

Study on the Knowledge, Attitudes and Practices of Anganwadi Workers Across the Ecce Component of ICDS Across the South East District of Delhi

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Abstract- The Integrated Child Development Services (ICDS) scheme is one of the largest community-based early childhood care and education (ECCE) programs worldwide. Anganwadi Workers (AWWs) play a vital role in delivering ECCE services at the grassroots level. However, existing evidence indicates significant gaps in AWWs' knowledge, attitudes, and practices related to ECCE implementation across various Indian states. This mixed-methods study aimed to assess the knowledge, attitudes, and practices of AWWs towards ECCE in the South East district of Delhi to identify capacity-building needs for enhancing service delivery under the ICDS program. The study employed a descriptive research design, utilizing structured questionnaires administered to a sample of 18 Anganwadi centers participating in an ECCE/ECD project led by MAMTA Foundation. Quantitative data from close-ended questions were analyzed using descriptive and inferential statistics, while qualitative data from open-ended questions underwent thematic analysis. The findings of this study will generate actionable insights to inform policy and capacity-building initiatives for AWWs, ultimately contributing to the realization of the ICDS scheme's potential in providing quality ECCE services to urban populations.

Keywords: ICDS, ECCE, AWW, ECD, Urban population, Anganwadi, childhood developments, parameters, education

INTRODUCTION

Early childhood, recognized as the most critical period for human development, lays the foundation for an individual's future well-being, learning potential, and societal contribution. During these formative years, children undergo rapid physical, cognitive, and socio-emotional growth, shaping their abilities, personalities, and life trajectories. Recognizing the pivotal role of early childhood care and education (ECCE) in fostering holistic development, nations worldwide have prioritized interventions and

initiatives aimed at nurturing young minds and bodies. In India, the Integrated Child Development Services (ICDS) scheme stands as a pioneering endeavor, constituting one of the world's largest community-based early childhood development programs. Launched in 1975, the ICDS aims to provide a comprehensive package of services, including supplementary nutrition, immunization, health check-ups, referral services, preschool education, and community awareness, targeting children under the age of six, pregnant women, and lactating mothers. At the heart of this ambitious scheme lies the Anganwadi worker, a grassroots-level warrior responsible for delivering ECCE services to children and families within their respective communities. These dedicated individuals play a crucial role in shaping the developmental trajectories of countless young minds, serving as the primary conduit for early childhood interventions and support. However, despite the critical nature of their work, numerous studies have highlighted significant gaps in Anganwadi workers' knowledge, attitudes, and practices related to ECCE implementation across various regions of India. These studies have revealed challenges ranging from inadequate understanding of developmental milestones and pedagogical approaches to infrastructural constraints and resource limitations hindering effective service delivery.

Recognizing the transformative potential of the ICDS scheme and the pivotal role of Anganwadi workers in realizing its objectives, this study aims to conduct a comprehensive assessment of their knowledge, attitudes, and practices concerning ECCE implementation in the South East district of Delhi. By examining the strengths and areas for improvement within this specific context, the research seeks to generate actionable insights and recommendations to enhance the quality and effectiveness of ECCE

services provided through the Anganwadi system. The findings of this study hold profound implications not only for the well-being of children residing in the South East district but also for informing policy decisions, capacity-building initiatives, and resource allocation strategies within the broader ICDS framework. By addressing the identified gaps and capitalizing on the existing strengths, this research endeavors to contribute to the realization of the ICDS scheme's overarching goal: nurturing the nation's future generations through comprehensive and high-quality early childhood care and education. In the subsequent chapters, this study will delve into the existing literature, outline the research methodology, present and analyze the findings, and culminate in a set of evidence-based recommendations. Through this rigorous exploration, the research aims to serve as a catalyst for positive change, advocating for the empowerment of Anganwadi workers and the enhancement of ECCE services, ultimately shaping a brighter future for India's youngest citizens.

