

BODY IMAGE AND PSYCHOSEXUAL FUNCTIONING IN LATE IDENTIFIED INDONESIAN ADULTS WITH A DISORDER OF SEX DEVELOPMENT

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BACKGROUND

In Indonesia, treatment for disorder of sex development (DSD) recently became accessible for a large group of patients.

In these patients, DSD had been identified lately. At admission, patients suffered from genital ambiguity and ambiguous physical appearance due to the development of secondary sex characteristics not in line with the gender of rearing.

OBJECTIVES

To investigate body image and psychosexual functioning in late identified treated and untreated male and female adult Indonesian patients with DSD.

METHODS

Subjects:

22 female patients aged 19-38 (5 treated, 17 untreated)
20 male patients aged 19-41 (12 treated, 8 untreated)
42 healthy controls matched for gender, age and rural or urban living area

Measurements:

- Body Image Scale (BIS¹)
- Female Sexual Distress Scale-Revised (FSDS-R²)
- Female Sexual Functioning Index (FSFI³)
- Male Sexual Health Questionnaire (MSHQ⁴)
- Kinsey Heterosexual-Homosexual Rating Scale⁵⁻⁶

All measurements above had been translated by a certified translator.

RESULTS

Measurement reliability analysis:

Principal component analysis (PCA) for exploratory and confirmatory analysis followed by reliability analysis using Cronbach alpha for internal consistency had been applied.

- BIS: PCA on female scale extracted in four components and 60.48% of the total variance was explained. Cronbach alpha of all items in the female scale $\alpha = .95$; alpha of components ranged from .76 - .09. PCA on the male scale extracted four components and 64.32% of the total variance was explained. Cronbach alpha of all items in male scale $\alpha = .94$; α of components ranged from .77 - .93
- FSDS-R: Cronbach alpha for all items $\alpha = .948$
- FSFI: PCA reduced items into two components: 1) desire-arousal ($\alpha = .820$) and 2) lubrication-orgasm-satisfaction-pain ($\alpha = .953$). 70.34% of the total variance is explained. Cronbach alpha for all items $\alpha = .93$
- MSHQ: PCA reduced the items into four components: 1) erection ($\alpha = .509$), 2) ejaculation ($\alpha = .907$), 3) satisfaction ($\alpha = .868$), and 4) sexual activity and desire ($\alpha = .462$). Cronbach alpha for all items $\alpha = .738$

Comparison analysis:

Fisher Exact test for differences between patient and control groups

Reference:
¹ Lindgren TW & Pauli IB. A body image scale for evaluating transsexuals. *Arch Sex Behav.* 1975;4:639-656

² DeRogatis L, Clayton A, Lewis-D'Agostino A, Wunderlich G, Fu Y. Validation of the Female Sexual Distress Scale-Revised for Assessing Distress in Women with Hypoactive Sexual Desire Disorder. *J Sex Med* 2008;5:357-364

³ Rosen RC. Assessment of female sexual dysfunction: review of validated methods. *Fertil Steril* 2002;77:S89-93

⁴ Rosen RC, Catania J, Pollack L, Althof S, O'Leary M, Seftel AD. Male Sexual Health Questionnaire (MSHQ): scale development and psychometric validation. *Urology*. 2004;64(4):777-82

⁵ Dessens, AB, Cohen-Kettenis PT, Mellenbergh GJ, van de Poll NE, Koppe JG & Boer K. Prenatal exposure to anticonvulsants and psychosexual development. *Arch. Sex Behav.* 1999; 28: 31-44

⁶ Meyer-Bahlburg HFL, Curtis D. The Female Sexual Function Index: A methodological critique and suggestions for improvement. *Journal of Sex and Marital Therapy*. 2007; 33:217-224

⁷ Kinsey A, Pomeroy W, Martin C, & Gebhard P. (1953). *Sexual Behavior in the Human Female*. Philadelphia: Saunders ISBN 978-0253334114

⁸ Kinsey A. *Sexual Behavior in the Human Male* (1948, reprinted 1998)

BODY IMAGE SCALE

Body image Scale - Female

- Due to small number of subjects we modified the 5 point scale into a 3 point scale: satisfaction, neutral, dissatisfaction.
- Females with DSD gave more neutral responses; control females felt more satisfied with their bodies ($p=.13$)
- More females with DSD felt neutral or dissatisfied to body parts characteristic for sex [e.g. breasts, vagina] ($p=.006$)
- More females with DSD felt neutral to body parts not characteristic for their sex (e.g. hair, eyes, weight) ($p=.02$)

