Characteristics of a U.S. Obstetric Acupuncture Clinic Patient Sample

Elizabeth Soliday, PhD,[1#] and Patrice Hapke, LAc[2]

Context: Most U.S.-based studies on acupuncture treatment for obstetric concerns published in mainstream health journals have been randomized controlled trials, widely considered the "gold standard" for clinical research. However, whether those studies adequately reflect the characteristics and treatment concerns of actual treatment users is as yet unknown.

Objective: Provide a reference point for advancing U.S. obstetric acupuncture research by (1) describing background and relevant treatment characteristics of an obstetric acupuncture clinic sample and (2) reviewing those characteristics in relationship to existing U.S.-based studies.

Design: Descriptive follow-up involving a patient-completed internet survey; chief treatment concern and number of treatment sessions were validated against patient records.

Participants: Of 265 former clinic patients, 137 (51.7%) completed the internet survey.

Main Outcomes: Patient referral source and demographics; primary and secondary treatment concerns; number of treatment sessions; and planned birth attendant and setting.

Results: The clinic sample's demographics generally aligned with those in existing U.S. studies. However, the chief concern of most clinic patients was labor facilitation compared to two of the seven U.S.-based publications. Clinic patients learned about acupuncture through midwives and family/friends; 28% planned out-of-hospital birth.

Conclusions: This first study on a U.S. obstetric acupuncture clinic sample suggests that an obstetric acupuncture research agenda relevant to current treatment users should increase focus on labor facilitation, involve samples from a wider range of maternal care settings, and continue outreach to ethnic minorities.

Key words: Acupuncture, TCM obstetrics, pregnancy, descriptive study

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INTRODUCTION

Acupuncture as a treatment for various pregnancy conditions has attracted considerable attention,[1] and international studies have shown its benefits in treating conditions such as pregnancy-induced nausea, breech position, delayed labor onset, and labor pain.[2–6] Though there are no data on how many U.S. women access obstetric (OB) acupuncture treatment, U.S. acupuncture expenditures are on the rise.[7,8] As OB acupuncture and related research advances, it is important to address its ecological validity, or its applicability to current clinical practice and patients. Furthermore, culture-specific studies are warranted because global research on acupuncture may or may not apply across cultural contexts.[9] To address the need to better understand U.S. OB acupuncture patients' characteristics and concerns, on which virtually nothing has been published, we conducted this study examining OB acupuncture clinic patient background and treatment variables in relationship to existing U.S.-based studies.

1 Department of Psychology, WSU Vancouver, 14204 NE Salmon Creek Ave., Vancouver, WA 98686
2 Bastyr University, Seattle, WA

Corresponding author.
e-mail: esoliday@vancouver.wsu.edu

Background on Existing U.S. OB Acupuncture Research

In a review of global contributions to OB acupuncture research,[10] the U.S. ranked third behind China and European region nations in the number of studies published over the past 15 years, with a total of 12 identified, one more than Sweden's 11. Of those 12 studies to be discussed in more detail in the Results section, seven were randomized controlled trials (RCTs), one had a treatment-group only design, and four were case studies.[11–22]

Regarding RCTs in particular, the preponderance of this design in U.S.-based published research reflects the Western medical research paradigm's valuing of the RCT as the "gold standard" in treatment research. RCTs offer the advantage of randomly assigning patients to treatment groups to minimize bias arising from treatment preference and related participant characteristics. However, with their emphasis on controlling confounding variables, RCTs may not adequately reflect characteristics of actual clinic patients and treatment approaches, thus limiting their generalizability to "real-world"

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settings.[23] In particular, clinic patients seen for a variety of medical conditions have been found to have more complex medical needs and comorbid conditions than those recruited for RCTs.[24]

It has been possible to draw comparisons between, for example, characteristics of diabetes patients included in RCTs vs. those of clinic samples because data on diabetes clinic patients exist. In contrast, it cannot be known whether characteristics differ between participants in U.S.-based OB acupuncture research and actual OB treatment users simply because virtually no published data on OB acupuncture clinic samples exist. Data on OB acupuncture clinic samples are necessary to forward a U.S. research agenda as they provide information relevant to including representative samples in controlled OB acupuncture research. In addition, information on the primary treatment concerns of OB acupuncture clinic patients is necessary to forward a research agenda responsive to the needs and concerns of actual clinic patients.

