

Community Awareness and Service Delivery Utilisation of Health and Wellness Centres in Tribal District in Chhattisgarh: A Cross-Sectional Study

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Abstract: Background: Primary Health Care (PHC) is essential to achieving Universal Health Coverage (UHC), especially in low- and middle-income countries like India. The Government of India launched Ayushman Bharat–Health and Wellness Centres (HWCs) in 2018 to strengthen primary care, aiming to deliver equitable, accessible, and comprehensive services. Despite this effort, disparities in awareness and utilisation remain, particularly in tribal areas. Aim and Objectives: This study assessed community awareness, perception, and utilisation of HWCs in a tribal district of Chhattisgarh, aiming to inform strategies for improved service delivery and engagement. Methods: A community-based cross-sectional study was conducted between February and May 2025 in three randomly selected villages of Jashpur district. Using a semi-structured questionnaire, 351 adult residents were interviewed. Data were analysed using SPSS v26 to generate descriptive statistics. Results: Of the 351 participants, 90% (n=316) belonged to Scheduled Tribes, and 62.4% (n=219) were uneducated. While 65.8% (n=231) had attended HWC awareness sessions, only 27.6% (n=97) had used HWC services in the past three months, primarily for NCD-related care (38, 39.2%). Community Health Officers were present in 65.9% (n=64) of visits, and 97.9% (n=95) of patients received medicines. Satisfaction was moderate (58, 59.8%), with trust in CHOs expressed by 66% (n=64) of participants. Conclusion: Addressing gaps in trust, perceived service adequacy, and outreach could enhance HWC's service delivery utilization.

Keywords: Health and Wellness Centres; Primary Health Care; Tribal Population; Community Awareness; Service Utilisation; Chhattisgarh

1. Introduction

To address the healthcare needs of the population, the primary health care (PHC) approach is crucial for the effective working of any health system in the long run [1]. In 2018 Astana Declaration was renewed to implement PHC throughout the world. PHC leads to the larger goal of Universal Health Coverage (UHC) [2]. This approach is cost-effective, equitable, acceptable, and accessible to all in low- to middle-income countries (LMICs) such as India [3].

The Government of India launched Ayushman Bharat-Health and Wellness Centres (HWCs) in 2018 to strengthen and improve access to primary health care and advance UHC [4]. These centres provide comprehensive expanded packages of primary healthcare services, including management and follow-up of non-communicable diseases (NCDs) [5]. This initiative's main role was to establish over 150,000 HWCs to improve access to the primary health care of the rural and tribal populations [6]. It also aims towards a continuum of care from “womb to tomb” across primary, secondary, and tertiary healthcare facilities via proper linkages. Mid-Level Health Providers (MLHPs) are being trained to lead PHC teams at HWCs, with a focus on preventive, promotive, and curative approaches [7].

The notion of the “right to health” holds significant importance in the exercise of fundamental human rights [8]. Over the past seven decades, healthcare has greatly benefited the public; however, the nation's most disadvantaged communities have yet to fully experience its

advantages [9]. Primary Health Care continues to be recognised as the bedrock of viable and efficient healthcare systems [10]. Despite the program's ambitious goals, challenges such as infrastructural deficits, limited public awareness, and historically low utilization of government primary health centres persist, especially in rural areas [11]. While awareness of primary health care services is generally high, many still prefer alternative providers. PHCs are often underutilized due to factors such as a perceived lack of relevant services, mistrust in doctor-patient interactions, and poor opinions of public-sector health services [12].

The HWCs are useful for all the communities that they serve. It is important to understand their usefulness. Understanding the community perception, needs, and expectations of the community about the health care services can help in better delivery and higher utilization of health services. This study was planned to assess the awareness of the community about Health and Wellness Centres' services and their catchment areas.

2. Methodology

Study Design and Setting: This community-based cross-sectional study was conducted in Jashpur, a tribal district of Chhattisgarh. Jashpur is situated 450 km from the capital city of Raipur, and it has difficult-to-reach terrain with a 63% tribal population. The study was conducted in the district's three randomly selected villages (Gamhariya, Pandaripani and Purna Nagar).

Study Duration: The study was conducted for four months from February 2025 to May 2025 in these three selected villages.

Sample Size: A total of 351 samples was estimated from the following formula (considering a non-response rate of 20% in the community study):

$$n = \frac{z^2 \cdot p \cdot (1 - p)}{e^2}$$

Where:

Z = 1.96 (For 95% Confidence Interval)

P (Prevalence) = 50%; conservative estimate for conducting community study

e (Margin of Error) = 6%

Study Sample: The participant was the head of the household or any individual aged 18 years or older who was present during the time of the study.