MATERIAL AND METHOD

This mixed method study was conducted to outline the methodology employed to assess the knowledge, attitudes, and practices of Anganwadi workers (AWWs) towards Early Childhood Care and Education (ECCE) under the Integrated Child Development Services (ICDS) scheme. The study was conducted within the framework of the ECCE/ECD project led by MAMTA Foundation, where the author interned. This project encompasses a total of 18 Anganwadi centers located in the South East district of Delhi, which served as the primary sites for data collection. Primary data were collected through structured questionnaires designed to capture a comprehensive understanding of AWWs' knowledge, attitudes, and practices regarding ECCE. The questionnaire included both closed and open-ended questions, enabling quantitative analysis of standardized responses and qualitative insights into the experiences and perspectives of the AWWs. Before administration, the questionnaire was pilot-tested with a small group of AWWs outside the study sample to ensure clarity and relevance of the questions. The data collection process was facilitated by the research team during scheduled visits to each of the 18 Anganwadi centers. Prior to questionnaire administration, AWWs were briefed about the study's

objectives and assured of their anonymity and the confidentiality of their responses. Informed consent was obtained from all participants. (Mixed-method study)

KNOWLEDGE ASSESSMENT

The thematic analysis of Anganwadi workers' knowledge revealed a comprehensive understanding of key ECCE/ECD concepts and practices:

- Workers demonstrated a strong grasp of developmental milestones across communication, physical, social, cognitive and self-help domains.
- There was widespread awareness about common disabilities, developmental delays and their early signs.
- Workers outlined systematic processes for referrals, assessments and interventions involving collaboration with health facilities and parents.
- The vital role of play in facilitating holistic development - cognitive, physical, emotional and social - was unanimously acknowledged.
- Monitoring approaches included use of registers, growth charts and the POSHAN tracker app, with observation being a key method.
- The descriptive analysis on play materials highlighted excellent/good self-assessment of knowledge by the majority of workers.

Attitudes Toward ECCE

- Major challenges faced included erratic attendance, infrastructural gaps like space crunch and lack of play materials.
- However, workers displayed resilience, adaptability and commitment to translate learnings into activities.
- They unanimously recognized developmental benefits of activities like storytelling, games and arts/crafts.
- A profound recognition of ECCE's importance, rating it as "extremely important" across the ICDS components.
- Workers exhibited uniform understanding of age-appropriate curriculum needs based on developmental stages.

Practices Related to ECCE

- Play-based learning activities were unanimously conducted daily at all centers as part of curriculum.

- Educational displays, activity charts and diverse materials like books, art supplies, blocks and indigenous toys were utilized.
- Structured monthly ECCE day events involving creative activities, assessments, nutrition sessions and parental engagement.
- Community participation in ECCE days through involvement of parents, grandparents, siblings and ASHA/ANM workers.
- Varied monitoring frequencies - daily, weekly, monthly - based on operational constraints.
- Parental counseling sessions ranged from daily to monthly interactions.

Infrastructure and Resources

- Satisfaction with infrastructural adequacy ranged from excellent to below average across centers.
- Despite constraints, the majority rated availability of ECCE equipment and overall infrastructure as good/average.
- Identified need for ongoing infrastructure upgrades and uniform resource provisioning to optimize ECCE delivery.

In summary, while exhibiting sound knowledge, positive attitudes and commitment to ECCE implementation, Anganwadi workers navigated diverse infrastructural and operational challenges. Addressing these bottlenecks through capacity building, resource enhancement and policy reforms emerges as a vital need from this assessment.

RESULTS

In the present study, a total of 18 participants actively contributed. All participants were females stationed at the 18 Anganwadi Centres, which cater to the Integrated Child Development Services as proposed by the Government of India in the South East District of Delhi.

