

Evaluation of sexual dysfunction in women with type 2 diabetes

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INTRODUCTION

- ❖ Diabetes mellitus is a common disease that may impair sexual activity.
- ❖ Among men, diabetes is a recognized risk factor for sexual dysfunction (SD).
- ❖ However, the effect of diabetes on female SD is poorly understood, with very little research examining whether rates of sexual activity differ in diabetic versus non-diabetic women.
- ❖ The aim of our study is to evaluate the prevalence of SD for diabetic women in addition to identify the causative factors contributing to SD among women.

METHODS

- ❖ This is a descriptive case-control study involving 35 women with type 2 diabetes mellitus. They were compared to 35 control women matched for age.
- ❖ The evaluation focused on demographic data, diabetes-related data and standardized measures of female sexuality with the Female Sexual Function Index (FSFI).
- ❖ The FSFI is a known instrument that assesses sexual function for women with six domains: desire, arousal, lubrication, orgasm, satisfaction and pain during sexual intercourse.
- ❖ For women, the minimum and maximum scores are respectively 2 and 36. Women with a score under 26 were classified as presenting SD.
- ❖ Patients excluded from the study:
 - pregnant and post partum women
 - sexual inactive in the past 1 year
 - previously diagnosed with any psychiatric disorder

RESULTS

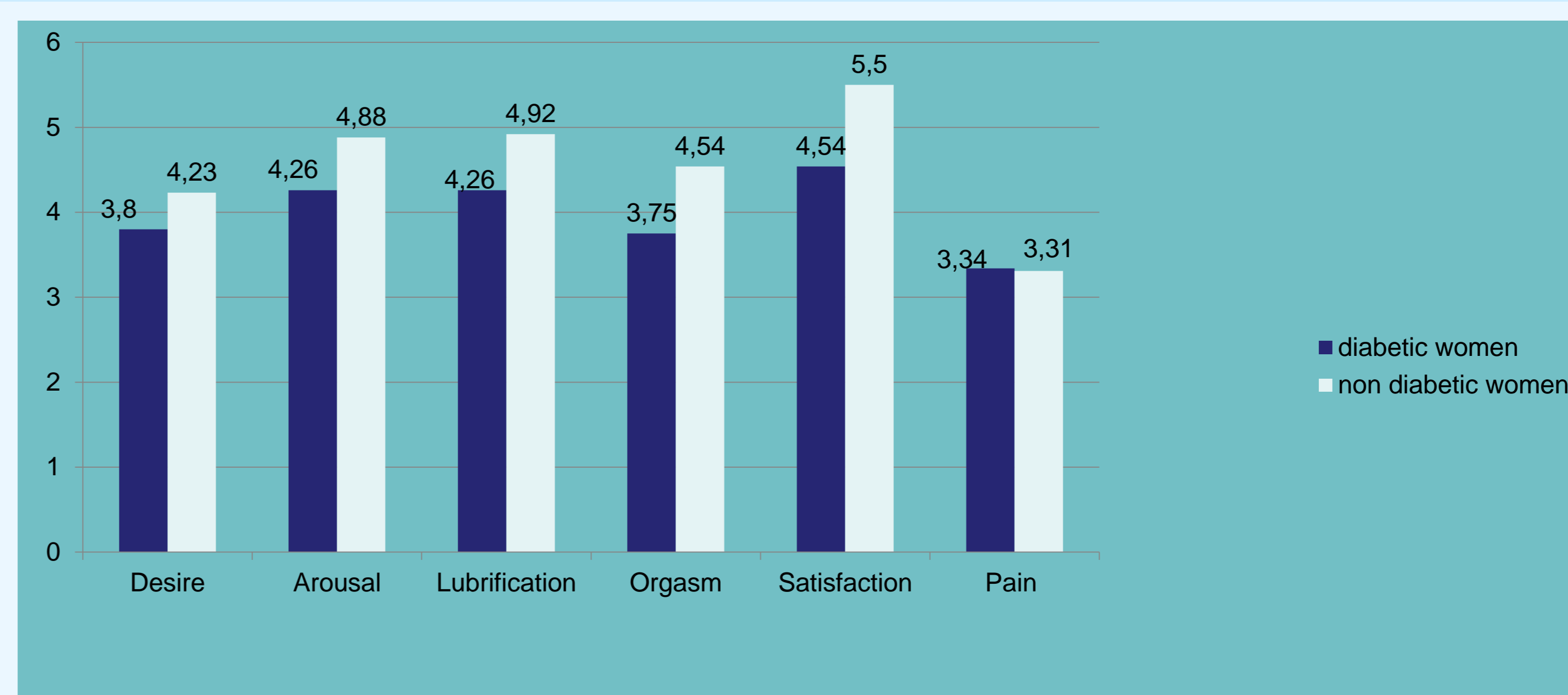
Sociodemographic characteristics of diabetic and non-diabetic women

