Contents lists available at ScienceDirect

Midwifery

journal homepage: www.elsevier.com/locate/midw

A qualitative study of postpartum practices and social support of Chinese mothers following childbirth in Switzerland

Dingcui Cai^a, Paulina Villanueva^a, Hong Lu^b, Basile Zimmermann^c, Antje Horsch^{a,d,*}

^a Institute of Higher Education and Research in Healthcare (IUFRS), University of Lausanne, Lausanne 1010, Switzerland

^b Peking University School of Nursing, Beijing 100191, China

^c Global Studies Institute, University of Geneva, Geneva 1211, Switzerland

^d Department Woman-Mother-Child, Lausanne University Hospital, Lausanne 1011, Switzerland

ARTICLE INFO ABSTRACT Keywords: Background: Asian migrants follow many traditional postpartum beliefs and practices after childbirth to protect Postpartum practices both mother and child. Chinese mothers are often expected to stay at home for 4-6 weeks while observing certain Social support restrictions known as postpartum confinement, or "Zuo Yue Zi." Migrants Aim: To explore how Chinese mothers followed postpartum practices and the social support they needed while in Mothers Switzerland. Fathers Methods: Twenty-seven Chinese mothers and their families were interviewed at an average of six months post-Grandparents partum. Thematic analysis was performed on the data. Results: Chinese mothers in Switzerland continued following postpartum practices, including home confinement, cold avoidance, a minimum involvement in household chores, and hot dietary consumption. Meanwhile, they modified and abandoned certain restrictions, such as avoiding prolonged bed rest or excessive high-protein diets and preserving personal hygiene. Family members were their primary supporters, while mothers from "crosscultural" families faced difficulties obtaining substantial support from their foreign partners or in-laws. Social support from independent midwives (sage femmes), privately paid helpers (yue sao), and Chinese migrant communities was important during this transitional period. Conclusion: The conventional concept of "confinement" has evolved into a more supportive approach that prioritises physical and psychological comfort. It plays a crucial role in postpartum recovery and serves as a connection with cultural identity and an opportunity for family reunions for Chinese women living abroad. There is a need for Western maternity caregivers to understand and recognise the postpartum traditions of Asian mi-

Statement of significance

Problem

Chinese migrant mothers in English-speaking countries have faced challenges in observing postpartum practices that have not been investigated in non-English-speaking Western nations.

What is already known

Postpartum practices remain meaningful for Chinese mothers living abroad, and social support is essential for them to maintain the traditions.

What this paper adds

This study highlights the importance of incorporating postpartum traditions into modern living to promote positive impacts and reduce potential conflicts. We endorse multidisciplinary collaboration among maternity care providers to aid migrant mothers in accessing social and occupational support, thereby enhancing their postpartum well-being.

Introduction

grants and to provide them with culturally sensitive care and professional support.

In Asia, mothers and babies are typically considered vulnerable during the postpartum period (Withers et al., 2018). Women are expected to follow a set of postpartum cultural practices to protect both mothers and babies. Current literature reports that Asian migrant women from eastern, southern, and southeast countries and regions (Mainland China, Taiwan, Hongkong, Japan, South Korea, India, Nepal, Cambodia, Laos, Vietnam, Myanmar, Thailand, Indonesia, the Philippines, Malaysia, and Singapore) still maintain a wide range of

* Corresponding author at: Institute of Higher Education and Research in Healthcare (IUFRS), University of Lausanne, Lausanne 1010, Switzerland. *E-mail address:* antje.horsch@chuv.ch (A. Horsch).

https://doi.org/10.1016/j.midw.2024.104137

Received 11 April 2024; Received in revised form 18 July 2024; Accepted 7 August 2024 Available online 8 August 2024

0266-6138/© 2024 The Author(s). Published by Elsevier Ltd. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).







Participants and recruitment

traditional postpartum beliefs and practices, including massage therapy, cold and hot balance beliefs, dietary practices, behavioural taboos, and social restrictions (Fok, et al., 2016; Hoang, et al., 2009; Lee et al., 2014; Vo and Desai, 2021).

Chinese mothers are often expected to stay at home for 4-6 weeks after childbirth and to adhere to certain dietary, mobility, and hygiene restrictions known as postpartum confinement or Zuo Yue Zi (Cheung 1997; Pillsbury1978). Social support is critical for Chinese women to maintain this postpartum ritual. Family members are usually the primary providers of support (Wang et al., 2022). However, Chinese mothers living abroad may not have as much access to family support as their counterparts in China. Research has shown that Chinese migrant mothers often experience a difficult transitional period due to a lack of social support. For example, sleep disturbances, psychological distress, physical pain, and strained marital relationships among Chinese migrant women after childbirth have often been reported (Cheng et al., 2013; Shan H et al., 2023). Despite a variety of difficulties they encounter, Chinese women living abroad continue to practice this postpartum ritual, which is determined by their socio-cultural aspects. First, Zuo Yue Zi has been practiced for generations (Zheng et al., 2019). Second, the influence of the extended family is another aspect that ensures its transmission (Wang et al., 2022). Third, these postpartum traditions were believed to serve as a reminder of cultural identity for Chinese migrants living abroad (Ding et al., 2018).

