

## Sexual dysfunctions, depression, anxiety and somatoform disorder among primiparous women with various modes of delivery

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### ABSTRACT

The influence of method of delivery on primiparous women's sexual life and mental health is a significant factor, yet relatively overlooked in Pakistan. The purpose of this study was to examine the occurrence of sexual dysfunctions and depression, anxiety and somatoform among primiparous women. It was a cross sectional (between-group) research design. Three groups of primiparous women i.e. women with normal delivery, operative vaginal delivery and caesarean section were selected via non-probability purposive sampling strategy. A total sample of 180 was taken (Mage= 25.6, SD=3.62) with each group comprised of 60 participants. The measures employed in the current study included Demographic Questionnaire, Female Sexual Functioning Index (FSFI) and Symptom Checklist-Revised (SC-R). Findings yielded through One-way ANOVA indicated that the sexual dysfunctions occurs more in women who have undergone caesarean section as compared to women with normal delivery. Whereas, no profound differences emerged between caesarean section and operative vaginal delivery groups. One-way MANOVA revealed that the probability of depression, anxiety and somatoform disorders was high in caesarean section group as compared to the other two groups. This study has manifold implications for Psychologists, Gynecologists, Social Workers, Policy Makers and other authorities. The current findings call their attention to collaboratively work and identify the potential risk regarding methods of delivery, and in turn take proactive steps to evade excessive surgeries and exterminate the morbidity by devising interventions.

**Keywords:** *Method of Delivery, Sexual Dysfunctions; Depression; Anxiety; Somatoform; Normal Vaginal Delivery; Operative Vaginal Delivery; and Caesarean Section.*

First child birth is typically framed as a positive event in the women's life; therefore, it received little attention in Pakistan regarding the challenges and consequences newly mothers have to bear subsequent to delivery (Shahid, 2013). Women giving birth to a child for the first time (newly mothers) are known as primiparous women; where *Primus* meaning

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“first” and *Parere* meaning “to bring forth” (Lisonkova, Janssen, Sheps, Lee, & Dahlgren, 2010). Mode of delivery i.e. the process through which the primiparous women gives birth, plays a fundamental role in determining her sexual and mental health (Johnson, 2011). Literature suggests that there are three modes of delivery. The natural, simplest and the safest mode is the normal delivery in which women gives birth in a normal way, without forceps/ vacuum extraction (Crane et al., 2013). Operative vaginal delivery is the second most indicated delivery in cases where mother or fetal risk factors are suspected. To enlarge the vaginal opening, a minor operate is performed and sometimes forceps or vaccum device might also be used to extract the fetus from the vagina (Patterson, Winslow & Matus, 2008). Unlike normal delivery, operative vaginal delivery results in perineal tear, poor healing, and prolonged discomfort (Crane et al., 2013). A trial of operative vaginal delivery is only appropriate in conditions where there is need to expedite the birth process and when the probability of success is high (Patterson, Winslow & Matus, 2008). The most difficult delivery that carries significant morbidity and has high maternal mortality rate is the caesarean section (Patterson, Winslow & Matus, 2008). It involves surgical procedure in which fetus is taken by cutting through the walls of the abdomen and uterus. Caesarean section is recommended when the vaginal delivery is deemed unsafe, unsuccessful and unaccepted by the woman (Cargill & MacKinnon, 2004). After caesarean section, there is an increased risk of blood loss, infections, surgical injury to bladder etc. Also, it entails large recovery period and imposes great risk for future pregnancies (Cargill & MacKinnon, 2004).

