International Journal of Science Annals, Vol. 8, No. 2, 2025
print ISSN: 2617-2682; online ISSN: 2707-3637; DOI:10.26697/ijsa

SOCIAL AND BEHAVIORAL SCIENCES. Health Care Sciences

ORIGINAL RESEARCH

Factors Affecting the Implementation of Integrated Management of Neonatal and Childhood Illness by Indian Health Professionals

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Received: *27.11.2025;* ***Accepted:*** *23.12.2025;* ***Published:*** *25.12.2025*

Authors' Contribution:
A – Study design;
B – Data collection;
C – Statistical analysis;
D – Data interpretation;
E – Manuscript preparation;
F – Literature search;
G – Funds collection

Abstract

Background and Aim of Study: *Integrated management of neonatal and childhood illness (IMNCI) is a globally proven, primarily community-based strategy to improve child survival and is being implemented worldwide in countries with high burden of child mortality. The aim of the study: to identify the factors that affect the implementation of IMNCI by healthcare professionals in healthcare facilities, and to assess their attitude towards the implementation of IMNCI.*

Material and Methods: *The study was conducted at health care facilities of Thiruvarur district, Tamilnadu, India. A total of 100 health professionals were included in the present study. Mean age of the study participants was 36± 3 years. Most of them were males. Mean age of their work experience was 5.7± 2.1. In the study 79% of respondents attended IMNCI training at different time. Almost 86% of study participants have not received any follow up training in last 2 years. All participants was administered a predesigned, pretested, semi structured questionnaire on IMNCI. Version 21 of the SPSS software was used to record and analyse the responses.*

Results: *Health system related factors identified as hindrance to IMNCI implementation on case management skills according to this study are, overcrowding of people (26%), time consuming (21%), shortage of staffs (17%), untrained staff (10%), lack of supervision(6%), and lack of supplies(12%). Attitude of the health care providers on treating children's based on algorithm were found to be unsatisfactory.*

Conclusions: *Efforts to improve the quality of child health services provided by health care providers in the less developed countries should focus not only on resource-intensive structural improvements, but also on cheap, cost-effective measures, especially the proper use of national guidelines for case management, and meaningful supervision. Government leadership, along with more structured and continued resource and training support, is necessary to foster sustainable IMNCI health care services within the needs of the local community.*

Keywords: *integrated management of neonatal and childhood illness, factors, health care providers, implementation*

DOI: *https://doi.org/10.26697/ijsa.2025.2.6*

Conflict of interests: *The authors declare that there is no conflict of interests*

Peer review: *Double-blind review*

Source of support: *This research did not receive any outside funding or support*

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print ISSN: 2617-2682; online ISSN: 2707-3637; DOI:10.26697/ijsa

Introduction

Integrated Management of Neonatal and Childhood Illness (IMNCI) strategy is an integrated approach to child health that holistically focuses on the well-being of the child. IMNCI strategy aims to reduce illness, disability, death, and to promote improved growth and development among children under 5 years of age. The strategy includes both preventive and curative elements that are implemented by families, communities, and health care facilities (WHO, 2005).

Every year about 9 million children in developing countries die before they reach their fifth birthday, many of them during the first year of life (Jones et al., 2003).

It is estimated that in India 2.1 million children die before reaching 5 years of age.

Approximately 28% of all deaths of new-borns and 23% of all infant deaths in the world occur in India (UNICEF, 2025).

Currently almost 2/3rd of infant mortality is comprised of neonates; most of them die within the first week of life (Jones et al., 2006).

More than 70 % of the under-five child deaths are due to five diseases, namely pneumonia, diarrhoea, malaria, measles and malnutrition, and often to a combination of these conditions. Many of these deaths could be prevented by greater access to and use of high quality healthcare in combination with improved new-born and infant care practices in families through IMNCI (Darmstadt et al., 2005).

