# ORIGINAL PAPER

# Pelvic floor contraction as an initial response to psycho-sensory sexual stimulation in men and a trigger for male sexual behaviour

Giuseppe La Pera <sup>1</sup>, Sabrina Anticoli <sup>2</sup>, Marilena Mangiardi <sup>2</sup>, Stefano Livi <sup>3</sup>

**Summary** Introduction: This study is based on the hypothesis that, in men, the initial sexual response to erotic stimuli is triggered by a psycho-sensory pelvic

response to erotic stimuli is triggered by a psycho-sensory pelvi reflex, mediated by the contraction of the pelvic floor muscles (PFM), rather than by an erection.

Objective: The objective is to determine, using a questionnaire that evokes an erotic image, whether there is a correlation between an erotic psycho-sensory stimulus and PFM contraction in men and females and whether this contraction encourages the subject to seek sexual activity.

Materials and methods: An online questionnaire was administered to 270 respondents (134 males, 136 females; mean age = 36.53, SD = 10.7; range 19-63). The questionnaire assessed the relationship between the perception of anterior PFM contraction and an evocative erotic image.

Results: The results show that following an evoked erotic stimulus, there is a significantly higher prevalence of perceived genital sexual responses in males compared to females through PFM contraction. A statistically significant difference was also observed in the desire to engage in sexual activity when perceiving PFM contraction (mean: Males  $2.04 \pm 0.95$  vs. Females  $1.02 \pm 0.88$ ; p < 0.001).

Conclusions: In this sample, an evocative erotic image triggers the perception of the genital sexual response via PFM contraction in more males than females. Additionally, PFM contraction, when perceived, prompts more males to seek sexual activity. These findings support the hypothesis that Pelvic Floor Muscles contraction is the initial response to psycho-sensory stimulation in men and a trigger for male sexual behaviour.

**KEY WORDS:** Psycho-sensory sexual pelvic reflex; Male sexual response; Male genital response; Pelvic floor; Neurological reflex; Male sexual behaviour; Genital perception; Ejaculatory urgency.

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# Introduction

The genital sexual response to erotic stimuli refers to the physiological and psychological changes in the genital organs that occur in response to sexual stimuli. It depends on multiple psychological, emotional, and physiological factors. Each of these factors can trigger a genital sexual response, which is considered an indicator of male arousal (1) and a motivational mechanism in the pursuit of sex-

ual activity (2). The psychophysiological model introduced by Masters and Johnson in the 1960s (3), which correlates simultaneous genital sexual response with the subjective perception of arousal, often shows great variability, despite frequent correlations. This finding has sparked debate among researchers, particularly regarding the explanation of the motivational mechanisms that drive individuals to seek sex. In fact, the subjective perception of genital arousal does not always align with the actual genital sexual response in male, such as increased volume and penile rigidity (4). As reported by Rieger and colleagues (4), in some situations, certain men, while feeling aroused, do not exhibit a simultaneous genital sexual response; in other words, the penis does not reflect an arousal state corresponding to the perceived sensation of excitement. In this experiment, some subjects without erectile dysfunction were asked to perform mathematical calculations during visual erotic stimulation, leading to a reduction in erection but not in the state of arousal (4, 5). In other cases, the opposite was observed: a genital sexual response occurred without an actual arousal state, as happens during nocturnal erections in the REM phase of sleep, which are not always associated with erotic dreams or arousal states (1, 6). This also occurs in patients with priapism, where an erection is present by definition, but without sexual arousal (7). The same phenomenon can be observed during cavernous pharmacological infusion with papaverine, as occurred during Virag's experiment, in which an erection was obtained under general anesthesia without the subject being aroused or aware of it (8).

There are numerous explanations in the literature for this lack of simultaneous correspondence between self-reported arousal perception following visual stimulation and the genital arousal response. Among the various causes that could explain this discrepancy between perceived arousal and the objective genital arousal response, several hypotheses have been considered, including, but not limited to, methodological errors in the quality and duration of the erotic stimulus, the method of measuring self-reported arousal, and the objective measurement of the genital arousal response (9).