With respect to anatomical perspective, normal delivery results in extreme stretching and compression of nerve fibers (Avery, Duckett, & Frantzich, 2000) and operative vaginal delivery might cause injury to vascular nerve which has negative impact on neural pathways involved in achieving aroused state and orgasm during sexual activity. Moreover, the pudendal nerve if got damaged during operative vaginal delivery, can impair sexual functioning (Glazener, 1997). Also, hormonal fluctuations and physical changes in female genitalia caused by normal delivery and operative vaginal delivery have influence on women’s postpartum sexual functioning (Glazener, 1997). Furthermore, neuroendocrinological changes (Avery et al., 2001) and hormonal fluctuations (Glazener, 1997) as a result of caesarean section results in decreased sexual desire, dyspareunia, low lubrication, difficulty achieving sexually aroused state and orgasm (Thompson, Roberts, & Currie, 2002). Thus, it is based on the method of delivery that how much time it would take in healing and resuming sexual activity (Barret, Pendry, & Peacock, 2000; Glazener, 1997).

Additionally, the time after the birth of the first child has been viewed challenging for primiparous women as it is the period for onset of various mental disorders (Valdimarsdottir, Hultman, Harlow, Cnattingus, & Sparen, 2009). Some studies found high rate of Depression following caesarean section as compared to normal delivery (Bradley, Ross, & Warnyca, 1983). Likewise, in some studies anxiety levels were seemed high after caesarean section as compared to normal delivery (Trowell, 1982). It was proposed that the hormonal imbalance and the high levels of cortisol after delivery also lead to stress response in primiparous women (Zambaldi et al., 2009). Furthermore, it was reported that among mental disorders in primiparous women with caesarean section; somatoform disorders, mood disorders and stress related disorders are the most common (Sydsjo, Bladh, Lilliecreutz & Persson, 2014). Moreover, somatoform disorders commonly occur in conjunction with epidural anesthesia (during normal delivery and operative vaginal delivery) and spinal anesthesia (during caesarean section) (Sleth, 2010). It has been estimated that the

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risk of developing mental disorders in primiparous women has been seven times higher compared to other times in women's life (Munk-Olsen et al., 2006).

Despite it is evident from the literature (Bradley, Ross & Warnyca, 1983; Jacoby, 1987; Trowell, 1982) that there is high occurrence of mental and sexual disorders in primiparous women with caesarean section; an inflation in rates of caesarean section in Pakistan can be markedly observed in the previous years (Nazir, 2012). According to an estimate, 40% births in Pakistan government hospitals are caesarean section; which exceeds the World Health Organization danger threshold i.e. 15% (Sial, 2012). Despite negative consequences, the upsurge in the number of surgeries performed every year are probably due to its benefits perceived by the mother; it is considered protective and quick procedure, doctors consider it a better way for surgical practice, doctors recommend it even in the case of minor complication and when there is lack of ample staff to look after expecting women (Shahid, 2013). Moreover, private hospitals consider it an easy way to earn more (Sial, 2012). Thus, due to lack of adequate awareness and knowledge regarding mode of delivery and its consequences, many women have to bear its physical and psychological costs. Primiparous women should be properly educated and should be given liberty to make decisions about the type of birth they want to give. Moreover, they should be encouraged to negotiate their problems with their physicians to ensure better sexual and mental health. Hence this study has been designed to explore this limited area of research in Pakistan and to bring the focus of attention of Mental Health Professional and Medical staff to the growing trends towards caesarean section so that this sensitive issue can be addressed and newly mother's sexual and mental health can be resumed.

Hence, it was hypothesized that,

1. Primiparous women with caesarean section are more likely to experience female sexual dysfunctions as compared to women with normal and operative vaginal delivery.
2. Primiparous women with caesarean section are more likely to experience depression, anxiety, and somatoform as compared to women with normal and operative vaginal delivery.

## **METHODOLOGY**

### ***Sample***

A total sample of 180 ( $M_{age} = 25.6$ ,  $SD = 3.62$ ) was recruited via non-probability purposive sampling strategy, from paediatric outdoor patient departments of six government and private hospitals of Lahore, Pakistan. As per G-Power Analysis, based on medium effect size 0.25, sample size of approximately 50 per group was required to achieve power of 95% at an alpha of .05 for an F test. In the current study, there were three groups (primiparous women with normal delivery, operative vaginal delivery and caesarean section) and each group was further comprised of 60 participants.