Sampling Technique: In each village first house was selected randomly, and then alternate households were chosen for inclusion in the study, till the sample size was reached.

Inclusion and Exclusion Criteria: Any adult aged 18 years or above who was a resident of the village for the last year was included in the study. Any person who was not willing to give verbal informed consent for the study was excluded.

Data Collection Tool: The data collection was carried out by the primary investigator using a pre-validated semi-structured questionnaire, developed by the authors. Different domains of the questionnaire were socio-demography, awareness and utilisation, level of satisfaction, and suggestions and expectations from the HWCs. The questionnaire was pilot tested in the Gamhariya village to check for local context and cultural relevance. The primary author conducted detailed face-to-face interviews with all the included participants. Only one person fulfilling the inclusion criteria was interviewed from each household.

Data Analysis: The data obtained was entered into the MS Excel sheet. For the data analysis, IBM SPSS version 26 statistical software was used. A descriptive data analysis is done where the categorical data is presented as frequency and percentage in tables and graphs.

Ethical Considerations: The study was approved by the Institutional Ethics Committee. Before the data collection, the relevant authorities were contacted, and formal permissions were obtained from the district health authorities to conduct the study. Verbal informed consent was obtained from the study participants.

3. Results

The present study included 351 individuals across three villages, Purna Nagar (36.8%), Gamhariya (33.9%) and Pandripani (29.3%). The average age of participants is approximately 43 years. Gender distribution was almost

equal, with 52.7% females. Most participants were Scheduled Tribe population (90%). Education status was low, with 62.4% being uneducated. Employment patterns show that farming (25.1%) was the most common occupation. On average, households include about five members, with 68.4% living in medium-sized families of 5–7 members. [Table 1]

Table 1: Socio-demographic Characteristics of the study participants

| Variable | Frequency (n=351) | Percentage (%) |
|--|-------------------|----------------|
| Village | | |
| Gamhariya | 119 | 33.9 |
| Pandripani | 103 | 29.3 |
| Purna Nagar | 129 | 36.8 |
| Age Category (Mean ± SD = 43.21 ± 13.86) | | |
| 18 to 29 | 50 | 14.2 |
| 30 to 39 | 119 | 33.9 |
| 40 to 49 | 74 | 21.1 |
| 50 to 59 | 46 | 13.1 |
| > 59 | 62 | 17.7 |
| Gender | | |
| Female | 185 | 52.7 |
| Male | 166 | 47.3 |
| Caste | | |
| General | 6 | 1.7 |
| Other Backwards Class | 21 | 6.0 |
| Scheduled Caste | 8 | 2.3 |
| Scheduled Tribe | 316 | 90.0 |
| Education | | |
| Uneducated | 219 | 62.4 |
| Primary | 21 | 6.0 |
| Middle | 55 | 15.7 |
| Senior Secondary | 44 | 12.5 |
| Under Graduate | 12 | 3.4 |
| Occupation | | |
| Business | 59 | 16.8 |
| Farming | 88 | 25.1 |
| Govt Employee | 5 | 1.4 |
| Labour | 63 | 17.9 |
| Housewives | 21 | 6.0 |
| Private Sector Working | 29 | 8.3 |
| Unemployed | 86 | 24.5 |
| Head of Household | | |
| No | 160 | 45.6 |
| Yes | 191 | 54.4 |
| Number of household members (Mean ± SD = 4.95 ± 1.09) | | |
| 2 to 4 | 111 | 31.6 |
| 5 to 7 | 240 | 68.4 |

The community's awareness of HWC was high, with 95.7% of participants having heard of HWCs, primarily through Mitanins (59.5%). About 78.6% of participants were aware of the location of their nearest HWC. Awareness of health promotion activities conducted by HWCs (like Yoga Day or screening camps) was average (46.4%). Only 15.7% of participants were aware of the preventive or wellness services (like yoga, diet advice, or screenings) offered by HWCs. [Table 2]