The lack of this simultaneous correlation, at least in men, could be due to the possibility that a pelvic reflex is elicited by psycho-sensory sexual stimulation (10). The direct

<sup>&</sup>lt;sup>1</sup> Consultant Urologist, Rome, Italy;

<sup>&</sup>lt;sup>2</sup> Stroke Unit - Head Neck and Neuroscience Department, San Camillo Hospital, Rome, Italy;

<sup>&</sup>lt;sup>3</sup> Social and Developmental Psychology, University of Rome "La Sapienza", Rome, Italy.

consequence of the presence of this psycho-sensory pelvic reflex implies that the perception of the genital response after visual erotic stimulation may not simply be the perception of an erection, as hypothesized in the excitement phase described by Masters and Johnson, but rather the perception of the involvement of another structure, which, according to this hypothesis, is constituted by the pelvic floor. This contraction would cause an increase in pressure within the corpus cavernous and the corpus spongiosum of the urethra, which is then transmitted to the receptors in the glans. This increase in pressure in these structures may lead to a conscious perception of the genital response, which is interpreted as the occurrence of a sexual response of the genitals. In other words, the perception of the pelvic floor contraction, particularly of the ischiocavernosus, bulbourethral, and bulbocavernosus muscles, might serve as one of the indicators of sexual response to visual or imagined stimuli.

This could explain why changes in penile volume, blood flow, or rigidity the primary indicators of genital arousal response in men may not be and may lay the foundation for a revised psychophysiological model that incorporates this new parameter: pelvic floor muscle contraction as initial response to psycho-sensory sexual stimulation.

The aim of this study is to evaluate, through a questionnaire that evokes an erotic image: whether there is a correlation in men and females between an evoked erotic image and pelvic floor contraction, and whether this contraction prompts the individual perceiving this sensation to seek sexual activity.

# **M**ATERIALS AND METHODS

#### Procedure and sample

We administered a questionnaire via the Prolific platform (www.prolific.com). Prolific is an online platform that connects researchers with high-quality participants for academic studies, offering a diverse and reliable pool. It ensures ethical standards by providing fair compensation and robust data quality, making it a preferred tool for behavioral and social sciences research (11, 12). All respondents provided informed consent beforehand, in which the anonymity of responses was guaranteed, following the guidelines of the Helsinki Declaration of 2013. (Ethical Principles for Medical Research Involving Human Subjects).

Four-hundred subjects answered the survey. All respondents were asked about their sexual preferences, specifically whether they identified as heterosexual, homosexual, bisexual, or other (pansexual or undeclared). Sixty-three respondents, who identified as homosexual, bisexual, or other were excluded. Only those who answered all the presented questions were retained, in order to maintain comparability of responses. The final sample consisted of 270 respondents with an average age of 36.53 years (SD = 10.7; range 19-63), comprising 134 males (49.6%; average age 35.93, SD 10.12; range 19-63) and 136 females (50.4%; average age 37.13, SD 11.22; range 21-63).

All respondents read a description of the pelvic floor muscles, their function, and typical use during urination. Subsequently, they were asked if they understood what the pelvic floor and pelvic floor contraction were, and all responded affirmatively.

#### Measures

Male respondents were administered the following five questions: "Do you feel you have experienced increased tension in the penis and glans (or increased tension in the clitoris in the female version) due to pelvic floor contraction when: "with a 5-point response scale: Never (0), Rarely (1), Sometimes (2), Often (3), Always (4), and "I have not been in this situation" (the latter treated as a missing value).

The items considered in the five questions were:

- ITEM 1. When your partner dresses in a sexually provocative manner;
- ITEM 2. When you encounter a particularly attractive woman:
- ITEM 3. When you see an erotic scene (e.g., a film);
- ITEM 4. When your partner sends you sexually provocative photos;
- ITEM 5. When you see a particularly attractive woman, do you immediately feel the desire to have sexual intercourse.

Subsequently, in order to determine the presence or absence of sexual disorders, male respondents were asked to respond to the following questionnaires: 1) The *International Index of Erectile Function* (IIEF5) (13) as well as questions related to sexual desire extracted from the IEEF15 (14), specifically q11 "How often have you felt sexual desire in the past four weeks?" and q12 "How would you rate your level of sexual desire?". Additionally, they were asked to complete the *Premature Ejaculation Diagnostic Tool* (PEDT) (15).