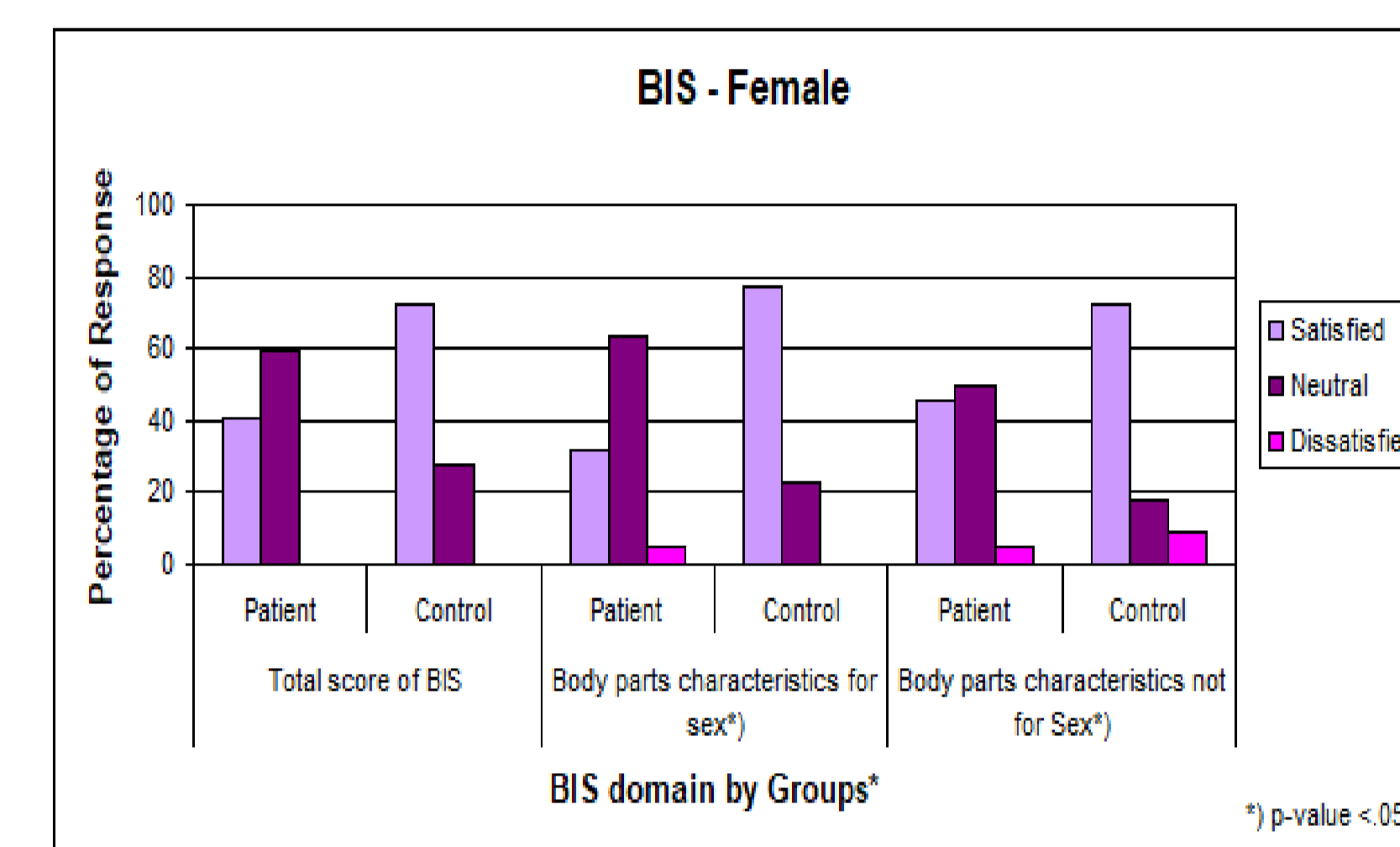


Fig 1. Body Image comparison among female subjects

Body Image Scale Male

- Males with DSD reported more satisfaction with their body image than control males ($p=.31$), in particular to body parts not characteristic for their sex ($p=.41$)
- Males with and without DSD gave neutral responses to body parts characteristic for their sex (e.g. penis, scrotum, body hair) ($p=.012$). Two untreated male patients reported dissatisfaction with body parts characteristics for sex