Study Aim

With a primary goal of contributing to the understanding of OB acupuncture clinic patient characteristics and treatment concerns, we assessed demographic and general treatment characteristics of an outpatient obstetric acupuncture specialty clinic sample population. Our secondary goal was to do a preliminary comparison of clinic sample characteristics against those of participants in controlled U.S.-based acupuncture research studies. With no previous systematic study of the U.S. obstetric acupuncture subpopulation, we made no specific hypotheses with regard to clinic sample characteristics as compared to those of existing OB acupuncture research study samples.

METHOD

Participants and Recruitment

Prospective participants were former acupuncture clinic patients treated by either a practitioner with 14 years of expertise with obstetric cases (PH) or a licensed trainee under her supervision. We included patients seen in the previous decade, who were treated in pregnancy, and who had a specific obstetric concern. The selection criteria excluded other clinic patients who were not pregnant at the time of treatment such as those seen for fertility support or other non-reproductive-related concerns. In each case, treatment was individualized and based on the Traditional Chinese Medicine (TCM) system of diagnosis and pattern differentiation applied to pregnancy.[25] The 265 former patients were contacted by e-mail or physical address, described in the Procedures section.

Measures

The primary measure was a self-report questionnaire constructed by the two study authors focused on OB acupuncture clinic patients' experiences and outcomes. The questionnaire contained questions on treatment referral source (for OB acupuncture generally and the provider specifically), chief and secondary treatment concerns, and demographic questions included birth setting, maternal age, parity, work status, race, maternal education, relationship status, and insurance coverage. Additional forced-choice and open-ended questions on birth outcomes were not analyzed in the current study. Maternal reports of number of treatment sessions attended and primary and secondary treatment concerns were validated against medical records.

Procedures

Research procedures. Prior to its beginning, the study was reviewed for ethical treatment of human subjects through the first author's (E.S.) Institutional Review Board. The survey was hosted on the first author's secure university website. An office assistant extracted contact information (e-mail or physical address) from patient records the second author identified as meeting study criteria. Participants whose records contained an e-mail address ($n = 98$) were sent an e-mail message containing a study announcement, internet link to the study, and secure access/login information. Prospective participants whose records contained only a valid physical address ($n = 167$) were mailed the study announcement containing the same information as above. Participants provided a mailing address to which a $10 gift card was sent upon survey submission.

Identification of U.S.-based controlled OB acupuncture studies. We searched Medline/PubMed and Cumulative Index to Nursing and Allied Health Literature (CINAHL) databases for articles published from December 1998 to February 2013. Search terms were "pregnancy + complementary and alternative medicine," "childbirth + complementary and alternative medicine," "pregnancy + acupuncture," and "childbirth + acupuncture." We included articles with a Medline/PubMed "Publication Type" of case reports, clinical trials, comparative studies, controlled clinical trials, evaluation studies, randomized controlled trials, and validation studies. Reviews, meta-analyses, and so on were excluded. Similarly, we included only articles with CINAHL publication type of case reports, clinical trials, and randomized controlled trials. Because *Medical Acupuncture* is not abstracted in our available databases, we searched 41 individual issues from December 1998 to February 2013 through either the American Academy of Medical Acupuncture (AAMA's) or the publisher's websites.

The Medline/PubMed database yielded 144 records; CINAHL yielded 55, with only seven non-overlapping with Medline. Of the seven unique CINAHL articles, four had no published abstracts and were not available through either author's respective library (*Journal of the Acupuncture Association of Chartered Physiotherapists*). From the 147 available database-identified articles, 57 were dropped because they did not involve obstetrics, instead focusing on, for example, fertility treatment (32), professional practice, or scale development. One study was published in a language (German) other than those read by either author. This left 90 database-retrieved articles, to which the review of 41 *Medical Acupuncture* issues yielded three, for a total 93 publications reviewed. Twelve of those were U.S.-based; seven were RCTs, four were case studies, and one was a treatment-group only design.