Implementation of IMNCI in comprehensive and holistic approach that forms bench mark for basic child health in preventing the under 5 deaths through case management approach which includes the five elements i.e. assessment, classification, treatment, counselling and referral (WHO, 2003).

The IMNCI strategy provides home-based care for the new-borns and the young infants. The home care component for new-borns aims to promote exclusive breast feeding, preventing hypothermia, improvement in the recognition of early clinical illnesses by parents and health care providers at the grassroots level and therefore reducing the delays in seeking proper care (Ingle &Malhotra, 2007).

Several studies conducted in different countries indicated that the implementation of the IMNCI strategy is still inadequate.

The most common identified problems are lack of training, poor supervision, lack of IMNCI essential drugs and on jobs aid, health workers perception, shortage of the staffs, nature of the strategy and lack of support from the government and stake holders (Bhandari et al., 2012; Mohan et al., 2012). With this background, this study was undertaken to assess the factors affecting the Implementation of IMNCI among Health Professionals of Rural Health Care Facilities in Thiruvarur district of Tamil Nadu.

The aim of the study. To identify the factors affecting the implementation of the integrated management of neonatal and childhood illnesses by healthcare professionals in healthcare facilities, and to evaluate their attitudes towards this implementation.

Materials and Methods

The study was conducted at healthcare facilities in four blocks of Thiruvarur district. The Thiruvarur HUD District Health Unit Department functions across 10 blocks. Each block has one main primary health centre (PHC) and is strengthened by five additional PHCs, making a total of 50 PHCs. Each PHC is attached to four sub-centres, making a total of 200 sub-centres which provide services at a grassroots level. Healthcare workers were selected from four blocks: Adiyakkamanaglam, Thiruvizhlimalalai, Perumpanaiyur and Poonthotam. This area was selected because it is covered by the Department of Community Medicine at GTMC. All health professionals working in the selected facilities were present on the days of data collection.

A predesigned, pretested, semi-structured questionnaire contains the following items:

a) Identification data, i.e. age, gender, educational status, area of residence and socioeconomic status.

b) Assessment of case management skills on the IMNCI strategy.

c) Factors affecting the implementation of the IMNCI strategy.

The study subjects were selected from four blocks of Thiruvarur HUD. One block constitutes one block PHC, five PHCs and one sub centre. The staff pattern at each level is as follows: each block is strengthened by three staff nurses, one auxiliary nurse midwife and five doctors, whereas PHCs are supported by two staff nurses, one auxiliary nurse midwife and two doctors. Each sub centre is supported by one ASHA/VHN. In total, a block has 35 healthcare professionals.

Subjects were enrolled based on eligibility criteria using simple random sampling until a sample of 25 was reached in each block, for a total of 100 health professionals included in the study across the four blocks.

The selected subjects were interviewed face-to-face. A questionnaire was administered to each study subject. The aim was explained to each subject in their local language before it began, and written informed consent was obtained in both English and Tamil.

Informed written consent was taken from all study subjects. No pressure coercion was exerted on subjects for participation in the study. Confidentiality and privacy was ensured at all stages (Institutional Ethical Committee clearance was obtained from GTMC-IEC).

The data were analysed using the Statistical Package for the Social Sciences (SPSS, IBM) software, version 21. For qualitative variables, proportions were calculated, and for quantitative variables, the mean, median, range and standard deviation were calculated. Descriptive statistics were calculated and the results are presented in a pie chart. To test the hypothesis and find the association, a chi-square test was performed. A p-value of <0.05 was considered significant. Cronbach's alpha was used to test internal consistency. Logistic regression analysis was used to identify the association between the dependent variable (factors affecting IMNCI) and the independent variables (age and years of experience).

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Results

This study included a total of 100 healthcare professionals. Among the study population, 58% were male. Regarding the age of the respondents, more than half (69%) were aged between 31 and 40 years. In terms of occupation, most of the respondents (55%) were staff nurses, 20% were auxiliary nurse midwives (ANMs), and the rest were doctors (15%). More than half of the respondents (119, or 59.2%) had worked as healthcare providers for less than five years. Of these, 92 (92%) worked in an outpatient department for less than five years (Table 1).

