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Culture, bathing and hydrotherapy in labor: An exploratory descriptive pilot study

Q1 Rebecca Benfield, CNM, PhD, Associate Dean for Graduate Studies, Associate Professor [a,*], Margaret M. Heitkemper, PhD, RN, FAAN, Chair, Professor - BNHS [b], Edward R. Newton, MD, Emeritus Professor of Obstetrics and Gynecology [c]

[a] College of Nursing, Health Sciences Building, East Carolina University, Greenville, NC 27834, United States
[b] Director - Center for Women's Health, Biobehavioral Nursing and Health Systems, Box 357266, University of Washington, Seattle WA 98195-7266, United States
[c] Division of Maternal Fetal Medicine, Department of Obstetrics and Gynecology, Brody School of Medicine, East Carolina University, Greenville NC 27834, United States

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ABSTRACT

Objective: Though bathing (hydrotherapy) is widely used during labor to decrease anxiety and pain and to promote relaxation, the influence of cultural beliefs about bathing by parturients is virtually unknown. This pilot study explored pregnant women's experiences of bathing, bathing in labor, and cultural beliefs about bathing.
Design: An exploratory, descriptive design.
Setting: Low risk obstetrical clinics.
Participants: Healthy Hispanic, Black, White, American-Indian and Asian women ($N = 41$) at >37 weeks gestation.
Methods: During a routine prenatal visit women responded to a brief openended questionnaire on the use of bathing. Data was captured using a modified ethnographic method involving observation and note taking with thematic analysis and quantification of percent response rates.
Findings: Forty-six percent ($N = 41$) of women used bathing for purposes other than hygiene but only 4.9% ($N = 41$) of these women bathed during a previous labor. The women described bathing as relaxing, easing, calming, and efficacious for relief of menstrual cramps and labor contractions. Ten percent of women reported cultural beliefs about bathing.
Conclusions: Women who bathe, report relief of anxiety, menstrual and labor pain and promotion of mental and physical relaxation. The findings do not support the view that bathing is associated with identifiable cultural beliefs; rather, they suggest that bathing is a self-care measure used by women. This practice is likely transmitted from generation to generation by female elders through the oral tradition. Assumptions that race or ethnicity precludes the use of bathing may be faulty. Cautionary instructions should be given to pregnant women who are <37 completed weeks of gestation, to avoid bathing for relief of cramping or contractions and to seek immediate health care evaluation. Study of culturally intact groups may uncover additional themes related to bathing in labor and as a self-care measure for dysmenorrhea.

Bathing in labor (hydrotherapy) is used across the world (Benfield, 2002) to promote relaxation and decrease parturient anxiety (Benfield et al., 2001; Benfield et al., 2010) and pain (Benfield et al., 2001; Cammu et al., 1994; Eldor et al., 1992; Lenstrup et al., 1987; Kısa Karakaya et al. 2016). Articles published in the United States, Canada, England, Australia, New Zealand, Sweden, Denmark, France, Belgium, Germany, Poland, Iran, Israel and Turkey attest to the extent of its use (Aird et al., 1997; Benfield et al., 2010; Busine & Guerin, 1987; Cammu et al., 1994; Chaichian et al., 2009; Cluett et al., 2004; Cooper et al., 2017; Eckert et al., 2001; Eldor et al., 1992; Eriksson et al., 1996; Gradert et al., 1987; Lenstrup et al., 1987; Maude & Foureur, 2007; McCandlish & Renfrew, 1993; Mesrogli et al., 1987; Moneta et al., 2001; Odent, 1983; Ohlsson et al., 2001; Robertson et al., 1998; Kısa Karakaya et al. 2016; Rush et al., 1996; Schorn et al., 1993; Waldenstrom & Nilsson, 1992; Vanderlaan, 2017). Moreover, the American-College of Nurse-Midwives (2017) and the American College of Obstetricians and Gynecologists (2016) recently published practice guidelines for the use of immersion/bathing during labor and birth. The healing properties of bathing continue to be of interest (Stanhope et al., 2018). However, though its use is widespread and current, the influences of cultural beliefs about bathing by parturients are virtually unknown and are not addressed in these studies.

* Corresponding author.
E-mail addresses: rebecca.benfield@unlv.edu (R. Benfield), heit@u.washington.edu (M.M. Heitkemper), NEWTONED@ecu.edu (E.R. Newton).

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Rather, this research and anecdotal literature focuses on the effects of bathing on anxiety and pain, analgesia use, length of labor and incidence of infection. It should be noted that bathing parturients are usually immersed in warm water to the chest. For a review of bathing (hydrotherapy) in labor including parameters for the intervention, see Benfield, (2002).

For the purposes of this study, culture is defined as "tradition and custom" (Williamson, & Harrison 2010 p.764). We hypothesized that cultural beliefs might influence the use of and purpose for bathing in non-pregnant, pregnant and laboring women. Our aim is to develop understanding of bathing as a phenomenon by representing the practices of bathing women through their words and perspectives (Elliott et al., 1999).

