Women and Birth 28 (2015) 317–322

Contents lists available at ScienceDirect

Women and Birth

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

ORIGINAL RESEARCH – QUANTITATIVE

Who is holding the baby? Women's experiences of contact with their baby immediately after birth: An Australian population-based survey

Mary Anne Biro [a,*], Jane Susanne Yelland [b], Stephanie Janne Brown [b,c]

[a] School of Nursing & Midwifery, Faculty of Medicine, Nursing & Health Sciences, Monash University, Australia
[b] Murdoch Childrens Research Institute, Parkville, VIC, Australia
[c] General Practice & Primary Health Care Academic Research Institute and School of Population Health, University of Melbourne, Parkville, VIC, Australia

ARTICLE INFO

Article history:
Received 23 March 2015
Received in revised form 28 April 2015
Accepted 12 May 2015

Keywords:
Newborn
Contact
Women's experiences
Mother–infant
Birth

ABSTRACT

Background: Seeing and holding their baby immediately after the birth is the pinnacle of the childbearing process for parents. Few studies have examined women's experiences of seeing and holding their baby immediately after birth. We investigated women's experiences of initial contact with their newborns using data from an Australian population-based survey.
Methods: All women who gave birth in September/October in 2007 in two Australian states were mailed questionnaires six months following the birth. Women were asked three questions about early newborn contact including where their baby was held in the first hour after birth and whether they were able to hold their baby as soon and for as long as they liked. We examined the association between model of maternity care and early newborn contact stratified by admission to SCN/NICU.
Results: The majority (92%) of women whose babies remained with them reported holding their babies as soon and for as long as they liked in the first hour after birth. However, for women whose babies were admitted to SCN/NICU only a minority (47%) reported this. Women in public models of care (with the exception of primary midwifery care) whose babies remained with them were less likely to report holding their babies as soon and for as long as they liked compared to women in private care.
Conclusion: Our findings suggest that there is potential to increase the proportion of mothers and fathers who get to hold their baby immediately after the birth by modifying birth suite and operating room practices.

1. Background

Seeing and holding their baby immediately after the birth is the pinnacle of the childbearing process for parents. Following the seminal work of Klaus and Kennell in the 1970s and 80s,[1,2] the salience of the immediate post-birth period and the impact of maternal–infant interaction during this sensitive period on subsequent behaviour were universally acknowledged. Hospital practices related to the early newborn period have changed dramatically in the ensuing decades. However, institutional practices vary widely, which at their most intrusive can routinely delay or interrupt early contact.[3,4] Additionally the physical condition of either the mother and/or baby can influence whether early contact is initiated, and if it is, the quality and length of this contact.

Evidence suggests that maternal–newborn contact within the first hour after birth, more specifically skin-to-skin contact, encourages maternal–infant bonding, promotes successful breast-feeding, stabilises newborn temperature and reduces infant crying and for late preterm infants encourages better cardio-respiratory stability and higher blood glucose levels.[5] Whilst several studies examine the benefits of early physical contact for term,[5–8] preterm and sick infants,[9,10] few have focused at a population level on the extent to which mothers and fathers get to see and hold their babies immediately after birth.

A recent Australian study[11] describes the timing, duration and type of contact immediately after birth in healthy full-term infants in a population-based sample of Queensland mothers. Redshaw et al.[11] found that 97% of women who had a spontaneous vaginal birth and 67% of women who had a caesarean section held their

* Corresponding author at: School of Nursing & Midwifery, Faculty of Medicine, Nursing & Health Sciences, Building E, Peninsula Campus, McMahons Road, Frankston, VIC 3199, Australia. Tel.: +61 03 99054838; fax: +61 03 99054837.
E-mail address: Maryanne.biro@monash.edu (M.A. Biro).

http://dx.doi.org/10.1016/j.wombi.2015.05.001
1871-5192/

baby within five minutes of birth. The Queensland study identified that women who gave birth spontaneously were more likely to hold the baby in the first five minutes if they gave birth in a private facility or lived in an area of high economic resource. However, women who had an assisted vaginal birth were less likely to hold their baby in the first five minutes. Women who had a caesarean section were more likely to hold their babies within the first five minutes if they gave birth in a private facility and less likely if they had an unscheduled caesarean section.

In this study we sought to describe women's experiences of initial parental contact with their newborns regardless of whether their babies were admitted to a neonatal unit, and to examine whether this contact was mediated by the model of maternity care in which women had received their pregnancy care. Using data from a population-based survey of women giving birth in two Australian states, we investigated women's experiences of initial contact with their newborns and examined whether there was an association between model of care and women's reports of this contact.