Female respondents were asked to respond to two questionnaires: the *Female Sexual Dysfunction* (FSD) (16) and the *Female Sexual Distress Scale* for the study of psychological distress (FSDS) (17).

# Statistical methods

The responses to the questionnaire from males and females were subjected to the *Analysis of Variance* (ANOVA). All analyses were conducted using IBM SPSS Statistics for Windows, Version 25.0 with a two-level factor (male/female) for each of the five questions.

## **RESULTS**

# Data analysis

Regarding the IIEF 5 questionnaire, we considered subjects with a total score of 21 or higher on the five questions to be normal (14).

Their distribution was as follows: Normal (14)  $\geq$  21: n. 95 subjects, accounting for 70.9%; Pathological (14) < 21: n. 39 subjects, accounting for 29.1%.

Regarding the PEDT questionnaire, we considered subjects without premature ejaculation to be those who scored 9 or less on the five questions. Subjects with a score of 10 or higher (16) were considered likely to have premature ejaculation, and those with a score above 11 were considered to have premature ejaculation.

In our sample, the distribution was as follows: Normal  $\leq$  9: n. 105 subjects, accounting for 78.4%; Pathological or likely pathological > 9: n. 29 subjects, accounting for 21.6%.

**Table 1a.**Means and frequencies related to the degree of arousal (percentages in parentheses).

Item 1-5		Mean	D.S.	Never (0)	Rarely (1)	Sometimes (2)	Often (3)	Always (4)
1. When your partner dresses in a sexually provocative manner	Female	1.46	1.01	30	42	39	22	3
				(22.1%)	(30.9%)	(28.7%)	(16.2%)	(2.2%)
	Male	2.66	0.98	3	12	41	50	28
				(2.2%)	(9.0%)	(30.6%)	(37.3%)	(20.9%)
2. When you encounter a particularly attractive woman/man	Female	1.28	1.03	36	43	45	7	5
				(26.5%)	(31.6%)	(33.1%)	(5.1%)	(3.7%)
	Male	1.77	0.99	14	38	52	25	5
				(10.4%)	(28.4%)	(38.8%)	(18.7%)	(3.7%)
3. When you see an erotic scene (e.g., a film)	Female	2.28	1.01	7	19	54	41	15
				(5.1%)	(14.0%)	(28.7%)	(30.1%)	(11.0%)
	Male	2.54	0.89	2	14	45	56	17
				(1.5%)	(10.4%)	(33.6%)	(41.8%)	(12.7%)
4. When your partner sends you sexually provocative photos	Female	1.81	1.32	33	21	35	33	14
				(24.3%)	(15.4%)	(25.7%)	(24.3%)	(10.3%)
	Male	3.05	1.01	4	6	22	49	53
				(3.0%)	(4.5%)	(16.4%)	(36.6%)	(39.6%)
5. When you see a particularly attractive woman/man,	Female	1.12	0.88	38	50	43	4	1
do you immediately feel the desire to have sexual intercourse				(27.9%)	(36.8%)	(31.6%)	(2.9%)	(0.7%)
	Male	2.04	0.95	7	12	41	35	4
				(5.2%)	(9.0%)	(30.6%)	(26.1%)	(5.2%)

**Table 1b.**Differences in means between males and females in the degree of arousal (standard deviation in parentheses).

	Item 1	Item 2	Item 3	Item 4	Item 5
Female (n = 136)	1.46 (1.07)	1.28 (1.03)	2.28 (1.01)	1.81 (1.32)	1.12 (0.88)
Male (n = 134)	2.66 (0.98)	1.77 (1.00)	2.54 (0.89)	3.05 (1.01)	2.04 (0.95)
	F(1.268) = 91.90	F(1.268) = 15.73	F(1.268) = 4.92	F(1.268) = 75.25	F(1.268) = 69.46
	P < .001	P < .001	P = .027	P < .001	P < .001

Do you feel you have experienced increased tension in the penis and glans (or increased tension in the clitoris in the female version) due to pelvic floor contraction. The difference between male and female responses has been statistically significant in all Items.

