Frontline Functionaries and Beneficiaries' Perceptions on the Integrated Child Development Services (ICDS) Scheme in rural Etawah, Uttar Pradesh: A Qualitative Study

Udayakumar Rangsamy, Naresh Pal Singh, Gagandeep Kaur, Pankaj Kumar Jain, Sandip Kumar, Sushil Kumar Shukla, Supriya

Department of Community Medicine, Uttar Pradesh University of Medical Sciences, Saifai, Etawah

Corresponding author: Dr. Udayakumar Rangasamy, Junior Resident-III, Department of Community Medicine, Uttar Pradesh University of Medical Sciences, Saifai, Etawah-206130

E-mail: postboxme2594@gmail.com

Citation: Udayakumar Rangsamy, Naresh Pal Singh, Gagandeep Kaur, Pankaj Kumar Jain, Sandip Kumar, Sushil Kumar Shukla, Supriya. Frontline Functionaries and Beneficiaries' Perceptions on the Integrated Child Development Services (ICDS) Scheme in rural Etawah, Uttar Pradesh: A Qualitative Study. Indian J Comm Health. 2026;38(5):

Page Number 750-755 https://doi.org/10.47203/IJCH.2026.v38i05.003

Article Cycle: Received: 28/05/2026; **Accepted:** 05/08/2026; **Published:** 31/10/2026

Abstract

Background: The Integrated Child Development Services (ICDS) scheme is a key component of India's maternal and child health framework. Understanding the experiences of frontline workers and beneficiaries is essential for improving implementation and service delivery. This study assessed the knowledge, practices, and institutional barriers faced by Anganwadi Workers (AWWs), alongside the lived experiences and perceived challenges among rural beneficiaries in District Etawah, Uttar Pradesh. Aim of the study to assess the knowledge, field practices, and institutional barriers faced by Anganwadi Workers (AWWs), alongside evaluating the lived service experiences and perceived obstacles of community beneficiaries in rural areas of District Etawah. **Materials & Method :** A cross-sectional qualitative study was conducted using Focus Group Discussions (FGDs) and In-Depth Interviews (IDIs) guided by a critical realist framework and Inductive thematic analysis. Data were collected from four rural blocks through 40 IDIs with AWWs and 06 FGDs involving pregnant women, lactating mothers, and adolescent girls. Structural thematic analysis with line-by-line open coding was performed manually. Transcripts were evaluated manually utilizing structural thematic analysis via line-by-line open coding and inductive theme generation. **Results:** Anganwadi workers faced severe workload burdens due to an unfunded digital transition, dual documentation, and systemic app errors, while inadequate facilities and mandatory photo verification discouraged beneficiaries who viewed the centres strictly as ration hubs. Furthermore, adolescent girls reported low awareness of the Kishori Shakti Yojana, experiencing message fatigue and persistent socio-cultural stigma regarding reproductive and menstrual health. **Conclusion:** Rural ICDS implementation faces substantial operational and socio-cultural barriers. Strengthening infrastructure and developing culturally sensitive, stakeholder-informed multimodal interventions are essential to improve service delivery and beneficiary engagement.

Keywords: Anganwadi Workers, Beneficiaries, ICDS, Implementation barriers, rural health

Introduction

Early childhood represents the most sensitive and decisive window for human development, as global scientific consensus establishes that over 80% of neurocognitive growth occurs before the age of two.[1] Consequently, any nutritional, developmental, or cognitive deficits occurring during this phase cause permanent, lifelong delays in physical and cognitive trajectories.[1] Recognizing this vulnerability, the Government of India shifted its strategic framework from basic relief to early child development by launching the Integrated Child Development Services (ICDS) scheme on October 2, 1975.[2] Administered by the Ministry of Women and Child Development (MOWCD), the program functions as a community-based intervention network. It relies on decentralized service outposts called Anganwadi Centres (AWCs) to deliver a comprehensive package of six services, including supplementary nutrition, preschool non-formal education, and nutrition and health counselling.[2]

