwilling or unable to consent. However, the artificial pathologization of noncriminal sexual interests that have been arbitrarily defined as deviant is not well supported in the literature [3,5]. Indeed, a number of unreferenced assertions “well known from clinical work” litter the discussion section of Ahler’s manuscript; this is evidence that much of what is “known” about paraphilias is based on expert opinion rather than clinical study.

The authors also state: “These behaviors probably (emphasis added) affect communication.” I would posit that the alleged difficulties in forming relationships might be better mitigated by destigmatizing noncriminal sexual preferences, thus facilitating honest communication between prospective partners and mates. In the case where consensual exploration of noncriminal sexual desires is an option, there is no clear rationale for informing an individual that s/he is mentally disordered purely because of sexual proclivity. I find the eminence-based statement “Often,

patients with an unusual sexual preference are not aware that this specific aspect of their sexuality is causing them distress or impairment” a chilling assertion that seems to empower mental health professionals to arbitrarily assign the cause of an individual’s distress to their sexual proclivity despite sound evidence basis.

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International Index of Erectile Function: A Misnomer at Risk of Being Misleading from Misuse

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I refer to the recently published Letter to the Editor and article concerning the suitability of the International Index of Erectile Function (IIEF) as a universal investigative instrument for erectile function [1,2].

Erectile function (EF) is but one of the five domains of sexuality in the 15-item IIEF questionnaire and scores from only the EF domain (Questions 1–5 and 15) are used to indicate the presence and severity of erectile dysfunction (ED) [3]. The IIEF is thus a misnomer, and it would have been more appropriate to label it the International Index of Sexual Function.

On the contrary, the five-item International Index of Erectile Function (IIEF-5), also known as the Sexual Health Inventory for Men, was developed as a diagnostic tool for ED [4]. Consisting of Questions 2, 4, 5, 7, and 15 of the IIEF and focusing on erectile function per se, it is rightfully the inventory of male erectile function.

The architects of these questionnaires had highlighted the methodological differences between the two diagnostic measures [5]. The IIEF-5 was constructed to comply with the National Institute of Health consensus on the definition of ED and assesses the responder's erectile function in the preceding minimum period of 6 months. In contrast, the IIEF was "originally and specifically designed for use in clinical trials" and EF domain scores provide only an appraisal of the man's erectile function in the preceding 4 weeks. Therefore, although the results of data analyses using either measure are closely similar, screening and diagnostic severity assessment remain the primary purposes of the IIEF-5, and the EF domain should be used for the evaluation of treatment efficacy and changes in treatment outcomes [5].

The scoring systems for both the EF domain of the IIEF and the IIEF-5 were based on data analyses involving men aged 18 years or older who were in a stable heterosexual relationship for at least 6 months and had reported sexual activities or attempted sexual intercourse [3,4]. If the appropriate investigative instrument had been used and the criteria for the scoring system correctly followed, the doubt about the suitability of IIEF for assessing erectile function of young men, as expressed in the recently published article [2], would not have arisen. If the same study had involved men of any other age group, similar results would have been anticipated if there were a significant proportion of men in the study cohort without a relationship or the opportunity for sexual activity or intercourse.

Appropriate revisions may enhance the precision and efficacy of the IIEF and IIEF-5. Using different scoring systems for different age groups will only cause uncertainty and confusion in terms of cut-off ages for such scoring systems. The validity of comparing epidemiological data between different age groups will

be lost if the assessments were conducted with different investigative instruments for different age groups.

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Risk of Stroke among Men with Erectile Dysfunction in Taiwan—Patient-Based or Population-Based?

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I appreciated the work of Dr. Chung et al. in their article, “Increased risk of stroke among men with erectile dysfunction: a nationwide population-based study” [1]. Their study sheds light on the ability of physicians to educate male patients with erectile dysfunction (ED) older than 40 years in Taiwan [1,2]. I felt, however, that several points deserved further interpretation or discussion concerning their database.

First, the people in the dataset analyzed were all patients (people with disease), and no healthy people were included. All the people entered into the dataset had at least one International Classification of Disease code assigned by the physicians. Furthermore, their “nationwide” study was from a very large patient pool, not really a population pool. When a population-based cohort study was performed, ED may not be an age-independent predictor of stroke for about 6 years [3].

Second, less elderly patients suffered from ED than younger patients together with “seemingly low frequency of ED” [1] in the study. Dr. Chung et al. gave one reason: cultural taboo. However, the prevalence of ED in the study was quite different from other studies whose prevalence of ED was around 26% and increased with age in Taiwanese populations [2,4]. Because it was the patients, not the population, to be analyzed by the study authors, low frequency of ED was rational.

