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Birth Satisfaction Scale/Birth Satisfaction Scale-Revised (BSS/BSS-R): A large scale United States planned home birth and birth centre survey

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ABSTRACT

Objective: to explore the prevalence of birth satisfaction for childbearing women planning to birth in their home or birth centers in the United States. Examining differences in birth satisfaction of the home and birth centers; and those who birthed in a hospital using the 30-item Birth Satisfaction Scale (BSS) and the 10-item Birth Satisfaction Scale-Revised (BSS-R).
Study design: a quantitative survey using the BSS and BSS-R were employed. Additional demographic data were collected using electronic linkages (Qualtrics™).
Participants: a convenience sample of childbearing women ($n=2229$) who had planned to birth in their home or birth center from the US (United States) participated. Participants were recruited via professional and personal contacts, primarily their midwives.
Results: the total 30-item BSS score mean was 128.98 (SD 16.92) and the 10-item BSS-R mean score was 31.94 (SD 6.75). Sub-scale mean scores quantified the quality of care provision, women's personal attributes, and stress experienced during labour. Satisfaction was higher for women with vaginal births compared with caesareans deliveries. In addition, satisfaction was higher for women who had both planned to deliver in a home or a birth centre, and who had actually delivered in a home or a birth center.
Key conclusions: total and subscale birth satisfaction scores were positive and high for the overall sample
Implications for practice: the BSS and the BSS-R provide a robust tool to quantify women's experiences of childbirth between variables such as birth types, birth settings and providers.

Introduction

Recently there has been an increase of out-of-hospital births (e.g., Homes, Birth Centres) occurring in the industrialised world (Hodnett et al., 2010; Olsen and Clausen, 2012; MacDorman et al., 2014). Current research supports the safety and cost effectiveness of this emerging phenomenon (Birthplace in England Collaborative Group, 2011; Cheyney et al., 2014; de Jonge et al., 2015; Hutton et al., 2009; Janssen et al., 2009; Schroeder et al., 2012). Research quantifying women's birth satisfaction using a valid and reliable tool is limited and has been primarily focused on hospital births (Hollins Martin and Fleming, 2011; Hollins Martin et al., 2012; Hollins Martin and Martin, 2014; Barbosa-Leiker et al., 2015; Vardavaki et al., 2015; Hollins Martin and Martin, 2015). The Institute of Healthcare Improvement (IHI) has developed a framework in the Unites States (US) to optimise health care and considers consumer satisfaction a major component of this frameworks' triad. This triad is known as "The Triple Aim" and provides a systematic approach to improve perinatal outcomes and satisfaction, while lowering costs. Birth satisfaction correlates with the childbearing women's quality of care, personal attributes and stress experienced during labour/labor. High quality maternal birth care cannot be realized unless the childbearing woman is satisfied. The meaning of birth satisfaction is diverse and may take on many forms (Hollins Martin and Fleming, 2011). For example,

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being respected, in control and listened to, are important constructs of birth satisfaction. Presently, in the US there is a nationwide joint effort by healthcare providers and policy makers to meet the goals of the "Triple Aim" by improving patients' health and healthcare experiences. This raises the leading question of whether or not homes and birth centers/centres are a viable birthing option for low-risk women. Specifically, ones that offer high quality care at a lower cost (than hospitals), whilst continuing to maintain birth satisfaction.

In the US, during the early 1900s, the home represented the chosen birth setting for more than 95% of women. However, that percentage dwindled to 44% during the mid 1940s and had diminished to a mere 1% by the late 1960s (MacDorman et al., 2014). Since 2004, the US has seen a resurgence of women gravitating to giving birth outside of the hospital, greater than 40% increase, which represents 1.4% of all births in 2013 with nearly 66% of those births occurring in the home, 29% in freestanding birth centres, and the remainder in doctors offices, clinics or elsewhere (see Table 1; Martin et al., 2015; ACNM, 2016). The pacific northwestern region (i.e., Alaska, Idaho, Montana, Oregon, Washington) of the US, has led this increase where out-of-hospital births represented 3–6% of all births in 2013 (MacDorman et al., 2014).

