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Auxiliary Nurse Midwives
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Surveillance Program in Bihar, India**

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Title

Qualitative exploration of awareness, motivation, satisfaction and perceived challenges among Auxiliary Nurse Midwives working for Integrated Disease Surveillance Program in Bihar, India

Abstract

Background: A well-trained, motivated and sustainable health workforce is crucial to enhance progress towards program goals. However, there are evidence gaps in the literature on community health workers' job satisfaction, challenges and motivation. The current study aimed to explore perspectives, motivation, satisfaction and perceived implementation barriers to Integrated Disease Surveillance Program (IDSP) among Auxiliary Nurse Midwives (ANMs) in Bihar.

Methods: Semi-structured, in-depth interviews were conducted among 225 randomly selected ANMs across three districts in Bihar (Begusarai, Darbhanga and Bhojpur) between January and April 2019. Grounded theory principles were applied to inductively analyse the audio taped transcripts for extracting major themes and sub-themes. ATLAS.ti 8 software package was used for data storage, coding and analysis.

Results: The findings highlighted that ANMs were mostly considered as health service providers, community and ASHA educators. In general, ANMs were aware about their routine work which mainly centred around maternal and child care, including antenatal care, routine immunization, family planning, etc. They felt motivated by their work as they were serving to their communities. Majority of the respondents heard about IDSP, but did not have much understanding of the program. To them, IDSP meant reporting of some weekly data. Most of them were not clear about their specific roles and responsibilities under IDSP. Some of them mentioned that weekly reports were wrongly filled. Regarding support from supervisor, the response was mixed. When asked about job-related difficulties, they narrated that people passed discriminatory comments, sometimes they felt insecure as they need to travel to remote places. Other job-related challenges identified included insufficient training, hostile working environment, inadequate compensation and lack of basic facilities at the sub-centre. The majority of the respondents reported difficulties in regular commute for travelling long distance and limited access to transportation.

Conclusions: Findings identified some of the major difficulties and implementation challenges faced by the ANMs in Bihar. Improving access to transportation, ensuring safety and adequate formal training on IDSP are some of the critical areas that need immediate attention for proper implementation of IDSP at the grassroots.

Keywords: Auxiliary Nurse Midwives, Perspectives, Qualitative Study, IDSP, Bihar.

Introduction

Although the global community made impressive gains against several of the leading causes of death and diseases, ensuring healthy lives for all individuals remains a major public health challenge in the third millennium. In India, due to unprecedented demographic changes and epidemiological transition, the country is currently facing triple burden of diseases— traditional communicable diseases, life-style diseases (non-communicable) and emergence/re-emergence of new pathogens causing outbreaks and epidemics [1]. Although the Government of India implemented several public health programs, the progress had been uneven. Researchers argued that successful implementation of evidence-based interventions required translation of knowledge among community people through a well-trained and sustainable public health workforce. The strategic importance for pursuing community participation at the primary health care (PHC) towards gaining a better public health system was emphasized by the World Health Organization (WHO) in the Alma-Ata declaration back in 1978 [1-4]. A growing body of research showed that community health workers (CHWs) or frontline workers have the potential to provide need-based health services at the grass-root level as they share the same socio demographic characteristics and life experiences with communities they serve [5]. They act as a crucial socio-cultural link strengthening the interface between the fragile public health system and the community. However, most of the low- and middle-income countries were facing an acute shortage of skilled CHWs, including India [3, 6, 7]. High rates of CHW attrition might be associated with motivation levels, job satisfaction, financial incentive, social respect and work environment.

Historically recognized that CHWs have the potential to play an important role for implementation of proven interventions, currently many research studies focussed on factors related to their social-demographic profile, job satisfaction, motivation, supervision, public- interaction, and the reasons behind certain behaviors that affect public health programs. Several research work explored the application of the qualitative

method in a wide variety of health programs, including communicable, non-communicable diseases, family planning, women's reproductive health to identify the constraints so that remedies could be taken in the future [8]. These barriers could be better identified and addressed by conducting qualitative research, which provides a deeper subjective understanding and contextualization of these constraints and helps adopting a different approach to the identified problem [8]. This method has multifaceted approach which might help in clarifying less-understood problem, situation or context in a holistic manner, not predetermined as in quantitative methods [9].

