



www.figo.org

Contents lists available at ScienceDirect

International Journal of Gynecology and Obstetrics

journal homepage: www.elsevier.com/locate/ijgo



CLINICAL ARTICLE

Longitudinal health outcome and wellbeing of mother–infant pairs after adolescent pregnancy in Reunion Island, Indian Ocean



Silvia Iacobelli ^{a,b,*}, Pierre-Yves Robillard ^{a,b}, Jean-Bernard Gouyon ^{a,b}, Marine Nichols ^c, Malik Boukerrou ^c, Georges Barau ^c, Francesco Bonsante ^{a,b}

^a Neonatology and NICU, La Réunion University Hospital, Saint Pierre, France

^b Centre d'Etudes Périnatales de l'Océan Indien, CHU La Réunion, Saint Pierre, France

^c Maternity Department, La Réunion University Hospital, Saint Pierre, France

ARTICLE INFO

Article history:

Received 9 July 2013

Received in revised form 2 September 2013

Accepted 22 December 2013

Keywords:

Behavioral factors

Longitudinal risk

Mental health

Pregnancy risk

Social distress

Teenage pregnancy

Young adulthood

ABSTRACT

Objective: To evaluate longitudinal care needs and health service access among mother–infant pairs after adolescent pregnancy. **Methods:** In a case–control study, data were analyzed from primiparous adolescent and adult mother–infant pairs who delivered at Reunion Island University Hospital, France, between January 2004 and December 2006, and were followed-up from maternity discharge until December 2011. Infant outcomes were hospitalization during the first 2 years of life, hospital access for “non-medical” reasons, and neuropsychiatric care. Maternal outcomes were number of pregnancies and childbirths, rapid repeat pregnancy (RRP) rate, pregnancy morbidities, and use of health services. **Results:** Data from 476 cases and 476 controls were analyzed. Adolescent and control offspring did not differ in the measured outcomes. Adolescent and control mothers had, respectively, 2.4 ± 1.3 and 1.9 ± 1.1 pregnancies; 1.9 ± 0.8 and 1.6 ± 0.7 childbirths; and RRP rates of 7.6% and 2.7% (all $P < 0.001$). Adolescents had less pregnancy-related pathologies at the index pregnancy and more frequently had natural deliveries ($P < 0.05$). Younger mothers exhibited higher rates (19.7% versus 6.9%, $P = 0.001$) of care for psychosocial reasons (suicide attempt, acute alcohol or drug intoxication, road accident, psychiatric problems, physical abuse). **Conclusion:** Concerns arise from the long-term psychosocial risk among adolescent mothers.

© 2013 International Federation of Gynecology and Obstetrics. Published by Elsevier Ireland Ltd. All rights reserved.

1. Introduction

Adolescent pregnancy and childbirth are often associated with an increased risk of poor health outcome for both the mother and the infant, and it is current opinion that this may reflect economic factors, poor psychosocial wellbeing, or at-risk lifestyle behaviors that precede early pregnancy [1–4]. Indeed, positive results have been reported from studies carried out on population samples with favorable demographic variables (e.g. good socioeconomic or parental support, and high-quality and accessible prenatal care) [5–7]. Such investigations have focused on the short-term perinatal outcome of adolescent pregnancies without exploring the longitudinal implications for young childbearing.

Reunion Island is a French overseas region in the southern Indian Ocean with a young reproductive population: the mean age at primiparity is approximately 23 years, and the rate of adolescent pregnancies is markedly higher (55 per 1000 women aged 15–19 years) than that of most European countries and specifically that of mainland France, where this rate is 9 per 1000 women aged 15–19 years [8,9].

In Reunion Island society, adolescent pregnancies are frequently regarded as socially and culturally acceptable, and the parental support for young mothers is relatively strong. Moreover, access to maternity services is easy and high-quality care is provided free of charge by the French healthcare system.

Recently, favorable outcomes of pregnancy and delivery were reported among a large cohort of adolescent pregnancies cared for in a tertiary care hospital in this region [10]. In contrast to the favorable obstetric results—marked by fewer interventions at delivery and good prenatal care—this population presented a higher risk of neonatal mortality and preterm birth compared with older control women.

In this context, the aim of the present study was to evaluate the longitudinal health outcome and wellbeing of mother–infant pairs from adolescent pregnancies in terms of the need for care and access to health services after delivery.

2. Materials and methods

In a case–control study nested within a cohort of mother–infant pairs, data were compared between adolescent and adult mother–infant pairs who delivered at the tertiary care maternity department of Saint Pierre, Reunion Island University Hospital, France, between January 1, 2004, and December 31, 2006. The study was approved by

* Corresponding author at: Néonatalogie, Réanimation Néonatale et Pédiatrique, BP 350, 97448 Saint Pierre Cedex, France. Tel.: +262 262 35 91 49; fax: +262 262 35 92 93.
E-mail address: silvia.iacobelli@chu-reunion.fr (S. Iacobelli).

the institutional review board of the hospital. In accordance with French legislation, written consent was not needed for the study, which used retrospective anonymized data.