The United States has approximately 4 million births annually, with a birth rate of 12.49 births/1000 population (CIA, 2015). During 2012 over 98% of births occurred in US hospitals (Martin et al., 2013). Many types of midwives practice in the US with varying degrees of training, experience and scope of practice. There is no federal regulation, and licensing laws vary from state to state. Certified Nurse-Midwives (CNM), who have graduate degrees and practice primarily in hospital settings, are legally recognised in all 50 states, while Certified Midwives (CM) who are direct entry, non-nurse midwives, are recognised in only ten. There are two main credentialing bodies offering national midwifery certification recognised by the US Department of Education. The American Midwifery Certification Board (AMCB) conducts the national certification exam for CNMs and CMs (AMCB, 2013). Whereas, the North American Registry of Midwives (NARM), via multiple methods, credentials the certified professional midwife (CPM) (NARM, 1992–2016).

In 2013, CNMs and CMs attended 8.2% of all US births and 12% of vaginal births as primary providers (may work independently or in collaboration with a physician, physician group, or midwifery group), which is a rate that has been slowly increasing. In 2015, there were 11,018 CNMs and 88 CMs with current credentials. These birth attendants account for 92% of US midwife attended births. Direct-entry midwives (e.g., CPMs, Licensed midwives (LM), lay midwives), usually those without a nursing degree, may or may not be legally recognised in their state. These midwives attended the remaining 8%. (CDC, 2015; see Tables 1 and 5; Martin et al., 2015).

The purpose of this study was to gather and collect data from childbearing women who had planned to have their birth in a home or birth centre in the United States (US) and to determine the validity of the BSS and BSS-R scale in the US setting. This design was based on the following research questions (1). What is the prevalence of birth satisfaction for childbearing women planning to birth in their home or birth centers in United States? (2). Are there differences in birth satisfaction for those who birth in their home and those who birth in birth centers; and those who planned to birth in home or birth center, but ended up birthing in a hospital? (3). What childbearing women's demographic variables are significantly related to birth satisfaction?

Methods

Design

The Birth Satisfaction Scale/Birth Satisfaction Scale-Revised (BSS/BSS-R; Hollins Martin and Fleming, 2011) was employed and distributed as an electronic Qualtrics™ survey to our participants via electronic linkages (e.g., Professional websites [MANA, Birth Centers, Midwife], Facebook, Twitter and email). Data collection took place between July 1st and November 30th 2015.

Ethics approval and considerations

In July 2015 an application was submitted to Seattle University's Internal Review Board (IRB). The IRB deemed that this survey was eligible for exempt status. Thus, no formal review was conducted. Informed consent was embedded into the electronic survey where women could read about this study and make an informed choice whether to participate or not.

Measurement tools

Birth Satisfaction Scale

The Birth Satisfaction Scale (BSS) was developed and psychometrically validated in the UK (Hollins Martin and Fleming, 2011; Hollins Martin et al., 2012; Hollins-Martin and Martin, 2014). The BSS is a quantitative measure examining women's satisfaction with labour experiences and outcomes (Hollins Martin and

Table 1
Midwife attended births: United States, 2013.

Birth Setting	**All Births**[*]	**Certified Nurse Midwives/ Certified Midwives** (i.e., CNMs/ CMs)	**Other Midwives**[†] (e.g., CPMs, LMs)	**Other**[†] (e.g., unlicensed midwives or CPMs/LMs in an unlicensed state, spouse, friend, birth attendant, fireman, nurse)
Total Births	**3,932,181 (100%)**	**320,983 (8.2%)**	**27,865** (< .01%)	**27,354** (< .01%)
Hospital[§]	3,876,042 (98.6%)	303,501 (7.8%)	4,720 (< .01%)	15,476 (< .01%)
Free standing birthing centre	16,913 (.4%)	8,956 (53%)	6,661 (39%)	629 (4%)
Home (planned)	36,080 (0.9%)	8,177 (23%)	15,930 (44%)	9,882 (27%)
Clinic or Doctor office	378 (< .01%)	152 (40%)	21 (6%)	29 (7.7%)
Other[†] (e.g., automobile, store, out doors, unplanned home)	2,646 (< .01%)	192 (7%)	532 (20%)	1,313 (50%)

Table is made from Martin JA, Hamilton BE, Osterman MJK, Curtin, SC, Mathews TJ. Births: Final Data for 2013. National Vital Statistics Reports; Vol 64, No 1. Hyattsville, MD: National Center for Health Statistics. 2015.

[*] All births include unspecified and physician attended births.
[†] Suggested examples.
[§] Includes births occurring en route to or on arrival to hospital.