**Inclusion Criteria.** Participants were screened via Inclusion/ Exclusion Criteria Sheet. Only those participants were included in the study who had given birth to alive, matured (born at 36 weeks or later) and healthy baby (appropriate weight, first cry present, mentally and physically normal etc.) and had given birth 2 months – 12 months back.

**Exclusion Criteria.** All those participants with prior history of miscarriage, abortion, still birth and those whose first child died were excluded from the study. Also the participants

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with precious child (had conceived after 5 or more years of marriage), had test tube baby, had consulted fertility centers; were pregnant; were diagnosed with any sexual dysfunction or mental disorder prior to pregnancy; or who had recently experienced any substantial stressor were not included in the study.

### ***Instruments***

#### **Demographic Questionnaire**

Demographic Questionnaire comprised questions seeking information related to the sample characteristics such as age, education, status of employment, religion, residence, family system, and economic condition. It also included questions such as relationship with husband, attitude of in-laws, how much time after the marriage the participant conceived, gestation period, labour period and how long it took to resume sexual activity after the birth of the first child.

#### **Female Sexual Functioning Index (FSFI)**

It is a 19 item questionnaire that was developed by Rosen et al. (2000), translated into Urdu Language and validated on Pakistani population by Rehman, Mahmood, Sheikh, Sultan, and Khan (2015). It was employed in the study to assess female sexual dysfunctions in primiparous women. The reported internal validity of this scale has been .89 to .97.

#### **Symptom Checklist Revised (SCL-R)**

It was adapted in Urdu by Rahman, Dawood, Jagir, Mansoor and Rehman (2009) and was used to assess depression, anxiety, somatoform among the participant. Three scales of SCL-R were administered on the primiparous women i.e. depression (24 items), anxiety (29 items) and somatoform (34 items). The validity of SCL-R is .40-.60. The reliability range determined by test retest method is .74 – .92.

### ***Procedure***

After seeking permission from Ethical Committee of the Department, permission was sought from the authors to employ the questionnaires in the current study and also approval was sought from the Head of Department of government and private hospitals to collect data. Pilot study was carried out on 15 participants (five participants who underwent normal vaginal delivery, five with operative vaginal delivery and five with caesarean section) in Paediatric Outdoor Patient Department (OPD) of three Hospitals; Jinnah Hospital, Sheikh Zaid Hospital and Services Hospital. The participants were asked about any difficulty they encountered in understanding the questionnaires. Only two participants reported little confusion in comprehending one question of Demographic Questionnaire which was rephrased accordingly.

Following the pilot study, when it was assured that there is no ambiguity left in comprehending the questionnaires, the main study was initiated. The researcher foremost provided the Inclusion/ Exclusion Criteria Sheet to the Pediatricians to refer the primiparas meeting criteria to the researcher. The researcher again screened the participants and only the participants meeting the criteria were debriefed about the research. The participants were ensured regarding the confidentiality of their responses. After seeking participant's consent, questionnaires were orally administered on them in one to one setting. On average, it took 35-45 minutes per participant for completion of questionnaire. Furthermore, the researcher tried her best to collect data in privacy (in a separate room) so that the participant's response might not get influence by external factors such as other's presence. Furthermore, during the

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data collection, researcher also referred some of the participants to Clinical Psychologist for proper sessions who reported high sexual and mental health problems. Overall participant's response rate was 94% and it took four months to complete data collection procedure. The data collection flow chart is shown in figure 1.

### RESULTS

**Table No. 1 Psychometric Properties of the Present Study Measures**

Assessment Measures	<i>k</i>	<i>M</i>	<i>SD</i>	$\alpha$	Range	
					Potential	Actual
Female Sexual Functioning Index	19	25.41	5.56	.97	2-36	2-35
Desire	2	4.28	.91	.89	1.2-6	2-6
Arousal	4	4.38	.98	.92	0-6	0-6
Lubrication	4	4.38	1.09	.94	0-6	0-6
Orgasm	3	4.43	1.09	.92	0-6	0-6
Satisfaction	3	4.59	1.05	.92	0.8-6	1-6
Pain	3	3.36	1.26	.94	0-6	0-6
Symptom Checklist-Revised						
Depression	24	28.94	15.00	.85	0-72	3-61
Anxiety	29	42.02	19.75	.91	0-87	3-87
Somatoform	34	30.38	19.56	.91	0-102	0-85