Table 1

Sociodemographic Characteristics of the Study Participants

Variable	Category	Frequency, %
Age	21-30	20
	31-40	69
	41-50	11
	Total	100
Gender	Male	58
	Female	42
	Total	100
Occupational status	Doctor	25
	Staff Nurse	35
	Auxiliary Nurse Midwife	20
	Accredited Social Health Activist	20
	Total	100
Work experience	Less than 5 years	64
	More than 5 years	36
	Total	100
Work in under 5 clinic	Yes	92
	No	8
	Total	100

Regarding IMNCI training, nearly 79% of respondents had attended IMNCI training at different times; however, less than half of these participants (21%) had not attended any training after joining the service. Almost 86% of the study participants had not received any follow-up training in the last two years (Table 2).

Table 2

Status of Health Care Workers on IMNCI Training

Questions	Options	Response frequency, %
Have you attended any IMNCI training?	Yes	79
	No	21
Which period of the last IMNCI training have you received?	Less than 1 years	19
	1-2 years	14
	More than 2 years	67
Have you received any follow-up training?	Yes	14
	No	86
Which period of the last follow-up training have you received? (N=14)	Less than 1 years	0
	1-2 years	0
	More than 2 years	14

Table 3 shows the steps in the case management protocol that were difficult to apply. More than half of the study participants reported that they always found all steps in the IMNCI case management protocol difficult to apply. Out of the six steps in the IMNCI case management protocol, nearly half (58%, 57%, 51% and 47%) found the steps “Provide follow-up”, “Identify the treatment”, “Classify the child’s illness” and “Assessment of child' and Follow-up of child” the most difficult, respectively.

Table 3

Attitude on Case Management Protocol among Study Participants

Questions	Response frequency, %		
	Always	Sometimes	Not difficult
Do you find it difficult to provide follow-up?	7	46	47
Do you have enough time to counsel the carer?	35	32	33
Are you confident in treating the child?	60	19	21
Are you able to identify the correct treatment?	10	32	58
Do you find it difficult to classify the child as ill?	7	42	51
Do you find it difficult to assess the child?	7	36	57
Do you find it difficult to apply the steps in the case management protocol?	26	70	4
Implementing all stages of IMNCI	80	16	4
Implementing most stages of IMNCI	67	25	8

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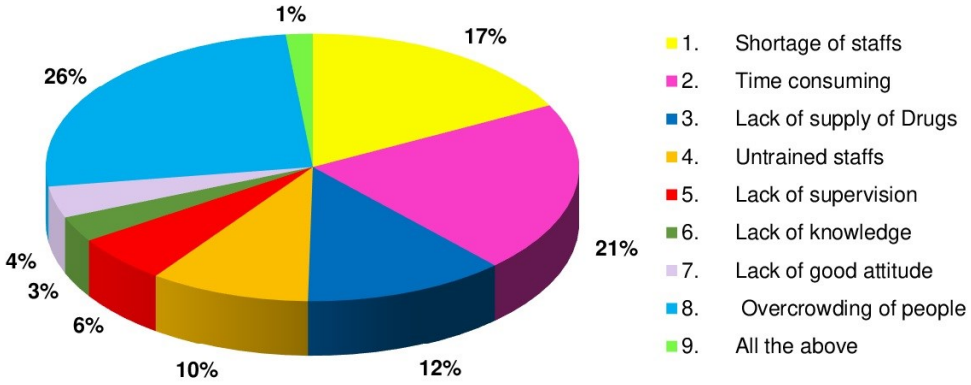
When asked about the factors influencing the implementation of case management skills based on the IMNCI strategy, respondents reported overcrowding (67 people, or 26%), time-consuming processes (56 people, or 21%), lack of trained staff (84 people, or 17%), and lack of supplies (70 people, or 12%) as the main challenges of IMNCI implementation (see Figure 1).

