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*Research Article*

# Maternal Healthcare Utilisation During and After Pregnancy: A Village Level Study of Paniya Tribal Women

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**Abstract**
The state of Kerala stands unique for its impressive outcomes in human development compared with the rest of the states in India. While, Kerala's health outcome is analogous to that of the developed countries of the West, the barometer of state's health sector does not go well with the health status of tribal communities. This paper addresses the healthcare utilisation of pregnant and post-pregnant women of the *Paniya* community, which is the largest group among the scheduled tribal population in Kerala. Based on the primary survey conducted among them, the study unravels the poor health conditions of their young mothers even though they live near the mainstream society in Wayanad district. Extreme poverty hinders their ability to consume nutritious food and adopt healthy practices during and after pregnancy. Maternal anemia followed by low weight poses risks to child birth and the survival of the child and mother. The aversion to avail treatment and incapacity to travel refrain them from consulting gynaecologist in regular intervals. The intervention of tribal health promoters and ASHA workers has been notable in improving the health and welfare of tribal women. The health workers insist them to visit the district hospital, however, geographical constraints and lack of awareness make them hesitant to seek treatment regularly.

**Key words:** healthcare utilisation, poverty, Paniya community, maternal anemia

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## Introduction

The state of Kerala has been highly recognised for its outstanding performance in human development indicators. In the health sector, the government of Kerala could produce impressive outcomes such as visibly low infant mortality rate and maternal mortality rates along with the highest life expectancy in comparison with other states of India. Being located in the southern part of India, Kerala could perform as a model yielding progressive outcomes in the health care sector over more than four decades thanks to the meticulous intervention of the state government in enabling health care utilisation accessible to the public. Could the strategic intervention of the state in public health invariably produce inclusive health outcomes for the most downtrodden in the society? In any society, globally and nationally, no doubt, the label of being downtrodden is often put up with tribal communities who come across challenges in accessing health care services. They are socially and economically disadvantaged in all respects and live in extremely adverse conditions all over India. Their living surroundings are unfriendly to access necessities of life viz., markets, hospitals and schools.

The majority of the studies accounted for poverty as the sole reason for the miserable conditions of life. Poverty worsens the reproductive health and nutritional wellbeing of tribal women, making them vulnerable to the victims of serious ailments. Various studies reported the prevalence of acute morbidity, malnutrition and anemia among them. The health of a child is closely linked to the health of the mother, therefore, the reproductive health of a woman influences the health status of future generations. Although Kerala attained progress in maternal health, the unevenness of the tribes in its attainment is discussed in this paper. Since the general health indicators of the tribes portray a low profile, the maternal health of tribal

women is a great concern. The present study is an attempt to analyse the maternal health status of women in *Paniya* community the largest tribal group in Kerala. Maternal health addresses the health conditions of women during and after pregnancy, ensuring appropriate nutrition and family planning.

**Review of Literature**

In terms of human development indices, the Scheduled Tribe as a whole are the most disadvantaged group among the outlier communities. Notwithstanding the provision of various welfare measures, they still remain as the most backward community in asset holding, education and health. (CSSEIP 2017; GoK 2022). The nutrition and health of a society were intimately related to its value system. The effects of malnutrition on the intergenerational life cycle showed consequences of inadequate weight and height micronutrient deficiencies (Vedapuri Eswaran and Shankar 2012). UNICEF reported the failure of healthcare centres in Attappadi to address the healthcare needs of pregnant and lactating tribal women and their infants leading to the death of 39 infants in tribal hamlets (Suchitra 2013). Among the tribes of Kerala, *Paniya* is the largest tribal community and the most deprived in socio-economic conditions and the fourth largest community affected by malnutrition (KILA, 2013). The majority of the malnourished children in Wayanad are reported among the tribes residing in Thirunnelli and Mananthavadi panchayats (NFHS, 2017). The most deprived among the tribes are *Paniyas* who are trapped in extreme poverty and illness and subsequent indebtedness incurred by 'borrowing to pay healthcare costs (Mohindra et.al. 2010). Although Kerala has made acclaimed progress in health indicators, the tribal communities are severely affected by communicable and non-communicable diseases (Shabeer KP 2017)

The major objective of the study is to analyse maternal health care utilisation of *Paniya* women in *Vellamunda* Grama Panchayat. It captures their general awareness regarding various schemes for reproductive health and the role of health workers in propagating these schemes.