Previous study showed that inadequate training facility was one of the major contributing factors for poor knowledge and skill development among the CHWs in Iran [10], while another study in Swaziland reported that four essential components such as training, supervision, opportunities, and monetary compensation were necessary for the improvement of CHWs [11]. Earlier findings in the Zambia study also revealed that putting greater emphasis on influencing factors such as supervision, surveillance activities and reporting would likely enhance the performance of CHWs under the National Health Strategy Plan (2017–2021) [12]. Thus, several studies highlighted the key constraints, including inadequate training, motivation, supervision, and insufficient incentives responsible for the CHWs' work inefficiency, which need to be addressed to achieve the intended program outcomes [13-15]. Similarly, studies in India revealed several constraints that seriously affected the CHWs' performance including lack of knowledge with regard to job-orientation, inadequate motivation, supervision, training, skill development and low incentive. In Manipur, a study showed that irregular incentives demotivated the CHWs [16]. Prior studies conducted in most of the Indian states (Gujarat, Jharkhand, Punjab, Rajasthan, Karnataka, and Haryana) showed that irregular incentive, inadequate infrastructure, supervision, training, lack of appropriate ICT, and huge workload were attributable to CHWs' poor performance, which led to program failure [17-22]. This was also observed in Bihar, where community health workforce became unproductive due to lack of training, basic infrastructure, supervision, and motivation under the Maternal Health Program [18], whereas another study revealed that lack of skill-based training was responsible for the poor performance of AMANAT maternal and child health program in the Bihar [23].

Published literature established significant role of CHWs in several health programs worldwide including prevention of HIV and TB program [13], maternal and child health

[24, 25], malnutrition reduction program [26], breast and cervical cancer screening program [27] malaria control program [27, 28], and overall strengthening of a weak public health system. Also, prior studies in India clearly indicated important contribution of CHWs in achieving target-specific goals of several public health programs such as The Global Polio Eradication Initiative and Integrated Disease Surveillance Program (IDSP) [29], National Health Mission [18], National Rural Health Mission Program [22, 30], Mobile Nurse Mentoring Program [23]. However, these previous studies had several limitations—addressing only few factors such as selection process, their capacity building, supportive supervision, performance-based incentives and training opportunities [10, 16], leaving some other important contextual determinants, including supervisor's support, demographic differentials, non-monetary incentives perceptions, motivation, cultural beliefs, social recognition, job-difficulties and community support. They were mostly limited to a single vertical health program, and more subjective rather than an objective evaluation of performance, which seemed crucial aspects associated with their retention and performance. Additionally, there were gaps in evidence with respect to CHWs' roles and responsibilities in control of communicable diseases in India. Implementation of most of the public health programs/schemes heavily rely on participation of CHWs, namely, Auxiliary Nurse Midwife (ANM), Anganwadi Worker (AWW) and Accredited Social Health Activist (ASHA). Given public health's population focus and location in the community, it is essential to understand the contexts and mechanisms inherent in successful strategies that influence effective implementation. For example, delayed response to an outbreak (public health emergencies) clearly indicated insufficient surveillance capacity in the community and time-consuming efforts to mobilize collective action.

The current study was focused on ANMs, the key implementer of IDSP (a major communicable disease control program) in rural Bihar. They are regarded as one of the first crucial facilitators to establish a contact between the community and the health care system, although their role changed and became broader with the program-related priorities over time. This qualitative research captured the real-life work experiences of ANMs in rural Bihar, including challenges and facilitators of the IDSP program. Findings would help to design a framework for action to ensure that the target-specific IDSP intentions were turned into results in the state by closing evidence-to-practice gap.

Materials and methods

Study setting

The current study was conducted in three districts of Bihar— Begusarai, Darbhanga and Bhojpur between January and April 2019. Weekly performance of each district with regard to IDSP was measured by analysing the completeness and timeliness of S-reporting forms for a period of 52 weeks (July 2017-June 2018) in the state. An infectious disease surveillance Quality Index for Districts (IDSQID) was obtained, validated and measured for all the 38 districts of Bihar, based on standard WHO/CDC/GOB-recommended core IDSP indicators through analyses of secondary data. Accordingly, the districts were categorized into poor (<60%), average ($\geq 60\%$ and <80%) and good ($\geq 80\%$) based on tertile distributions of IDSQI. Among the 38 districts of the state, 14 were identified as poor, and 12 each as average and good performing. One district was randomly selected from each category. Begusarai was selected as good performing, Darbhanga as average performing and Bhojpur as poor performing. Following the selection of the districts, all functional reporting units for PLS-Form (specific format for reporting under IDSP: P for physician, L for lab technician and S for ANM) of the three selected districts were enlisted that included all health sub-centres, primary health centre, additional primary health centre, community health centre, urban centre, referral hospitals and district hospitals and laboratory facilities. (Box-2).