Figure 1

Distribution of Factors Influencing the Implementation of Case Management Skills



More than half of the study participants did not always perform the following checks: vaccination (67%), temperature (52%), signs of pallor (50%), danger signs (50%), fever (73%), malaria (52%), cough (52%), weight (83%), weight against chart (87%), ear problems (95%). The 10-item scale measuring attitude towards practices on IMNCI among the study participants demonstrated acceptable internal consistency (Cronbach's alpha value: 0.978).

The attitudes of the study participants towards IMNCI practices are outlined in Table 4.

Table 4

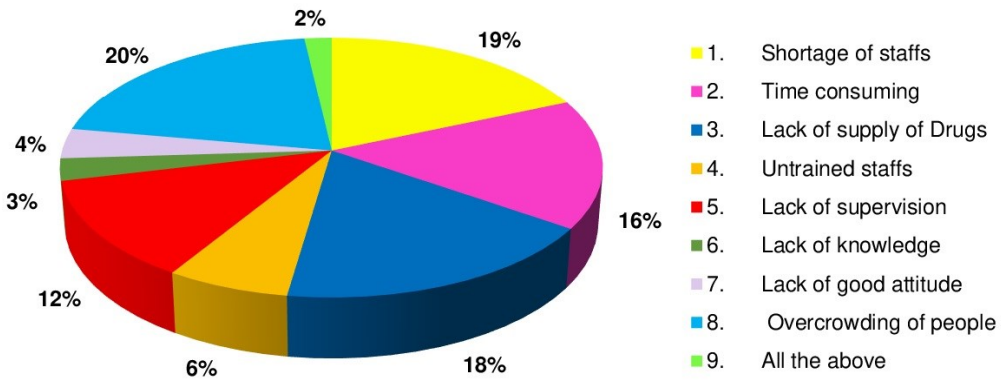
Attitudes towards IMNCI Practices among Study Participants

Questions	Response frequency, %		
	Always	Sometimes	Not performed
Are you checking the child's vaccination status on their immunisation card?	17	16	67
Are you taking their temperature?	20	28	52
Are you looking for signs of pallor?	16	24	50
Are you assessing the child based on danger signs?	27	23	50
Do you ask about symptoms related to malaria?	16	11	73
Do you assess the nature of the cough?	21	27	52
Do you weigh the children at every visit?	17	31	52
Do you plot the child's weight on a growth chart?	2	15	83
Do you check the child's ears for discharge or ear problems?	1	12	87
Do you check for signs of malnutrition?	0	5	95

In terms of the factors influencing IMNCI strategy implementation, 57 respondents (20%) cited overcrowding as the main challenge, 24 respondents (19%) cited a lack of staff, 31 respondents (18%) cited a lack of supply of cards, and 81 respondents (16%) cited the time-consuming nature of the process. Figure 2 presents the main challenges of IMNCI implementation.

Figure 2

Distribution of Factors Influencing the Implementation of IMNCI Practices



The attitude of healthcare providers towards treating ARI based on the algorithm: overall, 71% of respondents exposed the children's chest to count their respiratory rate. While counting the respiratory rate for a full minute, only 14% of respondents performed this task for the full duration.

More than half of them did not properly assess high-risk cases (44%), classify the illness based on symptoms and signs (31%), or treat the child (54%) based on the colour coding of acute respiratory infections according to IMNCI.

Health education on routine immunisation and breastfeeding was reported to be given to children in 55% and 67% of cases, respectively. Advice on the danger signs of pneumonia, preventing infections and coming for a follow-up appointment if symptoms worsened was not routinely given to children attending PHCs (Table 5).