*Note.* *k*=No. of items, *M*=Mean, *SD*=Standard Deviation,  $\alpha$  = Cronbach's alpha coefficient

Reliability analysis revealed that all sub-scales of Female Sexual Functioning Index (FSFI) i.e. desire, arousal, lubrication, orgasm, satisfaction and pain depicts high reliability i.e. .89, .92, .94, .92, .92, .94 respectively. Likewise, Cronbach's  $\alpha$  for Depression, Anxiety, and Somatoform subscale of Symptom Checklist-Revised also had high reliability .85, .91, and .91 respectively.

**Table No. 2 Differences of Normal Vaginal Delivery, Operative Vaginal Delivery and Caesarean Section on Female Sexual Functioning**

Normal Vaginal Delivery (n = 60)		Operative Vaginal Delivery (n = 60)		Caesarean Section (n = 60)		<i>F</i> (2, 177)	<i>p</i>	$\eta^2$
<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
27.92	3.36	25.34	5.11	22.97	6.62	13.51	.00***	.13

*Note.* *M*= Mean, *SD*= Standard Deviation, *p*=significance,  $\eta^2$ =eta square \*\*\**p*<.001 (1-tailed).

The one-way ANOVA,  $F(2, 177) = 13.51$ ,  $p < .001$ ,  $\eta^2 = .13$  demonstrated statistically highly significant differences among three groups i.e. normal vaginal delivery, operative vaginal delivery and caesarean section on female sexual functioning.

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**Table No. 3 Post hoc test for Female Sexual Functioning in Normal Vaginal Delivery, Operative Vaginal Delivery and Caesarean Section on Female Sexual Functioning.**

Mode of Delivery		MD	p	95 % CI	
				LL	UL
Normal Vaginal Delivery	Operative Vaginal Delivery	2.57	.00**	.70	4.46
	Caesarean Section	4.94	.00***	2.66	7.23
Operative Vaginal Delivery	Caesarean Section	2.36	.07	-.20	4.93

Note. MD = Mean Difference, CI = Confidence Interval, LL = Lower Limit, UL= Upper Limit \*\* $p < .01$ , \*\*\* $p < .001$  (1-tailed)

Post hoc test (Tukey HSD test) shows that the comparison of normal vaginal delivery group with operative vaginal delivery and caesarean section groups reveals a significant ( $p < .01$ ) and highly significant difference ( $p < .001$ ) respectively. However, the comparison of operative vaginal delivery with caesarean section group is not significant ( $p > .05$ ) which indicates that there were no significant differences in the occurrence of female sexual dysfunctions in primiparous women with operative vaginal delivery and caesarean section.

**Table No. 4 Differences of Normal Vaginal Delivery, Operative Vaginal Delivery and Caesarean Section on Depression, Anxiety and Somatoform.**

	Normal Vaginal Delivery (n= 60)		Operative Vaginal Delivery (n=60)		Caesarean Section (n = 60)		F(3,176)	p	$\eta^2$
Vars.	M	SD	M	SD	M	SD			
DEP	23.43	13.80	26.93	12.78	36.43	15.35	13.78	.00***	.13
ANX	34.63	15.81	39.08	18.26	52.33	19.85	16.06	.00***	.15
SOM	25.73	14.42	25.77	18.61	39.65	20.83	12.47	.00***	.12

Note. M= Mean, SD= Standard Deviation, Vars. = Variables, DEP = Depression, ANX = Anxiety, SOM = Somatoform.

\*\*\* $p < .001$  (1-tailed).

The one-way MANOVA,  $F(3, 176) = 13.78$ ,  $p < .001$ ,  $\eta^2 = .13$ ;  $F(3, 176) = 16.06$ ,  $p < .001$ ,  $\eta^2 = .15$ ;  $F(3, 176) = 12.47$ ,  $p < .001$ ,  $\eta^2 = .12$ , reflected statistically highly significant differences in the occurrence of depression, anxiety and somatoform among three groups of primiparous women.