Recruitment and interviews

To obtain an information-rich and diverse sample of ANMs, 225 in-depth interviews were conducted in three selected districts covering all blocks. Interviews were performed in local language by three researchers who received extensive training in qualitative research at randomly selected health sub-centres. After obtaining informed verbal consent, all interviews were audio-recorded and professionally transcribed, preferably within 24 hours of the interview. Based on extensive literature review and interactions with key officials, a qualitative interview guide was developed in order to identify broader themes which included their awareness, engagement, motivation, satisfaction and supportive supervision. In addition, respondents were also asked to narrate the challenges related to their work. The average length of the interview was 22 mins.

Data analysis

Data was gathered from a total of 225 ANMs in three districts. Analysis was performed according to the Grounded Theory Framework. Major themes/concepts were inductively identified through different stages of coding and constant refinement. ATLAS.ti 8 software package was used for data storage, coding and analysis.

Results

The findings presented here were a part of a large quantitative study that investigated ANMs' knowledge, awareness and practice with regard to IDSP, a major disease-specific control program in Bihar. The results of the current study were presented under two broad categories: (1) Role of ANMs (2) Factors influencing ANMs' performance. Several contextual factors were identified in the current analysis displayed in Table 1.

Role of ANMs in Bihar

ANMs acted as a health care provider, mentor of ASHA, community-level educator, a key implementer of specific health programs like IDSP and a crucial link between ASHA and communities as shown in Figure 1. The current study showed that ANMs were the first contact and had direct interaction with the communities and also played a crucial role in addressing the health needs of the community at the local levels. They continued to disseminate health-related information, generate awareness regarding maternal and child health, and importance of hygienic practices. It was stated that they were trained under another program.

“We (ANMs) create a link between the community and public health center. If we find any serious patient, we refer them to the public health centres and also, we do regular check-up of pregnant women, like anaemia, haemoglobin, and other blood tests.” (Interviewee no. 8; 53, married; Begusarai).

ANMs were considered as a mentor of ASHA, Anganwadi and Mukhiya during the Village Health Sanitation and Nutrition Day (VHSND) meeting. ANMs trained them for several activities including hygienic practices, signs and symptoms related to infectious diseases, maternal health, and immunization, particularly in remote areas, while ASHA and Anganwadi, and Mukhiya were also regarded as important health informers for ANMs.

“I teach ASHA, and Anganwadi regarding identification of sign and symptoms of infectious diseases, while ASHA, Anganwadi and Mukhiya are giving me information related to communicable diseases or any illness in their villages.” (Interviewee no. 17; 32, married; Bhojpur and Interviewee no. 1; 55, married; Begusarai).

Findings revealed that ANMs were trained for providing immunization and were also capable of using basic equipments at the facility, including weight machine, blood pressure machine. They were able to treat minor illnesses and provide basic health care services.

“The patients, elderly person and pregnant women visit me (ANM) to seek my service during outdoor time. We monitor their weight, blood pressure, and provide some basic medicines, ORS, give suggestions regarding warning signs related to pregnancy complications, etc.” (Interviewee no. 254, married; Begusarai).

Analysis indicated that respondents were not much aware of IDSP in general. The majority of the participants said that they used to submit a syndromic (S)-Form during the Tuesday meeting, although, most of the ANMs expressed the need for further training for IDSP. They were mostly instructed to encourage achieving immunization targets, included the Measles-Rubella program, Polio program, maternal health program, etc. Some of them narrated that they also asked about common infectious diseases during their routine field visits.

“When I go to field, we ask the community-people or the villagers, ASHA, Anganwadi for any potential case with regard to communicable diseases. If I find a child with fever, cough, dehydration, I note it down in a register or if required, I refer the child to PHC, after that I fill S-form so that I could submit during the Tuesday meeting, although, we need training to improve our knowledge about IDSP”. (Interviewee no. 24; 55, married; Begusarai) & (Interviewee no. 21; 35, married; Bhojpur).

Factors influencing ANMs' performance

(Figures-1-4 and Box 3)

Training

Most of the respondents shared that formal training on IDSP was inadequate and was

never a priority of health officials. They expressed their desire for additional training to improve their knowledge, skills, and performance, so that IDSP could be implemented in an efficient manner.

“I don’t know about IDSP. It would be great if I could have additional training about IDSP. so that the S-Form reporting skill can be immediately improved.”(Interviewee no. 22; 49, married; Bhojpur).

