

## EFFECT OF MODE OF DELIVERY ON COUPLE'S SEXUAL FUNCTION

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### Abstract

**Aim:** This study aimed to assess the effect of mode of delivery on couple's sexual function. **Methods:** Descriptive study design was utilized at Mansoura University Hospital, Mansoura, Egypt. A purposive sample technique consisted of 150 women worked at Mansoura University Hospital (75 for each group of vaginal delivery and caesarean section) and their husbands subjects selected according to inclusion criteria. Data collection lasted 6 months by using (Structured Interview Schedule, Female Sexual Function Index and Male Sexual Function Questionnaire to measure sexual function of the wife and the husband). **Results:** There were a significant differences between mode of delivery and sexual function of the wives in respect of sexual desire ( $P=0.010$ ), sexual arousal ( $P=0.025$ ), and orgasm ( $P=0.003$ ) and highly significant difference regarding feeling of difference in the vaginal opening ( $P=0.001$ ). Moreover, there were a significant correlations between mode of delivery and sexual function of the husbands in terms of ejaculation ( $P=0.005$ ) and level of satisfaction ( $P=0.040$ ) and highly significant correlation regarding sexual desire ( $P=0.001$ ) and feeling of difference in the vaginal opening ( $P=0.001$ ). **Conclusion:** There were associations between mode of delivery and sexual function of the couple, where caesarean delivery had the better effect on the sexual function than vaginal delivery with and without episiotomy. **Recommendations:** Health education classes should be implemented for pregnant women regarding the advantages and disadvantages of vaginal and cesarean delivery and Postpartum sexual counseling should be a part of postnatal follow-up.

**Key words:** *Mode of Delivery, Couple, Sexual Function.*

### Introduction:

Pregnancy and delivery are one of the most important events in the life of women (El Sayed et al., 2017). Today, one of the most common surgeries for women are non-emergency cesarean deliveries, and the rate of performing this type of delivery is increased because of many reasons, involving the demand of the mother, although, cesarean section in some circumstances become a saving life method, but performing it without any indication, is not a good matter due to the intense complications that can result from it, also, it increase the financial burdens on the families (Malchi et al., 2016).

Fearing of the effects of vaginal delivery on postpartum sexual function, women turn to choose cesarean delivery to avoid these impacts (Lurie et al., 2013).

The attitudes of sex vary from enjoyable to frustrating, and these attitudes affected by many factors (Georgiadis et al., 2012). The periodical cycle of behaviors and events that can lead to reproduction (sexual pleasure cycle) is termed by the core of sexual behaviors (Georgiadis&Kringelbach, 2012).

The sexual response cycle pass through many psychophysiological changes which involve a transitory sequencing of several phases that goes in

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harmony, involving sexual desire, arousal, orgasm and satisfaction, but any disturbance in this cycle leads to what known as sexual dysfunction, which in turn cause interpersonal problems and feeling of distress (**Tehrani et al, 2014**).

Postpartum sexual function is affected by many considerable variations in hormonal midst, anatomy, family composition, partner relationships, and also the childbirth effects on female genitalia which cause remarkable physical changes (**Leeman& Rogers, 2012**).

Child birth is an influential and mutual agent that is noticed to has debatable impacts on sexual function, whilst, there is a fluctuation within 6 months after delivery in the sexual function which improves gradually (**Ghorat et al, 2017**).

The initiation of sexual activity occurs through the first three months after childbirth in about 80% to 93% of women, during this time; sexual dysfunctions like pain, decreased libido, decreased orgasm, and vaginal dryness are experienced by two-thirds of women (**Hosseini et al, 2012**).

The medical team and the couples often ignore the relation between mode of delivery and its effect on sexual function due to focusing on good obstetric outcomes and the new role of the parents which gives feelings of anxiety and excitement, but, in the same line there are many physicians and couples are attentive to the passive effects on sexual function resulting from vaginal delivery, and as a consequence of this, the new turn nowadays is being toward to caesarean section C.S to have more good sexual function, also the effect of vaginal delivery on the tightness of the vaginal muscle and its impact on sexual function, make the choice of caesarean section more favorable to many women (**Kahramanoglu et al, 2017**).

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### **Aim of the study**

This study aimed to assess the effect of mode of delivery on couple's sexual function.