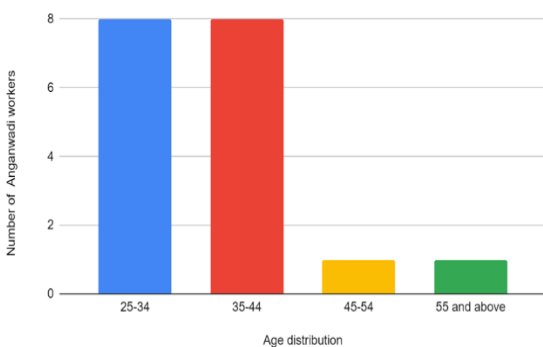


Figure 1: Age distribution of Anganwadi Workers

The age distribution of Anganwadi workers is illustrated in Figure 1, which presents a bar chart detailing the number of workers across various age groups. The chart reveals that the majority of Anganwadi workers fall within the 25-34 and 35-44 age brackets, with both categories comprising eight workers each. This suggests that a significant portion of the workforce is relatively young, within the early to mid-career stages. In contrast, the age groups 45-54 and 55 and above have considerably fewer workers, with only two individuals in the 45-54 range and one in the 55 and above category. This distribution indicates a declining trend in the number of workers as age increases, highlighting a potential need for policies addressing workforce aging and recruitment of younger individuals to maintain service levels in the future. Figure 1 effectively visualizes these trends, emphasizing the predominant age groups within the current Anganwadi workforce.

Table 1: Mean, Median and Standard Deviation of ages (Anganwadi Workers)

Statistic ▲	Age of Anganwadi Workers (in years)
Mean	30.67
Median	39.5
Standard Deviation	6.05

Table 1 provides a statistical summary of the ages of Anganwadi workers, highlighting the central tendency and variability within this workforce. The mean age of the workers is 30.67 years, indicating that, on average, the Anganwadi workforce is relatively young. However, the median age is 39.5 years, which is significantly higher than the mean, suggesting a skewed age distribution with a concentration of ages around the higher end of the spectrum. This discrepancy between the mean and median highlights the presence of younger workers skewing the average age downward. Additionally, the standard deviation of 6.05 years reflects the degree of age variability among the workers. A lower standard deviation indicates that the ages of the workers are relatively close to the mean, demonstrating a more homogeneous age distribution within the workforce. This statistical insight is crucial for understanding the demographics of Anganwadi workers and can inform targeted recruitment and retention strategies.

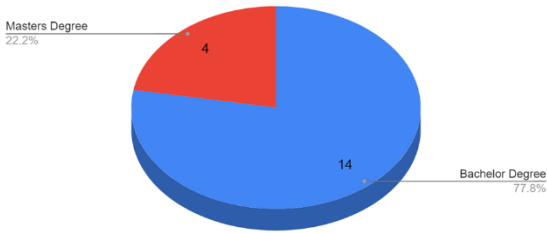


Figure 2: Educational Qualifications of Anganwadi Workers

Figure 2 illustrates the educational qualifications of Anganwadi workers through a pie chart, providing a clear visual representation of their academic backgrounds. The chart shows that a significant majority of the workers, 77.8%, hold a bachelor's degree, which accounts for 14 out of the 18 workers. This predominance of bachelor's degree holders indicates that most Anganwadi workers have attained a substantial level of higher education, which could be beneficial for the quality of services they provide. In contrast, the remaining 22.2% of the workers, corresponding to 4 individuals, possess a master's degree. This smaller segment of the workforce with advanced degrees suggests a higher level of specialization and expertise among these workers. The educational distribution highlighted in Figure 2 emphasizes the overall educational attainment within the Anganwadi workforce, reflecting a well-qualified team predominantly composed of individuals with bachelor's degrees. This data can be instrumental in understanding the workforce's capability and in planning further professional development programs.

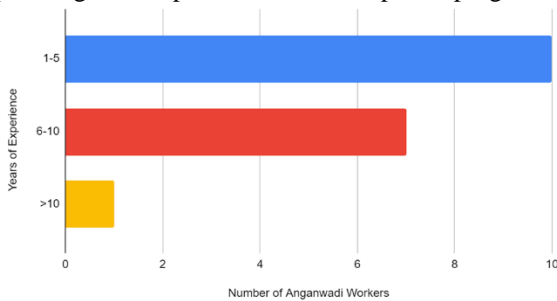


Figure 3: Years of Experience of Anganwadi Workers

Figure 3 presents a bar chart depicting the years of experience among Anganwadi workers, highlighting the distribution of their professional tenure. The chart shows that the majority of the workers, accounting for 55.6%, have 1-5 years of experience, representing 10 out of the 18 workers. This indicates that over half of

the workforce is relatively new to the field, which could imply a dynamic and potentially evolving service environment. Additionally, 38.9% of the workers, or 7 individuals, have 6-10 years of experience, suggesting a significant portion of the workforce has a moderate level of experience, likely contributing to a stable and experienced core team. Notably, only one worker, representing 5.6% of the workforce, has more than 10 years of experience. This distribution indicates a lesser presence of highly experienced individuals within the Anganwadi workers, which could impact mentorship and institutional knowledge transfer. Overall, Figure 3 highlights a workforce predominantly composed of early to mid-career professionals, with a smaller segment of highly experienced workers, reflecting a balanced yet progressively experienced team.