Table 2: Community Awareness towards HWCs

| Variable | Frequency (n=351) | Percentage (%) |
|--|-------------------|----------------|
| Have you heard of HWC? | | |
| No | 15 | 4.3 |
| Yes | 336 | 95.7 |
| If yes, from where did you hear about it? | | |
| Not Applicable | 15 | 4.3 |
| ANM/Health Worker | 53 | 15.1 |
| ASHA/Mitanin | 209 | 59.5 |
| Local Health Centre | 37 | 10.5 |
| Panchayat or Community Meetings | 37 | 10.5 |
| Do you know where the nearest HWC is located? | | |
| No | 75 | 21.4 |
| Yes | 276 | 78.6 |
| How far is the HWC from your house? | | |
| Do not know | 81 | 23.1 |
| 1–3 km | 17 | 4.8 |
| Less than 1 km | 53 | 15.1 |
| More than 3 km | 200 | 57.0 |
| Are you aware of any health promotion activities (e.g., Yoga Day, Screening Camp) by the HWC? | | |
| No | 188 | 53.6 |
| Yes | 163 | 46.4 |
| Are you aware of Village Health Sanitation and Nutrition Day (VHSND) activities? | | |
| No | 185 | 52.7 |
| Yes | 166 | 47.3 |
| Do you know if the HWC provides preventive or wellness activities like yoga, diet advice, or screening camps? | | |
| No | 296 | 84.3 |
| Yes | 55 | 15.7 |
| Do you feel the HWC staff engage with the community regularly? | | |
| Don't Know | 14 | 4.0 |
| No | 135 | 38.5 |
| Not Sure | 81 | 23.1 |
| Yes | 121 | 34.5 |
| When you or a family member falls ill, where do you first seek care? | | |
| Do not know | 32 | 9.1 |
| HWCs | 26 | 7.4 |
| Other Government hospital | 210 | 59.8 |
| Private doctor | 15 | 4.3 |
| Self-medication | 45 | 12.8 |
| Traditional healer | 23 | 6.6 |
| Have you or your family members visited the HWC in the past 3 months? | | |
| No | 254 | 72.4 |
| Yes | 97 | 27.6 |
| Have you ever participated in any community meeting/awareness session organized by the HWC? | | |
| No | 120 | 34.2 |
| Yes | 231 | 65.8 |

Only 27.6% of the study population had visited an HWC in the previous three months, suggesting that while awareness is high, utilization is still low. Most of the population

(39.2%) utilised HWC in their last visit for NCD services, including screening, treatment, management, or follow-up. [Figure 1]

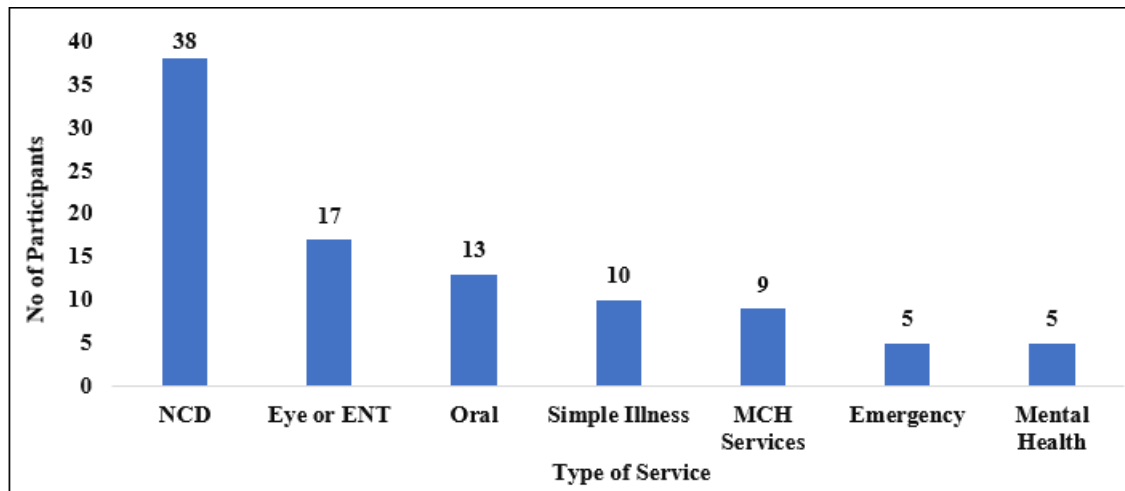


Figure 1: Type of service utilized in the HWCs(n=97)

Community Health Officers (CHOs) were available during 65.9% of the visits, and 97.9% of the patients received free medicines. Only 34.2% of the participants used HWCs for follow-up care related to NCDs. Only 21.9% reported that women in their households used HWCs for check-ups or immunisations. Notably, 65.8% of participants had attended a community awareness session or meeting organised by an HWC. [Table 3]