Motivation

The majority of the participants narrated that opportunity to serve society and family support were the main sources of motivation for them.

“Public service is a social work and also my family said that you are serving your own people. This will help you in future.(Interviewee no. 9; 51, married; Bhojpur) and Interviewee no. 19; 57, married; Begusarai).

Supervision

Findings showed that supportive supervision by the medical officer-in-charge (MOIC) and medical officer (MO) were irregular at the health sub-centre level. The supervision was only done at the district level. ANMs were supposed to attend weekly and monthly meetings organized at PHC for submission of weekly reports, although IDSP-specific topics were usually not discussed during these meetings. However, majority of the ANMs provided positive feedback about their supervisors, probably due to fear of losing their jobs.

“Yes, sir, our Supervisor sir always helped us. When we are in trouble, we call him and sir gives us the suggestions.”(Interviewee no. 25;43, married; Bhojpur).

Monetary incentives

Monetary compensation was noted as an important factor that influenced the performance of ANMs. They stated that salary was insufficient, and irregular and the situation was very frustrating for them. The majority of the ANMs were financially supporting their families for their children's education, and for such irregularities they used to experience huge stress at the job place and in family. They felt that an increase in salary and regularity in payment are likely to reduce their stress and will have a positive impact on their performance.

“Sir, we get very low monetary incentives for our job. We have many family responsibilities. Money is the most important thing for us. If we get payment on time, it will motivate us for doing hard work. (Interviewee nos. 18,20;52,30, married; Darbhanga)and (Interviewee no. 25; 52, married; Begusarai).

Attitude & cultural beliefs

Several ANMs mentioned that villagers' rude behavior often prevented them from exercising their routine work. Sometimes villagers passed discriminatory comments. They also stated that public in general are very gender-biased and as a woman they felt humiliated during field visits.

“I don't feel safe. Villagers passed discriminatory comments, but nevertheless I go for the regular field visit.”(Interviewee no. 17; 31, married; Begusarai).

Transportation

Interactions with ANMs revealed they used to waste enough time (on an average, 2-3 hours) to reach allotted villages due to lack of proper road connectivity and availability of public transport, particularly in Darbhanga. Due to lack of public transport, they could not reach the targeted beneficiaries, especially pregnant women and children in remote areas.

“Every day I have to face difficulties due to long commute time. Sometimes my allotted village is far from sub-centre and primary health centre. Many a times, no public vehicles are available and I go on foot and also, I reach home very late.”(Interviewee nos. 12 and 24; 41 and 47, married; Bhojpur)

“Yes, sir we face difficulties in reaching our work place. Need to walk a long distance.” (Interviewee no. 51; 52, widow; Darbhanga)

Basic Infrastructure at sub-centre

Most of the ANMs highlighted that there was a lack of basic necessities, including drinking water, toilet facilities and sitting arrangement, especially in Bhojpur. They also shared that measuring instruments including blood pressure machine, weighing machine were not available, and even if available, not functional.

“There is problem of drinking water and toilets facilities at both PHC and HSC. The chairs are broken and weight and blood pressure machine are not working properly.

Sometimes it becomes a reason for squabble between public and health personals.”(Interviewee no. 21; 35, married; Bhojpur)

Discussion

To the best of our knowledge, this qualitative research was the first study that explored the awareness, engagement, motivation and satisfaction of ANMs with regard to IDSP in Bihar. The current study also explored the challenges faced by them under IDSP in the state. The current study finding indicated that ANMs' awareness related to IDSP was poor. The majority were aware of the weekly reporting of S-forms under IDSP. They experienced several job-related challenges, including inadequate training, poor transport facilities, lack of basic infrastructure, poor payment, lack of manpower and negative public attitude, etc. that had negatively affected their work efficiencies.

In Bihar, the role of the ANMs is predominantly focused on being a community educator or community health care provider and also creating a link between ASHA and villagers for accessing public health services [31, 32]. A major disease-specific control program, IDSP was adopted as a state strategy and was rolled out in all the districts since 2007. It provided an opportunity to reduce the burden of communicable diseases through the implementation of routine surveillance activities at the community-level. As reported elsewhere, the current study found that low financial incentive, lack of basic infrastructure, and inadequate training negatively impacted ANMs' performance [11], while a recent study reported that the adequate institutional fund was responsible for the effective performance among health workers in Ghana [28]. A systematic review revealed that contextual factors, including CHWs' knowledge, skills, awareness, socio-demographic status, job responsibilities, support, supervision, motivation, incentive, nature of employment, training, and relationship with the communities predicted CHWs' performance in the United States, Europe, Africa, and Asia [33]. Previous, as well as the current, study showed that there were several factors that affected the ANMs' performance and motivation level, including personal (family support) professional (training, supervision, incentives, support) and organizational (equipment, drinking water, toilets, transports) and other related factors [10, 14, 26, 31, 34, 35]. This study also corroborated with the prior research findings, which indicated that lack of coordination between health professionals and communities affected the CHWs' performance and practice in the United Kingdom [35, 36]. Consistent with previous studies, the current study showed that most of the participants had a good experience related to supervision,