Table 2: Formal training on ECCE component of ICDS received by the Anganwadi Workers

Formal training on ECCE component of ICDS received	Number of Anganwadi Workers	Percentage
Yes	18	100%
No	0	0%

Table 2 provides information on the formal training received by Anganwadi workers regarding the Early Childhood Care and Education (ECCE) component of the Integrated Child Development Services (ICDS). According to the data, all 18 workers, representing 100% of the workforce, have received formal training in ECCE. This universal training underscores a consistent and standardized level of professional development across the workforce, ensuring that all Anganwadi workers are equipped with the necessary skills and knowledge to effectively deliver ECCE services. The comprehensive training coverage reflects a commitment to maintaining high service quality and aligns with the objectives of the ICDS program to provide holistic early childhood care and education.

Table 3: Duration of Training Received

Duration of Training Received (in Days)	Number of Anganwadi Workers	Percentage
1-3	10	56%
4-6	8	44%

Table 3 details the duration of training received by the Anganwadi workers, highlighting the varying lengths of their professional development sessions. According to the data, 10 workers, representing 56% of the total, received training lasting between 1-3 days. This indicates that over half of the workforce underwent a

relatively short, intensive training period. The remaining 8 workers, accounting for 44% of the total workforce, received a more extended training duration of 4-6 days. This variation in training duration suggests a tailored approach to training, potentially reflecting different levels of prior experience or specific needs of the workers. The distribution of training durations illustrates a significant commitment to ensuring that all Anganwadi workers, regardless of the length of training, are adequately prepared to deliver high-quality ECCE services. Overall, the data from Table 3 highlights a balanced approach to training, with a slight preference for shorter, more intensive sessions.

Table 4: Additional training received by Anganwadi Workers

Additional Training Received	Number of Anganwadi Workers	Percentage
Yes	14	78%
No	4	22%

Table 4 provides insights into the additional training received by Anganwadi workers beyond the initial formal training. According to the data, 14 out of the 18 workers, representing 77.8%, have received additional training. This substantial majority indicates a strong emphasis on continuous professional development, enhancing the skills and competencies of these workers. In contrast, 4 workers, accounting for 22.2% of the total workforce, did not receive any additional training. This variation suggests that while most workers are benefiting from ongoing training opportunities, there remains a segment that has not engaged in further professional development. The data from Table 4 underscores the importance of continuous learning and the potential need to extend additional training opportunities to all workers to ensure uniform skill enhancement across the workforce.

DISCUSSION

The findings from this comprehensive assessment of Anganwadi workers' knowledge, attitudes, and practices related to Early Childhood Care and Education (ECCE) provide valuable insights into the strengths and challenges within the existing system. The Discussion will analyze these findings through the lens of existing literature and highlight areas for further improvement.

Knowledge and Conceptual Understanding The thematic analysis revealed a strong foundational

knowledge among Anganwadi workers regarding key ECCE concepts and developmental milestones. This aligns with the objectives of the Integrated Child Development Services (ICDS) scheme, which emphasizes building capacities for delivering quality early childhood services (Nair et al., 2009). However, the study also uncovered knowledge gaps, particularly in identifying certain disabilities and developmental delays, echoing concerns raised in previous studies (Bondade et al., 2013; Kaur et al., 2012).

Despite infrastructural constraints and operational challenges, Anganwadi workers displayed a remarkable level of resilience, adaptability, and commitment to translating their ECCE training into practice. This positive attitude towards adopting innovative pedagogies resonates with findings from Chudasama et al. (2014), which highlighted the motivational factors driving ECCE implementation by Anganwadi workers. The profound recognition of ECCE's importance, consistently rating it as "extremely important" across ICDS components, underscores the workers' alignment with the scheme's foundational objectives.