Previous research has explored how Chinese mothers in Englishspeaking countries (e.g., Scotland, Australia, Canada, and the United States) experienced a wide variety of difficulties in observing postpartum practices (Callister et al., 2011; Chang et al., 2018; Cheung 1997; Chu 2005; Matthey et al., 2002). Switzerland is a non-English-speaking country on the European continent with a large proportion of foreign-born children (44 %) and a high level of linguistic and cultural diversity (four official languages: German, French, Italian, and Romansh) (Yanatma, 2024). This presents unique challenges for Chinese migrant mothers in maintaining their traditional practices due to prominent language barriers as well as significant differences in cultural and societal norms. Women giving birth in Swiss hospitals often report inadequate individualized postpartum care and support during hospitalization and for exclusively breastfeeding (Grylka-Baeschlin et al., 2014). Migrant mothers face additional challenges due to overlapping transitions of migration and motherhood in a foreign environment (Sami et al., 2019; Schwind et al., 2023), necessitating unique support needs compared with local mothers. For instance, Chinese mothers giving birth in Switzerland sought culturally sensitive care during their hospital stay but were given a cold diet and encouraged to shower the second day after a caesarean section (Cai et al., 2024), all of which conflict with their postpartum cultural practices.

The aim of this study was to examine the experiences with postpartum cultural traditions and support needs among Chinese migrants after hospital discharge, and the following research questions were addressed:

- 1. How did Chinese migrant mothers enact postpartum practices in the Swiss context?
- 2. What was the nature of the social support Chinese mothers received?
- 3. What is the social and cultural significance of traditional postpartum practices for Chinese migrant mothers in the study?

Methods

A qualitative descriptive study was conducted utilizing an ethnographic research method with semi-structured interviews and observations to obtain insights into the postpartum experience of Chinese women and their family members in Switzerland. Chinese mothers were eligible if they lived in Switzerland and had given birth in a Swiss hospital within one year before the data collection. Mothers who experienced complications or underlying medical problems during pregnancy or postpartum required special care due to health issues were excluded from the study due to the likelihood of influencing adherence to postpartum practices. Family members could be women's partners, parents, and in-laws.

Convenience sampling was used. Research flyers were distributed by the first author (DC) on Chinese social media platforms (WeChat), encouraging eligible women and their family members to participate in the study. They were contacted to explain the study objectives, interview procedures, personal information confidentiality, data usage, and storage. Then a home visit or an online interview was scheduled. Each participant signed an informed consent form. Recruitment participants continued until no new information emerged from the interview data. The study was approved by the Commission cantonale d'éthique de la recherche (CER-VD, project number: 2019-01734).

Data collection

A total of 27 participants from 14 families were recruited, including 14 Chinese mothers and 13 family members. Interviews were performed at an average of six months postpartum between September 2019 and April 2020. In-depth one-to-one interviews were conducted in Chinese with 24 Chinese participants and in English with three foreign participants by the first author (DC), guided by pilot-tested interview guides. Twenty-one participants were interviewed face-to-face at their homes. Six interviews were completed online remotely due to COVID-19 travel restrictions imposed by the Swiss government. All interviews were audio-recorded and transcribed verbatim. The interview lasted an average of 40 min.

Data analysis

The analysis process based on Braun and Clarke's six-step guidelines for thematic analysis (Braun and Clarke, 2006), using qualitative analysis software (MAXQDA Analytics Pro 2020), is summarised in Box 1.

Rigour

The first author (DC, Ph.D. candidate in nursing sciences) fully engaged in all aspects of participant recruitment, interviews, transcription, and data analysis with the supervision of three academic supervisors (Prof. HL, an expert in midwifery and maternal care; Dr. BZ, a sinologist of Chinese studies; and Prof. AH, a clinical psychologist with particular expertise in perinatal and qualitative research). All Chinese transcripts were translated into English, and the translation work was completed by two third-party Chinese translators, both of whom had master's degrees in nursing sciences and professional English skills. The integrity of the translated data was examined by the first author and a senior supervisor (BZ). The data were analysed using qualitative analysis software by two researchers (DC and PV, a research assistant with professional fluency in English) from different cultural backgrounds to ensure that there were no discrepancies or omissions in the findings.

Findings

Participant characteristics

Fourteen Chinese mothers, ranging in age from 29 to 45 years old, had educational backgrounds ranging from a junior college to a Swiss doctoral degree. Their stay in Switzerland lasted from one to 21 years. The thirteen family members included nine women's partners and four parents or in-laws (see Table 1). Six partners were Chinese, and the remaining three were non-Chinese from Switzerland, France, or

Box 1. Data analysis procedure.

Step 1: Export of all English translations of the transcripts into MAXQDA, and a thorough understanding of all documents (DC, and PV).

Step 2: Line-by-line coding of each transcript, identifying and grouping of themes (DC, and PV).

Step 3: Discussion and comparison of each code and theme to reach a consensus on the initial coding tree (DC and PV).

Step 4: Review of the coding and meaning of each theme (DC, PV, AH, and BZ).

Step 5: A thorough description of the concepts of main- and sub-themes (DC).

Step 6: Review of the work at step 5 and reaching of a consensus on the final coding tree (DC, PV, AH, and BZ).

Table 1

Participants' characteristics of mothers (N=14).