monitoring and timely S-Form reporting at the public health centres [9]. Corroborating with prior findings [19], the current study revealed poor perception of the IDSP and communicable diseases among ANMs. This lack of knowledge might be attributable to the poor-quality training, feedback and supervision. The current findings showed that most of the respondents felt that the poor-quality training materials, ineffective management strategy, non-availability of basic facilities impacted their IDSP-related knowledge and skill development. This finding was also in congruence with other studies [13, 25, 36] that revealed that the lack of provision of training materials, basic instruments were responsible for the ineffectiveness CHWs' performance, while a study reported that the lack of knowledge regarding job responsibilities hampered the performance of village health volunteers under the National Malaria Control Program in Myanmar [37]. There were several studies conducted in African countries which indicated that lack of additional training facilities, restricted career opportunities, community surveillance system, record keeping, monitoring, and evaluation system as major contributing factors to the ANMs' performance capacity with regard to various health programs, including maternal-child health program [12, 28, 38, 39]. Also, prior studies conducted in India regarding the performance constraints among CHWs identified many important contextual factors that hampered CHW's performance including multi-task, inadequate support, training, job aids, work environment and relationships between CHWs and other health workers [20, 31, 32, 40-42]. The present study also confirmed that there was no gender sensitization similar to prior research [43]. Another study revealed that there was a gap between "knowledge" and "performance" among health workers regarding communicable disease surveillance activities [44]. In the current study, overall ANMs' perception related to IDSP and their general routine work was found to be poor. Further, they experienced several challenges while trying to cope with multiple tasks.

Limitations

This study had several limitations. The respondents belonged to three districts of Bihar, which limits the generalize ability of study findings. Although the chances of selection bias are inherent in a qualitative study, the size of such biases would be small in the current study as subjects were randomly selected and participation was voluntary. Possibility of social desirability bias might be another probability as the study was based on self-reported data.

Conclusions

Despite these limitations, by virtue of study design, respondents could openly express their opinions, experiences, support and challenges. Findings identified important barriers to IDSP implementation at the community level in Bihar. It seemed that addressing few of them could facilitate the proper implementation of IDSP in the state, which would lead to subsequent control of communicable diseases in Bihar. This study might be a useful starting point for designing a framework for action to ensure that the target-specific IDSP intentions were turned into results in the state by closing the evidence-to-practice gap.

Recommendations

Based on learnings from this study, following recommendations are made:

- Organizing regular training on IDSP by medical officers and medical officers-in-charge at PHC every Tuesday where all ANMs meet for routine discussion so that they become aware of the program, core objectives and their role
- Supervision and monitoring through user-friendly digital platform at the sub-centre level by medical officer may improve the data quality
- Strengthening feedback mechanism and establishing culturally appropriate performance appraisal methods may motivate them to continue working towards program goals
- Regularising in payment method may reduce their job stress and they can focus more on their work
- Change in recruitment strategy so that ANMs can work in their catchment areas and may prevent unnecessary wastage of time
- Generating public awareness regarding the role and responsibilities of ANMs in the community may help to gain some respect in society

What was already known on this subject?

- Performance of Bihar's community health workers under IDSP programs, which included cadre known as Auxiliary Nursing and Midwives, so far not studied
- There were some existing contextual factors related to ANMs' performance that had not been studied, including inadequate training, training manual, supervision, monitoring, meeting, syndromic surveillance register, formal register for IDSP, communicable diseases list, syndromic algorithms display, and lack of basic infrastructure that affect the ANMs' work efficiency
- Majority of prior studies focused on maternal and new-born care among frontline workers under several maternal-child health programs
- Most of the research were quantitative in nature

What this study added?

The current study examined several crucial contextual factors that were likely to influence ANM's performance and retention in the job. These included: satisfaction, motivation level, monetary and non-monetary incentives, transport facilities, training opportunities, supportive supervision and monitoring, community support, public attitude towards ANMs, challenges and opinions on how to improve existing IDSP implementation

How might this influence policymakers and public health experts?

