

Prevalence of Traditional Asian Postpartum Practices at a Federally Qualified Health Center

Van Viet Thuy Nguyen, Micha Y. Zheng, Stephanie M. Liu, Michael A. Kallen, Kerry Kay, Susan

L. Ivey

Abstract

Objective: To evaluate the knowledge of, participation in, attitudes towards, and experiences with “doing the month” (DTM), a traditional Chinese and Vietnamese postpartum practice, at a federally qualified health center that serves predominantly Asian immigrants. DTM practices revolve around the balance between yin and yang and include practices such as the mother remaining on bed rest for as long as possible, restricting diet to certain foods, and avoiding visitors and social activities.

Methods: A cross-sectional survey in Chinese, Vietnamese, and English was developed to determine the prevalence of women who have heard of and participated in DTM.

Results: One hundred fifty-four respondents participated. The mean age of respondents was 40.1 years. Without prompting of what DTM was, 58 (37.7%) responded that they had heard of DTM. After an explanatory paragraph, this increased to 117 (76.6%) participants. Out of 107 patients that have children, 65 (60.7%) “did the month” after giving birth. Participation rates were highest for women who identified as Chinese or Vietnamese. Likert-type scale questions showed that respondents believed DTM was stressful but enjoyable and helpful for recovery from childbirth.

Conclusion: DTM is a common practice that health providers should be aware of.

Background

Chinese and Vietnamese immigrants make up a substantial number of immigrants in the United States (U.S.). Chinese immigrants are the third-largest foreign-born group in the U.S., after Mexican and Indian immigrants. Since 1980, the population of Chinese immigrants has grown

more than six-fold, reaching 2.3 million in 2016, or 5% of the nation's immigrants. The Chinese immigrant population is highly concentrated in California (31%) and New York (20%) (Zong & Batalova, 2017). Vietnamese immigrants represent 3% of the nation's immigrants and are the sixth largest immigrant group after immigrants from Mexico, India, China, the Philippines, and El Salvador. Most Vietnamese immigrants settle in California (39%), Texas (13%), Washington State (4%), and Florida (4%) (Zong & Batalova, 2016). As people immigrate, they often bring cultural practices and traditions to their new countries, with one example as "doing the month." "Doing the month" (DTM) is rooted in Traditional Chinese Medicine (TCM). TCM describes two opposing forces: yin (hot air, activity, or positive energy) and yang (cold air, passivity, or negative energy). According to TCM, yin and yang forces regulate the entire universe, including the human body, and health is correlated with a proper balance of qi, the life energy. After giving birth, TCM theories state that a woman's harmony and balance of yin and yang are impaired, leading to a physiologically vulnerable state (Kuo et al., 2015). Because of this imbalance, Chinese women are often encouraged to participate in a postpartum recuperation period commonly known as "坐月子" (Mandarin: "zuo yue zi," Cantonese: "cho yet," or Taiwanese: "tso-yueh-tzu"), directly translated as "doing the month"; that is, they "do the month" from one month to forty days after childbirth in order to heal from their childbearing experience (Heh et al., 2004). During this healing time, a woman is supposed to be on bed rest for as long as possible; childcare, cooking, and domestic work is taken over by her mother or mother-in-law. The woman must avoid certain activities, including taking a bath, participating in social activities, seeing visitors, going out of the house, having sexual intercourse, being exposed to water that has not been boiled, being exposed to windy drafts, brushing her teeth, and washing her hair. The woman must also follow a strict diet that restores her yin and yang equilibrium,

such as avoiding cold foods (e.g., cold drinks, ice cream, certain fruits, and vegetables) and eating more hot foods or foods that remove cold (e.g., boiled eggs, chicken, fish soup, ginger, dates, chicken, pig's feet, internal organs). The new mother is also expected to have plenty of rest while someone else takes care of the baby and to keep herself warm, drink only hot liquids, stay away from strangers, and cover her head to prevent chills (Bashiri & Spielvogel, 1999; Chen et al., 2012; Chung et al., 2011; Gao et al., 2010; Heh et al., 2004; Holroyd et al., 2005; Klainin & Arthur, 2009; Morrow et al., 2008; Seeman, 2008; Wong & Fisher, 2009; Yuan & Freeman, 2011).

While DTM has been practiced for hundreds of years, it may conflict with routine postpartum care in the U.S. healthcare system (Ho et al., 2015). The American College of Obstetricians and Gynecologists recommends that women have at least two postpartum appointments within twelve weeks of birth, with the first of these appointments being scheduled within the first three weeks after delivery (American College of Obstetricians and Gynecologists, n.d.-a). Following this recommendation will require women to shorten or temporarily pause doing the month to leave her home for the initial appointment. For women with chronic medical conditions like diabetes, hypertensive disorders, and mood disorders which can be complicated by postpartum changes to the body, doing the month may prevent timely care that would otherwise occur during early obstetrician-gynecologist appointments. If the mother is breastfeeding and taking medications, these appointments also provide an opportunity for the obstetrician-gynecologist to review the woman's medications to ensure they do not contain agents that can enter her breastmilk and are safe for infants (American College of Obstetricians and Gynecologists, n.d.-a).