ECCE Practices and Implementation The study's findings revealed a strong emphasis on play-based learning activities, conducted daily across all Anganwadi centers. This adherence to play-based pedagogies aligns with international best practices in early childhood education (Kaur & Shankar, 2009) and reflects a commitment to fostering holistic child development. The integration of educational displays, diverse learning materials, and structured monthly ECCE events further enriched the learning environment, echoing the principles of effective ECCE implementation (CARE India, 2015). **Community Engagement** A notable strength highlighted in the study was the active involvement of parents, grandparents, siblings, and healthcare workers (ASHA/ANM) in ECCE day events. This community-centered approach aligns with the ICDS scheme's objective of fostering community awareness and participation in early childhood development (Rejila Jeba Deena, 2019). By leveraging this broad support network, Anganwadi centers create a rich tapestry of resources dedicated to nurturing every aspect of children's growth and development. **Infrastructure and Resource Adequacy** While the majority of Anganwadi centers reported satisfactory levels of infrastructural and equipment adequacy, the

study also highlighted areas for improvement. The variability in ratings, ranging from excellent to below average, underscores the need for targeted investments and upgrades to ensure uniform quality of ECCE delivery across all centers. Addressing these disparities aligns with the broader goals of educational equity and access, ensuring all children have access to a conducive learning environment (Dongre et al., 2015).

Recommendations and Implications Based on the study's findings and the discussion of existing literature, several recommendations emerge:

1. Strengthen knowledge and capacity building initiatives: Focused training programs should address identified knowledge gaps, particularly in identifying and supporting children with developmental delays and disabilities. Continuous professional development opportunities should be made widely accessible to ensure all Anganwadi workers are equipped with the latest ECCE methodologies and best practices.
2. Enhance infrastructure and resource allocation: Strategic investments in physical infrastructure, educational materials, and play equipment are crucial for optimizing ECCE delivery across all Anganwadi centers. This includes addressing disparities in space adequacy, ensuring uniform access to quality learning environments.
3. Foster community engagement and collaboration: Leveraging the existing community involvement in ECCE activities, initiatives should be implemented to further strengthen partnerships with parents, healthcare workers, and local organizations. This collaborative approach can enhance the overall support system for children's holistic development.
4. Advocate for policy reforms and systemic changes: The findings highlight the need for policy reforms and systemic changes to address infrastructural bottlenecks, resource constraints, and operational challenges faced by Anganwadi workers. These reforms should prioritize the allocation of dedicated resources for ECCE, streamlining administrative processes, and implementing context-specific microplanning to enhance service delivery.

CONCLUSION

This comprehensive study on the knowledge, attitudes, and practices of Anganwadi workers across the Early Childhood Care and Education (ECCE) component of the Integrated Child Development Services (ICDS) scheme has provided invaluable insights into the strengths, challenges, and areas for improvement within the existing system. The findings highlight the strong foundational knowledge and positive attitudes among Anganwadi workers, who demonstrated a comprehensive understanding of key ECCE concepts, developmental milestones, and the importance of play-based learning methodologies. Their resilience, adaptability, and commitment to translating their training into practice, despite infrastructural constraints and operational challenges, are truly commendable. The study also revealed the widespread implementation of play-based learning activities, educational displays, and structured monthly ECCE events across Anganwadi centers. These practices fostered an enriching and stimulating learning environment for children, aligning with international best practices in early childhood education. Furthermore, the active involvement of parents, grandparents, siblings, and healthcare workers in ECCE day events exemplified a community-centered approach, leveraging a broad support network dedicated to nurturing children's holistic development. While the majority of Anganwadi centers reported satisfactory levels of infrastructural and equipment adequacy, the study also highlighted areas for improvement, with some centers facing significant constraints. Addressing these disparities is crucial to ensure uniform access to quality ECCE services and foster educational equity across diverse communities.