The current study informed the public health experts regarding ANMs' awareness related to role and responsibilities, knowledge, performance, awareness, difficulties with regard to IDSP program. Findings might be a useful starting point for designing a framework for action to ensure that the target-specific IDSP intentions were turned into results in the state by closing the evidence-to-practice gap.

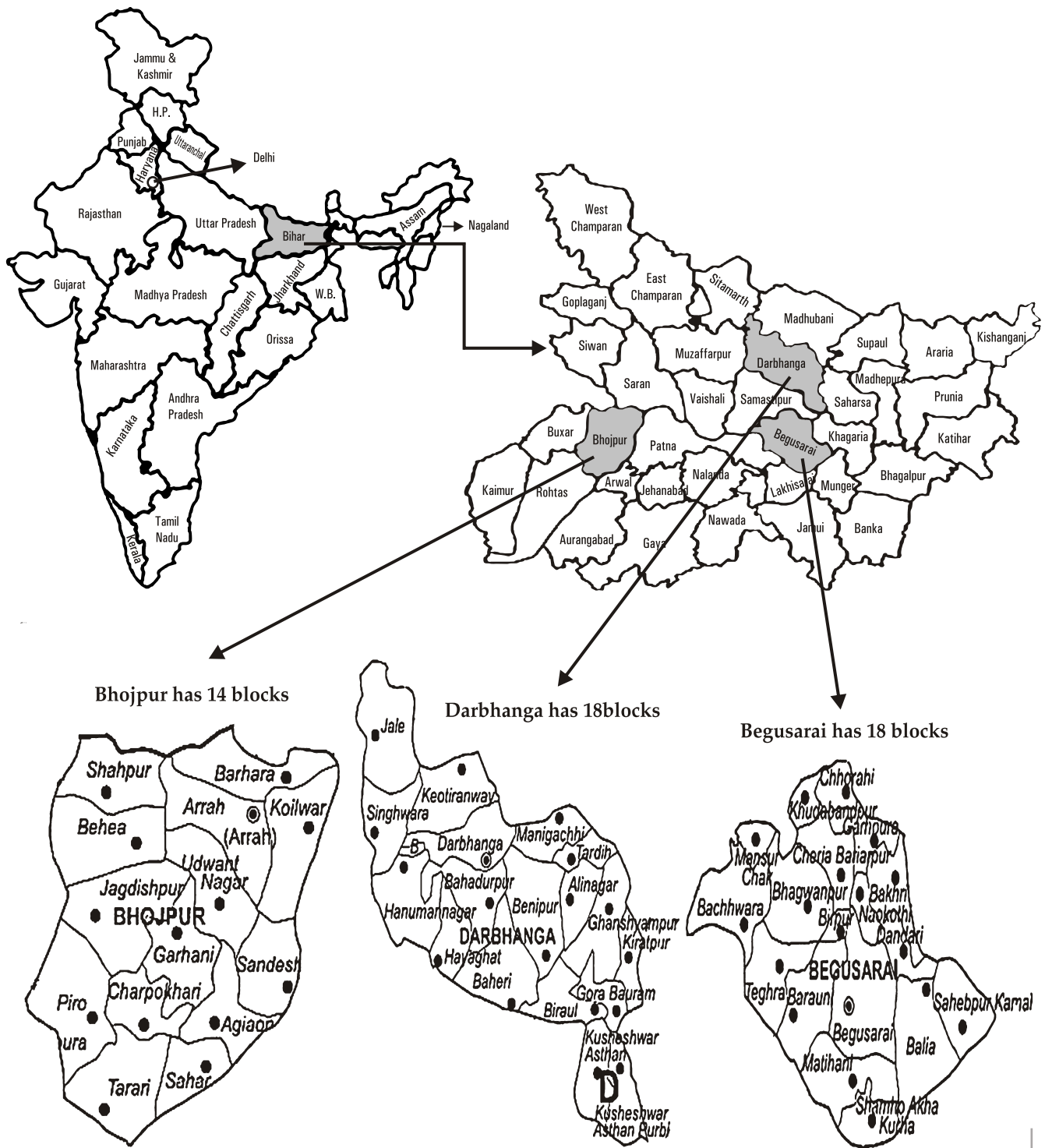
Box 1: Depicting the added value in the current study

Table 1: Illustration of themes, sub-themes with literatim of respondents of the current study, Bihar, 2019