In mainland China, Taiwan, Hong Kong, and Vietnam, “doing the month” (DTM) is still a common practice (Wong & Fisher, 2009). Women usually return to their family home after giving birth to receive support from their mothers. DTM practices are also common among the Chinese diaspora (Ho et al., 2015; American College of Obstetricians and Gynecologists, n.d.-a). There are, surprisingly, no published studies of the prevalence of participation in this practice in the U.S. The purpose of this study was to determine participant knowledge of “doing the month” as a postpartum practice, detect the prevalence of participation in “doing the month,” assess the attitudes and beliefs towards this practice, and understand participant experiences with this practice among Asian American women, particularly Chinese and Vietnamese women, encountered at a federally qualified health center in XXX, XXX.

Methods

The population studied were patients at a federally qualified health center that serves predominantly Asian immigrants and refugees. A literature review of “doing the month” revealed the practice’s origins and various components. The authors used this information to develop a cross-sectional survey for this study. The language-specific versions of the survey were piloted and validated by two women fluent in English and either Chinese or Vietnamese. Final item phrasing in English and ordering were validated and completed by consultation with a psychometrician. There was a maximum of 43 questions that could be answered, depending on participants’ answers and the survey’s subsequent branching or skip logic. The key domains assessed in the full-length survey included: knowledge of, prevalence of, experiences with, and attitudes towards “doing the month.” Knowledge of DTM was assessed by first asking participants if they had heard of “doing the month” or “sitting the month,” followed by an explanation of what “doing the month” is before asking participants again if they had heard of

the practice. Prevalence was detected by asking participants about their plans to participate in or history of participating in DTM. Experiences with DTM were assessed by asking participants about stress from, facilitators/barriers to, and provider knowledge about DTM. Lastly, attitudes toward DTM were assessed by asking participants whether they enjoyed “doing the month” and whether they found it helpful to recovery after childbirth.

From June to August 2017, female patients in the waiting room of the XXX, a federally qualified health center in XXX, XXX, were asked if they would be willing to complete an iPad-based Qualtrics survey, receiving a \$5 grocery store gift card upon its completion. Both recruitment scripts and the survey itself were available in Simplified/Traditional Chinese, Vietnamese, and English. Participant recruiters were fluent in Mandarin Chinese, Vietnamese, and/or English. There were a few female patients able to read and/or speak Mongolian, Hmong, Spanish, and Russian that showed interest in participating but were unable to do so because the survey was not translated into those languages and no participant recruiters spoke those languages to translate the survey for them. The first page of the survey was an informed consent page, allowing informed consent to be obtained from each study participant prior to allowing the participant to continue her survey. This study was approved by the XXX Institutional Review Board. Survey data were collected and downloaded from Qualtrics. Data from 154 completed surveys were initially cleaned in Microsoft Excel 2016. Additional cleaning and analysis were performed in SAS 9.4, SAS Institute Inc., Cary, NC, U.S. Chi-square and Fisher’s exact tests were performed to test for associations, with statistical significance set at the p-value < .05 level. Phi and Cramer's V statistics were obtained to estimate effect sizes for the 2 x 2 and larger contingency tables, respectively. To interpret Phi and Cramer's V values, an effect with an absolute value equal to or greater than 0.5 was considered large, an effect with an absolute value

equal to or greater than 0.3 and less than 0.5 was considered medium, and an effect with an absolute value equal to or greater than 0.1 and less than 0.3 was considered small. The effect size can be positive or negative, where positive indicates agreement while negative disagreement (e.g., +1.00 would be perfect agreement, while -1.00 would be perfect disagreement). Some multi-item scales were created, and they were then tested for internal consistency reliability, using a criterion of Cronbach's alpha ≥ 0.70 to proceed with analytic use of a scale. Some categories of multi-category demographic variables were collapsed for analysis due to sample size constraints and the need for robust, interpretable results. Analysis of variance (ANOVA) was used to evaluate differences in scale means among demographic variable-based groups, with statistical significance set at the p-value $< .05$ level. Post hoc testing (Tukey's paired comparisons) was conducted when appropriate (i.e., when an ANOVA's omnibus F test was statistically significant and more than two groups were being compared). Cohen's D statistic was obtained as the effect size estimate, with values equal to or greater than 0.8 considered large effects, values equal to or greater than 0.5 and less than 0.8 considered medium effects, and values equal to or greater than 0.2 and less than 0.5 considered small effects.

Results

A total of 154 women participated. The mean age of this population is 40.1 years (SD=15.5). For those women who had given childbirth, participant demographics and their frequency of participating in DTM are shown in Table 1.

Before any prompting, 37.7% of all participants responded "yes" when asked if they had ever heard of the practice, "doing the month." After reading an explanatory paragraph that gave clear examples of the practice, the number of participants who responded "yes" to that question almost doubled, to 76.0%.

Prevalence.

Participants were asked, “Do you know anyone who has done the month (for example: your mother, siblings, etc.)?” Out of 117 respondents that had heard of DTM after the explanatory paragraph, 82 (70.1%) said “yes,” 25 (21.4%) said “no,” 4 (3.4%) said “not sure,” and 6 (5.1%) did not respond.