The maternity perinatal database of the hospital has prospectively recorded demographic, gestational, and perinatal variables of all mother–infant pairs since 2001. Information is collected at the time of delivery and at the time of newborn hospital discharge, and is regularly audited by appropriately trained staff. For the present study, cases and controls were selected among all singleton primiparous pregnancies delivered over the 3-year study period.

The eligible cases were all mother–infant pairs where the newborn was discharged alive from hospital and the mother was younger than 18 years at delivery. The controls consisted of mother–infant pairs where the mother was aged 18–29 years at delivery. Each case was matched with a control for delivery date and gestational age to reduce confounding variables regarding the infant health outcome and the duration of follow-up. Women were excluded if clinical data were missing or incomplete.

For every mother and infant identified as a case or a control, follow-up data were obtained by searching the electronic medical records of the 4 healthcare institutions of the region. These institutions provide public assistance for pregnancy and delivery, adult and infant emergency services and hospitalization, and acute psychiatric care. Detailed information on subsequent pregnancies was retrieved from the maternity perinatal database, or from medical files when the delivery occurred outside the maternity of Saint Pierre hospital. For the purpose of the study, all records were validated and used anonymously for the analysis.

The follow-up observation window for infants was the period from maternity discharge to December 31, 2011. The following outcomes were measured for infants: the rate of hospitalization during the first 2 years of life, the rate of access to hospital care for “non-medical” reasons, and the need for neuropsychiatric care throughout the follow-up.

The follow-up observation window for mothers was the period from maternity discharge after the first delivery to December 31, 2011. The following outcomes were measured for the mother’s longitudinal health outcome and wellbeing: mean number of pregnancies and mean number of childbirths until the end of the follow-up, rate of rapid repeat pregnancy (defined as delivery within 18 months of the first pregnancy outcome), average time between the first pregnancy and the successive

one, morbidities of the first and subsequent pregnancies, and use of public healthcare services for medical/surgical or psychosocial reasons until the end of the follow-up.

Three sociodemographic variables were available at the time of the first pregnancy and during the follow-up, and were also compared between the 2 groups: educational level, marital status, and employment status. Maternal education was categorized as “appropriate for age” or “inappropriate for age.” Mothers aged 18 years or older were considered to have an age-appropriate educational level if they had completed high school, whereas younger mothers had to have completed the minimal number of grades for their age. Marital status was categorized as “single” or “living with a partner,” and employment status as “employed” or “not.”

Analyses were carried out via SPSS version 16.0 (IBM, Armonk, NY, USA). Data are presented as numbers and percentages for categorical variables, and as mean \pm SD for continuous ones. Comparisons between groups were performed by using the McNemar test for paired variables and χ^2 test for non-paired variables (subsequent deliveries). The odds ratio (OR) with 95% confidence interval (CI) was also calculated. A paired *t* test was used for parametric continuous variables, and the Wilcoxon matched pairs test was used for non-parametric continuous variables. A *P* value of less than 0.05 was considered to be statistically significant.

3. Results

During the study period, 12 130 mother–infant pairs were cared for in the maternity department and were recorded in the perinatal database. Among them, 4346 were from singleton primiparous pregnancies where both mother and infant were discharged alive. Of these pregnancies, 3694 were among women aged under 30 years and 508 were among adolescent women. Of the original eligible 508 mother–infants pair, 9 were excluded because clinical data were missing or incomplete, and 4 were excluded owing to lack of appropriate controls (Table 1). Among the remaining 495 pairs, 33 had not accessed public healthcare during the follow-up period. Fourteen of the 33 mothers were contacted by telephone and confirmed that they had not needed hospital care during that period. Nineteen of the 33 mothers were not available and were secondarily excluded from the study.

Table 1
Selection of mother–infant pairs for the study and sample characteristics.^a

Characteristic	Cases	Controls	Overall
Mother–infant pairs			
Eligible	208	525	1033
Excluded	13	10	23
Missing data	9	10	
Lacking matched control	4	–	
Considered	495	515	1010
Information available on access to hospital (once at least, mother or infant)	462	448	910
Contacted by telephone	14	28	42
Any hospital access for care	33	57	90
Lost to follow-up	19	29	48
Total inclusions	476	476	952
Requirement for hospital care			
Mother requiring hospital care	399 (84)	349 (73)	748 (78)
Infant requiring hospital care	397 (83)	380 (80)	777 (81)
Mother–infant pairs requiring hospital care	462 (97)	448 (93)	910 (95)
Maternal variables			
Mean maternal age at first delivery, y	16.2 ^b	22.7 ^b	
Geographical origin			
Reunion Island	444 (93.0)	426 (89.0)	
Mayotte or Comoros Islands	17 (3.6)	9 (1.9)	
Madagascar	1 (0.2)	6 (1.3)	
French mainland and Europe	13 (2.7)	26 (5.5)	
Other	0 (0.0)	8 (1.7)	
Subsequent deliveries in the same hospital	396/415 (95)	248/265 (94)	644/680 (95)

^a Values are given as number or number (percentage).

^b Significant difference between cases and controls ($P < 0.001$).

Download English Version:

<https://daneshyari.com/en/article/3948651>

Download Persian Version:

<https://daneshyari.com/article/3948651>

[Daneshyari.com](https://daneshyari.com)