S.N.	Theme	Sub-theme	Verbatim/Literatim
1.	Job responsibilities	Routine activities	# Yes, Sir, I do all work such as OPD, Field Visit, Regular Immunization, distribution of medicine, ORS, registration, and delivery of pregnant women, Prenatal and postnatal care of mother-child, suggestion for Tubectomy and also meeting with senior officials, ASHA, and Anganwadi – Interviewee 3, (56), married, Begusarai; Interviewee 1, (20), married, Darbhanga.
		Role in IDSP	# Yes, Sir, I do the report of all infectious diseases such as fever, diarrhoea, vomiting, cough, jaundice, malaria or even death event and provide Medicine, and refers to serious patients at PHC during outdoor. I also submit an S-form in every Tuesday meeting at PHC levels- Interviewee 13, (49), married, Darbhanga; Interviewee 3, (50), married, Bhojpur.
		Feeling about the current job	# Yes, Sir, I feel very good sir- Interviewee 2, (42), married, Bhojpur.
		Reasons for feeling good about the job	# Sir, this job provides opportunities to serve public especially mother-child and also a Social welfare, and ritual works sir- Interviewee5, (37), married, Begusarai. Sir, I like Immunization- Interviewee 9,13, (52,49), married, Darbhanga.
		Organization of activities over a typical week	# Yes, Sir, I can explain sir, Monday: OPD, Tuesday: Meeting, Wednesday: Immunization, Thursday: Immunization, Meeting with ASHA and Anganwadi, also go to Outdoor, Friday: Immunization Saturday: OPD, Regular Immunization, also go to Field Visit, Sunday: Leave but sometime also do immunization under MR Program- Interviewee 10, (42), married, Darbhanga; Interviewee 8, (53), married, Begusarai.
		Perceived that doing good job	# Yes, I understand from public viewpoint because public said Didi you are good. Public are giving respect sir, public said Didi you inject injection in a good manner. So, I realised that I am doing good sir- Interviewee 4, (51), married, Begusarai. And I realised my-self that my work is perfect- Interviewee 24, (49), married, Darbhanga.
		Importance of meeting targets set by supervisors	# Yes, this is very important for us to fulfil the targets given by our supervisor sir- Interviewee20, (51), married, Bhojpur.
		Reasons for missing the target	# Yes, Sir, sometimes we failed due to workload sir. Sir, this time Rubella vaccination is going on therefore, we have enough workload. Sir, sometimes children missed vaccination because the child is not available in the village or went to the maternal grandmother's home. So, we failed to reach our targets, sir- Interviewee 2, (45), married, Darbhanga; Interviewee 15, (40), married, Begusarai.

S.N.	Theme	Sub-theme	Verbatim/Literatim
		Ways to catch up on an accumulated backlog of work	# Yes, Sir, we do our backlog work on next day, next week or Saturday or on a monthly basis or as per priority Sir- Interviewee 1, (55), married, Begusarai; Interviewee 1, (40), married, Darbhanga; Interviewee 15, (47), married, Bhojpur.
		In your past experience, have you noticed any process that was being done incorrectly? How did you come to notice it?	# Yes, Sir, senior officials informed us during meeting at PHC- Interviewee 5, (32), married, Darbhanga.
		Information regarding community	# Sir, ASHA, Anganwadi, Sevika and Vikash mitra inform us on the phone. Sir, we also ask villagers during field visits. Interviewee 3, (50), married, Bhojpur; Interviewee 29, (59), married, Darbhanga. We see the OPD register and also ask those people who come to Health sub-centers- Interviewee 2, (54), married, Begusarai;
2.	Motivation	Reasons for motivation	#Jee, Sir, this is a Public Service job, sir. We do Social welfare sir- Interviewee 16, (52), married, Bhojpur. #Jee, Sir, this is a Public service job we are self-motivated. Also, we have to earn for the family. So that my child can get a better education- Interviewee 13, (42), married, Begusarai.
3.	Support	Supportive supervision	# Yes, Sir, our Supervisor sir always helped us. When we had in trouble, called and sir gave the suggestion. I want to give 10 numbers- Interviewee 4, (44), married, Bhojpur.
		Compensation	# No Sir, the current salary is not sufficient for us, and also the salary is not coming on time, sir. There should be increased in the future, sir. We are contract workers, did not get equal work for equal pay. We are fighting for equal pay. Hope it will be fulfilled in the future- Interviewee 7, 25, (42,52), married, Begusarai; Interviewee 6, (42), married, Darbhanga.
4.	Stress management	Perceived fear of contracting diseases	# Yes, Sir, there is no any fear, sir, we use protection such as Gloves, mask, etc- Interviewee 15, (40), married, Begusarai.
		Perceived job pressure	#Yes, Sir, we have enough workload due to different public health programmes such as MR, Polio, etc. we have more public pressure because public behaviour is very tough, rigid for immunization. They pass discriminatory comments and also create tension during monitoring of senior officials. Sir, there is lack of transport facilities in rural areas so, to reach the workplace on time also create tension for us- Interviewee 6, 17, 19, (57,31,57), married, Begusarai
	Difficulties	Job-related challenges	# Yes, Sir, there are so many difficulties, including Public behavior in field, although Panchayat Sewak including Mukhiya helps us -; Interviewee 14 (56), married, Begusarai; lack of Transport facilities, Basic infrastructure, and Manpower, etc- Interviewee 6,8, (42,48), married, Darbhanga, Interviewee 10, (51), married, Bhojpur