**Methodology**

According to the Census data (2011), Kerala hosts heterogeneous groups of tribes which comprise 1.5 per cent of the state's population. The tribes can be seen mainly in six districts and their largest share can be found in Wayanad district which accommodates 31.24 per cent of tribes of the state (2011). The present study was conducted among women belonged to the *Paniya* tribes in Wayanad district of Kerala. Mananthavady block was randomly selected from the four blocks of Wayanad district. Historically, Mananthavady is considered the place of origin of the *Paniya* tribe in Wayanad. Among the six grama panchayats in Mananthavady, Vellamunda grama panchayat was randomly selected for the primary survey. The sample selection was concentrated in the colonies located in close proximity to mainstream society. According to WHO, the reproductive age of a woman lies between 15-49. A primary survey was conducted among 57 lactating mothers and at least four months pregnant women between 15-49 years from four wards out of 21 wards. The Paniyas settled as clustered groups in these colonies. Care has been taken to include those wards where they settled in colonies with high density of *Paniya* households and had contact with mainstream society. Vellamunda gramapanchayat, the study area is situated 14 kms away from Mananthavadi Municipal town.

***Paniya* Tribes in Wayanad**

Located in the Western Ghats, Wayanad shares boundaries with the states of Tamilnadu and Karnataka. The exclusive feature of Wayanad is green and dense forests and hilly regions. *Paniya, Kurichya, Mullu Kuruma, Kattunaika, Adiya, Vetta Kuruma* are the major tribes in Wayanad. Among the major tribal communities, *Kurichia* and *Mullu Kuruma* are land owners whereas *Paniya* and *Adiyas* are landless labourers engaged in agriculture. Wayanad accommodates the largest share of the *Paniya* community in Kerala. *Paniya* is the largest tribal community in Kerala and the most backward in terms of socio-economic conditions (Table 1).

**Table 1 Scheduled Tribes in Wayanad**

| Tribal community | Families | Population | Per cent |
|---|---|---|---|
| Paniya | 15879 | 96116 | 45.12 |
| Kurichiya | 5812 | 25266 | 16.49 |
| Mullu Kuruma | 5139 | 20983 | 13.69 |
| Kattunaickar | 4369 | 17051 | 11.13 |
| Adiya | 2570 | 11196 | 7.31 |
| Vettukuruma | 1700 | 6472 | 4.23 |

*Source: Scheduled Tribes of Kerala: Report of Socio- economic Status, KILA (2013)*

The residential areas of *Paniyas* remind the bygone days of dense forest land where their grandparents hunted small birds and animals for food. Later they became agricultural 'bonded labourers' of *Nair*[i] landlords who had encroached on forests. The word "*Paniya*" means worker the male member is addressed as "*Paniyan*" and the female member as "*Panichi*". In those days, *Paniyas* including children were employed as agricultural labourers of these landlords subsequently attained the status of agricultural workers and gave up hunting.

*Paniyas* settle as a single cluster in colonies and have close interaction with the local community in rural and semi-urban areas. They strongly believe that their current residential area is their place of origin and the communities other than tribes were migrants. They take food twice a day and prefer leafy vegetables and fish. Husbands go to work and women take care of the house and children. When children grow up, they would go for occupation.

**Results and Discussion**

**Maternal Health Care Practices of *Paniya* Women**

Majority of the respondents surveyed fell under the age group 18 to 38 years old. The survey identified 12 per cent of mothers

who had not crossed even 18 years old (Table 2). Pregnant and lactating mothers in the age interval 39 to 45 come around 14 per cent. A young boy is allowed to invite their fiancée to live with him. In their custom, the exchange of a betel plant leaf between the boy and girl signifies the solemnisation of the wedding ceremony. Ignorance, lack of age barrier and absence of stringent conditions in marriage may be the key reasons for their early motherhood (Table 2).

**Table 2 Age Distribution**

| Age | Number of people | Per cent |
|---|---|---|
| Below 18 | 7 | 12.3% |
| 18-24 | 12 | 21.1% |
| 25-31 | 17 | 29.8% |
| 32-38 | 13 | 22.8% |
| 39-45 | 8 | 14% |
| Total | 57 | 100% |

Their houses with an average area of 600 sq ft. were terraced but not plastered and rooms were too small to accommodate all the members of a family. Their houses were electrified nevertheless they lived in darkness as they had failed to pay electricity bills. More than 60 per cent of them lived in joint families with 6 to 11 members. In many households around 11 to 13 members were staying in a house with less than an area of 700 sq.ft. At least three families were staying under one roof. They were given piped water house connections, however, water scarcity was acute in the summer season.

Female literacy plays a vital role in maintaining the health status of women, their children and society also. The majority (56.1 per cent) of *Paniya* women in the survey attained school level education up to primary school. Illiterates were also identified in this community with 3.5 per cent. No women were found to have education level above plus two level. Poor educational background coupled with extreme poverty of these women pose threats to the socio-economic progress of the entire society.