2. Methods

2.1. Sample

Questionnaires were mailed to all women who gave birth in Victoria and South Australia in September/October 2007, excluding those who had a stillbirth, or whose baby was known to have died. All hospitals with births in the study period (n = 110) agreed to mail questionnaires to women at 5–6 months postpartum, however one hospital later withdrew. The invitation package included a covering letter, a copy of the questionnaire, and a reply paid envelope for returning the questionnaire to the research team. An explanation of the study was included in six community languages (Arabic, Vietnamese, Cantonese, Mandarin, Somali and Turkish). Two reminders were sent at two-week intervals; the second of these included a repeat copy of the questionnaire.

Research ethics approval was obtained from the ethics committee of the Victorian Department of Human Services, the South Australian Department of Health, the University of South Australia, the Royal Children's Hospital and ten hospitals.

2.2. Survey

The questionnaire was developed drawing on data collection tools used in three previous surveys of recent mothers[12–14] and was designed to explore women's views and experiences of care received during pregnancy, labour and birth and the first six months following birth.

Women were asked to respond to questions related to initial contact with their newborns, including where their baby was during the first hour after birth, and whether they were able to hold their baby as soon and for long as they would have liked after birth. Information collected relevant to this paper included a range of socio-demographic and obstetric characteristics including maternal parity, reproductive history, complications in pregnancy, mode of birth and whether the baby had been admitted to a special care nursery (SCN) or neonatal intensive care unit (NICU). Women were classified as being at higher or lower risk of complications in pregnancy based on presence or absence of medical complications (e.g. diabetes, hypertension) or prior reproductive outcomes (e.g. prior stillbirth or preterm birth).

Classification of women into particular models of maternity care was based on answers to a series of questions regarding the location of antenatal care; primary caregivers for antenatal, intrapartum and postnatal care; and health insurance status. We distinguished between six main models of care: private; public medical clinic; public midwives clinic; shared care; primary medical care and primary midwifery care. Further details regarding models of care and the method of classification are available in a previous paper[15] and Supplementary Appendix A.

2.3. Statistical analysis

Data were analysed to calculate: (1) the proportion of women who held their baby in the immediate period after the birth and/or whose partner held their baby; (2) the proportion of women able to hold their baby *as soon* as they would have liked after the birth; and (3) the proportion of women able to hold their baby *for as long* as they liked after the birth. Initial analyses examined the association between model of maternity care, maternal social and obstetric characteristics and early newborn contact. Data were then stratified to distinguish between women whose baby was admitted to SCN or NICU immediately after birth, and those whose baby was not admitted to SCN or NICU. Analyses were conducted within strata assessing associations between model of maternity care, maternal characteristics and the two primary outcome variables representing different aspects of early newborn contact. The first variable classified women according to whether or not they or the baby's father had held the baby immediately after the birth (yes/no). The second variable combined data from two questions to classify women according to whether they had held their baby both as soon and for as long as liked (yes/no). Univariable logistic regression was performed to examine potential associations between parity, risk status in pregnancy and mode of birth. In order to provide a more precise estimate of the association between model of care and each of the two outcome variables, we developed two multivariable logistic regression models, adjusting for potential confounders (parity, risk status in pregnancy and mode of birth). Comparisons are presented as unadjusted and adjusted odds ratios with 95% confidence intervals and P-values. Likelihood ratio tests were performed during the multivariable modelling. Analyses were carried out using Stata software, release 13.[16] We did not attempt to impute missing data.

3. Results

Questionnaires were mailed to 8597 women. The adjusted response fraction excluding questionnaires 'returned to sender', duplicate responses and women who gave birth outside the study period was 52% (4366/8468).

3.1. Characteristics of the sample

Women taking part in the survey were largely representative in terms of parity and method of birth compared with records for births in the study period collected by the Perinatal Data Collection Unit in Victoria[17] and the Pregnancy Outcome Unit[18] in South Australia. However, younger women (under 25 years), women born overseas of non-English speaking background and Aboriginal and Torres Strait Islander women were underrepresented when compared with all women who gave birth in Victoria and South Australia during the study period. Further details regarding social characteristics of the sample are published in a previous paper.[19]

3.2. Early newborn contact

Overall 81% (3512/4341) of women in the study reported that their baby was held in either mother's or father's arms in the first hour after birth. Of the women whose infant was not admitted to SCN/NICU 90% (3222/3588) reported that their baby was held in either parent's arms in the hour after birth. In contrast, of the women whose baby was admitted to SCN/NICU 38% (280/740)