

LETTER TO THE EDITOR

Vaginal Orgasm Is Related to Better Mental Health and Is Relevant to Evolutionary Psychology: A Response to Zietsch et al.

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Zietsch et al. report [1] that in a large sample of Australian twins, “orgasm rates during masturbation, intercourse, and other sexual activities” were uncorrelated with 19 traits. The authors conclude that “female orgasm” might not have evolved by providing adaptive advantages to the woman and that female orgasmic disorder might not be a valid psychiatric construct. There are several problems with their approach and conclusions.

One major problem with the approach taken is the failure to differentiate vaginal orgasm from orgasm occurring during penile–vaginal intercourse (PVI) but due to concurrent clitoral masturbation (by self or partner). Vaginal orgasm refers to a woman’s orgasm triggered purely by PVI without concurrent clitoral masturbation by self or partner. This differentiation is methodologically crucial. There is well-supported evidence (much of which was presented in this journal) that lack of specifically vaginal orgasm is associated with a variety of accurate indicators of poorer mental health, but orgasm from clitoral masturbation during PVI has opposite associations. Such indicators of poorer mental health have important psychiatric and sexological diagnostic and evolutionary theoretical implications.

Zietsch et al. ignored these findings. Thus, when reporting no association between their orgasm measure and neuroticism, Zietsch et al. failed to cite a previous twin study published in this journal that found such an association [2].

Zietsch et al. conclude that female orgasm does not promote pair-bonding. However, they did not adequately test this hypothesis because longer relationships (an issue that they did address) are not necessarily better relationships or those that can best support the reproductive fitness of the offspring. The quality of parental pair-bonding can be of great importance. Impairment of specifically vaginal orgasm (not other sources of orgasm) is associated with poorer intimate relationship quality [3–5] and lesser sexual satisfaction [4–6]. An important psychological dimension for intimate relationships is the capacity for attachment. In contrast to a healthy secure attachment style, there is anxious attachment (preoccupation about abandonment) that is associated with relationship and mental health problems. Anxious attachment is also associated with poorer vaginal orgasm consistency, but other orgasm triggers are either unrelated to or related to more insecure (anxious or avoidant) attachment [7].

Relatedly, impairment of specifically vaginal orgasm is associated with more use of immature psychological defense mechanisms. Immature defenses are related to psychopathology and involve automatic avoidance of anxiety through distortion of reality (examples include somatization, dissociation, displacement, autistic fantasy, devaluation, and isolation of affect) [8–10]. Impaired vaginal orgasm is associated with more use of immature defenses, as is more orgasm from clitoral masturbation during PVI. Orgasms through noncoital sexual activities are either unrelated or related to more use of immature defenses [7–11]. Women who are vaginally anorgasmic have immature defenses scores similar to those of outpatient psychiatric groups (depression, social anxiety disorder, panic disorder, and obsessive-compulsive disorder) [8]. A likely basis for these consistent results is that immature defenses can block a woman from having

a vaginal orgasm. However, it might also be that specifically vaginal orgasm supports emotional growth. Thus, the absence of vaginal orgasm is an indication of less mature psychological development (which in turn is associated with a broad range of psychopathology).

Conversely, studies also found that women with a variety of psychiatric and character disorders have lesser ability to have a vaginal orgasm but not lesser ability to have a clitoral climax compared with women without such disorders [12–15]. Moreover, in large representative samples of Swedish and Czech women, lack of vaginal orgasm was associated with lesser satisfaction with own mental health [4,16].

Zietsch et al. note that if intercourse orgasm were associated with pair bonding, then greater intercourse orgasm rates should be related to higher libido, but they did not find such an association. However, they used an unusual measure of libido. In contrast, in a large representative sample, history of vaginal orgasm was associated with greater libido [4]. A large representative study found that history of vaginal orgasm is protective against female sexual arousal disorder with distress [17], and a group of women with inhibited sexual desire had lower frequency of vaginal orgasm but not lower frequency of orgasms from masturbation during PVI, compared with controls [18]. A laboratory study further revealed that for both sexes, PVI orgasm produced a dramatically greater rise in prolactin than did orgasm from masturbation (adjusted for individual control conditions) [19]; the postorgasmic prolactin surge produces a sense of satiety and also rebalances central dopaminergic levels. The issue of at least central dopaminergic tone being rebalanced has implications for psychological health as well as for sexual satiety [19]. Furthermore, optimal sexual and psychological function might involve not simply endless libido, but the capacity for sexual satisfaction. In large representative samples of Swedes and Czechs, vaginal orgasm was associated with greater satisfaction with sex life [4,5], with similar results in a convenience sample of Chinese women [6].

Zietsch et al. also make the mistake of attributing intercourse orgasm simply to direct or indirect clitoral stimulation (as in their reference to what they imply is the importance of clitoris–vagina distance). However, clitoral stimulation leads to pudendal nerve activation, but vaginal and especially cervical and uterine stimulation during intercourse additionally stimulate the pelvic, hypogastric, and vagus nerves [20]. In women with spinal cord injury (their brains can receive stimulation from the vagina and cervix via the vagus nerve but not from the clitoris, which is dependent on the spinal cord), cervical–vaginal stimulation leads to orgasm as confirmed by both self-report and functional magnetic resonance imaging [21,22]. This is strong evidence that the clitoris is not needed for female orgasm, especially not for vaginal orgasm. Of note, the vagus nerve is also involved in attention, emotion regulation, and likely pair-bonding [23], and better vagus nerve (parasympathetic) tone and regulation is associated with PVI (but not other sexual activity) frequency [24–26]. New functional magnetic resonance imaging research with healthy women has demonstrated that in addition to regions of overlap, there are distinct

differentiable regions of the somatosensory cortex activated by clitoral, vaginal, and cervical stimulation [27].

