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Original Article

A proposed mother-friendly childbirth model for Taiwanese women and obstetricians' attitudes toward it

Yi-Ping Li [a], Shin-Yu Lin [a], Chih-Hsin Yeh [b], Heng-Cheng Hsu [a], Ya-Ling Yang [c,*], Chien-Nan Lee [a,*], Su-Chen Kuo [b]

[a] Department of Obstetrics and Gynecology, National Taiwan University Hospital and National Taiwan University College of Medicine, Taipei, Taiwan
[b] National Taipei University of Nursing and Health Sciences, Taipei, Taiwan
[c] Department of Nursing, National Taiwan University College of Medicine, Taipei, Taiwan

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ABSTRACT

Objective: Pleasant and humane childbirth is every mother's wish. The objective of this study was to propose a practicable mother-friendly childbirth model tailored to Taiwanese women in order to improve the quality of perinatal care and maternal satisfaction.
Material and methods: In this study, the guidelines of several countries were systematically reviewed, and a standard set of clinical guidelines were established by a focus group. In addition, a total of 172 Taiwanese obstetricians were visited, and a cross-sectional study of these obstetricians' attitudes toward the practicality and effectiveness of the model was performed using questionnaires.
Results: A total of 10 suggestions were developed for this woman-friendly childbirth model, including: (1) intermittent fetal monitoring for low-risk pregnancy, (2) no routine enema, (3) no routine perineal shaving, (4) no routine restricted oral intake, (5) no routine parenteral fluid support, (6) no routine elective amniotomy, (7) nonpharmacological pain management, (8) upright position during childbirth, (9) delayed pushing, and (10) restrictive episiotomy. Taiwanese obstetricians approved of no routine oral intake restriction and providing nonmedical pain relief. The majority of obstetricians disagreed that perineal shaving and routine elective amniotomy were necessary, and agreed to modify their practice according to the suggestions. Suggestions were still being debated, such as no routine parenteral fluid support, using an upright position for childbirth, and delayed pushing. Intermittent fetal monitoring for low-risk pregnancy, no routine enema, and restrictive episiotomy were questioned by many Taiwanese obstetricians.
Conclusion: Several suggestions were made in this model. However, there was still no consensus of Taiwanese obstetricians. More evidence for the advantages and disadvantages of the various suggestions was needed to convince Taiwanese obstetrician to modify their routine practice.

Introduction

Childbirth is one of the most important events in a mother's life. A pleasant and humane childbirth experience is not only every mother's wish but also every obstetrician's goal. Evidence-based clinical practice obstetric care is valued by countries around the world. The Lamaze International organization previously proposed the Lamaze healthy birth practices, which included the following six practices: (1) let labor begin on its own; (2) walk, move around, and change positions throughout labor; (3) bring a loved one, friend, or doula for continuous support; (4) avoid interventions that are not medically necessary; (5) avoid giving birth while lying supine and follow the body's urges to push; and (6) keep mother and baby together—it's best for the mother, the baby, and breastfeeding [1]. Furthermore, a collaborative model including multidiscipline and interactive members has been found to improve health care outcomes, be cost-effective, and increase patient satisfaction [2].

* Corresponding authors. Chien-Nan Lee, Department of Obstetrics and Gynecology, National Taiwan University Hospital and National Taiwan University College of Medicine, 100, Number 8, Chung-Shan South Road, Taipei, Taiwan; Ya-Ling Yang, Department of Nursing, National Taiwan University College of Medicine, 100, Number 1, Section 1, Ren'ai Road, Taipei, Taiwan.
E-mail addresses: ylyang@ntu.edu.tw (Y.-L. Yang), leecn@ntu.edu.tw (C.-N. Lee).

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According to the "Knowledge, Attitude, and Practice of Contraception" study conducted by the Taiwan Health Promotion Administration, more than 99% of women give birth in clinics or hospitals, with 62% of women undergoing perineal shaving and 41% of women receiving an enema. In addition, more than half of the women surveyed stated that they were not well informed regarding their decisions when in labor [3,4]. The World Health Organization (WHO) has heavily emphasized the overriding philosophy of providing respect, support, and care for pregnant and birthing women [5]. However, this form of ideal care is far from fully established and has taken many efforts to achieve in Taiwan.

Materials and methods

In order to improve obstetric services and increase maternal satisfaction in Taiwan, one focus group was set up and several different guidelines were systematically reviewed to establish a single mother-friendly childbirth model tailored to Taiwanese women. The focus group was composed of 13 experts, including six obstetricians, five head nurses, one social worker, and one women's rights representative.