Table 5

Attitudes of Healthcare Providers towards Treating Acute Respiratory Infections Based on the Algorithm

Statements	Response frequency, %		
	Always	Sometimes	Not performed
Exposing the chest for counting the respiratory rate	21	8	71
Counting the respiratory rate for one minute	14	6	80
Counting the respiratory rate for less than one minute	66	30	4
Identifying any high-risk infants	26	30	44
Classifying them according to colour coding	24	45	31
Managing them based on their category	12	34	54
Providing proper counselling on preventing infections	19	60	21
Providing health education on exclusive breastfeeding	55	33	12
Providing health education on routine immunisation	67	18	15
Telling them about the danger signs of pneumonia	32	47	41
Asking the mother to come for a follow-up if the symptoms worsen	28	55	17

The attitude of healthcare providers towards treating ADD based on the algorithm was reported by the majority of respondents. However, when it came to checking for signs of dehydration such as dry mouth and the skin pinch test, as well as taking blood pressure, these were performed consistently in only 7%, 17% and 25% of cases, respectively. More than half of them did not properly assess high-risk cases (52%), classify the illness based on symptoms and signs (57%), or treat the child (58%) based on colour coding for acute respiratory infection according to IMNCI. Health education on routine immunisation and breastfeeding was reported to be given to children in 66% and 70% of cases, respectively.

Counselling on the proper use of ORS and the preparation of homemade ORS was routinely performed. Advice on the danger signs of diarrhoea, preventing infections, and coming for a follow-up appointment if symptoms worsened was routinely given to children attending PHCs (Table 6).

Table 6

Attitude of Healthcare Providers towards Treating ADD Based on the Algorithm

Statements	Response frequency, %		
	Always	Sometimes	Not performed
Checking for signs of dehydration:	-	-	-
- Dry mouth/tongue	7	66	27
- Skin pinch test	17	32	51
- Blood pressure	25	31	44
Identifying any high-risk infants	21	27	52
Classifying according to colour coding	14	29	57
Managing based on category (1, 2 or 3)	19	23	58
Providing proper counselling on preventing diarrhoea	25	54	21
Providing advice on ORS usage and uses	59	26	15
Providing health education on exclusive breastfeeding	70	21	9
Providing health education on routine immunisation	66	25	9
Preparing homemade ORS	35	32	33
Providing advice on proper handwashing	23	54	23
Telling the mother about the danger signs of dehydration	22	42	36
Asking the mother to come for a follow-up if the symptoms worsen	57	22	21

According to the study, 65% of participants agreed that the IMCI strategy is user-friendly for health workers. Regarding the idea that the IMNCI protocol is easy to understand and apply, only 31% of respondents strongly agreed; more than half of them (60%) disagreed. Of the total respondents, 63%, 70% and 66% strongly agreed that the IMNCI protocol is too long, tedious and not practical for our health facility, and time consuming, respectively (Table 7).

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Table 7
Attitudes of Healthcare Providers towards Implementing the IMNCI Strategy

Statements	Response frequency, %		
	Strongly Agree / Agree	Neither agree / Nor disagree	Disagree / Strongly disagree
IMNCI is user-friendly	65	25	10
IMNCI is easy to understand and apply	31	9	60
IMNCI protocol is tedious	63	27	9
IMNCI is time-consuming	70	7	23
IMNCI is not practical for our health institution	66	21	13

Let us consider the following significant factor: time spent managing an under-5 patient when using the IMNCI case management protocol (Table 8). According to this study, 11% of respondents strongly agreed that they spent more than one hour using the IMNCI protocol, whereas 30% strongly disagreed/disagreed with spending between 30 and 45 minutes using the IMNCI protocol. Based on this study, 54% of respondents agreed that they spent between 11 and 30 minutes using the IMNCI protocol, which is in line with the WHO-recommended consultation time of 15–20 minutes.

