ORIGINAL RESEARCH—EPIDEMIOLOGY & RISK FACTORS

The Relationship Between Mode of Delivery and Sexual Health Outcomes after Childbirth

Alexandre Faisal-Cury, MD, PhD,* Paulo Rossi Menezes, PhD,* Julieta Quayle, PhD,* Alicia Matijasevich, MD, PhD,* and Simone Grilo Diniz, MD, PhD†

*Preventive Medicine Department, University of São Paulo, São Paulo, Brazil; †Maternal and Child Health Department, University of São Paulo, São Paulo, Brazil

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ABSTRACT

Introduction: Several factors are implicated in the women's sexuality after childbirth. Nevertheless, there is conflicting evidence about the influence of mode of delivery (MD)

Aim: To prospectively evaluate the relationship between MD and sexual health outcomes after childbirth

Methods: A prospective cohort study conducted between May 2005 and March 2007 included 831 pregnant women recruited from primary care clinics of the public sector in São Paulo, Brazil. The exposure variable was MD: uncomplicated vaginal delivery (spontaneous vaginal delivery without episiotomy or any kind of perineal laceration); complicated vaginal delivery (either forceps or normal, with episiotomy or any kind of perineal laceration) and cesarean delivery. Socio-demographic and obstetric data were obtained through a questionnaire applied during the antenatal and postnatal period. Crude and adjusted risk ratios, with 95% confidence intervals, were calculated using Poisson regression to examine the associations between MD and sexual health outcomes.

Main Outcome Measures: The three main sexual health outcomes were later resumption of sexual life, self-perception of decline of sexual life (DSL), and presence of sexual desire.

Results: One hundred and forty-one women (21.9%) resumed sexual life 3 or more months after delivery. Although 87.1% of women had desire, DSL occurred in 21.1% of the cohort. No associations were found between MD and sexual health outcomes.

Conclusions: Women's sexuality after childbirth were not influenced by the type of delivery. Efforts to improve the treatment of sexual problems after childbirth should focus beyond MD. **Faisal-Cury A, Menezes PR, Quayle J, Matijasevich A, and Diniz SG. The relationship between mode of delivery and sexual health outcomes after childbirth. J Sex Med 2015;12:1212–1220.**

Key Words. Mode of Delivery; Sexual Functioning; Childbirth; Postpartum Depression

Introduction

Childbirth and the postpartum period represent a major life transition and usually has a substantial impact on the sexual adjustment for both mothers and fathers [1] [2]. Not all women adapt well to the psychological and biological changes, and two-thirds experience significant worsening in sexual functioning 6 months after childbirth [3]. A variety of reasons has been implicated for the deterioration of sexual life including marital conflicts, depression, and economic strains [4]. There is conflicting evidence about the role of mode of delivery (MD) on sexual health outcomes. In a retrospective cohort study of 626 pregnant women over a 6-month period after childbirth, Signorello et al. [5] found that women who delivered with an intact perineum were significantly more likely to report better sexual outcomes. Klein et al. [6] found that women without perineal trauma had a greater chance of resuming sexual intercourse by 6 weeks postpartum in comparison

with women with perineal trauma. A recent study of 1,507 nulliparous women found that most women having a first birth did not resume vaginal sex until later than 6 weeks postpartum. Moreover, women who had an operative vaginal birth, caesarean section, or perineal tear or episiotomy appear to delay longer to resume sexual life [7]. In contrast, studies about resumption of sexual life, performed at 7 and 12 weeks after delivery, found that sexual activity was not influenced by the degree of perineal laceration [8,9].

Possible reasons for the association between later resumption of sexual life and perineal trauma include pudendal neuropathy, perineal pain and/or dyspareunia, and poor maternal health [10]. Pudendal nerve trauma has been demonstrated after vaginal delivery [11,12]. Dyspareunia is reported by 41–67% of women 2–3 months after childbirth [3,5,13,14]. Perineal pain typically resolves by 3 months after delivery, although dyspareunia takes somewhat longer to resolve [13]. Finally, poor health outcomes may impact sexual function among women with severe obstetrical morbidity [15]. Nevertheless, there is scarce as well conflicting evidence regarding the effect of MD on sexual function in the period beyond the first year [16].

In a longitudinal cohort study, Ejegård et al. evaluated the long-term sexual effects of episiotomy and perineal laceration [17]. They stated that episiotomy may affect women's sexual life during the second year postpartum with more frequent pain and vaginal dryness at intercourse. Moreover, other obstetrical factors and pain history may also influence the propensity for dyspareunia. Van Brummen et al. in a prospective cohort study with 377 nulliparous women evaluated the factors that determine sexual activity and satisfaction with the sexual relationship 1 year after the first delivery. They found that women were five times less likely to be sexually active after a third/fourth degree anal sphincter tear as compared with women with an intact perineum [18].

On the other hand, studies report that sexual dysfunction occurs postnatally but performance returns to prepregnancy levels within 1 year after delivery [19]. There is inconsistent evidence of chronic dyspareunia after severe lacerations or operative delivery. Most studies suggest no difference after the first 6 [20], 12 [21], or even 36 months [22]. Similar conclusion has been reached in relation to the long-lasting effects of cesarean delivery on sexuality. In the Breech Trial, planned cesarean section was not associated with substantially better or worse sexual outcomes for women 2 years after the birth compared with planned vaginal delivery [23]. Another study with 276 identical twin pairs demonstrated that childbirth was associated with decreased sexual function among parous twins. However, MD was not found to be associated with altered sexual function in the 29 pairs discordant for MD. The authors stated that childbirth appears to have a lasting impact on sexual function, due to psychological more than physical factors, well beyond the postpartum period [24].

The purpose of the present study is to evaluate prospectively, up to 18 months after delivery, the association between MD and sexual health outcomes after childbirth, namely later resumption of sexual life, presence of sexual desire, and self-report of sexual life decline.

Methods

Study Design and Sample

This was a prospective cohort study, conducted between May 2005 and March 2007, with 831 pregnant women recruited from primary care clinics of the public sector in three administrative districts in the Western area of the city of São Paulo, Brazil. The study area comprised a heterogeneous population of approximately 400,000, where people with high, medium, and low income live near each other. Private health care is usually only accessible for women from the middle and upper middle classes. The public primary care clinics offer free antenatal care for all women living in their catchment areas. Antenatal care is offered regularly, typically once a month, generally starting as soon as the woman seeks a pregnancy test at one of these clinics. Women followed in these clinics are at low obstetrical risk. High-risk pregnancies are referred to regional hospitals for prenatal care. There were two public hospitals in the study area, providing approximately 2,000 deliveries per year. After childbirth, the primary care clinics continue to provide clinical and gynecological care including contraception, breastfeeding orientation, and cervical smear. Pregnant women between 20 and 30 weeks of pregnancy, whose conception occurred naturally, aged 16 years or older and with singleton pregnancies, who were receiving antenatal care in primary care clinics in the study area, were considered eligible for this study. Pregnant women with a history of psychosis were excluded. Postpartum women were interviewed at home (mean time of interview