Participants were also asked, “After giving birth, did you do the month?” Out of 107 participants that had children, 65 (60.7%) said “yes,” 42 (39.3%) said “no.”

Doing the month’s effects on appointment adherence.

Out of the participants who had “done the month” (n = 65), when asked if they felt that “doing the month” prevented them from seeing their doctor the month after giving birth, 10 (15.4%) said “always” or “usually,” 5 (7.7%) said “sometimes,” 44 (67.7%) said “rarely” or “never,” and 6 (9.2%) said “not applicable.”

Barriers to doing the month.

Out of the participants who had “done the month” (n = 65), when asked if they felt that they were not able to “do the month” completely because they had to go back to work, 12 (18.5%) strongly agreed or agreed, 5 (7.7%) were neutral, 35 (53.8%) disagreed or strongly disagreed, and 13 (20.0%) said this question was not applicable. Out of the participants who had “done the month” (n = 65), when asked if they were, overall, able to follow “doing the month” practices, 3 (4.6%) strongly disagreed or disagreed, 13 (20.0%) were neutral, and 49 (75.4%) agreed or strongly agreed. Out of the participants who had “done the month” (n = 65), when asked if their doctor prevented them from “doing the month” because they were required to come to health appointments after giving birth, 5 (7.7%) said “very much” or “quite a bit,” 4 (6.2%)

said “somewhat,” 37 (56.9%) said “a little bit” or “not at all,” and 19 (29.2%) said “not applicable.”

Attitudes towards doing the month.

Out of the participants who had “done the month” (n = 65), when asked if they enjoyed doing the month overall, 17 (26.2%) said “not at all” or “a little bit,” 15 (23.1%) said “somewhat,” and 33 (50.8%) said “quite a bit” or “very much.” Out of the participants who had “done the month” (n = 65), when asked if they believed that “doing the month” helped them to avoid sadness after giving birth, 14 (21.5%) said “not at all,” 10 (15.4%) said “a little bit,” 17 (26.2%) said “somewhat,” 13 (20.0%) said “quite a bit,” and 11 (16.9%) said “very much.” Out of the participants who had “done the month” (n = 65), when asked if they thought that “doing the month” helped them recover from childbirth, 31 (47.7%) said “very much,” 18 (27.7%) said “quite a bit,” 14 (21.5%) said “somewhat,” 1 (1.54%) said “a little bit,” 1 (1.54%) said “not at all.”

Stress.

To evaluate how stressful DTM was, participants were asked about the stress that DTM placed on themselves versus their partners. Stress items used a 5-point Likert-type scale ranging from “not at all” (5) to “very much” (1). ANOVA results indicated participants varied significantly in their stress levels by several demographic variables: place of birth ($p < 0.044$), year immigrated to the U.S. ($p < 0.003$), primary language spoken at home ($p < 0.042$), and self-reported spoken English level ($p < 0.046$). Results are described below and displayed in Table 2.

Stress versus place of birth.

For place of birth, participants born in the U.S. (Mean = 2.80, SD¹ = 1.35) and Other countries (Mean = 4.01, SD = 1.08) (i.e., other than Vietnam and China or Hong Kong) were more likely to feel that “doing the month” was stressful, compared to participants born in China or Hong Kong (Mean = 4.12, SD = 1.01). Participants born in Vietnam (Mean = 4.34, SD = 1.11) were less likely to feel that DTM was stressful, compared to participants born in China or Hong Kong.

Stress versus immigration year.

Respondents who immigrated to the U.S. between 1975 and 2000 (Mean = 3.68, SD = 1.34) and respondents who were not immigrants (Mean = 2.80, SD = 1.35) were more likely than respondents who immigrated between 2001 and 2017 (Mean = 4.32, SD = 0.90) to feel that DTM was stressful.

Stress versus primary language spoken at home.

Survey participants who primarily spoke English at home (Mean = 2.80, SD = 1.48), Vietnamese (Mean = 4.20, SD = 1.13), or Other languages (Mean = 3.90, SD = 0.10) (i.e., other than Chinese) at home were all more likely than Chinese-speakers (Mean = 4.23, SD = 1.02) to find DTM stressful.

Stress versus self-reported spoken English level.

Respondents who self-reported their spoken English ability level as “not well” or “not at all” (Mean = 4.28, SD = 0.88) were less likely than respondents with a reported “well/very well” spoken English ability level (Mean = 3.72, SD = 1.37) to find DTM stressful.

¹ SD = standard deviation

Provider knowledge.

Three items² assessed participants' opinions of how knowledgeable their healthcare provider was about "doing the month" practices, and these items were combined to form a single measure after showing adequate internal consistency reliability (Cronbach's alpha = 0.89). Provider Knowledge item responses ranged from "not at all" (1) to "very much" (5). ANOVA results indicated that participants' views of their provider's DTM knowledge differed significantly by age ($p < 0.029$). Respondents who were older (≥ 45 years) felt that their healthcare provider was more knowledgeable about "doing the month" practices (Mean = 3.881, SD = 1.037) than younger respondents ages 17-44 (Mean = 2.968, SD = 1.352).