### **Subjects and method**

Descriptive study design was utilized at Mansoura University Hospital, Mansoura, Egypt. A purposive sample technique of 150 women worked at Mansoura University Hospital (75 for each group of vaginal delivery and caesarean section) and their husbands was recruited from the beginning of March 2017 to the end of August 2017 (6 months).

### **Tools of Data Collection**

Three tools were used for data collection as follows:

#### **Tool 1: Structured Interview Schedule:**

This tool was prepared by the researcher. It was composed of three parts to assess the following:

- General characteristics of the wife such as (age, educational level, occupation, age of marriage, type of housing, economic status).
- Previous reproductive history such as (gravidity, parity, mode of delivery, number of living children).
- General characteristic of the husband such as (age, level of education, age of marriage).

#### **Tool 2: Female Sexual Function Index (FSFI):**

It was adapted from the female sexual function index (Rosen R, et al., 2000) to assess sexual function of the wife. It consisted of nine questions to assess the six domains of sexual function (desire, arousal, lubrication, orgasm, satisfaction, and pain), in addition to level of satisfaction, presence of difference in the vaginal opening and its effect on sexual relationship.

#### **Tool 3: Male Sexual Function Questionnaire:**

It was prepared by the researcher to assess sexual function of the husband. It consisted of seven questions to assess

**sexual desire, ejaculation, frequency of intercourse, presence of difference in the vaginal opening of the wife and its effect on sexual relationship, satisfaction, and level of satisfaction.**

**Ethical approval**

Ethical approval was taken from the research ethics committee at Faculty of Nursing and the manager of Mansoura University Hospital, Mansoura, Egypt. The researcher introduced herself to the women and their husbands (if they worked with them in the hospital) and the aim of the study was clarified before their participation to get their approval & cooperation as an informed consent. The participants were reassured about the confidentiality & safety of the collected information throughout the entire research. The participants were aware of their rights to reject the participation or withdraw at any time from the research.

**Field study**

Pilot study phase was performed for one month at Mansoura University Hospital on 10% of the sample size and was excluded from the sample, to test the applicability & relevance of the research tool & the clarity of the designed questionnaire and the required modifications were made. The actual field work of the research lasted for

six months started from the beginning of March 2017 to the end of August 2017 to collect the data needed for the assessment of effect of mode of delivery on couple's sexual function. The collection of data was done through three days per week.

**Results**

One hundred and fifty women and their husbands were divided into two groups of vaginal delivery (with and without episiotomy) and caesarean section, and the study results revealed significant differences as presented in the following:

**Table 1** presents that there were statistical significance differences between mode of delivery and the sexual function of the wives regarding sexual desire ( $P=0.010$ ), sexual arousal ( $P=0.025$ ), and orgasm ( $P=0.003$ ) and highly statistical significance difference regarding feeling difference in the vaginal opening ( $P=0.001$ ).

**Table 2** indicates that there were statistical significance differences between mode of delivery and the sexual function of the husbands regarding ejaculation ( $P=0.005$ ) and level of satisfaction ( $P=0.040$ ) and highly statistical significance differences regarding sexual desire ( $P=0.001$ ) and feeling of difference in the vaginal opening ( $P=0.001$ ).

