

Challenges of Frontline health workers on reduction of anaemia among adolescents: A Qualitative enquiry

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ABSTRACT

Background: High prevalence of anaemia is a severe public health problem in several low- and middle-income countries like India. In adolescents, anaemia has been linked to impaired physical and mental development and increases reproductive morbidities among adolescent girls during their womanhood. To tackle this high prevalence, number of government programs have been launched in India. However, a slow decline in the prevalence of anaemia has been reported in Indian adolescents over the recent past. Therefore, it is important to unfold the issues in reduction of prevalence of anaemia and the current study was carried out to identify challenges in reducing anaemia among adolescent girls. **Methods:** 33 Frontline Health Workers (FHW) were recruited from 6 randomly selected villages (out of 6, 2 villages were having population less than 2000, 2 villages were having population 2000 to 5000 and 2 villages were having more than 5000 population) of Kashi Vidyapeeth block, Varanasi. between January 2022 to April 2022. In-depth, face-to-face interviews were carried out in local language using an interview guide. All the interviews were recorded and transcribed verbatim. Transcribed data was analysed manually for theme extraction. This study was granted ethical permission by the Institutional Ethics Committee. **Results:** Following major themes were extracted during the data analysis: (i) Poor knowledge about adolescent health-related issues; (ii) non-adherence to program guidelines; (iii) Irregularity in the supply chain; (iv) Beneficiary's lack of interest in only education about anaemia in the community; (v) Excessive administrative burden; (vi) Dissatisfaction in terms of monetary remuneration. **Conclusions:** The emerging findings throw light on the knowledge & perspective of Frontline health workers about program guidelines and also highlights the different challenges in implementing anaemia prevention strategies faced by them at the grass root level.

KEYWORDS

Adolescent, Anaemia, Frontline Health Worker, Non-adherence, Strategies

INTRODUCTION

Adolescence is defined by WHO as ages 10-19. India is home to 253 million adolescents 10–19 years of age, among the largest cohorts globally (1). From 2005~2006 to 2019~2021, NFHS estimates indicate that anaemia prevalence among Indian adolescent girls aged (15~19) years has slightly increased (54.1% to 59.1%). (2). The haemoglobin count in most of adolescent girls is less than the standard 12g/dl, the standard accepted worldwide (3). A Scheme for Adolescent Girls (SAG) was prepared in 2010 to break the lifelong vicious cycle of nutrition. It is implemented through Anganwadi Centres using the Anganwadi Services of the ICDS Scheme. There is also a plan for a Kishori Health Card, in which Adolescent Girl's health-related information and record will be kept and maintained by AWWs. Once every 3 months, a special day is to be celebrated as Kishori Diwas, when general health check-ups of all adolescent girls will be done by the Medical Officer and ANM, and IFA and deworming pills will be provided to the girls on that day. Referral services will also be provided, if necessary (4).

In India, two ministries, the Ministry of Health and Family Welfare (MOHFW) and the Ministry of Women and Child Development (MOWCD), share responsibility for nutrition interventions. Two programs, the National Rural Health Mission (NRHM) and the Integrated Child Development Services (ICDS), aim to improve maternal and child nutrition and health through services provided by frontline health workers (FHWs) (5). However, operational inconsistencies exist between ICDS and NRHM, and the state has taken various actions to address these challenges. (6). The three frontline health workers in India are accredited social health activists (ASHA), Anganwadi workers (AWW), and auxiliary nurse midwives (ANM). Their performance is critical for the overall program's performance, but evidence on what shapes frontline health workers performance is limited. AWWs are primarily responsible for the delivery of ICDS services, while ASHAs and ANMs are primarily responsible for the delivery of NHM services (7).

The present study aims to assess the knowledge and practices of FHW and also to explore the challenges faced by them in prevention and control of anaemia among adolescent girls. This information can be used to strengthen health and nutrition service delivery in tackling and elimination of anaemia in India.