**Maternal Health Status**

Maternal anemia during and after pregnancy may be very sensitive to higher risks and potential for premature birth or low birth weight of the infants. Anemia after childbirth can cause her body to become subservient to iron deficiency, infections, weakness, fatigue and subsequently to postpartum depression. Based on the data on haemoglobin (HB) test conducted by the Vellamunda PHC, around 82 per cent of tribal women showed anemic behaviour. All the pregnant and lactating women surveyed were found pale and weak and their children were malnourished. The department of health distributed iron and folic acid tablets to the pregnant women, but they hardly took them on the regular basis. Good health outcomes can be produced if only consultation with a doctor and regular check-ups during the prenatal and postnatal periods are accessible to them. Extreme poverty thwarts them from consuming nutritious food and adopting healthy practices during and after pregnancy. Cultural traits also influence their food consumption. Generally, *Paniya* women skip lunch and take food twice a day i.e., breakfast in very early morning and dinner in evening. Vegetables and green leaves were the major items in their food basket The pregnant women also took food once or twice a day nevertheless, the state made available the supply of essential items through ration shops. The predominance of social evils like alcoholism and drug abuse among men as well as women worsened their condition. Women directly did not purchase liquor from shops, instead they collected it from intermediaries often at a high price. A significant portion of their income was spent on alcohol abuse.

Poverty severely affected their health and nutrition level. The *Anganwadis* of each ward distributed 3 kilogram of *Amrutham* nutrimix, the supplementary food to the children between six months to 3 years old. This powder mix was shared by all the members of the family. Many of them did not know about necessary details such as their age, reason for caesarean, birth weight of the children, etc.

**Table 3 Cross tabulation between Age of Marriage and Maternal Anemia**

| Anemic nature | <18 years | 18-25 years | Total |
|---|---|---|---|
| Anemic | 30 (93.8) | 16 (64.0 | 46 (80.7) |
| Not anemic | 2 (6.2) | 9 (36.0) | 11 (19.3) |
| Total | 32 (100.0) | 25 (100.0) | 57 (100.0) |
| Chi square analysis | Chi square value=7.976 | Significance: 0.005 | Significant at 5% level |

Many medical journals quoted a strong association between early childbearing and maternal anemia. This association is justified in this study as 93.8 per cent of mothers who married before reaching 18 years old were anaemic (Table 3). Using Chi square analysis, the study checked the relationship between low age of marriage and anemic behaviour. Since P value 0.005 is less than Chi-square value, the association between lower age of marriage and anemia is significant at 5 per cent level. Hence

awareness about raising the age of marriage is a key factor of their survival.

Several studies have shown significant positive association between maternal anemia and likelihood chance of baby with low birth weight. Here 95.7 per cent of anemic mothers delivered children with low birth weight

**Table 4 Crosstabulation between Maternal Anemia Birth Weight of Infant**

| Birth weight | Anemic | Not anemic | Total |
|---|---|---|---|
| Less than 2.5 kg | 44 (95.7) | 3 (27.3) | 47 (82.5) |
| 2.5 kg and above | 2 (4.3) | 8 (72.7) | 10 (17.5 ) |
| Total | 46 (100.0) | 11 (100.0) | 57 (100.0) |

The caesarean among them is as high as 50 per cent. Caesarean is common but complicated procedure that poses health risk for mother and child. Here most of the women had undergone caesarean is due to low blood pressure and pregnancy complications.

**Access to Hospitals**

Consultations with the gynaecologist on regular intervals reduce the risks involved in the pregnancy and give guidance to the mother regarding her health care. Occasionally *Anganwadi* facilitated the visit of a team of health workers to the pregnant women in each ward. Health workers including nurses arranged a visit to each Anganwadi once a month and provided vitamin tablets to the pregnant and feeding mothers, however, the doctor was not regularly part of the team. Geographical constraints and lack of awareness restricted their access to the advanced methods of health care. To address it, ASHA (Accredited Social Health Activist) workers and tribal health promoters insisted them to go to the district hospital at Mananthavadi. Although the health workers insisted, the pregnant women were hesitant to visit gynaecologist on a regular basis as this hospital was 16 kilometres away from the surveyed area. For injections and consulting general physicians, they approached the nearby primary health centre (PHC) which is situated only 2 kilometres away from their settlement. Their ignorance and incapacity to travel compounded by poverty denied their access to medical professionals for primary level consultation and diagnosis. Tribal households have no direct access to roads. Pregnant women often face challenges in accessing medical care during critical situations. Usually, they are admitted to the hospital once labour pain starts. It is extremely dangerous to transport them as they must trek along steep rock-cut steps to reach a point where a vehicle can pick them up. This poses serious threats to the mother and child.

**Awareness on Schemes for Maternal Health**

Targeting pregnant women as the direct beneficiaries, the government of India offers various schemes such as Pradhan Mantri Matru Vandana Yojana (PMMVY), Janani Suraksha Yojana (JSY), Mathruyanam and Janani Janma Raksha. These schemes encompass the promotion of institutional delivery, financial assistance, prenatal and postnatal care of mother and baby. These schemes provide financial assistance, free services, and quality care during pregnancy and childbirth, aiming to reduce infant and maternal mortality rates. The existing schemes and awareness of *Paniya* women regarding them are discussed in this section.