Support while doing the month.

Two items (1. When you were DTM, you had family support to help you. 2. When you were DTM, you had childcare support to help you.) assessed the level of support that participants received while "doing the month," and these items were combined to form a single measure after showing adequate internal consistency reliability (Cronbach's alpha = 0.73). Support while DTM item responses ranged from "never" (1) to "always" (5). ANOVA results indicated that participant support while DTM differed significantly by the primary language spoken at home ($p < 0.029$). Respondents who spoke English (Mean = 3.10, SD = 1.14) or Other languages (i.e., other than Vietnamese or Chinese) (Mean = 3.14, SD = 1.55) were less likely to have family and childcare support while "doing the month" compared to those who spoke Chinese (Mean = 4.15, SD = 1.09). Vietnamese-speakers were more likely (Mean = 4.27, SD = 0.86) to have support compared to Chinese-speakers.

² Your healthcare provider was well informed about "doing the month" practices. Your healthcare provider was able to answer your questions about DTM. Overall, your healthcare provider's knowledge about DTM was ____.

Pressure from older generation to participate in DTM.

Participants were asked how much they agreed with the following statement: You believe that if it were not for the older generation in your family, you would not have participated in "doing the month." ANOVA results indicated that pressure from the older generation on participants to participate in DTM differed significantly by several demographic characteristics: place of birth ($p < 0.020$), self-identified race/ethnicity ($p < 0.022$), primary language spoken at home ($p < 0.003$), and self-reported spoken English level ($p < 0.011$). Respondents who were in born in countries other than China (Vietnam Mean = 2.93, SD = 1.64; Other Countries Mean = 2.79, SD = 1.85; U.S. Mean = 1.80, SD = .84) were more likely to feel pressure from older generations to participate in DTM compared to those who spoke Chinese (Mean = 3.83, SD = 1.47). Those that identified as Vietnamese (Mean = 2.67, SD = 1.63) or Other Race/Ethnicity (Mean = 2.50, 1.73) were more likely to feel pressure from older generations to participate in DTM than those that identified as Chinese (Mean = 3.71, SD = 1.51). Vietnamese-speakers (Mean = 2.54, SD = 1.56) and Other language-speakers (Mean = 1.89, SD = 1.45) were more likely to feel pressure from older generations than English-speakers (Mean = 3.40, SD = 1.67) and Chinese-speakers (Mean = 3.80, SD = 1.49). Those that spoke English well or very well (Mean = 2.60, SD = 1.68) were more likely to feel pressure from older generations to DTM than those that spoke English not well or not at all (Mean = 3.65, SD = 1.51). Results are shown in Table 3.

Discussion

Overall, "doing the month" is common in this study population and a regular part of women's postpartum timelines, even if respondents did not necessarily know the practice by name. Even before sorting through demographic or immigrant status, the majority of respondents

who had given birth had participated in “doing the month” (60.7%). The majority (70.1%) of study participants also reported knowing other women who had “done the month.” This may represent a high prevalence of DTM participation beyond the survey’s respondents; that is, going out into their communities, and including women who may not utilize the FQHC in which this study was conducted. Providers should be aware of this practice and familiar with common components that may affect postpartum health outcomes for mothers and infants. This includes but is not limited to the avoidance of showering, not leaving the house, and drinking rice wine. An explanatory paragraph almost doubled the number of participants who had heard of “doing the month.” This was made especially clear when creating the Vietnamese version of the survey as the authors found that there was no particular phrase used to describe this practice. When relevant, providers should ask patients whether they participate in DTM practices by providing concrete examples of common components (e.g., not showering, not eating cold foods, not leaving the house) rather than using the general English translation of “doing the month.”

Demographic variables that were significantly correlated with participation in “doing the month” included: place of birth, self-identified race/ethnicity, and primary language spoken at home. The fact that not all demographic variables were significant reemphasizes the importance of not assuming who is likely to participate or not participate in DTM. Providers working with Asian communities in which the practice could affect postpartum health may need to screen all patients, regardless of immigration status or self-identified race/ethnicity. Nonetheless, an overwhelming majority of Chinese and Vietnamese immigrant women in this study had participated in “doing the month” (Table 1). Chinese immigrant women—defined as those born in China, who primarily speak Chinese at home, and who self-identify as ethnically Chinese—were the most likely to have participated in “doing the month” postpartum practices, compared to

other Asian immigrants. They were very unlikely to find “doing the month” stressful, and Vietnamese immigrants felt “doing the month” to be even less stressful than did Chinese immigrants. The fact that Vietnamese immigrants felt they had the most social support may explain why they felt DTM was the least stressful. Primary Chinese-speakers felt they had more social support than primary English-speakers felt that they had during the postpartum period. Chinese immigrants were also the least likely to feel that, if it were not for the older generation, they would not have participated in “doing the month.” This suggests that social support is important and impacts a woman’s experience during this postpartum ritual.