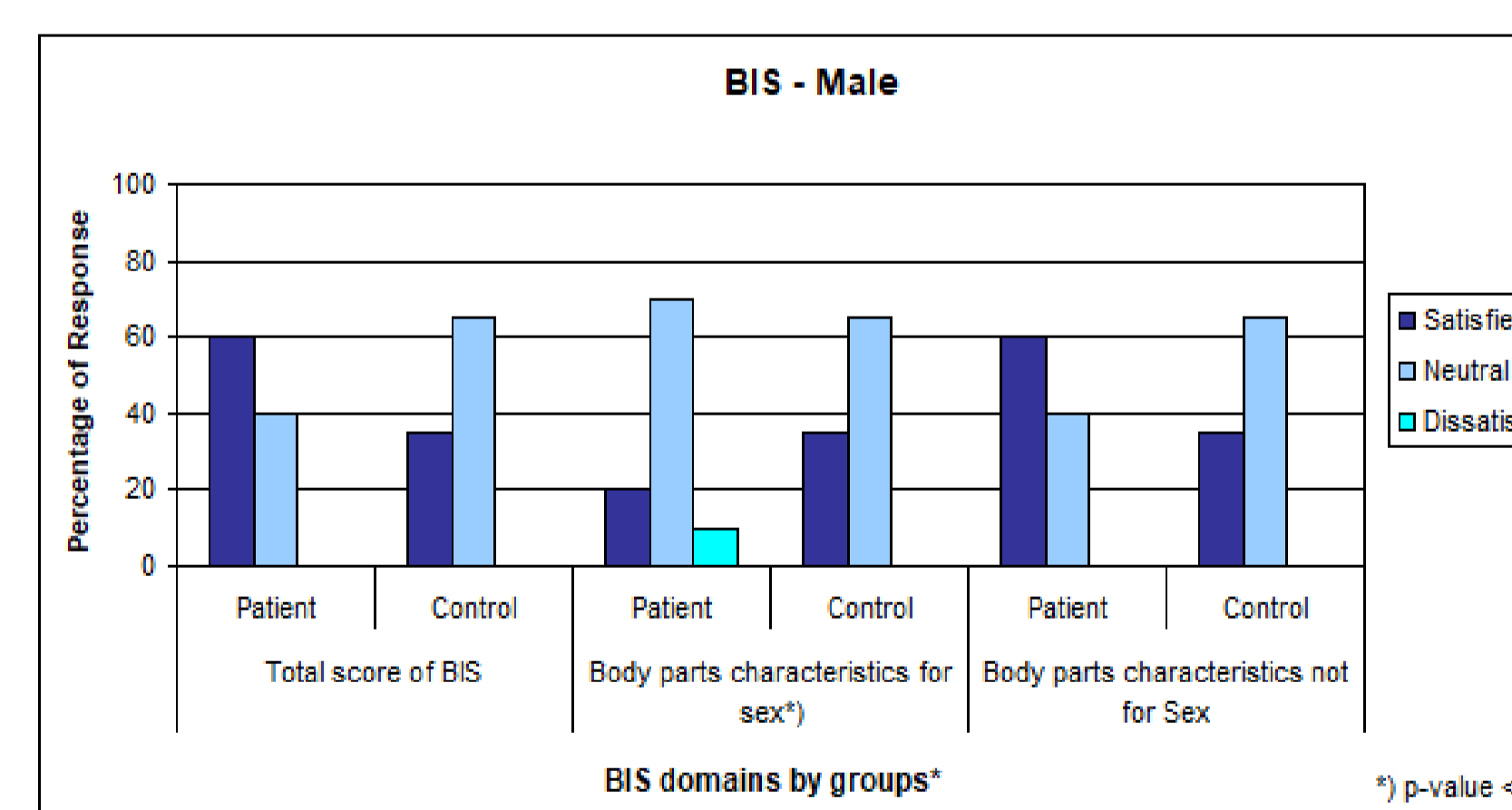


Fig 2. Body Image comparison among male subjects

FEMALE SEXUAL FUNCTIONING: FSFI

- None of the females with DSD had been married or engaged in sexual relationships. Only the domain of sexual desire could be analyzed due to this lack of sexual experience
- Equal numbers of females with DSD reported high sexual desire (36.4%) and no sexual desire (31.8%) whereas equal numbers of control females reported medium or low levels of desire ($p=.001$)