Pradhan Mantri Matru Vandana Yojana (PMMVY) is a centrally sponsored scheme providing a cash incentive of Rs.5000 to the pregnant or lactating mothers from disadvantaged sections. Janani Suraksha Yojana (JSY) launched by the government of India integrates cash assistance with delivery and post-delivery care to promote institutional delivery. The Accredited Social Health Activist (ASHA) connects these pregnant women with healthcare institutions for availing benefits. Tribal communities often face challenges in accessing medical care in critical situation. Mathruyanam' scheme launched by the government of Kerala aims to provide free transportation for pregnant women to government hospitals for childbirth, and it is particularly beneficial for those from remote areas. JSY launched by the government of India provides financial assistance of Rs.2000 per month for 18 months beginning from the third month of the pregnancy to the month in which the child attains one year.

The survey attempted to enquire about their awareness regarding maternal health schemes introduced by the government. A considerable number of them (56 per cent), although they gave birth to more than one baby, were ignorant about the benefits associated with any schemes. The rest 44 per cent opined that they were well informed of these schemes by the ASHA workers and tribal health promoters from the first month of pregnancy. They opined that these cash benefits were paid in instalments and there was great delay in the disbursement of this amount. Some of them (20 per cent) reported that they had not received this amount and not heard about such a scheme nor applied for it. The beneficiaries of vehicle facility sponsored by Mathruyanam programme came around 79 per cent and the rest 21 per cent could not access this facility. The interaction between health workers and the target groups turned futile in respect to *Paniya* groups. A section of people remain untouched by the state's health policy may result in lopsided development. People whom the government targets as beneficiaries are not informed of any health promotion schemes nor they do pay any attention to the agency services of health workers is very unfortunate.

**The Role of Health Activists**

People especially from rural parts of India owe much to the intermediary roles of ASHA workers who play a vital role in disseminating information about health schemes. Promoters and

Asha workers were the major sources of their information about the health related schemes and policies. A Tribal Community Health Worker called '*Oorumithra'* selected from the same '*Ooru*' (hamlet) of tribes is supposed to act as a link between the tribal community and tribal health promoters. *Oorumitra* along with ASHA workers addresses the health needs of the tribes. She is supposed to act as the primary source of information by reporting the issues and needs of pregnant women to the health promoters. The majority of women acknowledged the services of Tribal health promoters and were least satisfied with those of *Oorumitra*. The tribal women specifically mentioned that the health promoters interact more fruitfully than *Oorumitra.* Although *Oorumitra* was a member of the same tribal hamlet, their incompetence and lower education background dissuaded them to articulate their needs and problems to the concerned authorities. An informal conversation with them revealed that they were not fully aware of the responsibilities of an ASHA worker. The ignorance observed among the *Oorumitra* stems from their longstanding exclusion from mainstream society and limited social capital. Generally, a woman's prenatal and postnatal period covers 4 years since their pregnancy. The visiting frequency of Asha worker during the prenatal and postnatal period in the selected ward varies between 1- 4 times.

Among on family planning among the *Paniya* tribes is extremely low. None of the women adopted birth control measures. A good number of mothers on average gave birth to at least 3 to 4 children. More than 40 per cent of *Paniya* women married below the legal age of marriage 18 years old. Age of marriage is a critical factor in maternal health status of women because early marriage leads to early pregnancy which intensifies their distress.

According to the WHO, the ideal inter pregnancy interval between live births is 2 years or 24 months. The majority here followed inter-pregnancy interval maximum of one year between their live births. This interval exceeds 5 to 11 years in the case of 30 per cent of respondents. Short intervals as well as long intervals have high chances to produce adverse outcomes during pregnancy and prenatal period.

**Conclusion**

Tribal belts all over India faced insufficient facilities in all respects, particularly in healthcare and education. Among the economic and socially disadvantaged groups, scheduled tribes are the most excluded communities in Kerala. Poverty severely affected their health and nutrition level. They can be portrayed as a strong of evidence of the clear association between early childbearing and maternal anemia which in turn often leads to low birth weight in infants. Their ignorance and incapacity to travel compounded by poverty denied their access to medical professionals for the primary level consultation and diagnosis. All the pregnant and lactating women surveyed were found pale and extremely weak and their children were malnourished. Since the tribal hamlets do not have direct access to roads, pregnant women often face extreme challenges in accessing medical care during critical situation. These women insisted by the tribal health promoters, visited the hospital a maximum at least twice during pregnancy. The intervention of tribal health promoters and ASHA workers has been notable in improving the health and welfare of tribal women.

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[i] Upper caste in Kerala