Despite its extensive historical timeline and scale, the operational success of the ICDS scheme remains uneven across Northern India.[3] The persistent burden of childhood stunting and maternal micronutrient deficiencies across rural Uttar Pradesh and District Etawah underscores a complex implementation landscape.[4] Centralized policy shifts such as Mission Saksham Anganwadi and Poshan 2.0 sought to build accountability by introducing real-time digital documentation via the mobile app platform Poshan Tracker However, field realities demonstrate a growing disconnect between administrative tracking goals and the ground-level capabilities of frontline functionaries.[5]

While childhood and pregnancy are crucial stages for vulnerabilities, they are also periods of opportunities with enhanced self-expression and psychosocial growth.[6] Traditional evaluations of health programs predominantly depend on quantitative metrics that track registration numbers and supply distribution tallies.[4] However, relying solely on quantitative tracking risks obscuring the nuanced qualitative dynamics such as interpersonal relationships, behavioural barriers, and physical constraints that ultimately dictate service delivery outcomes.[6,7] In this context, it is essential to have a wholistic understanding of stakeholder perceptions, operational needs, and factors undermining service utilization in order to develop targeted interventions and policies, which are user-informed and culturally sensitive.[3,4] A pure qualitative approach offers the necessary empirical tools to examine the lived experiences of service providers and users.[6] This study was designed to investigate the baseline knowledge, field practices, and process barriers experienced by Anganwadi Workers, alongside exploring the awareness, behavioural patterns, and structural obstacles faced by rural beneficiaries in District Etawah, Uttar Pradesh.

Methods & Materials

Study Design: A cross-sectional design using a qualitative method of In-Depth Interviews (IDIs) and Focus Group Discussions (FGDs) was utilized. We used a critical realist framework and a hybrid deductive-inductive analytical approach. This framework was adopted as it incorporates positivist and interpretivist approaches. It thereby provided the researchers the flexibility to describe the phenomena from the participants' perspectives while rooting it in earlier known prior descriptions of the phenomena, providing scope to incorporate limited structure regarding areas explored for structural ICDS evaluation.

Sampling Technique: As this was part of a mixed-method study, the qualitative component was designed to complement and contextualize the quantitative findings through in-depth exploration of stakeholder experiences and perceptions. The qualitative study sample was selected by using a multi-stage random sampling approach across District Etawah, 4 out of 8 rural blocks were selected, from which 30 Anganwadi Centres per block were randomly mapped to establish a baseline frame of 120 facilities. The sample consisted of 120 Anganwadi Workers (AWWs) who participated in individual IDIs, and a separate cohort of village-level beneficiaries who participated across 12 category-specific FGDs. The beneficiary focus groups were divided equally by block and target life-stage to capture diverse viewpoints: 4 focus groups consisted of pregnant women, 4 comprised lactating mothers, and 4 comprised adolescent girls aged 14-18 years registered under the Kishori Shakti Yojana (KSY). All adult participants provided written informed consent, and adolescent girls provided written informed assent accompanied by parental consent.

Data Collection: Prior administrative and ethical clearances were obtained from the university ethics committee and the Department of Women and Child Development. Fieldwork was conducted over an extended timeline spanning January 2024 to February 2026 to ensure data depth. The IDIs and FGDs were conducted by the first author who has experience in qualitative research methodology, while the last author documented the sessions through detailed field notes. To maintain an environment where participants could speak freely and minimize hesitation, direct audio recording was omitted in specific sessions where requested. In these instances, comprehensive expanded field notes and verbatim dialogue logging were recorded in real-time by the co-author, followed immediately by collaborative post-interview debriefs to reconstruct detailed verbatim transcripts on the same day. The duration of each qualitative interaction was approximately 30-45 minutes and was undertaken directly within the respective village schools or local AWC facility settings. Interaction sessions were guided by a pre-tested, expert-reviewed qualitative guide focusing on ICDS service delivery mechanisms, digital Poshan Tracker tracking stress, awareness of nutrition and health counselling, and life-stage barriers. Out of 12 planned focus groups (3*4=12) across the four selected blocks), conceptual saturation was achieved at a final sample size of 6 Focus Group Discussions (FGDs). This analysed cohort was equally distributed across the target lifecycles, comprising 2 discussions with pregnant women (ANC), 2 with lactating mothers (PNC), and 2 with adolescent girls (KSY).