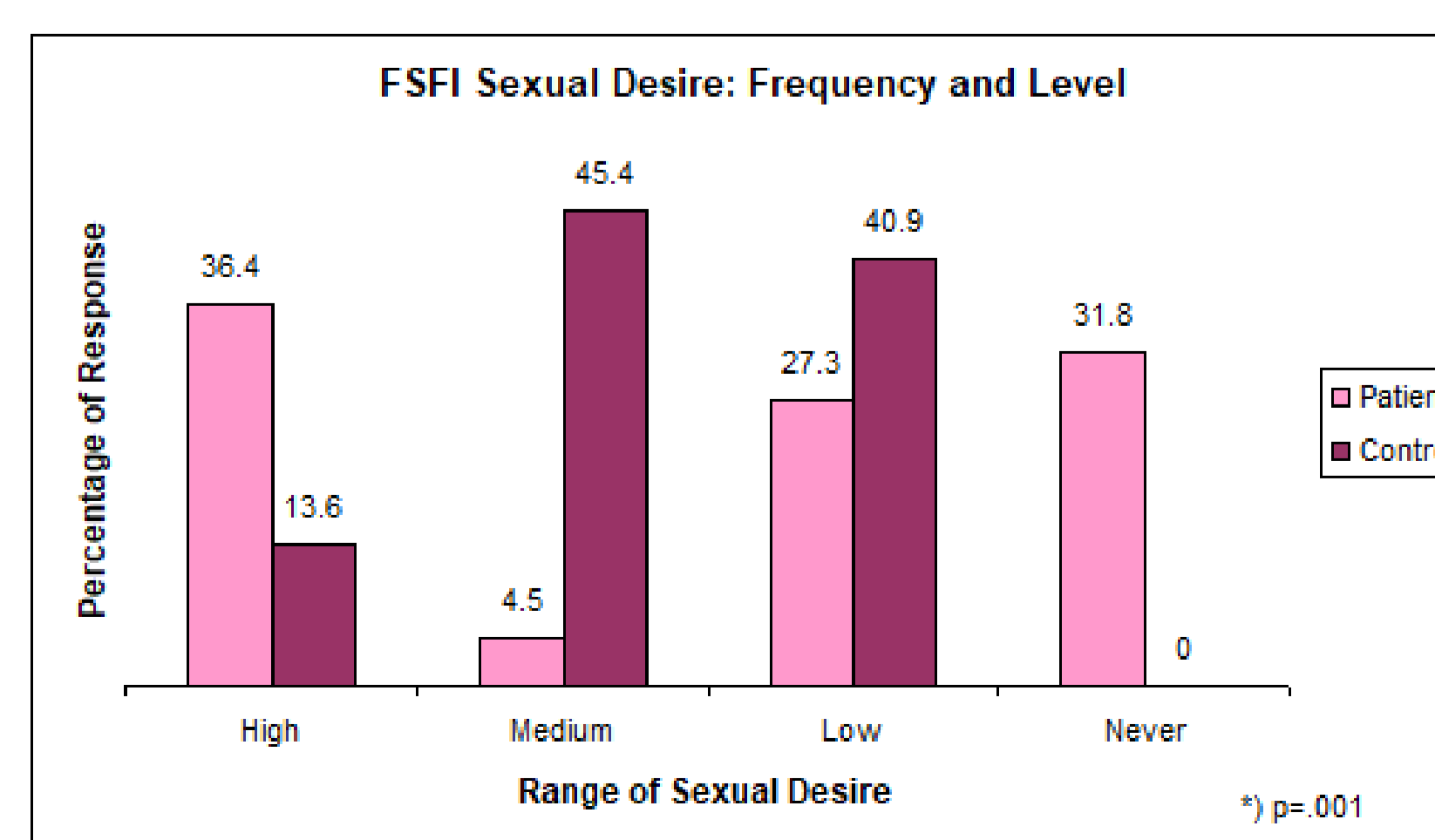


Fig 3. FSFI Sexual Desire reported by groups

FEMALE SEXUAL FUNCTIONING: FSDS-R

- A large number of women with DSD experienced sexual distress ($p=.007$); 15/22 women with DSD and 2/22 controls had total score > 11 (cutoff for sexually distress)
- 86.4% women with DSD reported worries and embarrassment with their sexuality.

