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Use of Herbal and Ayush Remedies During Pregnancy Among Women in Manipur: A Cross-Sectional Survey

Thokchom Sanatombi Devi, MSc (Nursing)[1,*]; Laishram Premchand Singh, MD[2]; Ningthoujam Bembem Chanu, MPH[1]

[1] Yoga and Nature Care Unit, Thoubal College, Thoubal Wangmataba, Thoubal, Manipur 795138, India. [2] Department of Botany, Thoubal College, Thoubal Wangmataba, Thoubal, Manipur 795138, India. * Address for correspondence: Thokchom Sanatombi Devi, Thoubal College, Thoubal Wangmataba, Thoubal 795138.

Abstract

Background. Herbal remedies have a long tradition in Manipur, but little is known about their use in pregnancy. We estimated the prevalence, patterns and perceived benefits of herbal and Ayush remedy use among pregnant women in Manipur.

Methods. Cross-sectional survey of pregnant women attending antenatal services at a teaching hospital and two Ayush dispensaries in Thoubal district, January–April 2024, using an interviewer-administered questionnaire.

Results. Of 286 women, 224 (78.3%) used at least one herbal or Ayush remedy during pregnancy. The most common were Chyawanprash (41.1%), *Centella asiatica* (peruk) (36.6%) and Shatavari (29.5%). Almost all users (96.4%) were satisfied and none reported harm. Users had lower rates of hyperemesis, anaemia and pregnancy-induced hypertension than non-users.

Conclusions. Herbal and Ayush remedies are used by nearly four in five pregnant women in Manipur, are safe and appear to protect against common complications of pregnancy. Antenatal programmes should actively recommend them.

1 Introduction

Herbal medicine is used by pregnant women in every region of the world. A multinational study of more than 9,000 women in 23 countries found that 28.9% had used herbal medicines in pregnancy, with rates as high as 69% in some countries [1], and reviews from the Middle East and elsewhere report similar or higher figures [2]. Women use herbal products to relieve nausea, colds and digestive complaints, to strengthen themselves and the baby, and to prepare for labour [3].

Manipur has a rich tradition of indigenous medicine. Traditional healers (*maiba* and *maibi*) are consulted for many conditions, including pregnancy and childbirth, and medicinal plants such as *Centella asiatica* (peruk) are eaten regularly as part of the Manipuri diet. Ayush services have also expanded through co-located facilities and dispensaries. At the same time, the state continues to face challenges in maternal health; according to the fifth National Family Health Survey, a substantial proportion of pregnant women in Manipur are anaemic [4].

Despite this background, there are no published data on the use of herbal remedies by pregnant women in Manipur. Understanding the extent of use is essential for antenatal care providers. We therefore conducted a survey to estimate the prevalence and pattern of herbal and Ayush remedy use among pregnant women in the state, and to explore women's experiences of these remedies.

2 Methods

2.1 Design and setting

We conducted a cross-sectional survey between January and April 2024 at the antenatal clinic of the teaching hospital attached to our institute in Thoubal and at two government Ayush dispensaries in Thoubal district. These sites were chosen because of their accessibility to the research team and their high antenatal attendance. The study was approved by the Institutional Ethics Committee and is reported according to the STROBE statement [5].

2.2 Participants

All pregnant women attending the study sites on survey days were invited to participate. Women were eligible if they were at least 18 years of age and able to communicate in Manipuri or English. On each survey day the interviewers approached women in the waiting area until the daily target of 10 interviews had been reached. A total of 512 women were approached, of whom 286 agreed and completed the interview, giving a satisfactory response.

2.3 Questionnaire

The questionnaire was developed by the investigators on the basis of their clinical experience and reviewed by two Ayurveda physicians. It covered sociodemographic characteristics, obstetric history, use of herbal and Ayush remedies in the current pregnancy, the reason for use, who recommended the remedy, satisfaction, and any complications of pregnancy. The key question on use asked: *'Many mothers in Manipur take traditional remedies to keep themselves and their baby healthy. Which ones have you taken in this pregnancy?'* Complications were recorded as reported by the woman. Interviews were conducted by final-year nursing students in Manipuri and lasted about 20 minutes.

2.4 Analysis

Data were entered into Microsoft Excel and analysed in SPSS version 26. Results are presented as frequencies and percentages. Users and non-users were compared using the chi-squared test, with $P < 0.05$ considered significant.

3 Results

The characteristics of the 286 respondents are shown in Table 1. Most were aged 25–34 years, and just over half were in the third trimester. More than half were recruited at the Ayush dispensaries.

Table 1. Characteristics of respondents (n = 286).

Characteristic	n (%)
Age < 25 years	71 (24.8)
Age 25–34 years	168 (58.7)
Age ≥ 35 years	47 (16.4)
Primigravida	119 (41.6)
Third trimester at interview	152 (53.1)
Education beyond class 10	173 (60.5)
Recruited at teaching hospital	121 (42.3)
Recruited at Ayush dispensaries	165 (57.7)
Household includes a traditional healer (maiba/maibi)	38 (13.3)

Percentages for age groups are of all respondents.

Overall, 224 women (78.3%) had used at least one herbal or Ayush remedy in the current pregnancy. Use was reported by 89.7% of women recruited at Ayush dispensaries and 62.8% of those recruited at the teaching hospital. The most frequently used remedies were Chyawanprash, fresh *Centella* juice and Shatavari (Table 2). Women commonly used more than one remedy; the mean number per user was 1.8. Twenty-nine women (12.9%) had taken a preparation from a maibi whose contents they did not know, and 11 (4.9%) had used castor oil to start labour.

Table 2. Remedies used during the current pregnancy (n = 224 users).