“Doing the month” did not seem to prevent most women from seeing their doctor the month after giving birth. However, there was a substantial number of women (one-fourth) who felt that “doing the month” did prevent them from seeing their doctor during the thirty days postpartum. These women and their newborns may be the most vulnerable in terms of postpartum depression and other negative health outcomes (Liu et al., 2014). Remaining indoors may prevent adequate sun exposure and thus a vitamin D deficiency, which can further contribute to risk of depression (Strand et al., 2009). Depending on the amount of time that has passed between rice wine consumption and nursing, drinking rice wine or consuming foods cooked with rice wine could affect developing infants, as well as increase time needed for breastfeeding patients to lactate (Chien et al., 2005, 2009). Being unable to shower can contribute to postpartum infections, and being unable to leave the house may contribute to postpartum depression in the mother, especially for women who delivered by Cesarean section (Liu et al., 2014). A month of bedrest could increase an already elevated risk for deep vein thrombosis (American College of Obstetricians and Gynecologists, n.d.-b). The American Dental Association recommends brushing one’s teeth twice a day to prevent caries and gingivitis, and

evidence shows that periodontal disease is associated with heart disease (American Academy of Periodontology, n.d.; American Dental Association, n.d.). Providers who have a large immigrant patient population should offer telemedicine or home-visit options for women who cannot leave their homes during the month after giving birth to ensure timely care is available during in dynamic period following childbirth. In the spring of 2020, telemedicine appointments significantly increased due to the coronavirus disease 2019 pandemic (Mann et al., 2020). Telemedicine is expected to continue advancing even beyond the pandemic, which may help to ameliorate cultural conflicts of “doing the month” (Contreras et al., 2020).

Although sometimes viewed as a restrictive and isolating practice, “doing the month” appears to be well-received among women who participate. Participants generally thought that “doing the month” was stressful, more so for themselves than for their partners. Women’s attitudes towards whether they enjoyed the practice were very mixed and ranged across all the available response options. However, most respondents did report enjoying “doing the month.” In order to properly address our population’s immigrant experiences, it was important for this study to make a distinction between how much women enjoy this practice and how culturally important this practice is for some women. Immigrants living in the United States may experience conflicting values between acculturation and enculturation (Contreras et al., 2020). Western cultures place a greater emphasis on individual beliefs and personal values, thus conflicting with Eastern, more collectivist cultures which emphasize parental authority and conformity to familial/cultural traditions and norms (Kim et al., 1999; Markus & Kitayama, 1991). Personal values and familial/cultural traditions do not necessarily align, so understanding the importance of the traditional practices like “doing the month” may not be enough to ensure adherence to it (Kim et al., 2001). Distinguishing women’s participation as a result of their

personal preferences and what they consider to be favorable or acceptable, as opposed to the result of what their culture or family forces them to do, sheds more light on their attitudes towards “doing the month.”

A large majority of women also felt like “doing the month” helped them to recover from childbirth; only 1 (1.54%) person said that it did not help at all. Further qualitative studies are required to elucidate this finding. In addition, further retrospective electronic health record analyses are also required to determine whether women who “did the month” actually had a better or worse recovery outcome compared to those that did not.

According to Pew Research Center estimates, Asian immigrants are projected to become the largest foreign-born group in the U.S. by 2055, surpassing Hispanics (American College of Obstetricians and Gynecologists, n.d.-a). “Doing the month” is a very common practice among Chinese and Vietnamese immigrants that health providers should be aware of in order to provide and promote culturally-responsive postnatal health of both the infant and mother. Conversely, the strong aspects of social support and emphasis on recovery may be protective of postpartum depression. Future retrospective studies evaluating the correlation between DTM and postpartum health outcomes are sorely needed.

Limitations of this study include small sample size, convenience and cross-sectional sampling, recruiters were unable to speak Cantonese, and many Mongolian and Burmese patients who were interested in participating were unfortunately unable to take the survey due to the lack of appropriate language translations. Statistical analyses were also limited by the small sample size. Analyses were therefore exploratory in nature and should be confirmed with a larger sample.

Strengths of this study include: the first study related to “doing the month” practices in the U.S., the second study ever to study immigrants’ participation in “doing the month,” and the availability of survey instruments in both Chinese and Vietnamese.

Implication for Practice and/or Policy

The findings of this study are not limited to Asian immigrants. There are many other similar variations on this postpartum practice to be found in other cultures. For example, many Latin American women participate in the “cuarentena,” during which some women drink a beer each morning, believing it aids in breastmilk production. Some Indian women participate in “magu-bananthi aarika” and may be restricted to only ingesting bread, coffee, and milk the first two days after giving birth. These practices can affect the mother’s recovery from surgery (e.g., not showering after cesarean section could increase infection rates), postpartum depression (e.g., women may feel isolated and alone by being confined for a month), chronic health conditions (e.g., medications or their dosages are not adjusted for the mother’s postpartum needs) and newborn health (e.g., caffeine or alcohol levels in breastmilk may be increased). In order to provide the best care, obstetricians, midwives, doulas, nurses, pediatricians, internal medicine, family medicine doctors, and all other medical providers who come in contact with women who are pregnant or recently pregnant should all be aware of these various practices, be trained to ask what components women are participating in when relevant, and be knowledgeable about how to provide appropriate education and medical care for women who are or will be participating in their respective postpartum practices. Medical and residency training should include curricula regarding traditional postpartum rituals.