Instrument Validation: The qualitative IDI and FGD guides were developed based on an extensive literature review of ICDS evaluation frameworks and Poshan Tracker implementation reports. The tools got Pilot-tested in a non-sample rural block with two AWWs and one FGD of mothers. Feedback from the pilot study was used to refine question phrasing, reorder prompts for better conversational flow, and ensure culturally appropriate terminology in the Hindi version.

Data Analysis: The interview and FGD transcripts were organized in Microsoft Excel and analysed using a structural thematic framework. The first and last authors independently reviewed the transcripts, conducted line-by-line coding, grouped similar codes into subthemes, and then combined related subthemes into broader analytical themes reflecting the operational challenges of both service providers and users.

Ethical Considerations: The study was approved by the University Institutional Ethics Committee (Ref. No. 51/Cert./IEC/UPUMS/2024-25, dated 05.04.2024). Prior permission was obtained from block-level child development project officers to recruit functionaries. Nature of the study was explained to AWWs, mothers, and guardians of adolescent groups in their native language (Hindi). They were assured of

strict confidentiality and anonymity, and informed that participation was entirely voluntary with no direct monetary benefits and a continuous right to withdraw from the research at any stage.

Results

The thematic framework extracted from the stakeholder narratives revealed deep structural and process bottlenecks within the rural ICDS machinery. The derived themes and subthemes are described below:

Table 1: Thematic analysis of the perceptions and experiences of Anganwadi Workers (AWWs)

Themes	Sub-themes	Codes
Core Service Delivery Dynamics	Service Delivery under ICDS	Lifecycle-Based Inclusion (0–6Years, Pregnant, Lactating, Adolescents), Standard Ration Distribution (Panjeeri, Dalia, ChanaDal), Age-Specific Hot Cooked Meals (3–6 Years), Maternal Nutritional Specifics (Oil, Pulses), Advanced Health Monitoring (BP,Blood Tests, Medicines), Anthropometric Standards (WHO Chartsand Colour Coding), Preschool Pedagogical Tools (Slates, Toys, Charts), Interactive Early Learning (Rhymes, Counting, Games), Supply Chain Irregularities and Intermittent Supply
Systemic Infrastructure Deficits	Infrastructure	Multi-Functional Space Congestion (Single-Room Reality), Absence of Basic Utilities (No Electricity, Fan, or Toilet), Environmental and Structural Hazards (Roof Leakage), Financial Vulnerabilities (Unpaid Private Building Rent), Spatial Dependency on Shared Public Places (School/ Panchayat)
Collaborative Health Ecosystem	Collaboration & Community Engagement	Inter-Institutional Synergy and Joint Due-Lists (ASHA/ANM), Household Outreach, Mobilization, and Defaulter Tracking, High-Risk Malnutrition Management and Referrals (PHC/ NRC), Integrated Teamwork for Treatment and Supplementation
Workforce Dynamics & Morale	Workforce Strain & Inadequate Compensation	Undefined, Long Working Hours and Shift Overflows, Low and Disparate Institutional Honorarium, Subsidizing State Infrastructure (Self-Financed Digital Tools), Manpower Deficits and Complete Absence of Dedicated Helpers, Ulti-Role Fragmentation Burnout (BLO, Polio, Census Duties)
Institutional Aspirations	Aspirations for Strengthening	Structural Legitimacy through Dedicated Independent Buildings, Systemic Direct Nutrition and Centralized Training Pathways, Hardware, Smartphone, and Cellular Network Support, Emotional Desire for Professional Validation and Appreciation Structural Legitimacy through Dedicated Independent Buildings, Systemic Direct Nutrition and Centralized Training Pathways, Hardware, Smartphone, and Cellular Network Support, Emotional Desire for Professional Validation and Appreciation

Table 1 depicts Anganwadi Workers manage comprehensive maternal and child health workflows but face severe burnout from unpaid private rents, structural decay, and an unfunded digital rollout. Operating without formal training, they are forced to spend their own money on mobile data while duplicating entries in paper logs to survive systemic network crashes. Verbatim: "Mobile chalane ki training nahi mili - khud seekhna pada, "Phone aur recharge apna lagate hain- centre se kuch nahi milta."