**Table No. 5 Post hoc test for Depression, Anxiety and Somatoform in NSVD, OVD and CS Groups.**

Vars.	Mode of Delivery		MD	p	95 % CI	
					LL	UL
DEP	Normal Vaginal Delivery	Operative Vaginal Delivery	-3.49	.32	-9.29	2.29
		Caesarean Section	-13.00	.00***	-19.33	-6.67
	Operative Vaginal Delivery	Caesarean Section	-9.50	.00***	-15.65	-3.35
ANX	Normal Vaginal	Operative Vaginal Delivery	-4.4	.38	-12.37	3.47
		Caesarean Section	-17.70	.00***	-25.62	-9.78

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Vars.	Mode of Delivery		MD	p	95 % CI	
					LL	UL
	Delivery					
	Operative Vaginal Delivery	Caesarean Section	-13.25	.00***	-21.17	-5.33
SOM	Normal Vaginal Delivery	Operative Vaginal Delivery	-.03	1.00	-7.52	7.46
		Caesarean Section	-13.91	.00***	-21.70	-6.14
	Operative Vaginal Delivery	Caesarean Section	-13.88	.00***	-22.67	-5.10

*Note.* Vars. = Variables, DEP = Depression, ANX = Anxiety, SOM = Somatoform, MD = Mean Difference, CI = confidence Interval, LL = Lower Limit, UL= Upper Limit.

\*\*\*p<.001 (1-tailed)

Table 5 shows that first of all, to seek the differences in the occurrence of depression, the normal vaginal delivery group is compared to the operative vaginal delivery and it reveals a non-significant difference ( $p > .05$ ), but when compared to the caesarean section group there is highly significant difference ( $p < .001$ ). Likewise, when operative vaginal delivery group is compared to the caesarean section group, a highly significant difference ( $p < .001$ ) emerged. The differences between group means on anxiety subscale indicates that the normal vaginal delivery group is when compared to the operative vaginal delivery group, it reveals a non-significant difference ( $p > .05$ ), but when compared to the caesarean section group there is highly significant difference ( $p < .001$ ). Likewise, when operative vaginal delivery group is compared to the caesarean section group, a highly significant difference ( $p < .001$ ) emerged.

Table 5 also shows the differences between group means on somatoform subscale which indicates that the normal vaginal delivery group is when compared to the operative vaginal delivery it reveals a non-significant difference ( $p > .05$ ), but when compared to the caesarean section group there is highly significant difference ( $p < .001$ ). Likewise, when operative vaginal delivery group is compared to the caesarean section group, a highly significant difference ( $p < .001$ ) emerged.

A one-way MANOVA, Pillai's trace  $V = .19$ ,  $F(3, 174) = 6.27$ ,  $p < .001$ , revealed a significant multivariate main effect for depression, anxiety and somatoform. Thus, groups had overall effect on depression, anxiety and somatoform.

## DISCUSSION

The aim of the present study was to examine the differences in the occurrence of female sexual dysfunctions and depression, anxiety and somatoform among primiparas who underwent normal vaginal delivery, operative vaginal delivery and caesarean section. Hence, it was hypothesized that the primiparous women with caesarean section are more likely to experience female sexual dysfunctions as compared to women with normal vaginal delivery and operative vaginal delivery. The key findings of present study also highlighted that the occurrences of female sexual dysfunctions were high in primiparous women with caesarean section as compared to women with normal delivery. Results accord consistently with previous researches from different cultures. Sleep and Grant (1997) also found that sexual

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disorders occurs more in women with caesarean section as compared to women with normal delivery. The findings are also consistent with the Cannan's (2015) study outcome i.e. normal delivery is associated with low rate of maternal morbidity. Thus after normal delivery recovery period is short and women get back to their routine life easily (Cannan, 2015). During data collection also many participants with normal delivery reported that it took them less time to get back to normal life.