**Table 1.** The Association between Modes of Delivery and Sexual Function of the Wives after Delivery

Sexual variables	Vaginal delivery (n=75)				Caesarean Delivery (n=75)		Chi square test	
	with episiotomy		without episiotomy		No.	%	X <sup>2</sup>	P
	No.	%	No.	%				
Desire / Feeling difference in sexual desire								
No change	25	46.3	11	52.4	50	66.7	13.313	0.010*
Decrease in libido	27	50.0	9	42.9	16	21.3		
Increase in libido	2	3.7	1	4.8	9	12.0		
Arousal / Feeling difference in sexual arousal								
No change	25	46.3	12	57.1	50	66.7	11.122	0.025*
Decrease	26	48.1	8	38.1	16	21.3		
Increase	3	5.6	1	4.8	9	12.0		
Lubrication / Difficulty in lubrication in the genital area								
No	44	81.5	16	76.2	57	76.0	0.596	0.742
Yes	10	18.5	5	23.8	18	24.0		
Orgasm / Difficulty in reaching orgasm								
No	34	63.0	15	71.4	66	88.0	11.376	0.003*
Yes	20	37.0	6	28.6	9	12.0		
Satisfaction / Satisfaction about sexual relationship								
No	5	9.3	3	14.3	9	12.0	0.446	0.800
Yes	49	90.7	18	85.7	66	88.0		
Level of satisfaction about sexual relationship								
Strong	12	22.2	4	19.0	22	29.3	2.041	0.728
Moderate	35	64.8	13	61.9	45	60.0		
Weak	7	13.0	4	19.0	8	10.7		
Pain / pain with intercourse								
No	27	50.0	12	57.1	49	65.3	3.067	0.216
Yes	27	50.0	9	42.9	26	34.7		
Feeling difference in the vaginal opening during intercourse								
No change	16	29.6	5	23.8	68	90.7	65.413	0.001**
Narrow	9	16.7	1	4.8	2	2.7		
Wide	29	53.7	15	71.4	5	6.7		
Effect of difference in the vaginal opening on sexual relationship (n=61)								
No	21	55.3	9	56.2	5	71.4	0.643	0.725
Yes	17	44.7	7	43.8	2	28.6		

**Table 2.** The Association between Modes of Delivery and the Sexual Function of the Husbands after Delivery of the Wives

Sexual variables	Vaginal delivery (n=75)				Caesarean Delivery (n=75)		Chi square test
	with episiotomy		without episiotomy				
	No.	%	No.	%	No.	%	X <sup>2</sup> P
Feeling difference in sexual desire							
No change	28	51.9	12	57.1	59	78.7	19.388
Decrease in libido	18	33.3	7	33.3	4	5.3	0.001**
Increase in libido	8	14.8	2	9.5	12	16.0	
Difficulty in the occurrence of ejaculation							
No	47	87.0	20	95.2	75	100.0	10.465
Yes	7	13.0	1	4.8	0	0.0	0.005*
Presence of difference in the frequency of intercourse							
No	27	50.0	10	47.6	44	58.7	5.093
Decrease	16	29.6	8	38.1	13	17.3	0.278
Increase	11	20.4	3	14.3	18	24.0	
Feeling difference in the vaginal opening during intercourse							
No change	19	35.2	6	28.6	73	97.3	71.001
Narrow	7	13.0	1	4.8	1	1.3	0.001**
Wide	28	51.9	14	66.7	1	1.3	
Effect of difference in the vaginal opening on sexual relationship (n=52)							
No	22	62.9	7	50.0	2	100.0	2.036
Yes	13	37.1	7	50.0	0	0.0	0.361
Satisfaction about sexual relationship with the wife							
No	7	13.0	3	14.3	4	5.3	2.867
Yes	47	87.0	18	5.7	71	94.7	0.238
Level of satisfaction about sexual relationship							
Strong	14	25.9	3	14.3	32	42.7	10.020
Moderate	33	61.1	15	71.4	40	53.3	0.040*
Weak	7	13.0	3	14.3	3	4.0	

## Discussion

This study aimed to assess the effect of mode of delivery on couple's sexual function.

The finding of this study revealed that there was significant difference between modes of delivery regarding the desire, where the majority of women had shown decreasing in libido in vaginal delivery without episiotomy and vaginal delivery with episiotomy. This result is consistent with *Safarinejad et al., (2009)* who studied the effect of the mode of delivery on the quality of life, sexual function, and sexual satisfaction in

primiparous women and their husbands, he stated that there was significant difference between modes of delivery in terms of the desire where decreasing of the desire had shown a higher rates in spontaneous vaginal delivery and vaginal delivery with episiotomy. This result could be explained by that, delivery may cause hormonal changes and vaginal changes that affect the women's desire.

In the same line, the results of the study showed that, there was significant difference between modes of delivery in considering with sexual arousal, where the group of vaginal delivery with episiotomy

indicated decrease in sexual arousal. This result is in contrast with *Safarinejad et al., (2009)* who stated that a positive association was found between sexual arousal disorders of the studied groups of mode of delivery. This result could be interpreted by that, the performance of episiotomy, also the pain resulted from it, could decrease the body response to sexual stimuli.

The present study revealed that, there was no significant difference between modes of delivery in respect to lubrication in the genital area. This finding is in agreement with *El Sayed et al., (2017)* who found that there was no significant difference between modes of delivery regarding vaginal lubrication.