Regarding the questions related to male sexual desire, we extracted from the IIEF15 questionnaire (15), when the response to one or both of these questions was less than 3, we considered the subject to have low sexual desire. The distribution of subjects was as follows: Normal  $\geq$  3: n. 127, accounting for 94.8%; Pathological < 3: n. 7, accounting for 5.2%.

In order to identify dysfunctions in the female sample, we used the 6-item FDS questionnaire (17) instead of the tra-

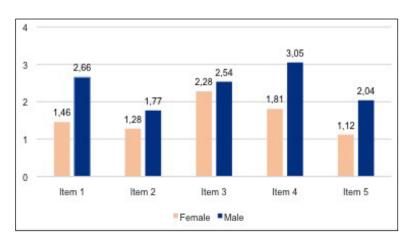
ditional 19-item FDS questionnaire, which has comparable psychometric properties but is quicker to use, making the survey easier.

The distribution between normal and pathological in our sample was as follows: Normal  $\geq$  19: n. 98, accounting for 72.1%; Pathological < 19: n. 38, accounting for 27.9%.

We also used the FSDS-R questionnaire (18) to measure female sexual distress, with a cut-off value of less than 11 to distinguish normal from pathological.

In our sample, the distribution was as follows: Normal < 11: n. 73, accounting for 53.74%; Pathological  $\geq 11$ : n. 63, accounting for 46.3%.

Means and frequencies related to the degree of arousal were calculated for the responses to each item (see Tables Ia, Ib). The results were statistically different between men and women, indicating that an evoked erotic stimuli in men was more frequently accompanied by pelvic floor muscle contraction compared to women (see Figure 1 and Table 1b).



**Figure 1.**Differences between males and females in the degree of perceived arousal.

Do you feel you have experienced increased tension in the penis and glans (or increased tension in the clitoris in the female version) due to pelvic floor contraction. The difference between male and female responses has been statistically significant in all Items.

**Table 2.**Differences in means between male participants with and without erectile dysfunction (IEEF5) (standard deviation in parentheses).

	Item 1	Item 2	Item 3	Item 4	Item 5
No ED (n = 95)	2.75 (1.01)	1.79 (1.03)	2.56 (0.90)	2.56 (0.95)	2.13 (0.96)
ED (n = 39)	2.44 (0.88)	1.72 (0.92)	2.49 (0.91)	2.49 (1.13)	1.85 (0.90)
	F(1.132) = 2.82	F(1.132) = 0.14	F(1.132) = 0.17	F(1.132) = 0.33	F(1.132) = 2.44
	P = .095	P = .707	P = .681	P = .568	P = .121

Do you feel you have experienced increased tension in the penis and glans (or increased tension in the clitoris in the female version) due to pelvic floor contraction. There are no statistically significant differences in any item between males with and without ED.

**Table 3.**Differences in means between male participants with and without premature ejaculation (PE) (standard deviation in parentheses).

	Item 1	Item 2	Item 3	Item 4	Item 5
No PE (n = 105)	2.70 (0.98)	1.74 (1.00)	2.55 (0.90)	3.10 (0.96)	1.99 (0.92)
PE (n = 29)	2.48 (0.99)	1.86 (0.99)	2.48 (0.91)	2.86 (1.16)	2.24 (1.02)
	F(1.132) = 1.16	F(1.132) = 0.32	F(1.132) = 0.14	F(1.132) = 1.32	F(1.132) = 1.60
	P = .283	P = .570	P = .713	P = .252	P = .209

Do you feel you have experienced increased tension in the penis and glans (or increased tension in the clitoris in the female version) due to pelvic floor contraction. There are no statistically significant differences in any item between males with and without PE.