However, no significant differences emerged in the occurrence of female sexual dysfunctions in primiparous women with caesarean section and operative vaginal delivery. For case in point, a plausible explanation were provided by Chayachinda, Titapant, and Ungkanungdech (2015) as they highlighted in their findings that sexual dysfunctions such as pain disorders are common in primiparous women with operative vaginal delivery. Another research carried out by Lisa et al. (2001) also came up with similar findings. They found that primiparous women with 2nd degree perineal tear reported 80% and with 3rd and 4th degree perineal tear reported 27% more dyspareunia than women with intact perineum. Likewise, Khajehei (2009) also came up with distinct findings that sexual dysfunctions in primiparous women subsequent to the birth of the first child have been reported to be 5-35% after caesarean section and 40-80% after operative vaginal delivery.

The second hypothesis formulated was that primiparous women with caesarean section are more likely to experience depression, anxiety, and somatoform as compared to women with normal vaginal delivery and operative vaginal delivery. The results supported the hypothesis which is further maintained by already existing literature across many cultures. Studies found high rate of depression (Bradley, Ross, & Warnyca, 1983), anxiety (Trowell, 1982) and somatoform disorders (Sleth, 2010) following caesarean section as compared to normal vaginal delivery and operative vaginal delivery in primiparous women. Moreover, findings of some other researches also suggests that the mode of delivery makes new mothers vulnerable of developing mental disorders (Bloch, Daly, & Rubinow, 2003; Steiner, Dunn, & Born, 2003). Furthermore, Childbirth Connection (2004) explained several negative psychological consequences after caesarean section. It includes poor birth experience, poor self-esteem, and impaired mental health, and depression, sense of loss, sorrow and personal failure. Furthermore, Sydsjo, Bladh, Lilliecreutz & Persson (2014) found in their study that the common mental disorders in primiparous women subsequent to caesarean section are somatoform disorders, mood disorders (depression) and stress related disorders (anxiety). The current study's findings also bear cultural relevance. In Pakistan, grandmothers and mother in laws do not allow their daughters to meet relatives and significant others during this period because of risk of contact with infections, illness (Samar, 2015) and belief in the evil eye that brings harms to the child and mother (Qamar, 2016). Therefore women are bound to stay at home and her social activities are also restricted which is often distressing for new mothers (Samar, 2015).

## **CONCLUSION**

In the light of aforementioned findings, it is concluded that after caesarean section and operative vaginal delivery, primiparous women are liable to experience sexual dysfunctions. Likewise, occurrences of depression, anxiety and somatoform were high after caesarean section as compared to normal vaginal delivery and operative vaginal delivery. The present study adds to the previous gaps in the body of knowledge and highlights the importance of mode of delivery and associated problems in primiparous women. Also, this study calls for a



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high need of providing proper education to the newly expecting women about the mode of delivery and physical and psychological costs associated with it.