Table 8
Time Spent Managing a Child under Five When Using the IMCI Case Management Protocol

Statements	Response frequency, %		
	Strongly Agree / Agree	Neither agree / Nor disagree	Disagree / Strongly disagree
Time spent managing a child under the age of five:	-	-	-
More than 1 hour	11	34	55
30-45 min	46	24	30
11-30 min	54	16	30
1-10 min	9	25	66

Regarding the availability of resources, 38% of respondents strongly agreed that IMNCI drugs are frequently out of stock. In contrast, only 24% disagreed with the statement that IMNCI wall charts and chart booklets are frequently unavailable. In terms of health facility equipment, 42% strongly agreed/agreed that their health facility is not fully equipped to support the use of the IMNCI strategy. The attitude of the study participants regarding the availability of resources is outlined in Table 9.

Table 9
Attitudes towards the Availability of Resources among the Study Participants

Statements	Response frequency, %		
	Strongly Agree / Agree	Neither agree / Nor disagree	Disagree / Strongly disagree
IMNCI drugs are often out of stock	38	17	45
IMNCI wall charts and the accompanying booklet are also often unavailable	45	31	24
Health facilities are not fully equipped to support the use of IMNCI	42	38	20

The majority of respondents (64%) either agreed or strongly agreed with the statement that their supervisor does not understand the rationale behind IMNCI. Similarly, 28% of respondents disagreed or strongly disagreed with the statement that their supervisor is not IMNCI-trained.
Among the study participants, 66% agreed with the statement about a lack of supervision by IMNCI trainers, while 13% disagreed with the statement that there is a lack of supervision by IMNCI trainers for the proper implementation of IMNCI (see Table 10).
Regarding the lack of follow-up training by IMNCI facilitators, the majority of respondents (76%) strongly agreed that this is the main challenge to implementing the strategy.

Table 10
Attitudes towards Supervision when Implementing IMNCI

Statements	Response frequency, %		
	Strongly Agree / Agree	Neither agree / Nor disagree	Disagree / Strongly disagree
The supervisor does not appreciate the rationale behind IMNCI	64	20	16
The supervisor is not IMNCI-trained	48	24	28
There is a lack of supervision by IMNCI trainers	66	21	13

Discussion

This study aimed to identify the implementation of the Integrated Management of Neonatal and Childhood Illnesses (IMNCI) programme and the factors influencing its implementation by healthcare workers (HCWs) in rural health centres in Thiruvarur, South Tamil Nadu.

A total of 100 HCWs were included in the study. Of these, 79% had attended IMNCI training at various points in their careers, but less than half (21%) had not received any further training after joining the service. Almost 86% of the study participants had not received any follow-up training in the last two years. This finding is consistent with a study conducted by Abebe et al. (2019). However, this finding is higher than that of a study conducted in Tanzania, which showed that only 43% of health workers were IMNCI-trained (Isangula et al., 2023).

The study participants reported that they always found all steps in the IMNCI case management protocol difficult to apply. Out of the six steps in the IMNCI case management protocol, nearly half found the steps 'Provide follow-up', 'Identify the treatment', 'Classify the child's illness', 'Assessment of the child' and 'Follow-up of the child' difficult to apply. This finding is consistent with a study by Abebe et al. (2019).

A facility survey conducted in Nigeria showed that few sick children were fully assessed and that only 43.8% were correctly classified by health workers. The use of antibiotics for sick children was also high and not in accordance with the guidelines (Afolalu, 2020).

Regarding the factors influencing the implementation of case management skills based on the IMNCI strategy, some respondents reported overcrowding, time-consuming processes, a lack of trained staff and a lack of supplies as the main challenges of IMNCI implementation.

Similarly, several factors were identified as hindering IMNCI implementation. These include untrained staff (56.2%), lack of supervision (27.4%), lack of supplies (37.3%), poor attitude (11.9%) and shortage of staff (16.4%). A study by Seid et al. (2019) identified similar factors, including lack of supplies (37.3%), frequent unavailability of IMNCI drugs (43.8%), lack of wall charts and chart booklets (39.4%), and unequipped health facilities (49.7%).