Table 3: Community's Utilisation of HWCs' Services

| Variable | Frequency (n=97) | Percentage (%) |
|--|------------------|----------------|
| How many times visited HWC in the last three months? | | |
| 1-2 | 84 | 86.6 |
| 3-4 | 13 | 13.4 |
| Was the CHO (Community Health Officer) available during your visit? | | |
| No | 33 | 34.1 |
| Yes | 64 | 65.9 |
| Were medicines provided free of cost? | | |
| Medicine not available | 2 | 2.1 |
| Free of Cost | 95 | 97.9 |
| Were diagnostic tests conducted during your visit? | | |
| No | 33 | 34.1 |
| Yes | 64 | 65.9 |

Among the 97 individuals who had recently utilized HWCs' services, 59.8% were satisfied with the services, and only 4.1% expressed dissatisfaction. 62.9% of the participants felt that HWCs had improved local health services and about 66% expressed trust in the CHO. However, 56.7% reported their preference between HWCs and private providers "depends" on disease condition and severity. [Table 4]

Table 4: Community's Satisfaction towards HWC's Services (n=97)

| Variable | Frequency (n=97) | Percentage (%) |
|--|------------------|----------------|
| Were you satisfied with the services received? | | |
| No | 4 | 4.1 |
| Partially | 35 | 36.1 |
| Yes | 58 | 59.8 |
| How would you rate the quality of services at the HWC? | | |
| Average | 48 | 49.5 |
| Good | 35 | 36.1 |
| Poor | 2 | 2.1 |
| Very good | 12 | 12.4 |
| Do you feel the HWC has improved health services in your village? | | |
| No | 17 | 17.5 |
| Not Sure | 19 | 19.6 |
| Yes | 61 | 62.9 |
| Do you trust the health workers/CHO at the HWC? | | |
| No | 15 | 15.5 |
| Not Sure | 18 | 18.6 |
| Yes | 64 | 66.0 |
| Do you prefer going to HWC over other private clinics/hospitals? | | |
| Depends | 55 | 56.7 |
| No | 17 | 17.5 |
| Yes | 25 | 25.8 |

4. Discussion

The present study assessed the community's perception of utilisation and satisfaction related to HWC in 351 participants in the tribal-dominant, Jaspur District of Chhattisgarh. In the present study, 59.8% of the participants were satisfied with the services being offered by the centres. This finding is comparable to the study done by Sivakumar et al., where the majority of beneficiaries were satisfied with the healthcare services and providers at HWCs, with higher satisfaction levels in rural areas compared to urban areas [13].

While 78.6% of participants knew about their nearest health HWC, it was less than 3 km for around 20% of the

population. When the accessibility of a Health facility is near to the participants, they are more likely to utilise the service as it also reduces the indirect cost of travelling to a farther higher facility. A similar study by Abhishek et al. inferred that the HWCs increased accessibility of health care services by reducing the distance barrier and having suitable timings, which is more acceptable to the people [14].

Among the study participants, 28% utilised the services in HWCs, among those, 40% utilised them for NCD-related services. The people are more likely to utilise the facility when the services provided are Crucial for their health needs, and their behavioural and cultural aspects are catered to. In a study done in the Chhattisgarh population by Abhishek et al., people were happy to use the services of HWCs as they found the services relevant to their needs, easy to access and reasonably functional in terms of availability of providers and medicines [14].

In the present study, the participants met CHOs at the centre 66% of the time when they visited the centre. A study in Gujarat found that HWCs were generally functioning satisfactorily, with available staff and services, though some areas, like wellness activities, needed improvement [15]. A study by Lahariya et al. noted that the effectiveness of HWCs depends on factors such as funding, technology use, community engagement, and political will [4].

In the present study, the community perception was not analysed using the gender frame, but in a study by Sood et al, it was noted that men and women reported similar self-perception of health despite higher disease burden in men; women showed lower self-efficacy in maintaining physical activity [16].

5. Limitation

The study is done in a limited geography, including only three villages. So, the findings cannot be generalised to the population. The data in the study were self-reported so recall bias might have been introduced.

6. Conclusion

The study concludes that awareness of the HWC was high among the participants, yet the utilisation was low. To improve service utilization, various challenges need to be addressed, including awareness drives and increasing community participation and ownership. The preventive component of HWC is being neglected by the community, and they are utilizing it as a curative facility, predominantly. The awareness and acceptability regarding the preventive components, including screening camps, health camps, health awareness activities, health education, yoga, and wellness programmes, need to be incorporated into the existing framework of the village healthcare systems.

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