Table 2: Thematic analysis of the perceptions and experiences of Pregnant Women Beneficiaries

Themes	Sub-themes	Codes
Awareness & Engagement	Engagement with ICDS	Frontline Mobilization (Role of AWW and ASHA Workers), Transactional, Vaccination-Driven Centre Attendance, Dual Motivation Patterns (Clinical Immunization and Ration), Intermittent Participation (Occasional Cluster Meetings)
Maternal Health Knowledge	Health & Nutrition Awareness	High Adherence to Pharmaceutical Iron Supplementation, Dietary Internalization (Targeted Dairy and Green Vegetables)
Perceived Benefits	Service Delivery & Impact	Gestational Nutritional Value for Fetal Development, Preventive Healthcare via Holistic Hygiene and Diet Counselling, Medical Security via Routine Vitals Monitoring (BP/Weight), Household Economic Support through Supplementary Ration
Satisfaction & Trust	Interpersonal Dynamics	Supportive, Respectful and Non-Discriminatory Conduct, Educational and Guidance Clarity from Frontline Staff, Emotional Approachability and Encouraging Communication
Operational Hurdles & Barriers	Environmental & Personal Barriers Operational Hurdles	Inadequate Physical Environment and Space Constraints, Clinical Privacy Gaps during Antenatal Check-ups, Domestic Mobility and Companionship Dependencies, Geographical Distance and Remote Ration Delivery Points, Entitlement Forfeiture Due to Temporal Absence or Migration, Administrative Rigidity (Mandatory Digital Photo Verification)
Expectations	Beneficiary Aspirations	Infrastructure Upgrades (Comfortable Seating and Separate Rooms), Systemic Flexibility for Post-Absence Ration Retrieval

Table 2 depicts Pregnant women demonstrate high retention of nutritional advice but view their centre attendance through a transactional lens driven strictly by immunization and ration milestones. Severe spatial congestion and a complete lack of basic privacy actively discourage routine clinical visits, a barrier compounded by rigid digital photo checks. Verbatim:"Check-up ke liye parde hon toh zyada achha rahe, "Ab photo dikhakar hi ration milta hai."

Table 3: Thematic analysis of the perceptions and experiences of Lactating Women Beneficiaries

Themes	Sub-themes	Codes
Knowledge & Engagement Dynamics	Engagement with ICDS Infant Feeding Knowledge	Paediatric Clinical Tracking (Vaccination-Driven Attendance), Periodic, Intermittent Centre Utilization, Behavioural Adherence to Exclusive Breastfeeding, Conceptual Awareness of Early Colostrum Preservation,Internalization of Paediatric Hygiene and Childhood Care, Early Childhood Education (ECE) Stimulation Initiation
Service Delivery & Impact	Perceived Benefits	Child-Centric Nutritional Supplementation Distribution, Developmental Reassurance via Paediatric Growth Monitoring, Household Food Security and Economic Relief via Ration
Satisfaction & Trust	Institutional Trust	High Quality and Palatability Perception of Distributed Ration, Rapid Frontline Crisis Support and Immediate Responsiveness, Worker Reliability, Respectful Conduct, and Credibility
Structural & Process Challenges	Barriers & Operational Hurdles	Environmental Decay (Small, Unclean, and Cramped Spaces), Monsoon Vulnerabilities and Environmental Waterlogging, Infant-Level Dietary

		Rejection Due to Supplement Palatability, Digital Gatekeeping Friction (Mandatory Photo-Verification), Geographical Barriers and Distant Distribution Logistics
Beneficiary Aspirations	Expectations	Ergonomic Comfort Upgrades (Adult Seating and Privacy Curtains), Enhanced Centre Cleanliness and Sanitation Standards, Purpose-Built, Spacious, and Modern Service Infrastructure, Streamlined and Simplified Administrative Access Mechanisms