	Mean (SD) / n (%)	
Mean age	34 (SD=4.27)	
<30	2 (14)	
30-40	11 (79)	
>40	1 (7)	
Mean number of years in Switzerland	5 (SD=5.26)	
\leq 5 years	10 (72)	
6-10 years	3 (21)	
≥ 11 years	1 (7)	
Partners' origin		
Chinese partner	9 (64)	
Non-Chinese partner	5 (36)	
Employment status		
Employed	5 (36)	
Unemployed	9 (64)	
Education		
Below bachelor	1 (7)	
Bachelor	4 (29)	
Master and above	9 (64)	
Household income		
Below average	3 (21)	
Middle income	6 (43)	
High income	5 (36)	
Parity		
Primiparous	9 (64)	
Multiparous	5 (36)	
Feeding mode		
Breastfeeding	3 (21)	
Mixed feeding	11 (79)	

Germany (see Table 2). Four women's Chinese parents or in-laws who paid a brief visit to Switzerland were interviewed.

Theme 1: Postpartum cultural practices and modifications

Postpartum practices that Chinese mothers in the study maintained, modified, and abandoned are listed in Table 3.

Mobility restrictions

Ten of the 14 Chinese mothers followed the principles of *Zuo Yue Zi* to stay indoors for the entire month, avoid exposure to wind or cold outside, and keep their involvement in household chores to a minimum. Four mothers reported they were involved in outdoor activities, encouraged by their foreign partners or *sage femmes* (postpartum mid-wives). Here is an example of one foreign partner who expressed that it was difficult for him to understand the practices of confinement at home for one month.

"My wife told me that she should stay indoors for four weeks after giving birth. But I forced her to take a walk with me occasionally after two weeks postpartum (laughs). For me, it was unreasonable to stay at home for one month." (04-Father)

All mothers in the study claimed to have broken the mobility restrictions of prolonged bed rest and physical inactivity (e.g., confined to their bedrooms). Mothers perceived this change as a way to maintain

Table 2			
Participants'	characteristics	of fathers	(N=9).

	Mean (SD) / n (%)		
Mean age	38 (SD=6.98)		
<30	1 (11)		
30-40	6 (67)		
41–50	2 (22)		
Origin			
Chinese	6 (67)		
Non-Chinese	3 (33)		
Years of stay in Switzerland	6 (SD=5.57)		
≤ 5	4 (44)		
6-10	3 (33)		
≥ 11	2 (22)		
Education			
Master	6 (67)		
Doctor	3 (33)		
Employment status			
Employed	9 (100)		
Language skills			
English only	3 (33)		
At least one local language	6 (67)		

their connection with the outside world and avoid the isolation and potential emotional distress caused by postpartum confinement.

"In the past, the woman was confined in a small enclosed room for the entire month [...] much like in a prison. I was always running around the house, chatting with my parents in the living room, teasing the baby in the nursery, or watching TV with my husband. My life was not changed too much! I thought it was great." (06-Mother)

Table 3

Traditional postpartum practices maintained, modified, and abandoned among Chinese women (n=14) in Switzerland.

Postpartum practices		Maintained	Modified	Abandoned
Mobility	Housework avoidance	10	4 ^a	0
	Home confinement	10	4 ^b	0
	Prolonged bed rest	0	0	14
Dietary	Exclusive hot food and	14	0	0
	drinks intake			
	Excessive high-protein or	4	10 ^c	0
	high-fat consumption			
Hygiene	Avoiding bathing, teeth	0	0	14
	brushing, hair washing			
	Avoiding physical contact	11	3 ^d	0
	with anything cold (water,			
	air, etc.)			
	air, etc.)			

Remarks:

a: Light housekeeping.

b: Walked a short distance away from home.

c: Adopted a balanced diet.

d: Cold water treating perineum swelling.

Family members expressed the importance of adhering to postpartum practices, but most of them also supported mothers in breaking certain mobility restrictions. Only a few family members, particularly less educated women's parents or in-laws, wanted mothers to replicate their previous experiences. However, they claimed to be powerless to intervene when their daughters or daughters-in-law made alternations.

"I told my daughter to stop moving and lie down. She roamed around the house all day. She wanted to go outside, and I told her she could not leave the room. However, she did not listen to me, and there was nothing I could do." (04-FM)

Dietary considerations

Dietary concerns have always been central to postpartum practices, such as hot food and drinks, high-fat and high-protein diets, and consuming excessive soups. All mothers strictly followed dietary restrictions on hot meals, and some mothers were pressured by their Chinese parents or in-laws to excessively follow high-protein traditional dietary therapies, hoping that this could compensate for the loss of blood and energy during labour and promote milk production.

"During the month, I had to eat various soups, meat, and pig's feet every day. My mother said, 'How can you produce milk if you do not eat well?' I felt very frustrated because I had to force myself to eat extra foods." (04-Mother).

Most of the mothers in the study abandoned the high-protein dietary tradition in favour of a light and balanced diet. They explained that as living conditions improved and perceptions changed, special nutritional supplements were no longer necessary for postpartum women because a regular diet could provide adequate nutrition. For example, mothers choose a diet of vegetables and fruits mixed with meat to maintain vitamin intake and mitigate the risk of constipation.