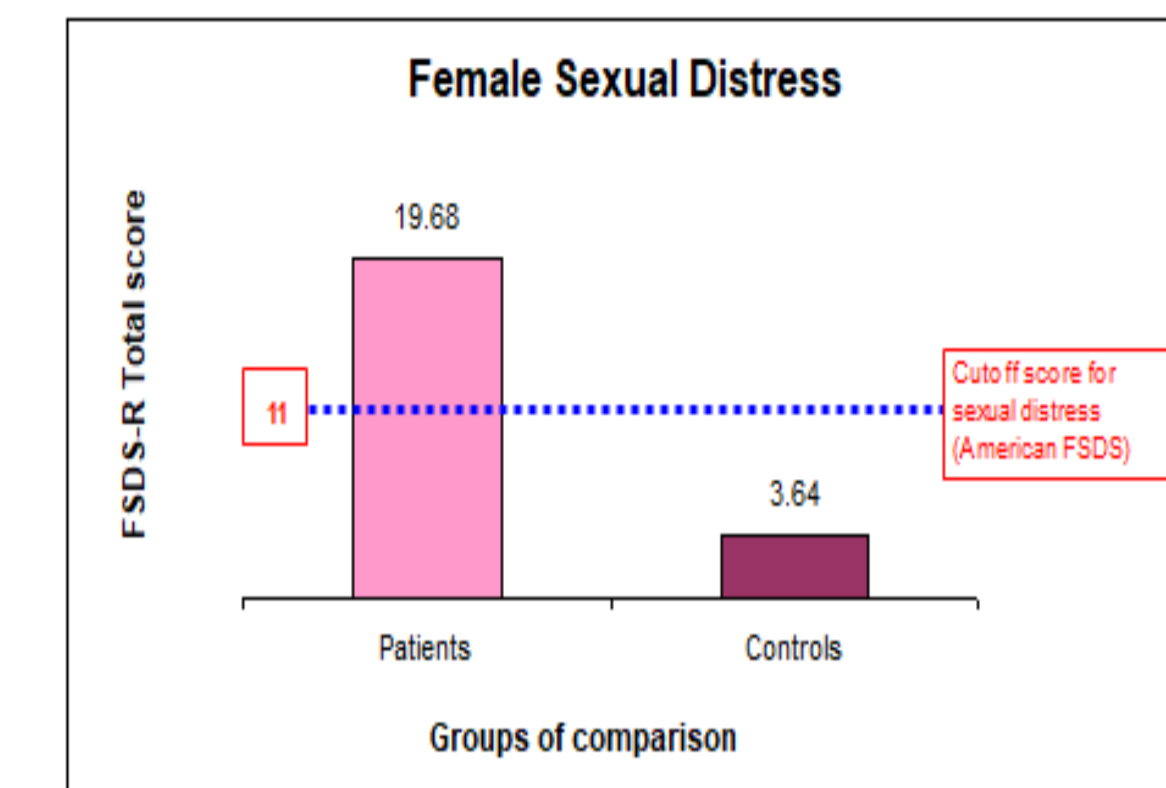


Fig 4. Sexual distress among female groups

MALE SEXUAL FUNCTIONING: MSHQ

- 4/20 male patients and 20/20 controls are married. 2/4 married patients and none of controls reported dissatisfaction with their sexual life.
- More male patients reported dissatisfaction with their sexual life ($p=.00$)
- Male patients and controls reported no differences on sexual desire ($p=.56$), erectile functioning ($p=.06$) and ejaculation ($p=.45$)
- There were no differences found between treated and untreated male patients ($p=.49 - .95$)

