

# Conversations With Women About Female Sexual Dysfunction (FSD) and Treatment With Bremelanotide

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## Introduction

Female sexual dysfunctions (FSD) include a range of distressing, multifactorial conditions, such as dysfunctions of sexual interest/desire, sexual arousal, a delay in or absence of orgasm, and sexual pain.<sup>1,2</sup> The most common sexual concern expressed by women is diminished or lack of desire for sexual activity,<sup>3,4</sup> which may be diagnosed as hypoactive sexual desire disorder (HSDD), if the lack of desire causes distress. Bremelanotide (BMT), a novel cyclic 7-amino acid melanocortin-receptor agonist with the potential to modulate neural pathways involved in sexual response,<sup>5,6</sup> is being developed to treat FSD.

## Aims

The objectives of these interviews were to understand the impact of FSD and to provide a contextualized understanding of the effects of BMT and the meaningfulness of the benefits it provides, beyond the previously reported quantitative clinical study results.

## Methods

- In a blinded phase 2b trial, premenopausal women with HSDD (with or without female sexual arousal disorder [FSAD]) self-injected placebo or 1 of 3 doses of BMT (0.75, 1.25, or 1.75 mg) subcutaneously
- In-depth, 60-minute telephone or in-person, semi-structured interviews were conducted with 72 participants prior to unblinding the study results
- Data for 61 women, later identified as being randomized to BMT, are reported here
- Approximately equal-sized groups of women who injected each of the 3 doses of BMT volunteered to be interviewed
- The interviews were approved by the appropriate institutional review boards; participants gave written informed consent prior to being interviewed
- The interviews focused on the participants' experiences with FSD before and after treatment with BMT

### Participant Characteristics

- Mean age was 39 years (range 22–53 years)
- They had been experiencing FSD for a few months to >10 years
- Forty-two percent had tried other treatments (eg, sex therapy, herbal supplements, testosterone cream/over-the-counter creams, and other clinical trials) unsuccessfully
- Forty-six women were interviewed by telephone; 15 in-person
- The most commonly reported physical symptoms were lack of sexual desire (90%) and/or an inability to become aroused (57%)

## Results

### Pre-Study: Conceptualizing and Explaining Why They Experienced FSD

- Most women were unaware that FSD is a recognized medical condition
- None used the phrase “sexual dysfunction” to describe their problem
- Responses concerning the cause of their condition varied—having/taking care of children was mentioned most frequently, followed by aging

### Women's Thoughts on Why They Experienced FSD

*“After the birth of my third child, I noticed a very rapid decline in sexual drive...It was pretty severe, enough to send me to a doctor to beg for help.”*

*“I really honestly think it was, that it is, because I'm getting older.”*

*“At first I thought maybe hormones; I think it is hormonal.”*  
*“I could have been (in) early menopause.”*

*“...some of it I think is just my physical...my weight gain. ...I honestly put on 20 lbs in 4 years. I have more of a desk job now, so I'm not moving around. And, I think that may have something to do with it, because just putting on weight, and being tired...”*

*“I have no desire at all. I could go for the next 6 months without it and it would not faze me. And, that right there, to me, scares me. I don't understand that. I have no understanding of that concept to me because it's never happened before, not even for a little while.”*

*“I thought it was a mind thing.”*

### Physician Interactions

Many women did not consult a physician or seek treatment because they thought it is part of the normal aging process or “you don't want to talk to your doctor all the time about this stuff”

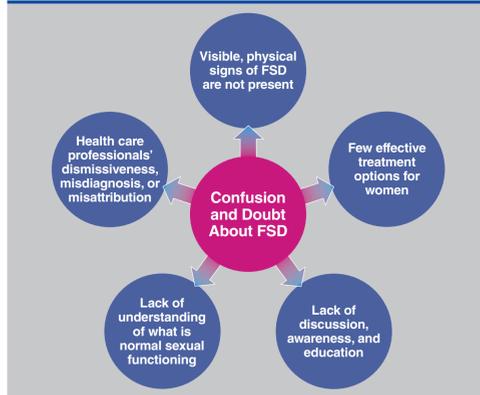
### Physician Responses

*“She told me it was maybe stress related. I have a busy life....They gave me the doctor answer.”*

*“They just suggested more exercise, and drink lots of fluids, that kind of thing, and it will pass.”*

*“My doctor had given me some of the Testim® gel to apply abdominally, which is the testosterone they give to men.”*

### Factors Contributing to Women's Confusion and Doubt About FSD



### Recognizing There Was a Problem

During the interviews, women described how they began to recognize they were experiencing sexual difficulties that required intervention.