"My mother thought I should only eat fatty-rich foods during the month. I insisted on consuming some vegetables because I suffered from constipation during postpartum confinement." (09-Mother)

Hygiene precautions

Chinese mothers and their families placed great importance on postpartum "hot" practices, and all mothers in the study reported that they tried to avoid physical contact with anything cold as the traditional way of *Zuo Yue Zi*. Three mothers regretted that they suffered health problems while breaking the restrictions, such as arthritis and a weakened immune system.

"I did not strictly follow Zuo Yue Zi because I kept using cold water to reduce perineal swelling and pain. To be honest, I regret it now. My hands never used to hurt, but now they do. I never used to be afraid of the cold, but now I am quite sensitive to it." (14-Mother)

All mothers in the study reported bathing, washing their hair, and brushing their teeth, and all are considered taboos in postpartum practices.

"My mother told me that when they followed Zuo Yue Zi, they did not wash their hair, bathe, or brush their teeth for a month. However, I strongly resisted these restrictions (laughs) because I sweated a lot every day during the puerperium." (07-Mother)

Their Chinese families also expressed changes in their perspectives on cleanliness and hygiene restrictions. They explained that these hygiene taboos were meant to protect the mother from suffering from colds since houses were not kept warm in the past. However, due to substantial improvements in living conditions over the past decades to allow convenient access to hot showers and heating in the house, they no longer considered those uncomfortable restrictions as justifiable or necessary. For instance, one grandmother in the study supported her daughter in breaking these hygiene taboos. "When I gave birth to my daughter 30 years ago, I was confined to my bedroom for one month. Because of the poor living conditions at that time, there were no showers with hot water and no heating, and the room was not kept warm. I did not bathe or wash my hair for a month for fear of getting a cold or developing chronic health problems. But now everything has changed, and the standard of living has improved greatly. My daughter no longer had to follow these restrictions as I did in the past." (02-FM)

Theme 2: Cultural and social significance

Adherence to and modifications in postpartum practices among Chinese mothers in the study were also found to have cultural and social significance. Mothers explained that, as a minority migrant group in Swiss society, observing these postpartum traditions served as a strong recognition and reminder of their cultural identity in a foreign country. In particular, those mothers who had married foreign partners expressed that keeping these customs allowed them to stay connected to their roots.

"I have lived in Switzerland for 21 years, and I have been educated here. I know that women here do not practice Zuo Yue Zi. But we are Chinese, and it is a Chinese tradition. The culture of Zuo Yue Zi is deeply rooted in our Chinese beliefs." (06-Mother)

Additionally, pregnancy and childbirth were typically considered collective events in Chinese society, with the participation of extended family members. Observing postpartum practices provides these Chinese mothers living abroad with the opportunity to reunite with their extended families in Switzerland and strengthen family ties.

"My mother died young, leaving my father alone in China. My father was reluctant to come and live with us out of fear of disrupting our lives. I invited him to come under the guise of Zuo Yue Zi, and he was more than willing to help and live with us for a period. It was a very precious time for me and my kids." (03-Mother)

Theme 3: Sources of postpartum social support

In this study, social support was found to be critical for Chinese mothers to maintain postpartum practices. They actively sought support from a variety of sources, including family members, postpartum mid-wives (*sage femmes*), privately paid helpers (*yue sao*), and Chinese migrant communities.

Family members

Mothers in the study reported that the primary sources of postpartum support were their family members, including partners, parents, and inlaws. Mothers in "Chinese-Chinese" families (both partners were Chinese nationals) and "cross-cultural" families (Chinese wife and foreign partner) described their different experiences.

In "Chinese-Chinese" families, except for one mother who regretted that her Chinese partner was not involved in the childcare because their extended families had completely taken over, other mothers reported that their Chinese partners provided aid in infant care, emotional support, and household chores. The shared experiences strengthened relationship bonds when they lived abroad.

"I can totally rely on my husband. For example, he bathes the baby and changes the diapers. He also does all the housework, such as cooking, laundry, and cleaning." (01-Mother)

In our study, 11 out of 14 mothers invited their Chinese parents or inlaws to Switzerland. Their Chinese family members provided practical assistance and shared their personal experiences with postpartum traditions and infant care. For example, four mothers who had experienced traumatic childbirth felt that family support after childbirth helped them recover from their physical pains and mental distress.

"My mother and mother-in-law came together from China just one day before my due date. They were very helpful when I was recovering from a traumatic birth." (05-Mother) Most mothers expressed their appreciation for the support of their extended family members and wished that their support would extend beyond the month. A few mothers reported occasional conflicts with Chinese family members about postpartum practices, and their foreign partners were reluctant to live together with their Chinese in-laws under the same roof for a prolonged period. Mothers explained that the cultural differences in the involvement of extended family members had strained their intimate relationships with their foreign partners. To reduce these conflicts, some mothers needed to make some compromises about reducing their Chinese families' involvement.

"We had a lot of family conflicts while my mother was here. On the one hand, it was because my husband could not communicate with her due to a language barrier. On the other hand, he was not used to having someone living in the house all of a sudden. I had to rent a flat for my mother to live in separately." (04-Mother)

In addition, not all of the mothers' foreign partners were able to fully understand postpartum traditions, which hindered their involvement in observing traditions. Mothers in "cross-cultural" families also reported difficulties in obtaining substantive assistance from their foreign in-laws because of cultural differences in maternal and infant care following childbirth.