Conclusions

The majority of immigrant Asian women at this FQHC had heard of and participated in “doing the month.” While doing the month was stressful for some women, many enjoyed participating in this practice and many more found it helpful for recovery from childbirth. Asian immigrants are projected to become the largest foreign-born group in the U.S. by 2055. DTM is a common practice that health providers should be aware of in order to promote postnatal health of both infant and mother. Drinking rice wine, recommended in DTM practices, could affect developing infants and may need to be addressed in breastfeeding patients. Being unable to shower or leave the house for a month may contribute to postpartum infections or depression in the mother.

Appendix

Table 1. Respondent Demographics and Univariate Results (Agreement with “I Have Participated in Doing the Month Practices” Out of All Participants Who Have Given Childbirth).

Variable	Variable Category	Frequency of agreement	Percent of		
			agreement (Effective Sample Size/Total Sample Size X 100)	p- value	Effect Size (Phi, Cramer 's V)
Age (in years)	17-44	34/54	63.0%	.343	NA
	45-59	18/35	51.4%		
	60+	13/18	72.2%		

	China or Hong Kong	29/33	87.9%		
	U.S.	5/8	62.5%		
Place of birth	Vietnam	16/27	59.3%	.003	0.415 ^b
	Other ^b	5/12	41.7%		
	Southeast Asia ^a	10/27	37.0%		
	Chinese ^c	35/39	89.7%		
Self-identified	Vietnamese	17/28	60.7%		
race/ethnicity	Southeast Asian ^d	9/27	33.3%	<.001	0.504 ⁿ
	Other ^e	4/13	30.8%		
Year	1975-2000	14/27	51.9%		
immigrated to	2001-2017	46/72	63.9%	0.552	NA
the U.S.	Non-immigrant	5/8	62.5%		
	Chinese ^f	35/40	87.5%		
Primary	Vietnamese	15/25	60.0%		
language	SE Asian Language ^g	6/20	30.0%	<.001	0.469 ^b
spoken at	English	5/12	41.7%		
home	Other ^h	4/10	40.0%		
	Not at all	12/14	85.7%		
Self-reported	Not well	28/45	62.2%		
spoken English	Well	14/31	45.2%	0.073	NA
level	Very well	11/17	64.7%		
	Elementary school or less	16/22	72.7%	.267	NA

Highest level of school completed	Middle school to high school	32/52	61.5%		
	Some college	12/20	60.0%		
	Bachelor's degree or more	5/13	38.5%		
	Never married	9/14	64.3%		
Marital status	Living with partner	4/6	66.7%		
	Married	41/68	60.3%	1.000	NA
	Separated, divorced, or widowed	11/19	57.9%		
Health insurance coverage	Public ⁱ or not insured	54/94	57.5%		
	Private ^j	11/13	84.6%	.074	NA
Total respondents				107	

Footnotes for Table 1:

^aTotal N varied per category within variables. For example, “69/96” indicates 69 out of a possible 96 women agreed.

^bMedium effect size

^cSE Asia place of birth does not include Vietnam; SE Asia place of birth includes Burma, Cambodia, Laos, Malaysia, Philippines, Thailand

^dOther place of birth includes Afghanistan, Honduras, Korea, Mexico, Mongolia, Uzbekistan

^eChinese race/ethnicity includes Chinese, Hong Kongese, Shanghainese, and Taiwanese

^fSoutheast Asian race/ethnicity does not include Vietnamese; SE Asian includes Burmese, Thai, Cambodian, Filipino, Karen, Laotian, Mien

^gOther race/ethnicity includes Farsi, Russian, Uzbek, Mongolian, Spanish

^hSmall effect size

ⁱChinese language includes Cantonese, Mandarin, and Taishanese

^jSE Asian language does not include Vietnamese; includes Burmese, Cambodian, Kachin, Karen, Karenni, Khmer, Laotian, Mien, Pangasinan, S'Gaw Karen, Tagalog, Thai

^kOther language includes Farsi, Mongolian, Russian, Uzbek, Spanish

^lPublic health insurance includes Health Pac, Medi-Cal/Medicaid, Medicare, VA, Alameda Alliance

^mPrivate insurance includes purchased directly from an insurance company, through employer or union, student health insurance, and Covered California

ⁿLarge effect size

NA = not applicable

Table 2. Statistically Significant Demographic Variables for Stress While “Doing the Month”

Variables	Variable Category	Mean±SD	ANOVA	Significant post
			F test p-value	hoc tests *, with effect sizes **
Place of birth	U.S.	2.80±1.35	0.044	Vietnam vs. U.S. (D=1.33)
	Other	4.07±1.08		
	Vietnam	4.34±1.11		
	China or Hong Kong	4.12±1.01		
Immigration year	1975-2000	3.68±1.34	0.003	