*“At first it was gradual, but then, all of a sudden, it was like, you know we went from having sex once a week to not even having it once a month....and, I thought maybe was him. Is he not wanting to? But it wasn't him. It was me.”*

*“It's just there would be times when it was...when it just happened, whether it was him or me. I guess there was a time when I would initiate it...There was a time when it was both of us initiating it and then him initiating it, and, then to a point where I am like, No!”*

### Multiple Aspects of Women's Lives Were Affected by FSD

#### Impacts on Her

##### Absence of Physical and Mental Responses to Her Partner

**Sexual Desire\*** *“I didn't have the feeling, and then, the lack of desire altogether. So my body just doesn't respond very well when I am in that situation.”*

**Arousal<sup>†</sup>** *“When he would caress me or try to stimulate me, it wouldn't happen. Not just mentally, but physically as well.”*

**Orgasm** *“Most of the time, I was faking [orgasms]... because I wanted him to be happy.”*

##### Physical Changes That Made Having Sex Uncomfortable for Women

**Lubrication** *“I noticed my...physically, I couldn't lubricate...And then, so that right there would make it more uncomfortable, too, to have sex.”*

##### Distressing Emotional or Psychological Difficulties Were Reported by Many Women

**Inadequacy** *“The pressure and feeling inadequate because I wanted to perform and satisfy my partner, and I couldn't.”*  
*“They just suggested more exercise, and drink lots of fluids, that kind of thing, and it will pass.”*  
*“I feel inadequate, broken.”*

**Guilt** *“I always felt guilty, because I wasn't interested.”*

**Desperation** *“I felt desperate because of physically not being able to have sexual relief.”*

**Dread** *“There were times when it was a sense of dread. Oh no, he wants to. And, I just don't feel like it.”*

**Frustration** *“It would get frustrating to the point where I would just want to sit and cry.”*  
*“And it got to where I was uncomfortable being naked in front of him because I thought my body is changing. Everything is changing, and I just don't like the way I look any more, so how can he.”*

**Poor Self-Image** *“Devastating. I felt like less of a woman just because I couldn't. I felt down on myself. It was disturbing.”*

**Loss of Self-Identity** *“I think it's most distressing in my head. It bothers me no end.”*

**Distress** *“I felt I wasn't being a proper wife to my husband because I couldn't give him and myself that part of our relationship.”*

\*Most frequently mentioned issue.  
<sup>†</sup>Second most frequently mentioned issue.

### Partner and Relationship Effects

#### Partner Blamed Himself

*“There were a couple of times where he did blame himself. He thought something was wrong with him.”*

*“Because for a young man our age, he's thinking like, it must be me. You don't like me. And he was putting a lot of pressure on himself.”*

#### Partner Emotionally Impacted

*“He actually went through a phase for a couple of months where he seemed almost depressed.”*

#### Creates Stressful Barriers, Magnifying Other Problems

*“...that wall of frustration between my husband and I as far as lack of sexual interaction that we had. When you are stressed about the sexual part, everything else seems to get bothered more easily.”*

#### Creates Uncertainty, Distrust, and Concerns About Viability of Relationship

*“You worry about, well, if you're not getting it with me, are you going somewhere else? You have all of those kinds of concerns.”“I know in certain arguments that we might have he will say that he thinks my eyes are wandering.”*

### Sexual Satisfaction—What Women Want and What Was Missing

#### Mutual Feeling of Sharing Intimacy, Giving and Taking

*“It's more of a feeling. I guess I want to say a mutual feeling between the two of us as to be giving each other the pleasure of having that intimacy, that physical closeness, that arousal, everything.”*