Knowledge about culture and bathing in pregnancy and parturition is scant. The literature has focused primarily on the concepts of hot and cold (Nichter, 1987) during the postpartum period (Elter et al., 2016; Kaewsarn et al., 2003; Wadd, 1983) or on particular conditions such as edema (Mabogunje, 1990) or additives such as aromatic *Nat* leaves to wart off evil spirits (Elter et al., 2016). Only rarely have specific details been provided about bathing practices. In Sri Lanka, for example, a full bath (nanawa) cools the body and mind while a body washing (anga sodanawa) is for cleansing purposes. The type, amount and force of water contacting the body, especially the head, are critical to maintain a mental-physical balance. Because pregnancy is viewed as a state of overheating with increased vulnerability to hot and cold influences, bathing is more frequent in Sri Lanka (Nichter, 1987). It is unknown whether such traditional practices or cultural beliefs about bathing are found in a racially and ethnically diverse, bio-medically oriented society such as the United States. Therefore, this pilot study explored pregnant women's experiences of bathing, bathing in labor, and cultural beliefs about bathing.

Methods

Design

A descriptive design was selected for the study using a modified ethnographic method involving observation and note taking (Sandelowski, 2000).

Setting and sample

Women residing in a rural community in the Southeastern United States were recruited from the low risk obstetrical clinics at the county health department and the university's school of medicine and from two private obstetrical practices. A university Institutional Review Board approved the study. In each setting, women received care from physicians and nurse-midwives.

Potential participants were identified by nurses and obstetrical care providers. Study inclusion criteria were age 17 through 40, with a singleton pregnancy, and at low risk for obstetrical complications. A contemporaneous study measuring psychophysiological variables before and during bathing in early labor is described by Benfield et al., (2010) along with additional inclusion criteria necessitated by the intervention. A common consent was used for both studies. No incentive was provided for completing the bathing questionnaire or the Designation of Ethnicity and Race Form. At 37 weeks gestation, women who met the study criteria for both studies were approached to obtain informed consent and enrolled.

During a 14-month period, over 1000 charts were reviewed by the first author and approximately 135 women met the inclusion criteria. All were approached to obtain informed consent during a scheduled prenatal visit, and 41 consented. Consent was primarily refused because women did not wish to participate in physiological data collection in the bathing intervention study. Of those women who consented, eleven completed the physiological data collection during labor (Benfield et al., 2010).

Instrument

Three primary questions were asked of each participant, "Do you use bathing for purposes other than getting clean?" "Have you used bathing in labor with a previous pregnancy?" "Are there factors in your cultural beliefs about bathing?" If the answer to any of the questions was "yes", participants were asked the following open-ended questions to elicit further information. "For what other purposes do you bathe?" "Tell me about your experience with bathing in labor: how did bathing in labor affect your pain?" "How did bathing in labor affect your anxiety?" "How did bathing in labor affect your relaxation?" "Describe your cultural beliefs about bathing."

Data collection procedure

The questions on the instrument were read to the participant by the data collector question by question. If the response was "no", the data collector proceeded to the next question. If the answer was "yes" each open-ended questions was asked sequentially. Immediately following each question, the subject's verbatim response was written directly on the questionnaire and then was read aloud by the data collector to the participant for clarification. Administration of the questionnaire and the Designation of Ethnicity and Race Form took approximately 5–10 min.

An interpreter was present for all Spanish-speaking individuals and was instructed to interpret the language of the data collector and the subject's responses. The translated Spanish responses were recorded in English by the data collector.

Care was taken by data collectors not to "lead" the subject in a response or show any positive or negative facial or verbal expressions to any answer. At the conclusion of the questionnaire, the participant was asked, "Do you have any questions? "Is there anything else you would like to tell me?" All participants answered "No".

Several times a puzzled look on the face of a participant was observed by the data collector. For clarification, the question was repeated and then an immediate answer was usually forthcoming from the participant. In three instances, however, the participant continued to look puzzled by the question about cultural beliefs, even when it was repeated. To clarify, the data collector noted special foods which people eat only on holidays or which they avoid as a result of some important life event such as marriage or childbirth. This explanation seemed to clarify the question for participants, who then proceeded to answer the question without hesitation.

All data collectors had completed education in the protection of human subjects. To ensure interrater reliability, two Research Assistants (RAs) observed the first author consenting and collecting data on 2 participants, and then she observed each RA consenting and collecting data on 1 subject.

Designation of Ethnicity and Race was collected using NIH criteria. The participant was instructed to read the form and check two boxes, one for ethnicity and one for race. If she was Spanish speaking, the form was read to her in Spanish by the interpreter. The interpreter then pointed at the response box that the participant indicated, and the data collector then checked the corresponding box.

The first section of the form asked, "Do you consider yourself to be Hispanic or Latino?" In response, the participant was instructed to check one of two boxes, either Hispanic or Latino or Not Hispanic or Latino. The second section of the form asked, "What race do you consider yourself to be? Select one of the following." The choices were American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, or White. A definition accompanied each ethnic and racial choice. An additional option, "Check here if you do not wish to provide some or all of the above information" was read. No participant chose this option. This tool did not differentiate ethnicity