The differences in mean arousal were significant for all the questions asked: males expressed more frequent contraction in Item 1 ("When your partner dresses in a sexually provocative manner") (M = 2.06 vs. 1.46 (F(1.268) = 91.90, p < .001); Item 2 ("When you encounter a particularly attractive woman/man") (M = 1.77 vs. 1.28 (F(1.268) = 15.73, p < .001); Item 3 ("When you see an erotic scene (e.g.,

a film)") (M = 2.54 vs. 2.28 (F(1.268) = 4.92, p = .027); Item 4 ("When your partner sends you sexually provocative photos") (M = 3.05 vs. 1.81 (F(1.268) = 72.25, p < .001); Item 5 ("When you see a particularly attractive woman/man, do you immediately feel the desire to have sexual intercourse.") (M = 2.04 vs. 1.12 (F(1.268) = 69.46, p < .001).

The Analysis of Variance was then applied to compare healthy subjects with those having sexual disorders as defined by the test. For both erectile dysfunction (ED) and premature ejaculation (PE) (see Tables and Figures 2, 3) the comparison between normal male subjects and those with one or more pathological test results concerning the responses to the five questions did not show statistically significant differences.

Regarding desire disorder, statistically significant differences were found in arousal in the questions related to "When your partner dresses in a sexually provocative manner" and "When my partner sends me sexually provocative photos", that is, in questions related to one's partner. In both cases, those without a desire disorder reported a higher degree of arousal compared to those with

a desire disorder (see Table and Figure 4). For Item 1 ("When your partner dresses in a sexually provocative manner") (M = 2.70 vs. 1.86 (F(1.132) = 5.05, p = .026) and for Item 4 ("When your partner sends you sexually provocative photos") (M = 3.09 vs. 2.29 (F(1.132) = 4.40, p = .038)). This section is limited to men who answered questions q11 and q 12 of the IIEF-15 questionnaire.

4,00 3,50 3,00 2.75 2,56 2.49 2,56 2.49 2.50 2,13 1,79 1,72 1.85 2.00 1.50 1.00 0,50 0,00 item 5 item 1 item 2 item 3 item 4 ■NO E.D. ■E.D.

4,00 3,50 3,10 2.86 3,00 2,70 2,48 2,55 2.48 2.50 1.99 1,74 1,86 2.00 1.50 1.00 0.50 0.00 item 1 item 2 item 4 item 5 item 3 NO P.E. P.E.

Figure 2.

Differences in means between male participants with and without erectile dysfunction (IEEF-5).

Do you feel you have experienced increased tension in the penis and glans (or increased tension in the clitoris in the female version) due to pelvic floor contraction.

There are no statistically significant differences in any item between males with and without ED.

Figure 3.

Differences in means between male participants with and without premature ejaculation (PE) (standard deviation in parentheses).

Do you feel you have experienced increased tension in the penis and glans (or increased tension in the clitoris in the female version) due to pelvic floor contraction.

In all Items there is no statistical difference between respondents with PE and non-PE.

**Table 4.**Differences in means between male participants with and without desire disorder (standard deviation in parentheses).

	Item 1	Item 2	Item 3	Item 4	Item 5
Without desire disorder (n = 127)	2.70 (0.94)	1.80 (1.00)	2.54 (0.89)	3.09 (0.95)	2.07 (0.95)
With desire disorder (n = 7)	1.86 (1.34)	1.14 (0.99)	2,43 (1.13)	2.29 (1.70)	1.57 (0.79)
	F(1.132) = 5.05 P = .026	F(1.132) = 2.96 P = .088	F(1.132) = 0.11 P = .744	F(1.132) = 4.40 P = .038	F(1.132) = 1.85 P = .176

Do you feel you have experienced increased tension in the penis and glans (or increased tension in the clitoris in the female version) due to pelvic floor contractio. In this section limited to men who answered to question q11 and q12 of the IIEF-15 questionnaire there is statistical different significant in Item 1 and Item 4 between men with an without desire disorders.

**Table 5.**Differences in means between female participants regarding female sexual dysfunctions (FSD) (standard deviation in parentheses).

	Item 1	Item 2	Item 3	Item 4	Item 5
No FSD (n = 98)	1.66 (1.03)	1.30 (1.01)	2.43 (0.93)	2.03 (1.33)	1.20 (0.88)
FSD (n = 38)	0.92 (1.00)	1.24 (1.10)	1.89 (1.11)	1.24 (1.12)	0.89 (0.83)
	F(1.134) = 14.37	F(1.134) = 0.89	F(1.134) = 8.07	F(1.134) = 10.52	F(1.134) = 3.46
	P < .001	P = 0.76	P = .005	P < .001	P = .065

Do you feel you have experienced increased tension in the penis and glans (or increased tension in the clitoris in the female version) due to pelvic floor contraction. The difference between female with and with FSD has been statistically significant in Items 1, 3 and 4.