	2001-2017	4.32±0.90		2001-2017 vs.
	Not immigrant	2.80±1.35		Not Immigrant (D=1.61)
Primary language spoken at home	English	2.80±1.48	0.042	Chinese vs. English (D=1.33)
	Other	3.90±0.97		
	Vietnamese	4.20±1.13		
	Chinese	4.23±1.02		
Self-reported spoken English level	Not well or not at all	4.28±0.88	0.046	
	Well or very well	3.72±1.37		

*=Tukey post hoc testing, p < 0.05; **=Cohen’s D effect size

Table 3. Statistically Significant Demographic Variables for Older Generation Pressuring Participant to “Do the Month”

Variables	Variable Category	Mean±SE	ANOVA F test p-value	Significant post hoc tests*, with effect sizes**
Place of birth	U.S.	1.80±0.84	0.020	China or Hong Kong vs. U.S. (D=1.45)
	Other	2.79±1.85		
	Vietnam	2.93±1.64		
	China or Hong Kong	3.83±1.47		
Self-identified race/ethnicity	Other	2.50±1.73	0.022	
	Vietnamese	2.67±1.63		

	Chinese	3.71±1.51		
Primary language spoken at home	English	3.40±1.67	0.003	Chinese vs. Other (D=1.29)
	Other	1.89±1.45		
	Vietnamese	2.54±1.56		
	Chinese	3.80±1.49		
Self-reported spoken English level	Not well or not at all	3.66±1.51	0.113	
	Well or very well	2.60±1.68		

*=Tukey post hoc testing, $p < 0.05$; **=Cohen's D effect size

References

- American Academy of Periodontology. (n.d.). *Gum Disease and Heart Disease*. Retrieved January 15, 2021, from <https://www.perio.org/consumer/gum-disease-and-heart-disease>
- American College of Obstetricians and Gynecologists. (n.d.-a). *Optimizing Postpartum Care*. Retrieved September 18, 2020, from <https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2018/05/optimizing-postpartum-care>
- American College of Obstetricians and Gynecologists. (n.d.-b). *Preventing Deep Vein Thrombosis*. Retrieved January 15, 2021, from <https://www.acog.org/womens-health/faqs/preventing-deep-vein-thrombosis>
- American Dental Association. (n.d.). *Home Oral Care*. Retrieved January 15, 2021, from <https://www.ada.org/en/member-center/oral-health-topics/home-care>
- Bashiri, N. & Spielvogel, A. M. (1999). Postpartum depression: A cross-cultural perspective. *Primary Care Update for Ob/Gyns*, 6(3), 82–87. [https://doi.org/10.1016/S1068-607X\(99\)00003-7](https://doi.org/10.1016/S1068-607X(99)00003-7)
- Chen, T. L., Tai, C. J., Wu, T. W., Chiang, C. P., & Chien, L. Y. (2012). Postpartum cultural practices are negatively associated with depressive symptoms among Chinese and Vietnamese immigrant mothers married to Taiwanese men. *Women & Health*, 52(6), 536–552. <https://doi.org/10.1080/03630242.2012.697109>
- Chien, Y. C., Huang, Y. J., Hsu, C. S., Chao, J. C. J., & Liu, J. F. (2009). Maternal lactation characteristics after consumption of an alcoholic soup during the postpartum “doing-the-month” ritual. *Public Health Nutrition*, 12(3), 382–388. <https://doi.org/10.1017/S1368980008002152>
- Chien, Y. C., Liu, J. F., Huang, Y. J., Hsu, C. S., & Chao, J. C. J. (2005). Alcohol levels in Chinese lactating mothers after consumption of alcoholic diet during postpartum “doing-the-month” ritual. *Alcohol*, 37(3), 143–150. <https://doi.org/10.1016/j.alcohol.2006.02.001>
- Chu, C. M. Y. (2005). Postnatal Experience and Health Needs of Chinese Migrant Women in Brisbane, Australia. *Ethnicity & Health*, 10(1), 33–56. <https://doi.org/http://dx.doi.org/10.1080/1355785052000323029>
- Chung, T. K. H., Yip, A. S. K., Lok, I. H., & Lee, D. T. S. (2011). Postnatal depression among Hong Kong Chinese fathers. *Hong Kong Medical Journal*, 17(1), S9–S12.
- Contreras, C. M., Metzger, G. A., Beane, J. D., Dedhia, P. H., Ejaz, A., & Pawlik, T. M. (2020). Telemedicine: Patient-Provider Clinical Engagement During the COVID-19 Pandemic and Beyond. In *Journal of Gastrointestinal Surgery* (Vol. 24, Issue 7, pp. 1692–1697). Springer. <https://doi.org/10.1007/s11605-020-04623-5>
- Gao, L., Chan, S. W., Li, X., Chen, S., & Hao, Y. (2010). Evaluation of an interpersonal-psychotherapy-oriented childbirth education programme for Chinese first-time childbearing women: a randomised controlled trial. *International Journal of Nursing Studies*, 47(10), 1208–1216. <https://doi.org/10.1016/j.ijnurstu.2010.03.002>
- Heh, S. S., Coombes, L., & Bartlett, H. (2004). The association between depressive symptoms and social support in Taiwanese women during the month. *International Journal of Nursing Studies*, 41(5), 573–579. <https://doi.org/10.1016/j.ijnurstu.2004.01.003>
- Ho, M., Li, T. C., Liao, C. H., & Su, S. Y. (2015). The Association between Behavior Restrictions in Doing-the-Month Practice and Mental Health Status among Postpartum Women. *Journal of Alternative and Complementary Medicine*, 21(11), 725–731. <https://doi.org/10.1089/acm.2013.0474>
- Holroyd, E., Twinn, S., & Yim, I. W. (2005). Exploring Chinese Women’s Cultural Beliefs and