	Diabetic group (n=35)	Non diabetic group (n=35)	p
Age (years)	50.94±7.63	48.22±6.87	0.16
Origin(%)			
Urban	28.6	22.85	0.24
Rural	71.4	77.15	0.52
Educational level(%)			
Illiterate	14.3	11.4	0.12
Primary education	57.1	51.4	0.43
Secondary education	22.9	28.6	0.32
Higher education	5.7	8.6	
Employment(%)			
Employed	34.3	31.4	0.42
Unemployed	65.7	68.6	0.67

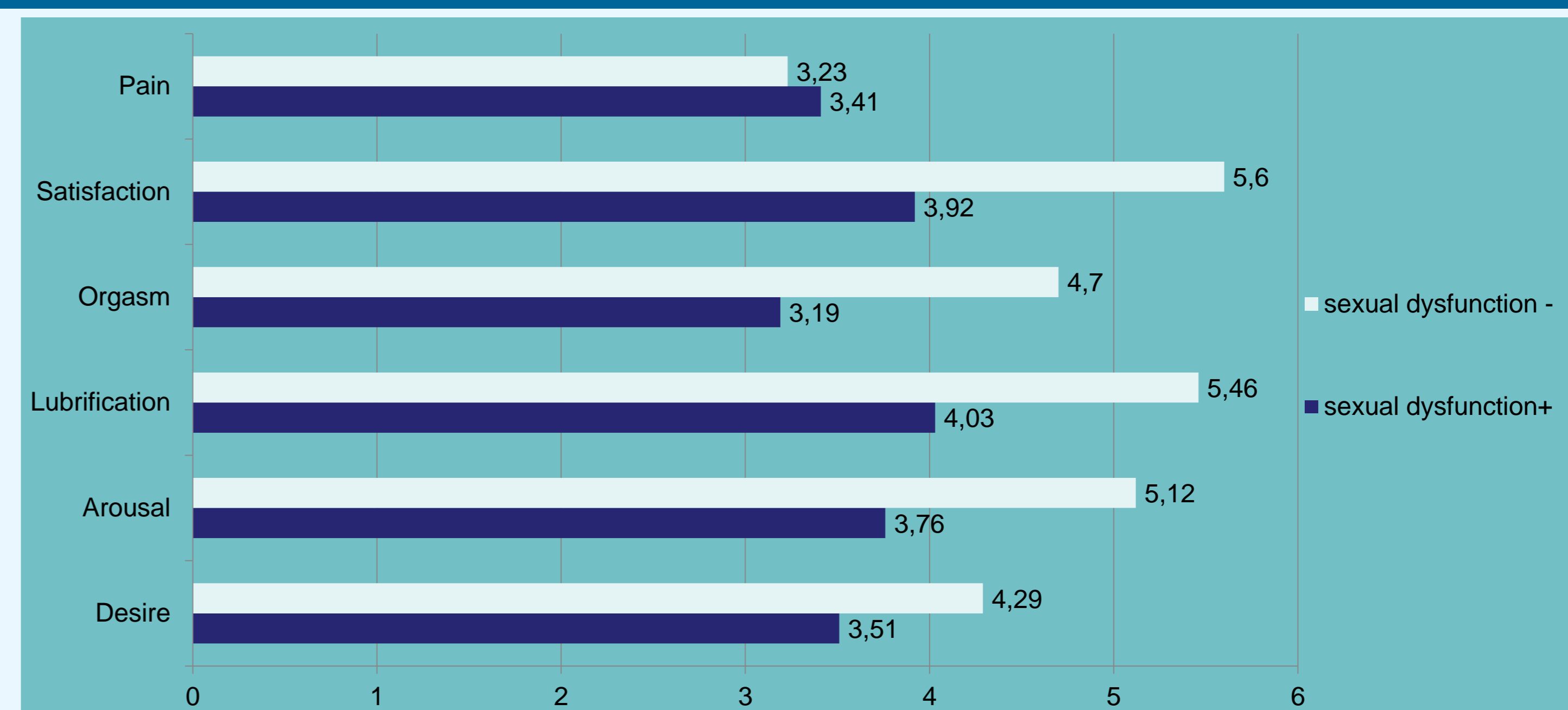
Baseline demographic characteristic and laboratory finding of diabetic women