### REFERENCES

- Avery, M. D., Duckett, L., & Frantzich, C. (2000). The experience of sexuality during breastfeeding among primiparous women. *Journal of Midwifery Women's Health*, 45, 227. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/10907332>
- Bloch, M., Daly, R. C., & Rubinow, D. R. (2003). Endocrine factors in the etiology of postpartum depression. *Comprehensive Psychiatry*, 44, 234- 46. doi: 10.1016/S0010-440X(03)00034-8
- Bradley, C. F., Ross, S. E., & Warnyca, J. A. (1983). A prospective study of mothers' attitudes and feelings following caesarean and vaginal births. *Birth*, 10, 79-83. doi: 10.1111/j.1523-536X.1983.tb01405.x
- Barrett, G., Pendry, E., Peacock, J., Victor, C., Thakar, R., & Manyonda, I. (2000). Women's sexual health after childbirth. *Archives of sexual behavior*, 28 (2), 179–91. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/10688502>
- Childbirth Connection. (2004, January 6). Harms of cesarean versus vaginal birth: A systematic review [Web log post]. Retrieved from <http://childbirthconnection.org/article.asp?ck=10271>
- Cannan, (2015, October 14). About normal spontaneous vaginal delivery [Web log post]. Retrieved from <http://www.livestrong.com/article/195620-tips-for-easy-delivery-of-a-baby/>
- Crane, A. K., Geller, E. J., Bane, H., Ju, R., Myers, E., & Matthews, C. A. (2013). Evaluation of pelvic floor symptoms and sexual function in primiparous women who underwent operative vaginal delivery versus cesarean delivery for second-stage arrest. *Female Pelvic Medicine and Reconstructive Surgery*, 19(1), 13-6. doi: 10.1097/SPV.0b013e31827bfd7b.
- Cargill, Y. M., & MacKinnon, C. J. (2004). Guidelines for operative vaginal birth. *Journal of Obstetrics and Gynecology*, 26 (8), 747–53. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/15307980>.
- Chayachinda, C., Titapant, V., & Ungkanungdech, A. (2015). Dyspareunia and sexual dysfunction after vaginal delivery in Thai primiparous women with episiotomy. *The Journal of Sexual Medicine*, 12, 1275–1282. doi: 10.1111/jsm.12860.
- Glazener, C. M. (1997). Sexual function after childbirth: Women's experiences, persistent morbidity and lack of professional recognition. *British Journal of Gynecology*, 107, 330–335. doi: 10.1111/j.1471-0528.1997.tb11463.x
- Johnson, C. E. (2011). Sexual health during pregnancy and the postpartum. *The Journal of Sexual Medicine*, 8, 1267–1284. doi: 10.1111/j.1743-6109.2011.02223. x.
- Khajehei, M., Ziyadlou, S., Safari, M., Tabatabaee, H., & Kashefi, F. (2009). A comparison of sexual outcomes in primiparous women experiencing vaginal and caesarean births. *Indian Journal of Community Medicine*, 34, 126–130. doi: 10.4103/0970-0218.51237.
- Lisa, B., Signorello, F., Bernard, L., Harlow, K., Chekos, R., & John, T. (2001). Postpartum sexual functioning and its relationship to perineal trauma: A retrospective cohort study of primiparous women. *American Journal of Obstetrics and Gynecology*, 184, 881-90. doi:10.1067/mob.2001.113855.
- Lisonkova, S. P. A., Janssen, S. B., Sheps, S. K., Lee, L. & Dahlgren, L. (2010). The effect of maternal age on adverse birth outcomes: does parity matter? *Journal of Obstetrics*