MATERIAL & METHODS

In-depth, face-to-face interviews with (AWWs, ASHAs, and ANMs) were conducted using an interview guide in the local language (Hindi) from January 2022 to April 2022. Participants were recruited from the 6 villages randomly selected on population basis (out of 6, 2 villages were having population less than 2000, 2 villages were having population 2000 to 5000 and 2 villages were having more than 5000 population) of Kashi Vidyapeeth block, Varanasi. In the selected villages of study block, 22 ASHAs, 18 AWWs and 4 ANMs were working but present study recorded the responses of 33 FHWs (14 AWWs, 16 ASHAs and 3 ANMs). All interviews were audio-recorded with consent of the participants, and some key notes were also taken. Then transcribed verbatim and translated into English. Transcribed data was analysed manually for theme extraction. Each interview lasted for 30 to 40 minutes whereas at the point where no new issues were brought up by the participants, it was assumed that saturation had been achieved and data collection was stopped. An inductive method of thematic analysis was used to analyse the data and identify new emerging themes from the data. In first stage of analysis, the transcripts were manually coded. Once the interviews were fully coded by the first author, a second stage of coding and summarizing for emergent themes and patterns was conducted. Illustrative quotations that captured the key issues reported by the participants have been included in the results. This study was approved by the Institutional Ethics Committee.

RESULTS

Table 1 provides demographic characteristic of FHWs. Majority of the FHWs were of age 40

years & above (72.7%). The maximum proportion of FHWs belonged to other backward class (45.5%) while 30.3% and 24.2% were from general and scheduled caste respectively. Nearly 90% of FHWs had experience of more than 5 years in their working field. Nearly half of the FHWs were graduated and 21.2% completed their post-graduation.

Table 1: Frontline health worker’s profile

Frontline health workers (ASHA/ANM/AWW)	Number	Percentage %
AWW	14	42.4
ASHA	16	48.5
ANM	3	9.1
Age group		
30-39 Years	9	27.3
40-49 Years	13	39.4
50-59 Years	11	33.3
Cast		
General	10	30.3
OBC	15	45.5
SC	8	24.2
Experience group		
5 or less	3	9.1
6-10 Years	3	9.1
11-15 Years	18	54.5
16-20 Years	3	9.1
>20 Years	6	18.2
Education		
Graduation	15	45.5
High school	2	6.1
Intermediate	9	27.3
Post-graduation	7	21.2
Total	33	100.0

The interviews with FHWs revealed their lack of interest and less engagement in adolescent health and iron deficiency anaemia. The ASHAs, ANMs, and AWWs who have been assigned with the responsibility of executing their duties related to the program did not have sufficient understanding of key areas such as- registration of adolescent girls at AWCs, correct time to initiate Iron and Folic Acid (IFA) supplementation and deworming, maintenance of compliance tracking record and register, importance of organizing meetings with adolescent girls (10-19) years of age, the key messages that need to be communicated on Menstrual health and hygiene, and dietary education.

This study has assessed the knowledge and practices of FHWs, and identified several gaps and challenges in the prevention and control of anaemia in adolescent girls at FHWs level.

These challenges are structured as themes followed by key sub-themes.

Table 2 Themes and key Sub-themes.

Themes	Sub-themes
Poor knowledge about adolescent health-related issues.	Lack of specific training for Adolescent health Limited awareness about various programs related to Adolescent health.
Non-adherence to program guidelines.	No Enrolment/Registration of adolescent girls at AWCs. Failure to conduct meetings with Adolescent girls. Screening of adolescent girls for anaemia without HB estimation. Lack of follow up Poor reporting and monitoring of program strategies
Irregularity in the supply chain	Insufficient and irregular supply of IFA tablets Limited supply of take-home ration. Inadequate supply of Kishori cards and sanitary pads at AWCs.
Adolescent girls’ lack of interest in only education sessions about anaemia.	Request for take-home ration, sanitary napkins and IFA tablets in meetings. Gender discrimination by parents
Excessive administrative burden	Multiple responsibilities Adolescents as additional workload. Lack of remuneration for Adolescent related services.
Dissatisfaction in terms of monetary remuneration	Disproportion between work load and remuneration