Parameter	Total(N=35)
Duration of diabetes (years)	26.17±9.35
Duration of marriage(years)	10.51±7.29
Rate of menopause (%)	65.7
Treatment(%)	
oral anti-diabetics	54.3
insuline therapy	45.8
HbA1c (%)	8.86±2.35
BMI (kg/m ²)	28.57±4.33
Metabolic syndrome (%)	60
Microangiopathic complications(%)	57.1
neuropathy	51.4
retinopathy	40
nephropathy	20

The domain involved in sexual dysfunction in diabetic and non-diabetic group based on FSFI score



Comparison of the 6 domains of FSFI in diabetic women SD+ vs SD-



DISCUSSION AND CONCLUSION

- ❖ Diabetes mellitus leads to SD among women and men affecting genital organs.
- ❖ The studies on this issue indicate that diabetic women are at risk as much as men in terms of SD.
- ❖ When the literature is reviewed, it is seen that there are different findings with SD prevalence among diabetic women and this prevalence is estimated to be between 20 to 80% . In our study, it was 62%.
- ❖ For diabetic women, we found a significant reduction in the total score on the FSFI and in most of the items canvassed (desire, arousal, lubrication, orgasm and satisfaction) when compared with the control group.
- ❖ This reduction could be due to metabolic and neurovascular factors responsible for the development of complications of diabetes.
- ❖ In fact, it has been hypothesized that hyperglycemia, by reducing hydration of the mucus membranes, including those in the vaginal tissue, results in poor vaginal lubrication and dyspareunia.
- ❖ In addition, vascular damage may change the local blood flow and inhibition of the clitoris engorgement and vaginal lubrication during arousal ,resulting in dyspareunia
- ❖ Effect of glycemic control on rates of SD is also controversial. In our study, we found no significant association between HbA1c and SD ($P = 0.09$). Considering chronic nature of sexual dysfunction, prolonged evaluation of glycemic control may provide more reliable results.
- ❖ Another finding was considering the impact of diabetes duration on SD. Some studies confirmed it while others did not confirm it .In our study, it was noted that there was a positive correlation between duration of diabetes and SD($P=0.013$). As the diabetes duration prolonged, so did SD prevalence.
- ❖ One of the discussed issues is the effect of other chronic diabetic complications like retinopathy and nephropathy on SD and considering them as risk factors for this complication .
- ❖ Determinants of sexual function include duration of diabetes and diabetic complications.
- ❖ In the meantime, assessment of female sexuality should become a routine evaluation for women with diabetes, such as other diabetic complications.