#### It's Not Just About Sex

*“I mean, intimacy, the physical satisfaction—all of it is important. The intimacy is most important because, without it, it's just sex.”*

#### It's About Connecting

*“Sexual satisfaction? That means to me...That for me would have to be not just physical satisfaction, it would have to be the emotional, the mental, just all of it.”*

*“Feeling that closeness, having an orgasm, being able to know that my body can react that way, that he can do that. That he can bring me to the point where I can.”*

*“It's not just being attractive to the other person physically. You have to be emotionally connected with them.”*

### Effect of BMT on FSD, Women's Lives, and Partner Relationships

#### Overall Response to BMT

About two-thirds of all women interviewed reported an improvement in some aspect of sexual response.

- Women taking 1.25 or 1.75 mg of BMT were more likely to report a positive outcome in sexual functioning than those taking BMT 0.75 mg
- The time for BMT to take effect varied from 30 minutes to 2 hours for most women, although one woman reported that the effects were not evident until 7 hours after injection
- For most participants, the effects lasted for 2 to 6 hours. However, women would often go to sleep after sexual activity, so it was difficult for them to assess how long the effects lasted

### Overall Impact on Sexual Functioning and Responsiveness

*“I would actually crave sexual activity. I was very interested in sexual activity. I thought about sex a lot more. It felt better. The climaxes felt much better, they were much more intense. It's just like everything was more intense. Kissing, touching, everything.”*

### Physical Effects of BMT

- About three-quarters of all participants reported experiencing physical effects from BMT
- Nine of 10 women taking the 1.75-mg dose of BMT reported a positive physical effect
- Tingling in the genital area and sometimes in other parts of the body, as well as a transient feeling of warmth or flushing, were the most frequently mentioned physical effects

*“I actually felt, kind of like, a tingling sensation, if you will, in my clitoral region.”*

*“You don't really perspire, it's just a warm feeling all over.”*

*“I would get a tingling down in the genital area. (Interviewer: And was it a pleasant thing?). Yes, it was pleasant. That would last for a good hour or so.”*

### Sexual Desire Increased

Approximately 6 of 10 women receiving 1.25 or 1.75 mg of BMT reported experiencing an increase in sexual desire.

*“[Before] I really didn't want to. Please, not tonight. But you take it, and you want to...I started to look forward to it again.”*

*“I feel it made me want to again. It did sort of restore things back to our original state.”*

*“I was initiating more about 50% of the time. Pre-trial it was 70% him initiating.”*

### Sexual Arousal Increased

BMT had a positive effect on sexual arousal, particularly at the 1.25- and 1.75-mg doses, where approximately two-thirds of women said they experienced an improvement.

*“[Before the trial], it was hard to get aroused. And when I did, I would get so close to the orgasm and then it was gone, and you would spend so much time trying. And after the medication, it just came so naturally.”*

*“I think it's thoughts first [before sensations]. Often when my husband and I had sex [pre-trial], by the time he is finishing, I'm just getting aroused. With this particular drug, I would be aroused at the onset.”*

*“A physical wanting it...like your vagina is just craving penetration...it was probably more a warmth and yes, and more lubrication.”*

### Increased Ability to Experience Orgasm

Approximately 6 of 10 women taking the 1.25- or 1.75-mg doses of BMT reported that their orgasms were easier to achieve or were more intense.

*“Where, with the drug, it was easier to achieve them. At first they were mild, and then, as the study progressed so did the intensity of orgasms.”*

*“But I noticed on the drug, I always achieved orgasm every time I used the drug. They were much more intense. Definitely much more intense.”*

### Improved Lubrication

- Overall, approximately 50% of the women on the 1.25- or 1.75-mg doses of BMT reported experiencing an increase in lubrication during sexual activity
- Nearly two-thirds of women >40 years of age reported an improvement

*“I was lubricated, and he would say, ‘wow’...it's like old times.”*

*“I noticed that whenever my husband and I started fore-play and stuff like that, I was more responsive. I was very well lubricated. I never really dried out.”*

*“The BMT always worked, as far as increasing arousal, the wetness. Because there were times that I've had to use lubricants...”*

### Sexual Satisfaction Increased

Approximately two-thirds of participants taking 1.25 and 1.75 mg of BMT reported an improvement in sexual satisfaction.