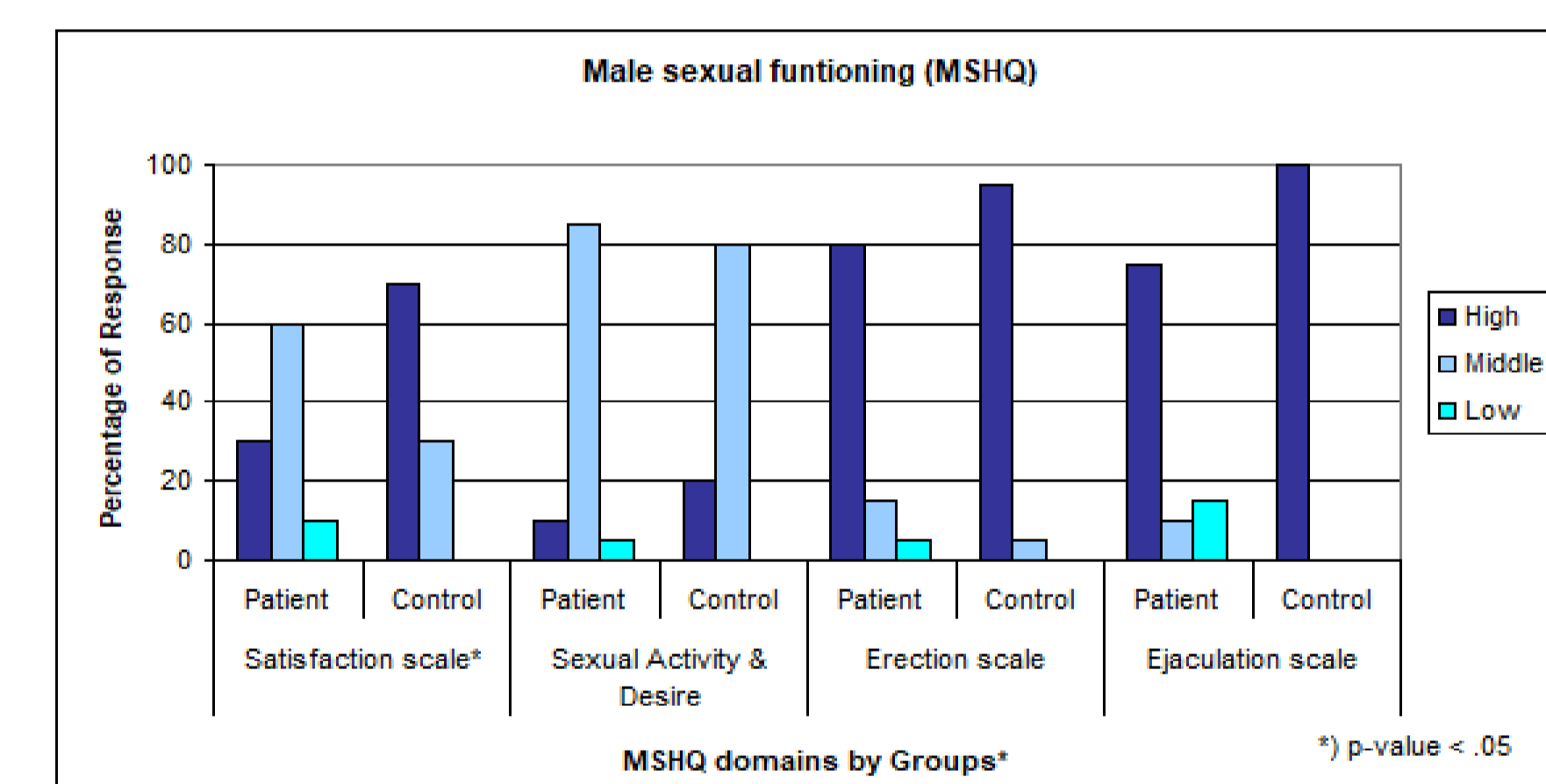


Fig 5. Sexual functioning comparison among male subjects

SEX ORIENTATION (Kinsey Rating Scale)

- 19/22 females with DSD identified themselves as exclusively heterosexual; two females identified themselves as somewhat heterosexual and mostly heterosexual (both experienced gender dysphoria and wanted to be male) and one female could not indicate her sexual identification.
- 18/20 males with DSD identified themselves as exclusively heterosexual, 2/20 as mostly heterosexual
- All control subjects identified themselves as exclusively heterosexual.

CONCLUSION

- Females with DSD were less satisfied with their bodies and experienced more sexual distress than control females.
- Males with DSD felt satisfied with their body. They reported less satisfaction in sexual relationships and more ejaculation problems than control males
- Female subjects were open in disclosing their concern on body ambiguity and sexual functioning while male patients seem to retain such information. Indonesian taboo to discuss sexuality and the female interviewer may have introduced a bias.

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