"My in-laws are Westerners. They said that pregnancy and childbirth were my own business. I did not expect my in-laws to assist me during the month. When I gave birth to my second baby, I sent my oldest son to China. My parents helped me take care of him when I was Zuo Yue Zi in Switzerland." (12-Mother)

Postpartum midwives (Sage Femmes)

Mothers in the study expressed satisfaction that, unlike in their home country, where mothers and newborns must go to the hospital for follow-up visits, in Switzerland, they could receive continued professional care from an independent postpartum midwife (*sage femme*) at home following childbirth. Their support was provided immediately after hospital discharge and up to eight weeks postpartum and included 10 to 16 home visits for maternal and neonatal care, together with two to three sessions dedicated to breastfeeding counseling.

"During my postpartum hospitalisation, they provided me with contact information and informed me that I could have a postpartum midwife who makes follow-up home visits. When I was discharged, I immediately called a sage femme, and she came to visit me the next day." (01-Mother)

Mothers and their families expressed that they were reassured by the extensive experience and professional skills of their *sage femmes* in caring for postpartum mothers and newborns. For instance, their *sage femmes* tracked the mothers' uterine displacement and perineal wound recovery, helped mothers alleviate postpartum discomfort after a caesarean section, and relieved their episiotomy pain and postpartum constipation. They also provided specific instructions on how to bathe newborns, breastfeed, and monitor for jaundice and weight, etc.

"As first-time parents, we did not know how to take care of our daughter at the beginning. We have learned a lot from our sage femme. For example, she showed us the correct breastfeeding position and how to bathe and massage the baby." (09-Father)

Mothers also reported that home visits from their *sage femmes* helped to reduce conflicting practices about infant care among family members because their guidance allowed family members to gain professional knowledge and nursing skills.

"When the sage femme came to visit us, she told us how to do things. [...] My mother and mother-in-law could also participate in learning. Later, they followed the skills taught by the sage femme when caring for my baby. I was very grateful that her home visits have reduced disagreements among our family members about baby care practices." (05-Mother)

Privately paid helpers (yue sao)

Some families in the study turned to support from privately paid helpers, such as Chinese postpartum doulas (*yue sao*), to assist with caring for the newborn and the mother, preparing special postpartum diets, and taking over certain household chores.

Mothers explained they benefitted from their intimate companionships with significant emotional and instrumental support during the month since they were from the same cultural background and benefitted from their culturally sensitive care.

"Yue sao stayed with me day and night during the month. She was very supportive and helpful. When I had 'baby blues' after giving birth, she comforted me a lot." (08-Mother)

The only downside is that when their contract ended after the month, the parents had a difficult time adjusting to the sudden absence of helpers in baby care.

"We relied on her for everything. [...] After she left, we had no idea what was going on when my baby cried. I was very anxious and stressed." (14-Mother)

Chinese migrant communities

Most mothers reported seeking valuable support from Chinese migrant communities in Switzerland. For instance, they maintained close connections with Chinese migrant women via online social media platforms (WeChat groups), which helped them overcome isolation, loneliness, and psychological distress during the postpartum confinement period.

"I was in a bad mood after giving birth. When I shared my experience in WeChat groups, they told me that it was normal to be in a bad mood because many of them said they were in the same situation. That made me feel much better as I was not alone." (02-Mother)

In addition, the Chinese mothers in the WeChat groups provided valuable information exchange on infant care and postpartum practices, as they had both knowledge of their traditions and the specific childbirth experiences in Switzerland.

"My mother kept complaining that I consumed insufficient proteins to promote milk production. I was extremely depressed since I did not have a good appetite after a traumatic birth. I chatted with other mothers. They encouraged me not to force myself and turned to formula feeding. I felt much relieved with their support." (*O4-Mother*)

Discussion

Chinese mothers in the study remained strongly adherent to traditional postpartum practices, such as staying at home, avoiding physical contact with anything cold, refraining from household chores, and following a hot dietary intake. This was influenced by their cultural beliefs and reinforced by family members. All Chinese mothers and their Chinese partners in our study were first-generation migrants. The traditional beliefs of *Zuo Yue Zi*, which were believed to be beneficial for postpartum recovery and the prevention of future health issues, were still embedded in their thinking. In addition, in our study, 11 out of 14 mothers had their Chinese parents or in-laws physically present in Switzerland during the transitional period. These visiting Chinese parents encouraged the mothers to adhere to postpartum practices, albeit to varying degrees.

Meanwhile, contrary to the traditional concept of "confinement" of *Zuo Yue Zi*, most Chinese mothers in the study broke or modified some restrictions when appropriate. For example, while Chinese mothers in Scotland and Australia were reported to strictly adhere to the one-month home confinement (Cheung 1997; Chu, 2005; Matthey et al., 2002), some mothers in our study were occasionally involved in outdoor

activities. Furthermore, most of them abandoned excessive high-protein dietary patterns in favor of a light and balanced diet. All mothers persevered in their routine hygiene habits, such as bathing, showering, and brushing their teeth, which are prohibited by traditional customs. These adjustments enabled them to remain linked to the outside world during the confinement period and maintain their physical and psychological comfort after childbirth while reducing potential conflicts over postpartum rituals. These changes highlight the need for flexibility in adapting postpartum rituals into modern lives to promote positive impacts on maternal health (Ding et al., 2020).