Regarding the comparison of normal female subjects with those having FSDI-6 (female sexual dysfunction) or FDSS-R (distress) pathological, the results indicated some statistically significant differences (see Tables and Figures 5, 6). In particular, females without disorders exhibited higher arousal, except for item 2 ("When you encounter a particularly attractive woman/man"). For these items, women without sexual disorders showed a higher degree of arousal: in this case, females expressed more arousal in Item 1 ("When your partner dresses in a sexually provocative manner") (M = 1.66 vs. 0.92 (F(1.134) = 14.37, p < .001); Item 3 ("When you see an erotic scene (e.g., a film)") (M = 2.43 vs. 1.89 (F(1.134) = 8.07, p = .005); Item 4 ("When your partner sends you sexually provocative photos") (M = 2.03 vs. 1.24 (F(1.134) = 3.46, p < .001).

Regarding female sexual distress (see Table and Figure 5), no statistically significant differences were recorded except for Item 3 ("When you see an erotic scene (e.g., a film)"). In this case, women with a sexual disorder showed a greater pelvic floor contraction associated with viewing these erotic scenes (M = 2.51 vs. 2.08 (F(1.134) = 6.26, p = .01).

The results indicate that there are no differences among men between those without sexual disorders and those with ED or PE. However, some statistically significant differences emerge in the greater arousal of those without desire disorders related to pelvic floor contraction during visual erotic stimuli experienced with their partner.

Regarding the female sample, respondents with sexual dysfunction showed a greater contraction in normal subjects compared to those with sexual disorders (similar to what was observed in the male sample). However, female respondents with sexual distress exhibited higher con-

3,50 3.09 3,00 2.70 2,54 2,43 2.50 2.29 2,07 2.00 1.80 1.57 1,50 1 14 1,00 0,50 0,00 item 1 item 2 item 5 item 4 ■NORMAL DES ■LOW DES

4,00 3,50 3.00 2,43 2.50 2.03 2,00 1,30 1,24 1.50 1,20 0.92 0.89 1.00 0.50 0.00 item 1 item 2 item 4 item 5 item 3 ■NO F.S.D. ■F.S.D.

**Figure 4.**Differences in means between male participants with and without desire disorder.

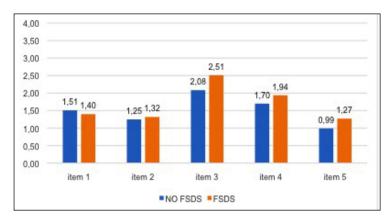
Do you feel you have experienced increased tension in the penis and glans (or increased tension in the clitoris in the female version) due to pelvic floor contraction.

In this section limited to men who answered to question q11 and q12 of the IIEF-15 questionnaire there is statistical different significant in Item 1 and Item 4 between men with and without desire disorders.

**Figure 5.**Differences in means between female participants regarding Female Sexual dysfunctions (FSD).

Do you feel you have experienced increased tension in the penis and glans (or increased tension in the clitoris in the female version) due to pelvic floor contraction.

The difference between female with and with FSD has been statistically significant in Items 1, 3 and 4.



**Table 6.**Differences in means between female participants regarding female sexual distress (FSDS).

	Item 1	Item 2	Item 3	Item 4	Item 5
No FSDS (n = 73)	1.51 (1.06)	1.25 (1.02)	2.08 (1.01)	1.70 (1.36)	0.98 (0.92)
FSDS (n = 63)	1.40 (1.10)	1.32 (1.04)	2.51 (0.96)	1.94 (1.28)	1.27 (0.81)
	F(1.134) = 0.35	F(1.134) = 0.16	F(1.134) = 6.26	F(1.134) = 1.09	F(1.134) = 3.59
	P = 0.55	P = 0.69	P = 0.01	P = 0.30	P = 0.06

Do you feel you have experienced increased tension in the penis and glans (or increased tension in the clitoris in the female version) due to pelvic floor contraction. The difference between females with and with FSDS has been statistically significant only in Items 1.

traction values compared to those without sexual distress. Overall, there is a tendency in both male and female samples to show greater tension in the penis or clitoris due to pelvic floor contraction in normal subjects compared to pathological ones, except in the case of female sexual distress, where the trend is reversed.