Our results were inconsistent with those of a study conducted in Botswana, which showed that only 10% of respondents agreed that IMNCI-recommended drugs were often out of stock, and 15% claimed that IMNCI chart booklets and wall charts were often unavailable in their health facilities. Meanwhile, 56% of participants responded that their health facilities were not fully equipped to support the application of IMNCI skills and procedures (Renosa et al., 2020). This difference may be due to differences in socio-economic status, the study area, and sample sizes.

In the current study, more than half of the participants agreed that they were carrying out routine steps such as checking vaccination status, taking temperatures, looking for signs of pallor or danger, assessing fevers, malaria and coughs, weighing children and checking their weight against a chart, and checking for ear problems. Examining the factors influencing the implementation of the IMNCI strategy, we found overcrowding, lack of staff and supplies, and time constraints to be the main challenges.

A survey conducted in Afghanistan and Indonesia identified the following challenges to implementing the IMNCI strategy: short training duration, lack of ongoing follow-up and clinical supervision, high training costs, lack of political support, lack of human and material resources and time, poor health worker reading ability, mismatch between training needs and available resources, frequent health worker turnover, and poor IMCI implementation quality by those specifically trained in the use of job aids and protocols for assessment, classification, treatment and counselling (Mayhew et al., 2015; Titaley et al., 2014).

One study conducted in Indonesia categorised the factors affecting IMNCI implementation into three levels: health worker, facility and community. The main challenge at the health worker level is the health worker's perception of skills uptake and case management guidelines, while the main challenges at the facility level are time constraints (time taken to complete the protocol, long queues and short staffing) and inadequate facility support (medical equipment, job aids and drugs). At the community level, the main challenges to implementing IMNCI guidelines were identified as long waiting times, high user fees and non-compliance by caregivers and patients (Haryanti et al., 2022).

The attitude of healthcare providers towards treating acute respiratory infections (ARI) based on an algorithm was examined. While counting respiratory rate for a full one minute, only 14% of providers performed this task for the full duration. Classification of ARI based on symptoms and signs was reported in only 31% of cases, and treatment of the child based on colour coding according to IMNCI was found to be less than 44%. Health education on routine immunisation and breastfeeding was provided in 55% and 67% of cases, respectively. Advice on the danger signs of pneumonia and how to prevent infections, as well as advice on coming for a follow-up appointment if symptoms worsened, was not routinely given to children attending PHCs.

This is inconsistent with a study carried out in Panchkula district. Overall, 77.9% of children had their chest exposed in order to count their respiratory rate. The respiratory rate was counted for a full minute in 47.4% of children, and for less than a minute in 28% (29.8%). The respiratory rate was not counted at all in 22% of children. 20% of children were treated with medication only, while the remaining 80% were treated with medication and counselling (Venkatachalam et al., 2012).

The attitude of healthcare providers towards treating ADD based on the algorithm was reported by the majority of respondents as not regularly checking for signs of dehydration, such as dry mouth and the skin pinch test, or taking blood pressure. More than half of them did not properly assess high-risk patients, classify illnesses based on symptoms and signs, or treat children

based on the colour coding of acute diarrhoeal diseases according to IMNCI. Health education on routine immunisation and breastfeeding was reported to be given to children 66% and 70% of the time, respectively. Counselling on the proper usage of ORS and the preparation of homemade ORS was routinely performed. Advice on the danger signs of diarrhoea, preventing infections and coming for a follow-up if symptoms worsened was always or sometimes given to children attending PHCs.

This is consistent with a study conducted in Panchkula by Venkatachalam et al. (2012), in which the dehydration of 93.3% of children was assessed by pinching their abdominal wall. 40% of mothers were advised to give their children extra food and fluids, and 66.7% were advised to give ORS and told how much to give. Only 26.7% of mothers were shown how to prepare ORS, and 21.4% were advised how much to give. Children with diarrhoea were given medicine only in 46.7% of cases, and counselling was provided alongside medicine in 53.3% of cases.