Zietsch et al. assert that the concept of female orgasmic disorder assumes that “a high rate of orgasm is biological normative for female humans during sexual activity with a partner.” Here, they confuse the issue of what is statistically normative (a prevalence issue) with what is normal (psychologically and/or physically healthy). High rates of overweight or substance abuse or personality disorder in some cultures at some times do not transform those conditions into healthy ones. Whether population prevalence of female orgasm (or specifically vaginal orgasm) is high or low is less important than whether it is associated with mental health and has implications for evolutionary psychology. There are other problems with their handling of the orgasm prevalence issue. One is that the prevalence of PVI orgasm is likely to be greater than the source [28] on which they rely would have one believe. Recent large representative studies in various countries provide evidence that the majority of adult coitally experienced women have had vaginal orgasm. For example, in a large representative sample of Czechs [29], only 22% never had a vaginal orgasm, and in a subsequent large representative middle-aged sample, only 17% never had a vaginal orgasm [16]. Using the criterion of frequent PVI orgasm, even the data from Kinsey [30] revealed that for women with intact marriages, PVI lasting between 1 and 15 minutes led to orgasm 90–100% of PVI occasions for more than half of the women. For women who typically had PVI lasting 16 minutes or more, two-thirds of the women reported PVI orgasm on 90–100% of PVI occasions. The same study revealed that women’s PVI orgasm was correlated with “marital happiness,” which one might infer is relevant to pair-bonding.

As noted [20], like male orgasm (as opposed to ejaculation), female orgasm is not necessary for reproduction. Hence, genetic liability to impairment in vaginal orgasm could exist in the gene pool but be associated with dysfunctions at other levels. Given that vaginal orgasm is robustly linked to indicators of better mental health, it is possible that to some extent genetic variations in consistency of vaginal orgasm reflect genetic variations in the vulnerability to poorer mental health or lack of adaptedness to the environment. As one of the coauthors of the Zietsch et al. article noted elsewhere, genetic mutation defects might be associated with variation in psychological dimensions [31].

From an evolutionary psychology perspective, it would make sense that the one and only potentially reproductive sexual behavior (PVI) and the orgasm that it directly produces should provide more satisfying reinforcement than other sexual behaviors in well-functioning humans, as a homeostatic force to promote gene propagation. This reinforcement could also support better relationship functioning, which in turn could improve the survival likelihood and reproductive success of offspring.

Vaginal orgasm depends not only on the woman but also to some degree the man with whom she has PVI, and thus vaginal orgasm might be a signal of partner quality for both partners. Duration of PVI (but not of foreplay) is associated with greater orgasm likelihood [29,32]. PVI duration might be largely dependent on the man’s ability and is consistent with men’s erectile function being associated with women’s vaginal orgasm consistency [5]. Women are more likely to have a PVI orgasm with men who are more symmetrical or who are rated as more attractive [33,34]. Women report more frequent PVI orgasm with more masculine, dominant, and attractive men, but these partner characteristics did not predict women’s orgasms from noncoital partnered sexual behaviors or from masturbation [35]. Male facial attractiveness is associated with better semen quality and perhaps better genetic quality [36,37], so there might well be a link between male genetic quality and capacity for inducing PVI orgasm. This would be consistent with a measure of male guppy attractiveness (carotenoid pigmentation percentage of the body

surface) being associated with better sperm quantity and viability as well as with duration of copulation [38].

Taken as a whole, the evidence suggests that vaginal anorgasmia deserves to be recognized as clinically significant and associated with a variety of clinically significant impairments of psychological function. The observed personality impairments likely impair vaginal orgasm. However, if to some degree, it is lack of vaginal orgasm that leads to poorer psychological function, then failure to be supportive of vaginal orgasm constitutes iatrogenic damage.

Given that specifically vaginal orgasm is consistently associated with better mental health, better relationship quality, and better sexual function, serious consideration should be given to modifying the psychiatric and sexological diagnostic criteria of female orgasmic disorder such that inability to attain specifically vaginal orgasm (given an adequate man) is considered a female sexual dysfunction. It is incumbent upon researchers to examine specifically vaginal orgasm in relation to measures of health and relatedness [39], lest the crucial distinctions disappear in muddled measures, leading to misleading inferences.

STUART BRODY,* RUI M. COSTA,* URSULA HESS,[†] and
PETR WEISS[‡]

**School of Social Sciences, University of the West of Scotland, Paisley, United Kingdom; †Department of Psychology, Humboldt University Berlin, Berlin, Germany; ‡Institute of Sexology, Charles University, Prague, Czech Republic*

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Statement of Authorship

Category 1

(a) Conception and Design

Stuart Brody

(b) Acquisition of Data

N/A

(c) Analysis and Interpretation of Data

Stuart Brody; Rui M. Costa; Ursula Hess; Petr Weiss

Category 2

(a) Drafting the Article

Stuart Brody

(b) Revising It for Intellectual Content

Stuart Brody; Rui M. Costa; Ursula Hess; Petr Weiss

Category 3

(a) Final Approval of the Completed Article

Stuart Brody; Rui M. Costa; Ursula Hess; Petr Weiss

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