References were searched for using the following keywords: delivery, shaving, fetal monitor, enema, episiotomy, nil per os (NPO), parenteral fluid, fetal heart rate tracing, painless, delayed push, amniotomy, upright position, birth, natural child birth, relief labor pain, supine push, antenatal care, and midwife. The keyword searches were conducted within several medical search databases and within various guidelines and other resources including: (1) The Cochrane Library, (2) The Database of Abstracts of Reviews of Effects, (3) the "WHO: Care in normal birth" guide, (4) A Guide to Effective Care in Pregnancy and Childbirth, (5) The US Department of Health & Human Services Agency for Health Care Research and Quality National Guideline Clearing House, (6) Clinical evidence, (7) The Trip database, (8) Bandolier, (9) The Canadian Medical Association Infobase, (10) e-Guidelines, (11) The Guideline Advisory Committee, (12) The Guidelines International Network, (13) The Medical Information Network Distribution Service, (14) The National Guideline Clearinghouse, (15) The National Institute for Health and Care Excellence, (16) The New Zealand Guidelines Group, (17) The Scottish Intercollegiate Guidelines Network, and (18) The Taiwan National Health Insurance Administration.

Next, after establishing a mother-friendly childbirth model, a total of 172 Taiwanese obstetricians at 12 hospitals in different regions were visited and their attitudes toward this model were surveyed. Background data included obstetrician parameters and their service hospital parameters. Obstetrician parameters included age, education, years of service, and self-reported episiotomy rate for primiparous women. Hospital parameters included hospital level, month birth numbers, cesarean section rate, painless childbirth rate, and labor-delivery-recovery (LDR) room numbers. After clearly and fully explaining the proposed mother-friendly childbirth model to each obstetrician, his or her current practice status and attitude toward the model was investigated via questionnaire.

We asked the obstetrician the following questions about every suggestion: (1) "Do you think that your previous practices such as administering a routine enema are necessary for labor?"; (2) "What is your current practice status, do you maintain continuous fetal monitoring for every woman in labor?"; and (3) "Would you modify your practices based on our explanations and suggestions?".

In addition to the aforementioned questions, because the suggestion of discontinuing routine episiotomy was met with a variety of different obstetrician opinions, an expansion questionnaire for episiotomy was made.

Results

After reviewing the aforementioned literature according to the level of evidence, a single mother-friendly childbirth model was established consisting of 10 suggestions based on their consistency, relevance, and application. The 10 suggestions were as follows: (1) intermittent fetal monitoring for low-risk pregnancy, (2) no routine enema, (3) no routine perineal shaving, (4) no routine restricted oral intake, (5) no routine parenteral fluid support, (6) no routine elective amniotomy, (7) providing non-pharmacological pain management, (8) upright position during childbirth, (9) delayed pushing, and (10) restrictive episiotomy.

Table 1
Obstetrician and hospital background data.

Parameters	*N*	%
Obstetrician parameters		
Age (y)		
≤ 30	37	21.5
31–40	50	29.1
> 41	46	26.7
Invalid	39	22.7
Education		
Bachelor's degree	136	79.1
Master's degree	21	12.2
Doctor's degree	14	8.1
Invalid	1	0.6
Years of service		
≤ 6	57	33.1
7–10	27	15.7
11–20	40	23.3
≥ 21	48	27.9
Invalid	0	0
Self-reported episiotomy rate for primiparous woman (%)		
0–9	7	4.1
10–19	3	1.7
20–29	2	1.2
30–39	4	2.3
40–49	2	1.2
50–59	1	0.6
60–69	0	0.0
70–79	7	4.1
80–89	15	8.7
90–99	54	31.4
100 (routine episiotomy)	72	41.9
Invalid	5	2.9
Hospital parameters		
Hospital level		
Medical center	108	62.8
Regional hospital	37	21.5
Local hospital	7	4.1
Local clinical	18	10.5
Invalid	2	12
Month birth numbers		
≤ 100	60	34.9
101–200	43	25.0
201–300	24	14.0
≥ 3 01	40	23.3
Invalid	5	2.9
Cesarean section rate (%)		
≤ 30	93	54.1
31–40	64	37.2
≥ 40	7	4.1
Invalid	8	4.7
Painless childbirth rate (%)		
≤ 30	94	54.7
31–60	50	29.1
≥ 60	18	10.5
Invalid	10	5.8
Labor-delivery-recovery room numbers		
0	85	49.4
1–5	70	40.7
≥ 5	12	7.0
Invalid	5	2.9