*“A positive way...I think it restored or rebuilt what [sexual satisfaction] we had before, that had kind of been lost.”*

*“Greatly [improved sexual satisfaction]. Things were better. I actually wanted to have sex more often.”*

*“Of course [sexual satisfaction increased]! You didn't get that from everything I've been saying?...Every single time. Every time it was like the first time.”*

*“Much more confidence that I was satisfying him more, and I was satisfying myself.”*

### Improved Self-Confidence and Sexual Self-Image

A majority of women taking the 1.25- or 1.75-mg doses of BMT reported experiencing an improvement in self-confidence or sexual self-image.

*“I feel more confident now. Before, you sort of feel inadequate. What's wrong with me?...I don't have that problem anymore.”*

*“I felt sexy. I had control of my body. I felt satisfied and felt sexy. Felt frisky.”*

*“I definitely felt better about myself. I felt like my sexual life was finally in step with the rest of my life, or it was getting there.”*

*“I think it just made me feel desirable, sexy, younger... and, in my mind, ‘oh, if I feel this good, maybe I look as good as at 21.”*

### Improved Mood

Approximately half to two-thirds of women taking the 1.25- or 1.75-mg doses of BMT reported feeling happier, relieved, and young again while taking the medication.

*“[BMT] made me feel a little more upbeat, optimistic.”*

*“I was in a very good mood 99% of the time. You just have a better outlook on life when you have a happy, healthy sex life.”*

*“We were more playful with each other. The kids didn't seem as demanding...it's amazing that one person's mood in the house can affect everyone.”*

### Distress Decreased

- Approximately three-quarters of these women reported experiencing less distress associated with various aspects of their FSD, including low sexual desire, arousal, and issues with orgasm and lubrication

- They also said that they felt less distress about their relationships with their partners

### Improved Relationship With Partners

More than three-quarters of women who mentioned that FSD had negatively impacted their relationships with their partners, described how treatment with BMT had a positive impact on those relationships in a variety of ways.

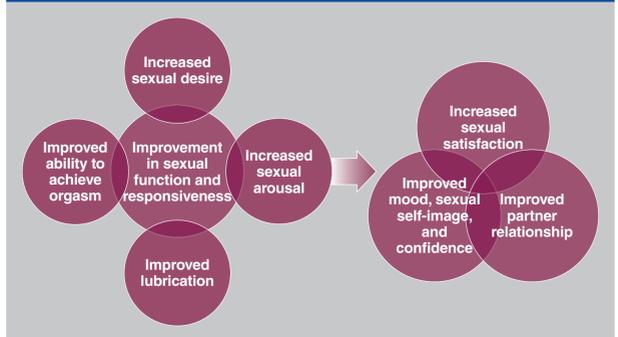
*“It helped us connect and talk a lot better...not only about our sexual life but in other communications.”*

*“It [our relationship] definitely got better. We were more physical with each other. We felt more confident again, like we used to.”*

*“It changed how we were with each other. We were spending more time with each other like when we were first together.”*

*“Before the trial, our relationship was very distant, even though we were living in the same house...but [BMT] kind of helped a lot because we were actually doing more...”*

### Summary of Benefits That Women With HSDD With/Without Decreased Arousal



## Conclusions

- These interviews provided a wealth of contextual understanding of women's experiences with FSD and the positive impact that successful treatment with BMT had on their health and well-being
- The effects of FSD extend well beyond physical symptoms
- Most participants reported improvements in their sexual response, frequency, quality of sexual activities, and sexual satisfaction
- Many participants also reported improvements in their relationships and in the way they view themselves
- Overall, BMT is a promising, novel, as-desired treatment option for FSD

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