

## Response to the Letter to the Editor

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Our recent study indicated that below average resting heart rate variability (HRV; indexed by the standard deviation of NN intervals, or SDNN) is associated with female sexual arousal dysfunction and overall sexual dysfunction. We appreciate that the authors of this letter have brought their study, which showed that higher HRV was associated with vaginal orgasm over a month-long period, to our attention (Costa and Brody 2012). To the extent that arousal and orgasm are related constructs in women, and arousal and orgasm difficulties commonly coexist in women, the Costa and Brody study is relevant to our examination of sexual arousal dysfunction and HRV. Though we did not specifically investigate the association between resting HRV and orgasm, it is possible that low resting HRV is a risk factor for orgasm dysfunction in addition to arousal dysfunction. However, it is also possible that orgasm and arousal are related to different autonomic mechanisms. Research by Meston and Gorzalka (1996), which indicated that SNS activation, induced via acute exercise, facilitates physiological sexual arousal among sexually functional women and women who reported low sexual desire but *inhibits*

physiological sexual arousal in women with orgasm-related sexual dysfunction, supports this speculation. In order to fully understand the nuances of the relationship between HRV as an index of autonomic balance and different domains of female sexual function, future research is necessary. As we and the authors of this letter have noted, the relationship between HRV and female sexual function is thoroughly understudied, as these are the first studies of their kind.

### References

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