According to this study, 65% of respondents either agreed or strongly agreed that the IMCI strategy is user-friendly for health workers. Regarding the idea that the IMNCI protocol is easy to understand and apply, only 31% of respondents strongly agreed; more than half disagreed. Of those who agreed with the notion that the IMNCI protocol is too long, tedious and impractical for our health facility, many also felt that it was time consuming.

Similar results were reported in a study (Bharani et al., 2012), which identified various IMNCI-related barriers to implementation by healthcare workers, such as the IMNCI protocol being too long (59.7%), tedious (41.3%), time-consuming (55.2%), and difficult to understand and apply (11.0%).

According to the present study, 11% of respondents strongly agreed or agreed that they spent more than one hour using the IMNCI protocol, while 54% strongly agreed or agreed that they spent between 11 and 30 minutes using the IMNCI protocol, which is consistent with the WHO's recommended consultation time of 15–20 minutes. This is consistent with a study by Subedhi et al. (2024), which found that the average consultation in this study was also in line with the WHO's recorded average of 16 minutes. IMNCI consultations were about 2–4 minutes longer than traditional consultations. Similarly, several other studies have also identified these factors as barriers to the implementation of the IMNCI protocol.

Regarding the availability of resources, 38% of respondents strongly agreed that IMNCI drugs were frequently out of stock, while only 24% disagreed with the statement that IMNCI wall charts and chart booklets were frequently unavailable. Concerning health facility equipment, 42% strongly agreed/agreed that their health facility is not fully equipped to support the IMNCI strategy. Among the study participants, 66% agreed with the statement that there is a lack of supervision by IMNCI trainers for the proper implementation of IMNCI, while 13% disagreed.

Primary health care nurses at selected clinics in Nepal cite the following difficulties in implementing IMNCI: lack of resources and poor working conditions; lack of human resources; lack of material resources; and shortage of medication.

The absence of computers at clinics and the lack of physical resources are categorised as a lack of resources, while the lack of support from supervisors, burnout related to a lack of support from stakeholders, a lack of cooperation from community members, a lack of support from the media, a lack of political support, and symptoms related to work overload are categorised as poor working conditions, which have a negative impact on nurses (Subedi et al., 2024). Similar consistent results (Haryanti et al., 2022) have identified inadequate facility support (medical equipment, job aids and drugs) as a challenge at the facility level.

Conclusions

This study identifies factors affecting the uptake and implementation of IMNCI from the perspective of frontline healthcare providers. Our review revealed that the experiences of HCWs in implementing IMNCI were characterised by the demotivating realities of an unsupportive healthcare system, lack of resources, and weak programme execution with no proper follow-up training.

The following bottlenecks were recognised as hindering the reach of IMNCI in the community: imperfect supervision and monitoring mechanisms; inadequate availability of basic equipment and drug supplies; an inefficient referral system; poor training in terms of quality and duration; a lack of regular reinforcement of guidelines; and poor performance of healthcare staff. In order to improve the quality of child health services provided by PHC workers in less developed countries, efforts should focus not only on resource-intensive structural improvements, but also on cheap, cost-effective measures.

These measures should include the proper use of national guidelines for case management and meaningful supervision. Government leadership, along with more structured and continued support in terms of resources and training, is necessary to foster sustainable IMNCI healthcare services that meet the needs of the local community.

Acknowledgments

Authors are thankful to Indian Council of Medical Research for considering this study under Short-Term Studentship Programme. We heartily acknowledge the cooperation and support of Primary Health Centres for supporting this study.

Ethical Approval

Clearance from the Institutional Ethical Committee (GTMC-IEC, No. 050/IEC/GTMC/2023) was obtained.

Funding Source

This research did not receive any outside funding or support.

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Cite this article as:
Madhankumar, V., Uppili, V. R., Prabakaran, S., & Prasanth, S. (2025). Factors affecting the implementation of integrated management of neonatal and childhood illness by Indian health professionals. *International Journal of Science Annals, 8*(2), 48–57. https://doi.org/10.26697/ijsa.2025.2.6

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