Poor knowledge about adolescent health-related issues

In this study, majority of the frontline health workers reported that they have not received any specific training related to adolescent health related issues. This is supported by one of the ASHA statements as:

“No, ma’am, we didn’t get any special training on adolescent health, but during our routine training, we were told that we have to educate adolescent girls on Menstrual hygiene and also

encourage them to consume food item like green vegetables, pulses, egg, paneer, rice, chapati, etc". – ASHA 9

Inadequate knowledge about doses of IFA supplementation and of deworming tablets indicates towards poor understanding of the program guidelines and activities to be performed. One of the AWW stated very confidently as:

I advised every adolescent girl to take the Albendazole tablet in every 15-days gap, and to take Iron tablets with Milk. AWW 1

Non-adherence to program guidelines

Participants mentioned that, to date, no clear job description, tasks, and activities to be performed, had been given to them related to adolescent health. The majority of the frontline workers are unaware of the programs running in their field for adolescent girls to tackle anaemia. One of the AWW stated as:

What is this WIFS program we haven't heard about it, is this running here in our field? I don't know if it's functioning. – AWW 11

Most of the participants stated that they do not maintain any register regarding the registration of adolescent girls because nobody ever asked them to maintain it. One of them stated as:

None of us keep records or do any procedure like enrolment of adolescent girls at the centre, we remember 2 to 4 girls' names and if someone asks, then we tell them. – AWW 12

Majority of the participant's highlighted that they only interact with the adolescent girls during Field visits.

Whenever we went on a field visit in the community to do our work parallelly we aware and encourage adolescent girls about everything related to their health even if its 2 or 4 girls we met. This is only what we are doing for girls, separately but not in groups or meetings. – ASHA 9

All the FHWs informed that whenever they come across any adolescent girl who looks

weak, they check out for other signs of anaemia to confirm whether she is anaemic just by physically examining her. Most of the ASHAs and AWWs highlighted an important statement that none of the adolescent girls were ever examined haemoglobin by the ANM. *No, no blood test has ever been done for adolescent girls to check whether she is anaemic in the community, yes there is a tetanus vaccine for them, but no haemoglobin test. -AWW 6*

Blood tests for haemoglobin have never been done for adolescent girls. – ASHA 1

All the participants mentioned that they do not keep any follow-up cards or any detailed health records of adolescent girls. Few respondents further stated that they have never been asked to prepare and submit any health record for adolescent girls so they never keep any record.

No, ma'am, we don't maintain any record on adolescent health, a long ago one time I prepared a register for adolescent girls and only mentioned their names and addresses of them. Our supervisor has never asked for reports so we do not maintain reports and records. – AWW 12

Irregularity in the supply chain.

The majority of the FHWs revealed that they don't get supplements on time and in the required amount. However, AWWs are forced to report that they have been allocated the required quantity. One of them stated as:

All the things are done only on paper, in reality, we don't get anything enough to distribute to beneficiaries whether it is IFA, sanitary napkins, or rations, nothing is in our hands, we are the smallest unit and we cannot do anything more than this. We did not distribute but we write it on paper that we have distributed. -AWW 10

The majority of the AWWs stated that the distribution of Inadequate amounts of ration to adolescent girls is not enough to fulfil their nutrient needs.

Earlier there was a poshahar named "Kishori pitara" which includes black gram 2.5kg, mansoor dal 1 kg, and jonhari 0.5 kg. kishori used to eat this mixture after soaking it in water but after receiving it 3-4 times, this poshahar also get stop. – AWW 3

All the FHWs reported that there is an irregularity in the supply of Iron and deworming tablets at the block level. Shortage of iron tablets, and only to be expired iron tablets are available at the block. One of them stated as:

When the Iron tablets are about to expire within a week or month then at the block, they gave us these iron tablets for distribution like a headache. So, here the problem exists at the block level, they do wrong at their level with untimely, inadequate, and poor-quality supplement supply especially iron tablets near to expiry, and asked to send the report. – AWW 2

Additionally, all the FHWs mentioned that they haven't received sanitary pads ever for distribution.