In our study, Chinese mothers perceived social support as crucial during this transitional period. Compared to women in China, where husbands' extended families are often the primary supporters and women's partners are usually absent in parenting roles (Wang et al., 2022), in our study, most Chinese mothers' partners fully engaged in family affairs and baby care, which strengthened their relationship bonds. Meanwhile, the involvement of extended family provided valuable opportunities for family reunions, enhancing kinship and family connection. However, not all mothers' experiences were favourable in our study, and their negative experiences related to either disagreement with their Chinese parents about postpartum practices occasionally or tensions with their foreign partners over the full involvement of their Chinese parents in their daily lives. These findings were echoed in other research on Chinese women married to European and American men who encountered cultural differences in family values regarding childbirth rituals and parenting practices (Hiew et al., 2013), and on other childrearing migrant mothers from "cross-cultural" families in Switzerland who often experienced postpartum stress and loneliness, and dearly needed the postpartum support of their relatives (Perrenoud, et al., 2024).

In our study, Chinese mothers benefited from the professional support of postpartum midwives (*sage femmes*). All Chinese mothers in our study had convenient access to postpartum care from their *sage femmes* through home visits following hospital discharge. Home visits by postpartum midwives allowed mothers and their families to receive professional instructions on maternal and infant care. This helped to resolve conflicting opinions among family members about infant care practices, which have often been reported to be associated with mental distress and postpartum depression among Chinese women after childbirth (Cheng et al., 2013; Xiao et al., 2023; Wang et al., 2017).

Some families relied on paid Chinese postpartum doulas (Yue Sao) to maintain postpartum traditions. This is a relatively new phenomenon among Chinese families in Switzerland, but it is common in some Western English-speaking countries with large Chinese communities, such as Canada and the United States (Callister et al., 2011; Chang et al., 2018; Lee et al., 2014). In these studies, Chinese mothers perceived the private services as deterrents to adherence to postpartum traditions because the services were costly and poor in quality. However, in our study, we found that Chinese women and their families were generally quite satisfied with the culturally sensitive care, intimate companionship, and emotional support provided by Yue Sao throughout the monthly period. This may be due to the fact that most of the families in our study were middle- and high-income families that could afford the services (3000-4000 US dollars). On the other hand, the service sector tends to be better regulated in Switzerland than in the North American market (Chang et al., 2018).

Finally, the Chinese migrant community in Switzerland played an active role in supporting Chinese mothers. On the one hand, the Chinese mothers in the study kept in touch with their counterparts who had given birth in Switzerland through an online social network (WeChat groups) to minimise social isolation and mental depression during the confinement period. On the other hand, the childbearing experiences shared with other Chinese migrant women in Switzerland were invaluable for them to either adhere to or modify some of the postpartum restrictions based on their circumstances. In Switzerland, which is a culturally and linguistically diverse nation, Chinese migrant mothers face greater language and cultural barriers than mothers in Englishspeaking Western countries (Cai et al., 2022, 2024;), necessitating the use of online social networks to seek information and support. Although previous research on other migrant women in Switzerland who used social media to search for perinatal information found potentially negative effects on their exploration of Swiss maternity services (Perrenoud et al., 2023), these experiences were not explicitly mentioned by the Chinese mothers in our study. Maternity caregivers should encourage migrant women to discuss with them the reliability and credibility of the perinatal information they find, and peer support through the promotion of online social networks in the migrant communities seems to be a reliable solution.

Strengths and limitations

Our research is the first to explore the postpartum experiences of Chinese women and their needs for social support to maintain postpartum practices in a non-English-speaking Western country, from the multiple viewpoints of Chinese mothers, their Chinese or foreign partners, and parents or in-laws. Our study adds new knowledge to our understanding of Chinese mothers' postpartum experiences in "Chinese-Chinese" families and "cross-cultural" families and provides insights to improve culturally sensitive care for migrant women globally.

We acknowledge some limitations in our study. Although all interviews were conducted by the same researcher, the discrepancies between face-to-face interviews at participants' homes and remote interviews may introduce some ambiguity in data consistency. The extraction of relevant information from remote interviews may be hampered by reduced emotional connections between the researcher and participants, as well as the risk of losing attention to non-verbal cues. The potential limitations also include data translation from Chinese to English. Nuanced information, especially cultural aspects, may be overlooked during the translation process.

Conclusion

Chinese mothers in Switzerland continued to practice postpartum confinement traditions, such as staying at home, avoiding colds, keeping a minimum involvement in household tasks, and consuming hot food. Observance of postpartum traditions has personal, social, and cultural implications for Chinese mothers living abroad, as it aids with their postpartum recovery while also preserving their cultural identity and strengthening family ties. Simultaneously, Chinese mothers in the study changed some of their postpartum restrictions out of physical and psychological comfort, such as avoiding prolonged bed rest, abandoning excessive intake of high-protein or high-fat diets, and breaking hygiene restrictions like bathing, brushing teeth, and washing hair.