My comment is that the study was based on the registered patients in Taiwan. More consideration is encouraged for accurate clinical interpretation and medical education.

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Infantile Masturbation in Monozygotic Twins

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Two monozygotic twin sisters who were 11 months old were presented with atypical behavior that worried their parents. It was learned that one of the twins had these complaints for the last 2½ months and that 4 weeks later, the same complaints began in the other twin. It was learned that they pulled their legs toward their abdomens while sitting, rubbed their own legs together, and groaned, and in the meanwhile, they had facial flushing and sweating, whereas afterward, they calmed down. It was also learned that this cycle was repeated after a while and that they abandoned these movements when their parents distracted them. Physical examination of the twins was normal. No signs of diaper dermatitis were found. The twins were diagnosed with infantile masturbation (IM). Behavioral therapy and advices were recommended. Mastur-

bation is a form of gratification developed by movements like rubbing and stroking genital organs or tightening lower extremities to create pubic pressure. IM is a self-stimulation behavior. It is seen between 2 months and 3 years of age, and more commonly in girls. These children display repetitive, stereotypic seizure-type movements resembling tonic seizures without stimulation with hands. It tends to occur in troublesome or stressful periods [1]. The etiology of IM is unclear. During movements done for resolving the irritation caused by urinary system infections, vulvovaginitis and diaper dermatitis; a child may take pleasure from these [2]. These diseases (urinary system infections, vulvovaginitis, and diaper dermatitis) are more common in girls. Hence, IM occurs in more girls than boys, which perhaps explains this situation. As a

result of a study with 401 monozygotic and 248 dizygotic twins of identical gender with ages varying between 7 years and 9 years, masturbation behavior was found to be more common among monozygotic twins compared with same-gender dizygotic twins. It was also found that genetic factors have a considerable impact despite of the role of the family [3]. IM is a behavioral idiosyncrasy rather than a disease. Hence, a careful anamnesis should be taken to avoid performing unnecessary and expensive tests, and home videotaping should be wanted from the family in suspected cases. We think that these twins become aware of the masturbation pleasure at an early age because of genetic factors. These cases were presented with the aim of demonstrating that although rare, IM may occur simultaneously in monozygotic twins.

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The False Diagnosis of Venous Leak: Prevalence and Predictors—A Comment

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We have read with interest the article by Teloken et al. [1], which reevaluated the erectile hemodynamics in 292 men previously diagnosed with venous leak on penile duplex Doppler ultrasound (DUS) done elsewhere. The authors reported that only 74% and 58% of these men were confirmed to have a “true” venous leak with repeat DUS and dynamic infusion cavernosometry (DIC), respectively. They suggested a cautious approach in diagnosing venous leak by DUS and underlined the importance of cavernosometry in such cases. The introduction of phosphodiesterase-5 (PDE5) inhibitors has revolutionized the management of patients with erectile dysfunction (ED) and diminished the importance of expensive and invasive penile vascular studies. Current guidelines mandate that clinical evaluation of ED should follow an algorithm, starting with administration of sexual symptom questionnaires, followed by detailed medical/sexual history, physical examination, and basic screening laboratory tests [2,3]. As most patients with ED can be managed within the primary care setting, the utility of specific diagnostic tests such as DUS is recommended for few selective cases (e.g., patients with posttraumatic ED or Peyronie’s disease) [3,4].

Many urologists continue to perform DUS with nonstandardized techniques in patients for whom it is not critical, in spite of aforementioned guidelines. In this article, Teloken et al. demonstrated that almost 20% of patients who had been diagnosed with ED had normal penile hemodynamics when DUS was repeated at their institution. Interestingly, the mean age of those patients was relatively young (44 ± 26 years, range 19–66), their ED was mild (mean International Index of Erectile Function-erectile function domain score was 18 ± 5), they responded to PDE5 inhibitors, and none had any history of either Peyronie’s disease or trauma. This confirms that few patients really need a repeat DUS. In addition to patient selection, the technique used during either initial or repeat DUS was not standardized with the “bedroom-quality” erections that are essential for a reliable evaluation and achieved in only 32% and 74% of the patients with trimix injection. Considering the invariable anxiety while undergoing DUS, these patients, most of whom were healthy “young males” with probable psychogenic ED, should have been evaluated in a sup-

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portive environment to reduce negative psychological factors, and audiovisual stimulation should have been provided. If the “bedroom-quality erection” had not been achieved, a redosing schedule should have been administered. As DUS is much less invasive than DIC and as intracavernosal injection of vasoactive drugs in ED patients for DUS rarely (<5%) causes priapism and if present can be easily managed [5,6], DIC does not manifest superiority over DUS.