We don't know if there is any procedure for sanitary pad distribution also. We have never received sanitary pads for distribution to adolescent girls. ASHA 11

Participants also mentioned that even they had no idea about adolescent health cards.

We have no idea about this Kishori card if there is one. – AWW 6

Adolescent girls' lack of interest in only education sessions about anaemia.

The majority of the FHWs felt that the adolescent girls were unwilling to participate in education counselling sessions because they prefer product-oriented services, and believe that they should receive a tangible benefit for their time. So, this hinders the provision of information-oriented services in almost all AWCs.

No, no we have stopped conducting health education sessions with adolescent girls after taking some 3 to 4 sessions because girls and their parents demand product-oriented meetings in which they may receive something like food, ration, IFA tablets, sanitary pads, or something else in return for sparing their time

otherwise why will they come to listen to us the same repeated talks. – ASHA 14

FHWs perceived that adolescent girl were unwilling to participate in group counselling during home visits, they further noted that the girls would only attend the meeting if sanitary napkins, IFA tablets and rations were provided to them. The beneficiaries said:

You keep telling us the same things repeatedly, but you do not give us anything (referring to IFA, food, and sanitary napkins).

Finally, the FHWs noted that even though parents are not that much concerned about their girl's child's health, therefore adolescent girls' health was compromised.

Yes, you tell me, ma'am, who gave importance to the girl child, especially in the low socio-economic status family, even parents generally ignore their health, and girls are also very ignorant about their health. ANM1

Excessive administrative burden

The majority of the respondents interviewed felt overburdened with work. They emphasized that the high workload affects their tasks and influences job satisfaction. They felt that the government did not pay them an adequate wage for their effort. So, they choose work according to their importance.

we already have so much work to do and at least 16 to 17 registers to maintain every month, so we do not do any such things separately for adolescent girls. – AWW 9

Majority of the FHWs deny Adolescent girls services as their work. They feel this is an extra burden apart from pregnant mothers, lactating mothers, and preschool children services. One of the ASHA stated as:

I only do those tasks and activities for which I have been paid, we are not getting paid for adolescent girls-related tasks and activities. - ASHA 10

Dissatisfaction in terms of monetary remuneration and work

The majority of the FHWs mentioned that they are not satisfied with the work they are doing. They also stated their dissatisfaction with the whole health system due to lack of basic resources needed to deliver the services. This

not only demotivates them but also dents their credibility within the community.

Everything is on paper only ma'am, we did not get any advantage, we are not getting many things that we are supposed to deliver to our beneficiaries, we are suppressed but you have come here to listen to us so we are saying all these things to you only, otherwise, we cannot share these things to anyone. Over reporting on paper. – AWW 10

Overall, participants feel that the compensation they receive is not at par with the responsibilities they perform.

We always had so many fields work to be done whether its cold outside or hot summer day if there is any calling we would have to reach there near or far anyhow. Our works are much tough than AWWs whom have fixed salary on monthly basis but we don't have. This is very demotivating for us ASHAs. – ASHA 13

DISCUSSION

FHW can help overcome a range of health system challenges such as health workforce shortage, maldistribution, and program reach. A few systematic reviews have highlighted factors that influence the performance of FHWs at three levels: at the individual level, at the level of the program the FHWs is part of, and at a broader contextual level. FHWs are expected to do more, but may not always receive the necessary support to perform their jobs well. The present survey explored the gaps and challenges in reducing anaemia at the grass root level through the qualitative inquiry and perceptions of FHWs. Training increases FHWs knowledge and skills and can positively influence FHWs motivation, job satisfaction and performance. The proper amount of training required by FHWs plays a very crucial role in relation to the health system context, the pre-existing capacities of FHWs, and the specific roles that they are expected to play. (8-10). In our study qualitative findings also suggest that a lack of extensive training and an unclear role in adolescent health clearly affect the quality of the intervention.