- Behaviours Regarding the Practice of “Doing the Month.” *Women & Health*, 40(3), 109–123. <https://doi.org/10.1300/J013v40n03>
- Kim, B. S. K., Atkinson, D. R., & Umemoto, D. (2001). Asian Cultural Values and the Counseling Process: Current Knowledge and Directions for Future Research. *The Counseling Psychologist*, 29(4), 570–603. <https://doi.org/10.1177/0011000001294006>
- Kim, B. S. K., Atkinson, D. R., & Yang, P. H. (1999). The Asian Values Scale: Development, factor analysis, validation, and reliability. *Journal of Counseling Psychology*, 46(3), 342–352. <https://doi.org/10.1037/0022-0167.46.3.342>
- Klainin, P. & Arthur, D. G. (2009). Postpartum depression in Asian cultures: A literature review. *International Journal of Nursing Studies*, 46(10), 1355–1373. <https://doi.org/10.1016/j.ijnurstu.2009.02.012>
- Kuo, S. H., Wang, H. L., Lee, T. C., Chan, T. F., Chou, F. H., Chen, L. M., & Lin, W. T. (2015). Traditional Chinese medicine perspective on constitution transformations in perinatal women: A prospective longitudinal study. *Women and Birth*, 28(2), 106–111. <https://doi.org/10.1016/j.wombi.2015.01.002>
- Liu, Y. Q., Maloni, J. A., & Petrini, M. A. (2014). Effect of Postpartum Practices of Doing the Month on Chinese Women’s Physical and Psychological Health. *Biological Research for Nursing*, 16(1), 55–63. <https://doi.org/10.1177/1099800412465107>
- Liu, Y. Q., Petrini, M., & Maloni, J. A. (2015). “Doing the month”: Postpartum practices in Chinese women. *Nursing & Health Sciences*, 17(1), 5–14. <https://doi.org/http://dx.doi.org/10.1111/nhs.12146>
- Lopez, G. & Bialik, K. (2017). *Key findings about U.S. immigrants*. Pew Research Center.
- Mann, D. M., Chen, J., Chunara, R., Testa, P. A., & Nov, O. (2020). COVID-19 transforms health care through telemedicine: Evidence from the field. *Journal of the American Medical Informatics Association : JAMIA*, 27(7), 1132–1135. <https://doi.org/10.1093/jamia/ocaa072>
- Markus, H. R. & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98(2), 224–253. <https://doi.org/10.1037/0033-295X.98.2.224>
- Matthey, S., Panasetis, P., & Barnett, B. (2002). Adherence to cultural practices following childbirth in migrant Chinese women and relation to postpartum mood. *Health Care for Women International*, 23(6–7), 567–575. <https://doi.org/http://dx.doi.org/10.1080/07399330290107331>
- Morrow, M., Smith, J. E., Lai, Y., & Jaswal, S. (2008). Shifting landscapes: immigrant women and postpartum depression. *Health Care for Women International*, 29(6), 593–617. <https://doi.org/10.1080/07399330802089156>
- Seeman, M. V. (2008). Cross-cultural evaluation of maternal competence in a culturally diverse society. *The American Journal of Psychiatry*, 165(5), 565–568. <https://doi.org/10.1176/appi.ajp.2007.07111714>
- Strand, M. A., Perry, J., Guo, J., Zhao, J., & Janes, C. (2009). Doing the month: rickets and postpartum convalescence in rural China. *Midwifery*, 25(5), 588–596. <https://doi.org/10.1016/j.midw.2007.10.008>
- Wong, J. & Fisher, J. (2009a). The role of traditional confinement practices in determining postpartum depression in women in Chinese cultures: A systematic review of the English language evidence. *Journal of Affective Disorders*, 116(3), 161–169. <https://doi.org/10.1016/j.jad.2008.11.002>
- Wong, J. & Fisher, J. (2009b). The role of traditional confinement practices in determining

postpartum depression in women in Chinese cultures: a systematic review of the English language evidence. *Journal of Affective Disorders*, 116(3), 161–169.

<https://doi.org/10.1016/j.jad.2008.11.002>

Yuan, S.Y. & Freeman, R. (2011). Can social support in the guise of an oral health education intervention promote mother-infant bonding in Chinese immigrant mothers and their infants? *Health Education Journal*, 70(1), 57–66.

Zong, J. & Batalova, J. (2016). *Vietnamese Immigrants in the United States*. The Online Journal of the Migration Policy Institute2.

Zong, J. & Batalova, J. (2017). *Chinese Immigrants in the United States*. The Online Journal of the Migration Policy Institute.