## DISCUSSION

A first consideration arising from these data is inspired by numerous studies that have highlighted that, in the psychophysiological response to erotic stimuli, there is a correlation between genital arousal and its simultaneous conscious perception (7). This agreement between genital sexual response and its perception is much more frequent in men than in women (7), and there is a difference between women with sexual dysfunction and those without (18).

These studies have never clarified the potential anatomical structure that enables this agreement in the perception of arousal in men. According to our study, what facilitates the perception of arousal is the contraction of the pelvic floor, which in turn triggers the sexual response, generating a need for sexual activity. The initial hypothesis is based on the idea that, following visual or psychosensory sexual stimulation, the psychophysiological response initiates, like a neurophysiological reflex, the contraction of the pelvic floor, specifically the bulbourethral, bulbocavernosus, and ischiocavernosus muscles. The reflex contraction of these muscles would cause a "squeezing" of the corpus spongiosum of the urethra and the corpus cavernosum, leading to the perception of arousal.

Consequently, the individual might seek a solution for this arousal, experiencing an urgent desire for sexual

#### Figure 6

Differences in means between female participants regarding Female Sexual Distress (FSDS).

Do you feel you have experienced increased tension in the penis and glans (or increased tension in the clitoris in the female version) due to pelvic floor contraction.

The difference between females with and with FSDS has been statistically significant only in Items 1.

activity, similar to the need to urinate or defecate when the bladder or rectum is full.

These findings could explain the difference in sexual response behaviors between men and women, as demonstrated in anatomical studies of the anterior pelvic floor. The male pelvic floor muscles are significantly stronger and more effective in contracting the corpus spongiosum of the urethra and the corpus cavernosum than the thin muscle fibers of the female pelvic floor, which reach only a small portion of the clitoral cavernous bodies (19).

Furthermore, continuing with the analysis suggested by these data, it is useful to consider the epidemiological data on pelvic floor disorders, which reinforce our observations. It is well-documented in medical literature that pelvic floor disorders are more common among women (20) and are associated with female sexual dysfunction (21).

Finally, when analyzing these data, it is important to remember that there are variables not considered in our study that could negatively influence the observed results, such as the cultural differences that lead women to express their sexual preferences and arousal less frequently in public (self-censorship, social modesty). Although this could represent a source of bias, the guarantee of anonymity provided by an online questionnaire may have mitigated this issue (22, 23).

# **C**onclusions

The data presented here highlight a statistically significant difference between heterosexual males and females in the perception of visual arousal and, among females, a statistically significant difference between those with sexual disorders and those without via the pelvic floor muscle contraction. Additionally, there is a difference between males and females in the perception of the urgent need to have sex following visual arousal and pelvic floor contraction. This study aligns and support the hypothesis that the initial response of the male sexual reaction to visual erotic stimuli is mediated by a reflex contraction of the anterior pelvic floor muscles. Furthermore, these data support the hypothesis that there is a difference in visual arousal between males and females, which triggers the so-called "desire" for sex, similar to the perception of an urgent need to urinate or defecate when the bladder or rectum is full.

Further studies, including neurophysiological tests and additional data, are necessary to confirm the hypothesis of the psycho-sensory pelvic reflex in response to erotic stimuli and the new paradigm of human sexual response.

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# Correspondence

Giuseppe La Pera, MD (Corresponding Author) dr.giuseppelapera@gmail.com

Via delle Mura Gianicolensi 67 c/o UPMC Salvator Mundi International Hospital, Rome, Italy

Sabrina Anticoli

Marilena Mangiardi

Stroke Unit - Head Neck and Neuroscience Department San Camillo Hospital, Rome, Italy

Stefano Livi

Social and Developmental Psychology, University of Rome "La Sapienza", Rome, Italy

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