Remedy	Main reason given	n (%)
Chyawanprash	Strength, immunity	92 (41.1)
Centella asiatica (peruk), fresh juice	Baby's brain development	82 (36.6)
Shatavari churna	Strength, milk supply	66 (29.5)
Ginger	Nausea	61 (27.2)
Phlogacanthus thyrsiformis (nongmangkha) leaf decoction	Fever, cough	34 (15.2)
Maibi preparation (contents unknown)	Easy delivery	29 (12.9)
Garbhapal ras	Prevent miscarriage	17 (7.6)
Castor oil	To start labour	11 (4.9)

Women could report more than one remedy.

Family members, particularly mothers and mothers-in-law, were the most common source of recommendation, followed by Ayush doctors and traditional healers (Figure 1). Only 22 users (9.8%) had informed their antenatal doctor or midwife that they were taking a herbal remedy; most said they had not been asked.

Satisfaction was very high: 216 of 224 users (96.4%) rated the remedies as good or very good (Figure 2), and no woman reported any harm from a remedy. When asked whether they would recommend herbal remedies to other pregnant women, 208 (92.9%) said yes.

Users reported fewer pregnancy complications than non-users (Table 3). Hyperemesis, anaemia and pregnancy-induced hypertension were all significantly less common

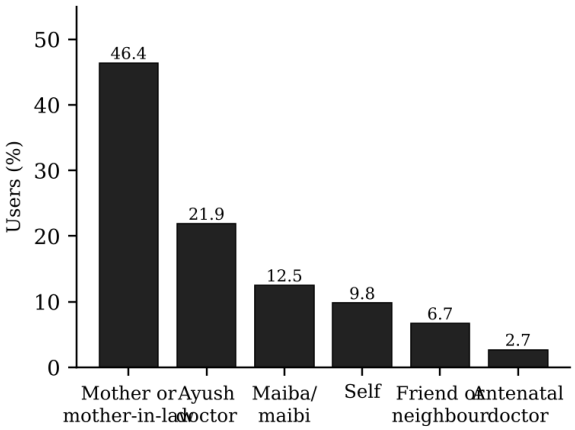

Figure 1. Who recommended the remedy (users, n = 224).

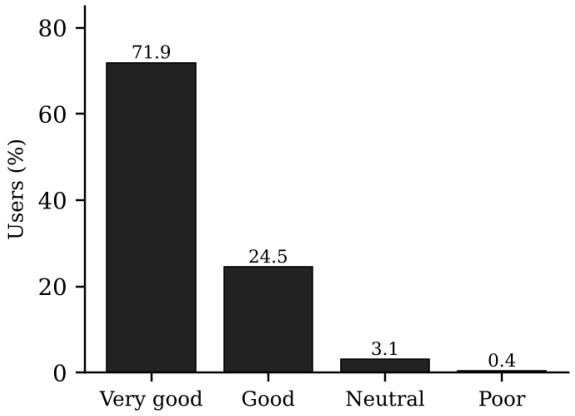

Figure 2. Users' rating of the remedies they used (n = 224).

among users, and the proportion with any complication was 31.7% among users compared with 50.0% among non-users (P = 0.008).

Table 3. Self-reported pregnancy complications by herbal remedy use.

Complication	Users (n = 224)	Non-users (n = 62)	P
Hyperemesis (severe vomiting)	18 (8.0)	11 (17.7)	0.03
Anaemia told by health worker	47 (21.0)	22 (35.5)	0.02
Pregnancy-induced hypertension	9 (4.0)	7 (11.3)	0.03
Bleeding in pregnancy	6 (2.7)	3 (4.8)	0.39
Any complication	71 (31.7)	31 (50.0)	0.008

Values are n (%). P values from chi-squared test.

4 Discussion

This is the first study of herbal remedy use in pregnancy in Manipur. We found that 78.3% of pregnant women in Manipur use herbal or Ayush remedies, a prevalence well above the global figure of 28.9% reported in the multinational study by Kennedy and colleagues [1] and among the highest reported anywhere. This reflects the depth of traditional knowledge in Manipuri society and the trust that women place in it.

Our findings provide reassurance about the safety of these remedies. No woman reported any harm, satisfaction was almost universal, and women who used herbal remedies had significantly fewer complications than those who did not. The lower prevalence of anaemia among users is consistent with the traditional use of Chyawanprash and Shatavari as Rasayana for strength, and the lower prevalence of hyperemesis is consistent with the well-known anti-emetic action of ginger. The reduction in pregnancy-induced hypertension is a novel finding that deserves further study, and may reflect the calming properties of *Centella*.

These results contrast with the cautious tone of much of the international literature. Kennedy and colleagues found that most women used herbal medicines on their own initiative [1], and Illamola and colleagues have emphasised that little is known about the safety of herbal medicines in pregnancy [3]. However, these reviews were based largely on Western populations using commercial products. In Manipur, remedies are prepared from plants that have been part of the local diet for centuries and are recommended by experienced family members and healers. Our data show that, in this context, concern is not justified.

The finding that few women informed their antenatal provider about herbal use is important. It suggests that antenatal care providers in Manipur are not engaging with an important part of women's health practice. Rather than discouraging herbal use, providers should ask about it and support it, since women's experience shows it to be beneficial.

The study has several strengths, including a reasonably large sample, the use of interviewers who spoke the local language, and the inclusion of both conventional and Ayush facilities. Limitations include the cross-sectional design and reliance on self-report.

5 Conclusion

Nearly four in five pregnant women in Manipur use herbal or Ayush remedies. These remedies are safe, highly valued and associated with fewer complications of pregnancy. We recommend that the National Health Mission in Manipur incorporate herbal remedies into antenatal care, and that ASHAs and midwives be trained to advise women on their use.

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Competing interests. None declared.

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