Table 3 explains Lactating mothers deeply trust the frontline staff and value infant growth metrics, successfully internalizing key child-rearing habits like exclusive breastfeeding and early colostrum preservation. However, bringing vulnerable infants into cramped, unhygienic facilities during heavy monsoon flooding creates severe safety concerns that limit regular participation. Verbatim:"Room chhota hai aur ganda bhi rehta hai, bachche ko baithana mushkil hota hai, "Barish mein paani bhar jaata hai, pair bhi gile ho jaate hain."

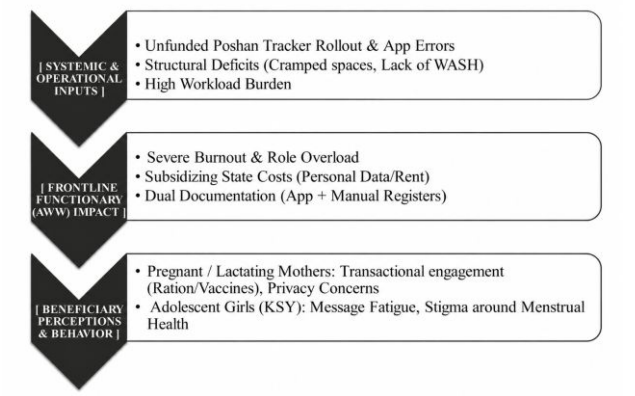


Figure 1: The conceptual framework illustrating the interplay between systemic operational bottlenecks, frontline worker burnout, and the resulting transactional engagement of beneficiaries within the rural ICDS ecosystem.

Table 4: Thematic analysis of the perceptions and experiences of Adolescent Girls Beneficiaries (KSY)

Themes	Sub-themes	Codes
Awareness & Engagement Dynamics	Engagement with KSY Scheme	High Ambiguity and Poor Awareness of Scheme Objectives, Perceived Lack of Tangible Utility or Material Value, Performative, Passive Participation (Summons-Driven Attendance), High Inconsistent Attendance and Absenteeism Rates, Intrinsic Disinterest Despite Target Frontline Outreach
Service Delivery & Impact	Programme Implementation Health & Wellbeing	Operational Disruption Caused by Irregular Supply Distribution, Message Fatigue Due to Redundant, Unvaried Information, Symptom-Specific, Reactive Iron/Anemia Supplementation, Isolated Self-Management of Dysmenorrhea and Menstrual Pain
Structural & Process Challenges	Socio-Cultural & Domestic Barriers	Internal Hesitation and Cultural Stigma in Group Discussions, Domestic Role Conflict (Prioritization of Household Chores), Complete Lack of Structural or Economic Incentivization
Beneficiary Aspirations	Expectations	Demand for Practical Vocational and Livelihood Skill Development

Table 2 depicts Adolescent girls express profound disinterest and message fatigue under the Kishori Shakti Yojana, viewing the current setup as an advice-heavy environment that lacks real economic incentives. Compounding this operational gap is deep-rooted cultural stigma, which makes the girls highly uncomfortable discussing menstrual and reproductive health in group sessions. Verbatim: "Humein theek se pata hi nahi hai yeh yojana kis liye hai, bas bulaya jata hai toh aa jaate hain, "Sabke saamne baat karne mein sharam bhi aati hai."

Discussion

This qualitative assessment in rural Etawah highlights persistent operational, infrastructural, and socio-cultural barriers that constrain effective ICDS implementation despite high beneficiary trust in frontline workers. Anganwadi Workers (AWWs) reported heavy workload, unfunded digitalization, and infrastructural deficits findings that resonate with prior assessments of AWWs' training gaps, resource constraints, and role overload.[8] Preeti et al. documented gaps in AWW knowledge and practices that undermine service quality, and similar workforce training shortfalls and operational stressors have been reported from other Indian settings.[9] Our observations of unpaid expenditures by AWWs (for mobile data or centre rent) and role fragmentation echo broader findings that community functionaries often subsidize program costs and perform multiple competing duties, which contributes to burnout and diminishes service consistency. (Figure 1)