It is clear from the data that, there is lack of training focused on importance of controlling anaemia among adolescent girls, followed by sessions on program guidelines and processes

for executing different program components. The frontline health workers only gave general information on health and hygiene to adolescent girls without following proper program guidelines. In favour of this result, other studies have also reflected that training should seek to impart both technical competency and socially oriented capacities such as skills in communication and counselling as well as awareness about the importance of confidentiality (8,10,11). Clear strategies and procedures for roles, responsibilities and the activities of all the frontline health workers should be well defined, and the communication skills also need to be taught to strengthen the program's achievements. The study findings are generally aligned with published research in the field (12-13) Nevertheless, the present findings also suggest that the success of any program is more likely when frontline health workers have a clear job description that defines a limited number of tasks to perform through program guidelines and extensive training. Frontline health workers cannot perform better with an ill-defined role.

Regular monitoring, evaluation, and supportive supervision are essential components of any intervention program, particularly nutrition programs in mission mode. But the impact of these interventions often fails to meet expectations when integrated into programmatic contexts because of gaps in efficient implementation (14-15). Findings of this study highlight that there is no separate registration record maintained for adolescent girls. Similarly, another study showed that the AWW at the field level did not report any monitoring of IFA intake by women or children (16). This finding is supported by other findings that the lack of supplies is demotivating for community health workers (12,10,17). Frontline health workers perform many roles and contribute to improving a range of health outcomes. However, their capacity is directly contingent on the support they receive from the health system. Regular provision of supplies, such as medicines, communication tools, teaching aids, and take-home rations, is essential for

maintaining anaemia eradication programs and intervention effectiveness (12).

The result of this study highlights that the adolescent girls were unwilling to participate in education counselling sessions because they preferred product-oriented services. Our results are similar to those of other studies in India, with some notable differences. Likewise, findings from a study from Bihar support our findings that the AWW's perception of beneficiary preference towards product-oriented services. (18). A study on the role of health surveillance assistants (HAS) in the Republic of Malawi showed that they do not perform all the tasks in their job description, which includes a plethora of activities such as vaccination, growth monitoring, disease surveillance, health education, tuberculosis follow-up, family planning provision, treatment for common diseases, and supervision of traditional birth attendants. Our findings reflect similar results, which show that the majority of the respondents interviewed felt overburdened and emphasized that the high workload affected their tasks and activities and influenced job satisfaction, especially as they felt that the government did not pay them an adequate wage for their effort.

CONCLUSION & RECOMMENDATIONS

The present study concludes that adolescent girls prefer incentive-oriented services, so this hinders the provision of information-oriented services. There is lack of interest among adolescent girls in health talks and reluctance to attend any meeting related to health. FHWs are not fully aware of various programs related to Adolescent health. Managing multiple tasks brings about complications, and the inclusion of the adolescents becomes an extra duty. At the implementation level, there is no proper provision for keeping and maintaining records at AWCs, haemoglobin estimation and follow up. Additionally, poor reporting and monitoring of program strategies, insufficient and untimely supplements supply was another challenge.

For anaemia prevention programs to be effective there is a need to realign the strategies such that the needs of the

beneficiaries and the frontline health workers are equally met. These strategies should be holistic and realistic at the same time. The government should focus on incentive-based services rather than information-oriented services. The ASHAs and AWWs can be incentivised for timely delivery of IFA to the beneficiary. They should be equipped with adequate knowledge and tools to be capable of providing adolescent related health services. Adequate and timely supply of IFA and other supplements can be ensured at AWCs by Public Private Partnership and tie ups with NGOs. These changes along with a strong political will can go a long way in reducing the prevalence of anaemia in the country.

LIMITATION OF THE STUDY

Although there are Anaemia prevention programs and methods in place in many states of India, this study specifically focuses on only one block within the Varanasi district. Therefore, generalizability may be limited.

RELEVANCE OF THE STUDY

Anaemia is a severe public health problem in rural India. Frontline health workers performance is pivotal for implementation of National Nutritional Anaemia control program. Therefore, it is important to document their experience, perception and challenges in implementation of program for substantial reduction of anaemia among adolescents.

AUTHORS CONTRIBUTION

All authors have contributed equally

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CONFLICT OF INTEREST

There is no conflict of interest

DECLARATION OF GENERATIVE AI AND AI ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

The authors haven't used any generative AI/AI assisted technologies in the writing process.

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