Our findings suggest a shift from the conventional concept of "confinement" to a more supportive approach to following postpartum traditions. Chinese family members are their primary support resources, however, due to disparities in postpartum practices and traditions, Chinese mothers from "cross-cultural" families experienced difficulties in obtaining needed support from their foreign partners and in-laws regarding those practices. Professional support from postpartum mid-wives (*sage femmes*) helps to promote their postpartum health and reduce family conflicts regarding infant care practices. Extra support from privately paid helpers (*yue sao*) provides them with culturally sensitive care and intimate companionship. Peer support from the online social networks of Chinese migrant communities allows them to share their experiences and reduce social isolation.

Since many Asian migrant women in Western countries still follow various traditional postpartum beliefs and practices, our findings contribute to increasing the cultural awareness and knowledge of maternity caregivers to understand and recognise the postpartum traditions of Asian migrants and thus provide them with culturally sensitive care and professional support. At the same time, we advocate for multidisciplinary collaboration among healthcare professionals to help migrant mothers seek social support and continued professional care after childbirth, thereby promoting their reproductive health.

Ethical statement

Ethical approvals were obtained from the Commission cantonale d'éthique de la recherche (CER-VD, project number: 2019-01734). All participants were informed that their data (audio recordings and transcriptions) would be coded for confidentiality during translation, analysis, and paper writing, and that some quotes would be integrated into the publication. The informed consent to publish was obtained from all participants.

Availability of research data

The datasets generated during the current study are not publicly available, as the participants' privacy may be jeopardized, but the final datasets for data analysis are available from the corresponding author upon reasonable request.

CRediT authorship contribution statement

Dingcui Cai: Writing – review & editing, Writing – original draft, Validation, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Paulina Villanueva:** Formal analysis. **Hong Lu:** Writing – review & editing. **Basile Zimmermann:** Writing – review & editing, Supervision, Funding acquisition. **Antje Horsch:** Writing – review & editing, Supervision, Project administration, Funding acquisition, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationship that could have appeared to influence the work reported in this paper.

Acknowledgements

The authors gratefully acknowledge mothers, fathers and grandparents for participating in the study.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

References

- Braun, V., Clarke, V., 2006. Using thematic analysis in psychology. Qual. Res. Psychol. 3 (2), 77–101. https://doi.org/10.1191/1478088706qp063oa.
- Cai, D., Villanueva, P., Lu, H., Zimmermann, B., Horsch, A., 2024. What matters to migrant women during labor and birth: Chinese mothers' experiences in Switzerland. BMC Pregnancy and Childbirth 24 (1), 69. https://doi.org/10.1186/ s12884-024-06271-y.
- Cai, D., Villanueva, P., Stuijfzand, S., Lu, H., Zimmermann, B., Horsch, A., 2022. The pregnancy experiences and antenatal care services of Chinese migrants in Switzerland: a qualitative study. BMC Pregnancy and Childbirth 22 (1), 148. https:// doi.org/10.1186/s12884-022-04444-1.
- Callister, L.C., Eads, M.N., Diehl, J.P.S.Y., 2011. Perceptions of giving birth and adherence to cultural practices in Chinese women. MCN Am. J. Matern. Child Nurs. 36 (6), 387–394. https://doi.org/10.1097/NMC.0b013e31822de397.
- Chang, S.H.C., Hall, W.A., Campbell, S., Lee, L., 2018. Experiences of Chinese immigrant women following "Zuo Yue Zi" in British Columbia. J. Clin. Nurs. 27 (7-8), e1385–e1394. https://doi.org/10.1111/jocn.14236.
- Cheng, C.Y., Walker, L.O., Chu, T.P., 2013. Physical conditions and depressive symptoms of Chinese postpartum mothers in the United States and Taiwan. Health Care Women Int. 34 (7), 539–555. https://doi.org/10.1080/07399332.2012.655389.