The Poshan Tracker-related challenges reported by participants (app errors, biometric/photo verification friction, repeated manual registers) mirror experiences from recent digitalization studies showing technology's promise but also its implementation hazards when training and infrastructure are inadequate. Kurian and Chawada similarly reported adaptation difficulties and duplication of records during record-keeping digital transitions, underscoring that technological rollout without parallel capacity-building and network support can add rather than reduce workload.[10] Mohsin & Singh's work from Pulwama likewise emphasized the need to align digital systems with field realities to avoid eroding frontline morale and beneficiary access.[5]

Infrastructural deficits-single-room centres, lack of toilets, absence of fans or electricity, roof leakage, and seasonal waterlogging-emerged as a dominant barrier discouraging routine participation, particularly for pregnant and lactating women. These findings align with regional facility-assessment studies that connect poor AWC infrastructure to reduced attendance and poorer early childhood learning environments. Structural inadequacy also amplifies privacy

concerns during antenatal checks and breastfeeding support, likely undermining utilisation of counselling and clinical services despite high knowledge retention among beneficiaries. [11,12]

Beneficiary perspectives demonstrated a transactional orientation toward AWCs: pregnant and lactating women primarily attended for rations and immunization-related services, while adolescent girls reported poor awareness and low perceived utility of Kishori Shakti Yojana (KSY) sessions. The transactional attendance pattern is consistent with other findings where tangible incentives (supplementary food, immunization) drive utilisation more than educational or preventive components of ICDS. The adolescent participants' message fatigue, stigma around menstrual and reproductive health, and desire for practical vocational skills reflect known barriers to adolescent engagement in health programmes and have been documented in diverse contexts. Lall et al., Tomar et al and Ferdina et al noted similar hesitancy among adolescents and emphasised the need for culturally sensitive adolescent programming and livelihood linkages to enhance relevance. [6,13,14]

Trust in frontline workers was a notable facilitator: beneficiaries described AWWs as respectful, approachable, and effective in counselling an asset for any improvement effort. John et al. identified community health worker credibility and interpersonal skills as crucial determinants of programme effectiveness, and our data reaffirm that interpersonal trust can buffer some infrastructural and systemic shortcomings.[7] Nonetheless, strong worker-community relations cannot substitute for material resources and system-level changes; the dual burden of manual record-keeping and digital entry along with inconsistent supply chains diminishes the AWWs' ability to leverage trust into broader, sustained behaviour change.[15]

For adolescent programming under KSY, our findings suggest reorienting activities toward practical, incentive-linked modules such as vocational training, gender-sensitive menstrual health education delivered in safe formats (small same-gender groups or one-on-one sessions), and flexible scheduling to accommodate domestic responsibilities.

Conclusion

This qualitative study reveals that while beneficiaries trust Anganwadi Workers and often internalize key nutrition and childcare messages, ICDS effectiveness in rural Etawah is constrained by inadequate infrastructure, unfunded and poorly supported digitalization, workforce strain, and socio-cultural barriers-particularly among adolescents. Addressing these challenges requires coordinated investments: improve AWC infrastructure and WASH facilities, provide formal digital training and resourcing with user-friendly offline functionality, strengthen workforce support and remuneration, and redesign adolescent interventions to be culturally sensitive and incentive-relevant. Such multimodal, stakeholder-informed strategies are likely to enhance both service delivery and beneficiary engagement, moving ICDS implementation closer to its intended impact on early child development.

Strengths: A major strength of this study is the inclusion of multi-stakeholder perspectives capturing narratives from both frontline service providers (AWWs) and diverse beneficiary cohorts (pregnant women, lactating mothers, and adolescent girls) providing a holistic view of the ICDS ecosystem in rural Etawah. Furthermore, grounded in a critical realist framework and structured thematic analysis, the study offers deep qualitative context to regional quantitative health indicators.