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- and *Gynecology Canada*, 32(6), 541–548. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/20569534>
- Munk-Olsen, T., Laursen T. M., Pedersen, C. B., Mors, O., & Mortensen, P. B. (2006). New parents and mental disorders: a population-based register study. *JAMA*, 296(21), 2582–9. doi: 10.1001/jama.296.21.2582
- Nazir, S. (2015, April 25). *Determinants of caesarean deliveries in Pakistan*. Paksitan Institute of Development Economics (Pakistan Institute of Development Economics Report No. 122). Retrieved from <http://www.pide.org.pk/pdf/Working%20Paper/WorkingPaper-122.pdf>
- Patterson, D. A., & Winslow, M., Matus, C. D. (2008). *Spontaneous vaginal delivery*. *American Family Physician*, 78 (3), 336-341. Retrieved from <https://pubmed.ncbi.nlm.nih.gov/18711948/>
- Qamar, A. H. (2016). Belief in the evil eye and early childcare in rural Punjab, Pakistan. *Asian Ethnology*, 75(2), 397-418. Retrieved from <https://www.jstor.org/stable/asianeth.75.2.397>
- Rahman, N. K., Dawood, S., Rehman. N., Mansoor, Q., & Ali, S. (2009). Standardization of symptom checklist-R on psychiatric & non-psychiatric sample Lahore city. *Pakistan Journal of Clinical Psychology*, 8(2), 21-32
- Rehman, K. U., Mahmood, M. A., Sheikh, S. S., Sultan, T., & Khan, A. (2015). The Female Sexual Function Index (FSFI): Translation, Validation, and Cross-Cultural Adaptation of an Urdu Version “FSFI-U”, *Sex Med*, 3, 244–250. doi: 10.1002/sm2.77
- Rosen, R., Brown, C., Heiman, J., Leiblum, S., Meston, C., Shabsigh, R., D’agostino, R. (2000). The Female Sexual Function Index (FSFI): A multidimensional self-report instrument for the assessment of fem ale sexual function. *Journal of Sex & Marital Therapy*, 26, 191–208. Retrieved from <http://www.fsfiquestionnaire.org/Published%20Format.pdf>
- Samar, E. (2015, November 8). *Living with postpartum depression in Pakistan because a woman’s honor depends on it* [Web blog post]. Retrieved from <http://blogs.tribune.com.pk/story/30040/living-with-postpartum-depression-in-pakistan-because-a-womans-honor-depends-on-it/>
- Stein, A., Craske, M. G., Lehtonen, A., Harvey, A., Savage-McGlynn, E., & Davies, B. (2012). Maternal cognitions and mother-infant interaction in postnatal depression and generalized anxiety disorder. *The Journal of Abnormal Psychology*, 121 (4), 795–809. doi: 10.1037/a0026847.
- Steiner, M., Dunn, E., & Born, L. (2003). Hormones and mood: from menarche to menopause and beyond. *Journal of Affective Disorders*, 74, 67- 83. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/12646300>
- Sial, M. A. (2012, January 8). *Increasing number of C-sections crosses all danger thresholds* [Web blog post]. Retrieved from <http://www.pakistantoday.com.pk/2012/01/08/city/lahore/increasing-number-of-c-sections-crosses-all-danger-thresholds/>
- Sleep, J. & Grant, A. (1987). West Berkshire perineal management trial: three year follow up. *British Medical Journal*, 1295, 749-751. doi: <http://dx.doi.org/10.4314/thrb.v14i4.5>
- Sleth, J. C. (2010). Hysterical conversion mimicking acute paraplegia after spinal anaesthesia, *International Journal of Obstetric Anesthesia*, 19 (1), 126–127. Doi: <https://doi.org/10.1155/2013/751648>
- Sydsjo, G., Bladh, M., Lilliecreutz, C., & Persson, A. M. (2014) Obstetric outcomes for nulliparous women who received routine individualized treatment for severe fear of

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- childbirth - a retrospective case control study. *BMC Pregnancy and Childbirth*, 14 (1), 126. Doi: 10.1186/1471-2393-14-126
- Shahid, J. (2013, November, 15). Private hospitals thriving on Caesarean sections. *Daily Dawn Newspaper*. Retrieved from <http://www.dawn.com/news/1058406>
- Thompson, J., Roberts, C., & Currie, M. (2002). Prevalence and persistence of health problems after childbirth: associations with parity and method of birth. *Birth*, 29, 83. Retrieved from <http://dx.doi.org/10.18203/2320-1770.ijrcog20162090>
- Trowell, J. A. (1982). Possible effects of emergency caesarean section on the mother-child relationship. *Early Human Development*, 7, 41-51. Retrieved from <http://journals.sagepub.com/doi/abs/10.3109/00048679709062687>
- Valdimarsdottir, U., Hultman, C. M., Harlow, B., Cnattingius, S., & Sparen, P. (2009). Psychotic illness in first-time mothers with no previous psychiatric hospitalizations: a population-based study. *PLoS Medicine Journal*, 6(2), 13. doi: <http://dx.doi.org/10.1371/journal.pmed.1000013>
- Zambaldi, C. F., Cantilino, A., Montenegro, A. C., Paes, J. A., de Albuquerque, T. L., & Sougey, E. B. (2009). Postpartum obsessive compulsive disorder: prevalence and clinical characteristics. *Comprehensive Psychiatry*, 50, 503-509. doi: 10.1016/j.comppsy.2008.11.

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### Conflict of Interest

The author declared no conflict of interest.

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