In conclusion, DUS is rarely indicated in the evaluation of ED patients. In addition to being less invasive, costly, and complex than DIC, we believe that DUS performed by experienced personnel with an appropriate standardized technique, can deliver equally accurate information regarding organic ED.

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Risk for Cancer Among Men with Erectile Dysfunction in Taiwan—Patient-Based or Population-Based?

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We read with interest the article by Dr. Chung and colleagues “Increased risk for cancer following erectile dysfunction: A nationwide population-based follow-up study” [1]. Their study explored the risk for cancer of men 40 years and older who suffered from erectile dysfunction (ED) in Taiwan. However, we believe that several points deserve further discussion regarding their database.

First, their “nationwide” study was from a very large patient (people with disease) pool, not a population pool. As pointed out by Dr. Lu, “all the people entered into the dataset had at least one International Classification of Disease code assigned by the physicians” [2].

Second, less elderly patients suffered from ED than younger patients, which appears contrary to their discussion, “the prevalence is increasing as populations age” [1]. An incorrectly cited reference [3,4] about the prevalence of ED in a population-based study in their discussion was a further problem. As pointed out by Dr. Lu [2], one pertinent explanation is that Dr. Chung and colleagues analyzed the patient pool, not the population pool.

Third, more patients with higher monthly incomes had significant chances with ED in their results. However, it was inconsistent with their previous paper [5], which showed that most ED patients’ monthly incomes were zero. A patient-based study, not a population-based study, could partially explain the inconsistency.

Fourth, prescription of the phosphodiesterase type 5 inhibitors (PDE5I) for ED is not reimbursed by the National Health Insurance in Taiwan. Whether patients took PDE5I or not could not be shown or analyzed in the database. It means that the statement “not all of our patients received the treatment of PDE5I for ED” [1] may be somewhat inaccurate.

Our comment is that the study was based on a large cohort of registered patients in Taiwan. Before interpreting the results into daily clinical application or medical education, more consideration of this point is encouraged.

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Simultaneous Penile-Vaginal Intercourse Orgasm

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We read with interest the cross-sectional study of men and women titled “Simultaneous Penile-Vaginal Intercourse Orgasm is Associated with Satisfaction (Sexual, Life, Partnership, and Mental Health)” [1], which shows an association between simultaneous penile-vaginal intercourse (PVI) orgasm and different measures of satisfaction. However, we are confused with the authors’ causal inferences based on their results and look forward to their clarifications.

First, in the discussion, the authors acknowledge that: “The observed associations might be due to . . . simultaneous PVI orgasm being the result of a variety of personal strengths in one or both partners, including sufficient satisfaction with various aspects of life” [1]. However, elsewhere in the discussion, the authors write: “. . . (simultaneous PVI orgasm) has benefits even beyond those of vaginal orgasm” [1], which clearly suggests that simultaneous PVI orgasm *causes* satisfaction. Furthermore, the conclusion solely advocates for “greater support for these specific aspects of sexual activity” [1].

Second, as noted in table 5 of the article, an increase in 1 simultaneous orgasm per month was associated with an increase of 0.2 units of sexual satisfaction, after adjusting for age. However, for the reader to understand how many extra simultaneous orgasms per month are necessary to have a meaningful increase in satisfaction, and if there is a ceiling to the effect, the authors need to provide (i) the distribution of simultaneous orgasms per month (providing these data by age group would further help interpret the effect of age) and (ii) the change in each satisfaction score that would be considered clinically relevant (also known as minimal important difference [2]), or SD to calculate effect size if this is not known.

Finally, while we appreciate empirical associative studies in this area, we are concerned over possible social, cultural, and normative ramifications of making causal inferences based on the authors’ data. For example, the advocacy for increased support to achieve simultaneous PVI orgasm might lead to psychological, pharmaceutical, and medical treatments (as occurred in other areas [3,4]) even though the association may very well be noncausal. Such promotion may not only be ineffective in increasing satisfaction but, in fact, may be harmful if it creates idealized expectations and places undo stress (sexual performance anxiety) on individuals and couples [5]. This socially constructed dysfunction/disease could, in turn, decrease satisfaction.

If the authors wish to make causal inferences, we suggest that they consider other study designs. For example, a longitudinal study design asking self-identified heterosexual individuals to keep a systematic diary might be able to show whether decreases in simultaneous penile-vaginal orgasm are temporally followed by decreases in satisfaction, or whether decreases in satisfaction are temporally followed by (i) decreases in simultaneous penile-vaginal orgasm, (ii) nonpenile vaginal orgasm, (iii) nonvaginal penile orgasm, and (iv) clitoral orgasm. Appropriate baseline data collection would allow one to adjust for overall personal and

partnership/marital satisfaction and other important confounding variables.

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