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COMMENTARY



## Is Basson's Model of Sexual Response Relevant? Yes, and so are other validated models of sexual response: A commentary on Balon (2021)



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One important misrepresentation was that Basson's model served as the conceptual basis for the creation of Female Sexual Interest/Arousal Disorder (FSIAD) in the 5th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association, 2013). Balon and Clayton (2014) have made this claim several years ago: (*"It appears that the primary reason for creation of this diagnosis was to dismantle the longstanding linear concept of the sexual response cycle (desire, arousal, orgasm, plateau/resolution) in women and to replace it with another concept of sexual response (circular model) for women"*; p. 1227) and we have previously countered this (Brotto, Graham, Paterson, Yule, & Zucker, 2015; Graham, Brotto, & Zucker, 2014). It is unfortunate that this myth continues to perpetuate in 2021 despite it being refuted six years ago. In fact, no one model served as a framework for the DSM-5 female sexual disorders. Basson's circular sexual response cycle does highlight the importance of responsive desire, which featured as one of the six criteria for FSIAD. But the polythetic criteria for a diagnosis of FSIAD reflect the fact that no one model captures all women's experiences of sexual desire and arousal (Brotto et al., 2015; Graham et al., 2014). Women can meet any three of the six FSIAD criteria and in the "Diagnostic features" section in DSM-5 is the statement: "There may be different symptom profiles across women, as well as variability in how sexual interest/arousal disorder may be expressed..." (American Psychiatric Association, 2013, p. 433). Extensive literature reviews of the research, including studies on the empirically-supported Incentive Motivation Model (Toates, 2009), and not exclusively Basson's model, formed the basis for the FSIAD disorder.

A second misconception propagated in the Balon (2021) commentary is that sexual desire (Hypoactive Sexual Desire Disorder; HSDD) and sexual arousal (Female Sexual Arousal Disorder; FSAD) were "merged" in DSM-5. Instead, as we have previously highlighted, both HSDD and FSAD were deleted from the DSM-5, and Female Sexual Interest/Arousal Disorder (FSIAD) was added. The primary reason for the deletions of HSDD and FSAD was because of longstanding criticism that the essential criteria for these disorders<sup>1</sup> (Boyle, 1994; Tiefer, 1991; 2001) did not reflect women's actual experience of low sexual desire and arousal. Moreover, multiple lines of evidence – qualitative, experimental and clinical studies – have demonstrated no empirical basis for any distinction between subjective arousal and desire (Chivers & Brotto, 2017; Laan & Both, 2008; Meana, 2010) (for a more detailed justification for the DSM-5 changes, see Brotto, 2010; Graham, 2010, 2016).

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<sup>1</sup>Criteria A for FSIAD: "an inability to attain, or to maintain. . . an adequate lubrication-swelling response of sexual excitement" and HSDD: "persistently or recurrently deficient (or absent) sexual fantasies and desire for sexual activity".

Regarding omissions, Balon's commentary ignores the more recent literature that has directly evaluated the prevalence of loss of spontaneous desire vs. loss of responsive sexual desire in women and the validity of the FSIAD diagnosis. In a study of 17,534 participants, 19% endorsed a lack of spontaneous sexual desire, whereas 14% endorsed a lack of responsive sexual desire (Hendrickx, Gijis, & Enzlin, 2014); among the partnered women, 9.1% endorsed having symptoms of both. In a study that evaluated the number of women meeting DSM-IV-TR criteria for HSDD that also met criteria for FSIAD (O'Loughlin, Basson, and Brotto (2018), 73.5% of women with an HSDD diagnosis also met criteria for the DSM-5 diagnosis of FSIAD. Importantly, none of the women who did not meet criteria for HSDD (i.e., sexually healthy controls) met criteria for SIAD. The findings also challenged speculations that women with HSDD and FSIAD would differ in relationship length; there were no differences between the two groups on relationship length or any other demographic variable measured.

Balon's commentary repeats throughout that the "field has become divided," referring to a debate about different models of sexual response. We fail to see evidence for a divided field and this type of commentary is harmful. Instead, following the conclusions of several studies (Connaughton, McCabe, & Karantzas, 2016; Giles & McCabe, 2009; Giraldi, Kristensen, & Sand, 2015; Sand & Fisher, 2007), it seems that there is now widespread consensus that no single model of sexual response fits with all women's (or men's) experiences of sexual desire and arousal.

Science welcomes diverse perspectives, and recognizes that knowledge is limited to what has received scientific support to date. There is no "proof" of knowledge, and certainly none in the field of sexual response, where new data produce new theories that refine and sometimes replace old ones. We see the diversity of perspectives on the nature of sexual response as welcome and not divisive.

We agree with Balon's concluding statement that "Scientific theories and theoretical models need to be probed and validated." In line with this, there has been a growing literature on the nature of, correlates of, and treatments of FSIAD. A recent search of "female sexual interest/arousal disorder" on Pubmed produced 59 peer-reviewed publications, many of which were focused on treatments for FSIAD. Using the search engine, Google Scholar, female sexual interest/arousal disorder produced 2,220 hits. And despite Balon's claim that "the Food and Drug Administration has not accepted the FSIAD diagnosis in trials submitted for medications/treatments approval", there are published empirical studies of various pharmaceutical products, such as testosterone, sildenafil, buspirone, and their combination for women with FSIAD (Tuiten et al., 2018). Regarding studies on the medications to treat low sexual desire that have recently received FDA approval (i.e., flibanserin, bremelanotide), it is not the case that the FDA did not "accept the FSIAD diagnosis" but rather that the researchers leading the clinical trials on these drugs used the obsolete DSM-IV-TR HSDD criteria to select patients for study inclusion (e.g., Kingsberg et al., 2019).

Finally, the jury is still out as to whether "the underpinnings of sexual response are biological" (Balon, 2021). Balon refers to Basson's model as pointing to "psychological underpinnings or modification of the underlying biology "by psychological, interpersonal, and sociocultural factors" and also that "Basson's model in losing its relevance." We see no evidence for this conclusion. Multiple studies provide strong evidence that biological as well as psychological factors can facilitate or hinder the activation of the sexual response system (Toates, 2009) and for the influence of psychological, interpersonal and sociocultural factors on sexual function/dysfunction (for reviews, see Atallah et al., 2016; Brotto et al., 2016).

We feel that the field needs to take a solutions-oriented approach as opposed to perpetuating controversial views that stagnate instead of progress. To that end, we disagree with Balon's claim that "we need to come to some consensus to move research and treatment forward" and we cannot see other examples in medicine or behavioral sciences where consensus among an entire field was necessary to produce advances in science. In our view, one of the best ways of moving

forward is to generate new data that test and refine theories. We do not see the value-add of continuing to lament on change by raising the same argument.

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