Also, the study showed that there was significant difference between modes of delivery in terms of orgasm. The result agreed with *Baksu et al., (2007)* who studied the effect of mode of delivery on postpartum sexual functioning in primiparous women, he stated that there was significant difference between studied modes of delivery regarding orgasm.

This is contrary to *El Sayed et al., (2017)* who concluded that there was no significant difference between modes of delivery in respect to orgasm. This finding can be interpreted by that, the pelvic floor muscles affected by the delivery which in turn affect the orgasm.

The finding of the study showed that there was no significant difference between modes of delivery with regard to satisfaction. This result is supported by *El Sayed et al., (2017)* who stated that there was no significant difference between modes of delivery in respect of satisfaction.

Contradictory to this finding, *Safarinejad et al., (2009)* who concluded that there was significant association between the studied modes of delivery regarding satisfaction.

Another result showed that, there was no significant difference between modes of delivery regarding pain with intercourse. This result is parallel with *El Sayed et al., (2017)* who found that there was no significant difference between modes of delivery in respect of pain.

In the same line, the study revealed that there was significant difference between modes of delivery in respect to feeling of difference in vaginal opening (vaginal laxity), where the majority of the wives had felt widening in the vaginal opening in vaginal delivery with and without episiotomy. This result is concurrent with *Dean et al., (2008)* who studied Sexual function, delivery mode history, pelvic floor muscle exercises and incontinence: A cross-sectional study six years post-partum, he stated that the vaginal tone in women who had delivered by caesarean section was more better compared with vaginal delivery. This result could be attributed to that, using of vaginal passage to expel the fetus out during vaginal delivery affect the muscle tone, unlike caesarean delivery.

Concerning the sexual function of the husbands, our study showed significant difference between modes of delivery with respect to desire. This result is parallel with *Safarinejad et al., (2009)* who reported that the sexual desire of the men did differ significantly between the studied groups of modes of delivery. This result could be attributed to that, the physical and emotional effects on the wives resulting from the delivery, in turn affect the men's desire.

On other hand, this is contrary to *Gungor et al., (2008)* who studied Does Mode of Delivery Affect Sexual Functioning of the Man Partner, he stated that there were significant differences between the studied groups of modes of delivery in all dimensions of sexual function.

As regard ejaculation, the current study revealed that there was significant difference between modes of delivery in concerning with the ejaculation of the husbands. Due to the shortage in the researches about the relation between parity and male's sexual function, we didn't find any researches that agree with the current study's finding. This result could be explained by that, the effect of parity on vaginal muscle tone which affects the amount of the grip felt by the partner to reach orgasm and thereby ejaculation.

The results of the study showed that there was significant difference between modes of delivery regarding feeling of difference in vaginal opening (vaginal laxity) where the majority of the husbands had felt widening in the vaginal opening in vaginal delivery with and without episiotomy. Also due to the shortage in the researches about the relation between parity and male's sexual function, we didn't find any researches that agree with the current study's finding. This result could be attributed to that, using of vaginal passage to expel the fetus out during vaginal delivery affect the muscle tone, unlike caesarean delivery.

Contradictory to this finding **Gungor et al., (2008)** stated that there was no significant difference among the studied groups of modes of delivery and vaginal function.

With respect to satisfaction, the study revealed that there was no significant difference between modes of delivery regarding satisfaction. This finding in contrast with **Valadan et al., (2014)** who studied a comparative study on quality of life and sexual function after vaginal delivery and Cesarean section, he reported that husband's satisfaction showed no significant difference between the vaginal and caesarean groups. This is contrary to **Safarinejad et al., (2009)** who reported that the sexual satisfaction of the

men did differ significantly between the studied groups of modes of delivery.

Another result showed that there was significant difference between modes of delivery regarding level of satisfaction. This finding is in accordance with **Gungor et al., (2008)** who reported that there was significant difference among the groups of the study in the mean score of degree of satisfaction.

### Conclusion

There were associations between mode of delivery and sexual function of the couple, where caesarean delivery had the better effect on the sexual function of both wives and husbands than vaginal delivery with or without episiotomy.

### Recommendations

The study recommended that health education classes should be implemented for pregnant women regarding the advantages and disadvantages of vaginal and cesarean delivery and Postpartum sexual counseling should be a part of postnatal follow-up.

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