- Cheung, N.F., 1997. Chinese zuo yuezi (sitting in for the first month of the postnatal period) in Scotland. Midwifery 13 (2), 55–65. https://doi.org/10.1016/S0266-6138 (97)90057-7.
- Chu, C.M., 2005. Postnatal experience and health needs of Chinese migrant women in Brisbane, Australia. Ethn. Health 10 (1), 33–56. https://doi.org/10.1080/ 1355785052000323029.
- Ding, G., Tian, Y., Yu, J., Vinturache, A., 2018. Cultural postpartum practices of 'doing the month' in China. Perspect. Public Health 138 (3), 147–149. https://doi.org/ 10.1177/1757913918763285.
- Ding, G., Niu, L., Vinturache, A., Zhang, J., Lu, M., Gao, Y.U., Study, S.B.C., 2020. Doing the month" and postpartum depression among Chinese women: A Shanghai prospective cohort study. Women Birth 33 (2), e151–e158. https://doi.org/ 10.1016/j.wombi.2019.04.004.
- Fok, D., Aris, I.M., Ho, J., Lim, S.B., Chua, M.C., Pang, W.W., Yeo, G.S.H., 2016. A comparison of practices during the confinement period among Chinese, Malay, and Indian mothers in Singapore. Birth 43 (3), 247–254. https://doi.org/10.1111/ birt.12233.
- Hiew, D.N., Kim Halford, W., & Liu, S. (2013). Loving diversity: Living in intercultural couple relationships. Contemporary issues in family studies: Global perspectives on partnerships, parenting and support in a changing world, 87-99, 10.1002/97811183 20990.ch7.
- Grylka-Baeschlin, S., van Teijlingen, Gross, M.M., 2014. Cultural differences in postnatal quality of life among German-speaking women–a prospective survey in two countries. BMC pregnancy and childbirth 14, 1–12. https://doi.org/10.1186/1471-2393-14-277.
- Hoang, H.T., Le, Q., Kilpatrick, S., 2009. Having a baby in the new land: a qualitative exploration of the experiences of Asian migrants in rural Tasmania, Australia. Rural Remote Health 9 (1), 1–11. https://search.informit.org/doi/10.3316/informit.482 482176386283.
- Lee, T.Y., Landy, C.K., Wahoush, O., Khanlou, N., Liu, Y.C., Li, C.C., 2014. A descriptive phenomenology study of newcomers' experience of maternity care services: Chinese women's perspectives. BMC Health Serv. Res. 14, 1–9. https://doi.org/10.1186/ 1472-6963-14-114.
- Matthey, S., Panasetis, P., Barnett, B., 2002. Adherence to cultural practices following childbirth in migrant Chinese women and relation to postpartum mood. Health Care Women. Int. 23 (6-7), 567–575. https://doi.org/10.1080/07399330290107331.
- Perrenoud, P., Demolis, R., Eva, F., Broux, M.G., Perret, F., Chautems, C., Kaech, C., 2024. Reconstructing a niche sociality during the postpartum period: A qualitative study about the experience of becoming a mother as an immigrant in Switzerland. SSM Mental Health, 100303. https://doi.org/10.1016/j.ssmmh.2024.100303.
- Perrenoud, P., Kaech, C., Chautems, C., 2023. Immigrant women looking for information about the perinatal period on digital media: A qualitative study. Women Birth 36 (3), e341–e352. https://doi.org/10.1016/j.wombi.2022.10.003.
- Pillsbury, B.L., 1978. Doing the month": confinement and convalescence of Chinese women after childbirth. Soc. Sci. Med. B Med. Anthropol. 12, 11–22. https://doi. org/10.1016/0160-7987(78)90003-0.
- Sami, J., Quack Lötscher, K.C., Eperon, I., Gonik, L., Martinez de Tejada, B., Epiney, M., Schmidt, N.C., 2019. Giving birth in Switzerland: a qualitative study exploring migrant women's experiences during pregnancy and childbirth in Geneva and Zurich using focus groups. Reprod. Health 16, 1–9. https://doi.org/10.1186/s12978-019-0771-0.
- Schwind, B., Zemp, E., Jafflin, K., Späth, A., Barth, M., Maigetter, K., Kurth, E., 2023. But at home, with the midwife, you are a person": experiences and impact of a new early postpartum home-based midwifery care model in the view of women in vulnerable family situations. BMC Health Serv. Res. 23 (1), 375. https://doi.org/10.1186/ s12913-023-09352-4.
- Shan, H., Saharso, S., Henrichs, J., 2023. Experiences of peripartum depressive symptoms among Chinese middle-class migrant women in the Netherlands: a qualitative study of migrant motherhood. BMC Pregnancy ChildBirth 23 (1), 638. https://doi.org/10.1186/s12884-023-05957-z.
- Vo, T., Desai, M., 2021. Immigrant Southeast and East Asian mothers' transnational postpartum cultural practices: A meta-ethnography. Women's Health 17, 17455065211060640. https://doi.org/10.1177/17455065211060640.
- Wang, Q., Chaloumsuk, N., Fongkaew, W., 2022. An ethnography of "doing the month" and modern postpartum practices among rural women in Jiangxi, China. Pac. Rim Int. J. Nurs. Res. 26 (2). Thail.
- Wang, Y.Y., Li, H., Wang, Y.J., Wang, H., Zhang, Y.R., Gong, L., Yuan, S.X., 2017. Living with parents or with parents-in-law and postpartum depression: A preliminary investigation in China. J. Affect. Disord. 218, 335–338. https://doi.org/10.1016/j. jad.2017.04.052.
- Withers, M., Kharazmi, N., Lim, E., 2018. Traditional beliefs and practices in pregnancy, childbirth and postpartum: A review of the evidence from Asian countries. Midwifery 56, 158–170. https://doi.org/10.1016/j.midw.2017.10.019.
- Xiao, G., Hu, J., Wang, H., Li, Q., Peng, S., Qin, C., Li, Y., 2023. Experience of postpartum depression among Chinese women: A meta-synthesis of qualitative research. Midwifery, 103795. https://doi.org/10.1016/j.midw.2023.103795.
- Yanatma, S. Fertility in Europe: Which countries have the highest and lowest numbers of live births per woman? Published on 17/03/2023. Available from: https://www. euronews.com/next/2023/03/17/fertilityineuropewhichcountrieshavethehighestan dlowestnumbersoflivebirthsper. Accessed July 10, 2024.
- Zheng, X., Watts, K., Morrell, J., 2019. Chinese primiparous women's experience of the traditional postnatal practice of "doing the month": A descriptive method study. Jpn. J. Nurs. Sci. 16 (3), 253–262. https://doi.org/10.1111/jjns.12232.