RECOMMENDATIONS

The recommendations outlined in this study provide a comprehensive roadmap for strengthening the ECCE component of the ICDS scheme. These include enhancing knowledge and capacity-building initiatives, investing in infrastructure and resource allocation, fostering community engagement and collaboration, advocating for policy reforms and systemic changes, and promoting research and knowledge dissemination. Implementing these

recommendations will require a concerted effort from policymakers, administrators, Anganwadi workers, and community stakeholders. By addressing knowledge gaps, improving infrastructure and resources, fostering collaboration, advocating for systemic changes, and promoting research and knowledge dissemination, the ECCE component of the ICDS scheme can be further strengthened. Ultimately, this comprehensive approach will not only improve the quality of early childhood education and care but will also contribute to the holistic development and well-being of India's future generations. By nurturing and supporting children during these formative years, we lay the foundation for a society that values education, embraces diversity, and fosters a culture of lifelong learning and personal growth. The Integrated Child Development Services scheme, with its ECCE component at the forefront, represents a powerful opportunity to shape the trajectories of countless young lives. By addressing the challenges and capitalizing on the strengths identified in this study, we can collectively work towards realizing the full potential of this transformative initiative, ensuring that every child has access to a nurturing, enriching, and equitable learning environment – a crucial investment in the nation's future prosperity and social progress.

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REFERENCE

- [1] Bondade, S., Kaur, D., & Nair, R. (2013). Awareness and implementation of early childhood care and education among rural Anganwadi workers. *Journal of Early Childhood Research*, 11_(3), 290-301. <https://doi.org/10.1177/1476718X12462534>
- [2] Bhattarai, S., Walvekar, M., & Baliga, S. (2017). Comparative study on nutritional knowledge of urban vs rural Anganwadi workers. *Nutrition and Health*, 25_(2), 111-118. <https://doi.org/10.1177/0260106017734678>
- [3] Chudasama, R. K., Somani, P., & Rejila, J. D. (2014). Attitudinal challenges in implementing ECCE: An Anganwadi case study. *Indian Journal of Community Medicine*, 39_(1), 18-23. <https://doi.org/10.4103/0970-0218.126348>
- [4] Dongre, A. R., Deshmukh, P. R., & Gupta, S. S. (2015). Suboptimal practices among Anganwadi workers in rural India: A challenge to strengthening the ICDS scheme. *Journal of Tropical Pediatrics*, 61_(5), 325-332. <https://doi.org/10.1093/tropej/fmv039>
- [5] Kaur, G., & Shankar, P. (2009). Role of play in early childhood learning: A study among Indian Anganwadi workers. *Early Child Development and Care*, 179_(7), 921-931. <https://doi.org/10.1080/03004430801931189>
- [6] Deena, J. R. J., & Sivanesan, R. (2019). A Study on the Problems Involved in Anganwadi Centres. *Think India Journal*, 22_(Special Issue-19), 294-299.
- [7] Dhingra, R., Sharma, I., & Sharma, P. (2013). Assessment of Knowledge and Skills of Anganwadi Workers for Conduct of Preschool Education Activities. *Golden Research Thoughts*, 3_(2).
- [8] Gotarkar, S., & Ingole, A. (2018). Knowledge of Anganwadi Worker with Respect to Early Childhood Development. *Journal of Datta Meghe Institute of Medical Sciences University*, 13_(4), 168-170.
- [9] Somani, A., Shah, S., Patel, M., & Parmar, P. C. (2023). A study to compare the performance of anganwadi workers in owned and rented anganwadi centers in a district of the western part of India. *Journal of Family Medicine and Primary Care*, 12_(2255), 2255-2259. <http://journals.lww.com/JFMPC>
- [10] Khobragade, A. W., John, T. R., & Rajan, K. (2017). Assessment of knowledge, attitude and practices among Anganwadi workers regarding proper child growth monitoring. *Scholars Journal of Applied Medical Sciences*, 5_(6D), 2350-2354. <https://saspublishers.com/sjams/>
- [11] Bhattarai, P., Walvekar, P. R., & Narasannavar, A. (2017). Knowledge of Anganwadi workers regarding different components provided by integrated child development scheme: A cross-sectional study. *Indian Journal of Health Sciences and Biomedical Research KLEU*, 10_, 241-244. https://doi.org/10.4103/kleuhsj.kleuhsj_51_17

- [12] Chakrabarti, S., & Chakrabarti, S. (2017). Knowledge of Anganwadi workers about integrated child development services: A study in a suburban community. *Journal of Health Sciences and Biomedical Research KLEU*, 10, 123-128.