Limitations:

- **Data Capture Constraints:** Audio recording was omitted in several interactions upon participant request to ensure comfort, relying instead on extensive real-time verbatim notes, which may introduce minor information filtering.
- **Social Desirability & Respondent Bias:** Beneficiaries may have attenuated negative feedback due to fear of losing entitlement benefits, though strict confidentiality protocols were enforced to mitigate this.

Financial Support and Sponsorship: This qualitative dissertation work was supported by academic resource monitoring within the Department of Community Medicine, UPUMS, Saifai, Etawah, Uttar Pradesh, India.

Conflicts of Interest: There are no conflicts of interest.

Declaration of Generative AI And AI-assisted Technologies in Writing process: None

References

1. Black, M. M., Walker, S. P., Fernald, L. C., Andersen, C. T., DiGirolamo, A. M., Lu, C., et al. (2017). Early childhood development coming of age: science through the life course. The Lancet, 389(10064), 77-90.
2. Ministry of Women and Child Development. (2023). Annual Report 2022-23. New Delhi: Government of India.
3. Tabassum, Z., Khalid, K., Neyazi, S., & Ahmed, E. (2025). A qualitative study on quality of physical infrastructure, WASH practices, preschool education and safety in Anganwadi centres, government preschools and private preschools in Delhi. Discover Education, 4(1), 134.
4. International Institute for Population Sciences (IIPS). (2021). National Family Health Survey (NFHS-5), 2019-21: India and Uttar Pradesh Fact Sheets. Mumbai: IIPS.
5. Mohsin, S. A., & Singh, M. (2025). Digital transformation of Integrated Child Development Services (ICDS) scheme: potential benefits and roadblocks in

Pulwama district of Jammu and Kashmir. International Journal of Environmental Sciences, 11(4s), 682-691.

6. Lall, G., Roy, R., Chandrika, K. S., & Divan, G. (2024). The early years are like a foundation for the future. Perspectives, facilitators, and challenges of anganwadi workers in Hyderabad, India. Indian Journal of Public Health, 68(2), 214-221.
7. John A, Nisbett N, Barnett I, Avula R, Menon P. Factors influencing the performance of community health workers: A qualitative study of Anganwadi Workers from Bihar, India. PLoS ONE. 2020;15(11): e0242460.
8. Gnanaselvam NA, Johnson AR, Shetty A. Evaluating the effectiveness of training on malnutrition for Anganwadi workers in Anekal Taluk, Bengaluru Urban District. Journal of Family Medicine Primary Care. 2025 Mar 1;14(3):1029-35.
9. Preeti, Varma V, Rani E. Assessing the knowledge and practices of anganwadi workers regarding integrated child development services. Archives of Current Research International. 2025;25(4):448-456.
10. Tomar A, Patel S, Gupta P, Tiwari R. A qualitative approach to assess operational barriers of service providers of community-based management of severe acute malnutrition program in a district of central India. Journal of Family Medicine Primary Care. 2025 Jun 1;14(6):2174-9.
11. Singh R, Shah A. An observational study on the facilities of anganwadi centres for early childhood education in Chamba block of Tehri Garhwal district, Uttarakhand. International Journal of Home Sciences. 2024;10(3):116-23.
12. Thakur N, Handa A. The facilities extended by the anganwadi centres to the residents of the Gurdaspur district of Punjab. Home Science Journal. 2024; 10:64-258.
13. Kurian S, Chawada BL. Response and adaptations made by the integrated child development services stakeholders towards the digitalization of its record keeping systems of the Anganwadi centres in urban Gujarat, India. Int J Community Med Public Health. 2023;10(10):3848-52
14. Ferdina TC, Vellingiri D, Raja NS, Dharmalingam GP. Knowledge and utilization of Integrated Child Development Services among antenatal women during COVID-19 pandemic. J Family Med Prim Care. 2024;13(8):3026-30.
15. Singh D, Gaur KL, Sharma MP, Sharma M, Manohar RK. Satisfaction of beneficiaries from Anganwadi Workers (AWW) of Jaipur Zone, Rajasthan. Indian Med J. 2017 Feb;111(2):37-9.