S.N.	Theme	Sub-theme	Verbatim/Literatim
6.	Suggestions for	Improving IDSP performance	<i># Yes, Sir, there should be training gain and again so I can increase my knowledge about IDSP, and there should also be coordination with ASHA, Anganwadi, and also to increase the manpower so too easy to overcome the workload. Awareness program is necessary for communities at village levels- Interviewee 2, (42), married, Bhojpur; Interviewee 8, (48), married, Darbhanga; Interviewee 12, 18 (41,59), married, Begusarai. Frequent field visit and door to door campaign as well as Aarog Diwas celebration should be promoted- Interviewee 3, 6, (56,57), married, Begusarai.</i>
		Skill development	<i>#Jee, Sir, we can increase our skill by training, education Feedback, Field Visit and also provide all the basic infrastructure, equipment's, manpower, transportation facilities to reach on time, increase the frequency of meeting with senior officials, ASHA, Anganwadi, Sevika etc- Interviewee 7, (52), married, Bhojpur; Interviewee 11, 22, (45,56), married, Begusarai; Interviewee 17,20, (48, 30), married, Darbhanga</i>



Box 2 : Depicting three selected districts (Bhojpur, Darbhanga and Begusarai) and data collection sites.

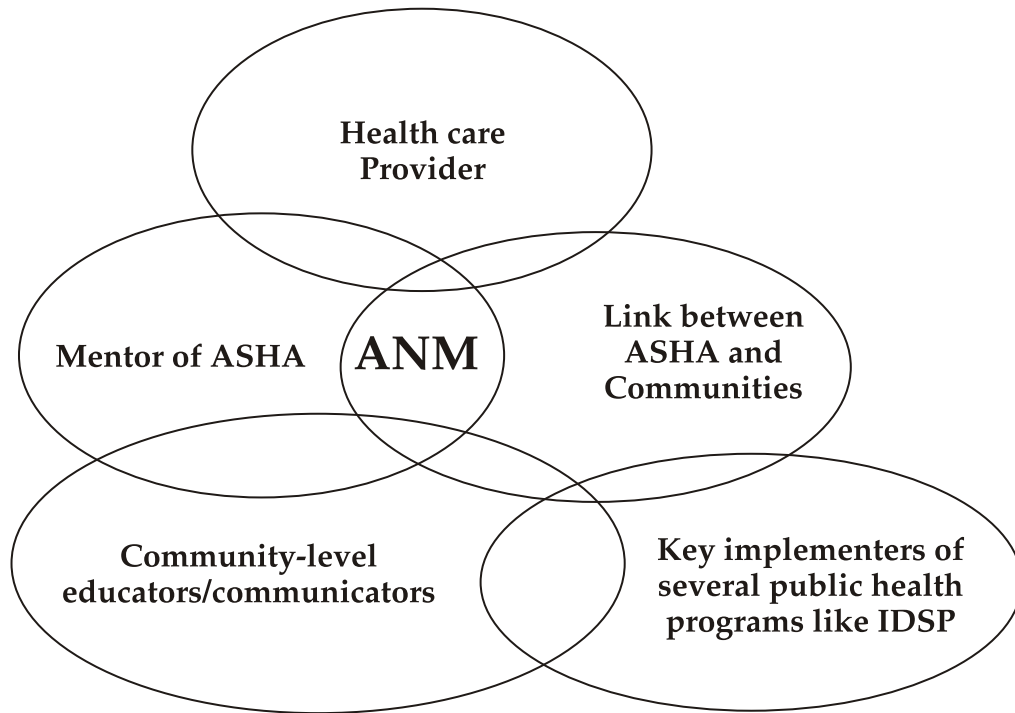
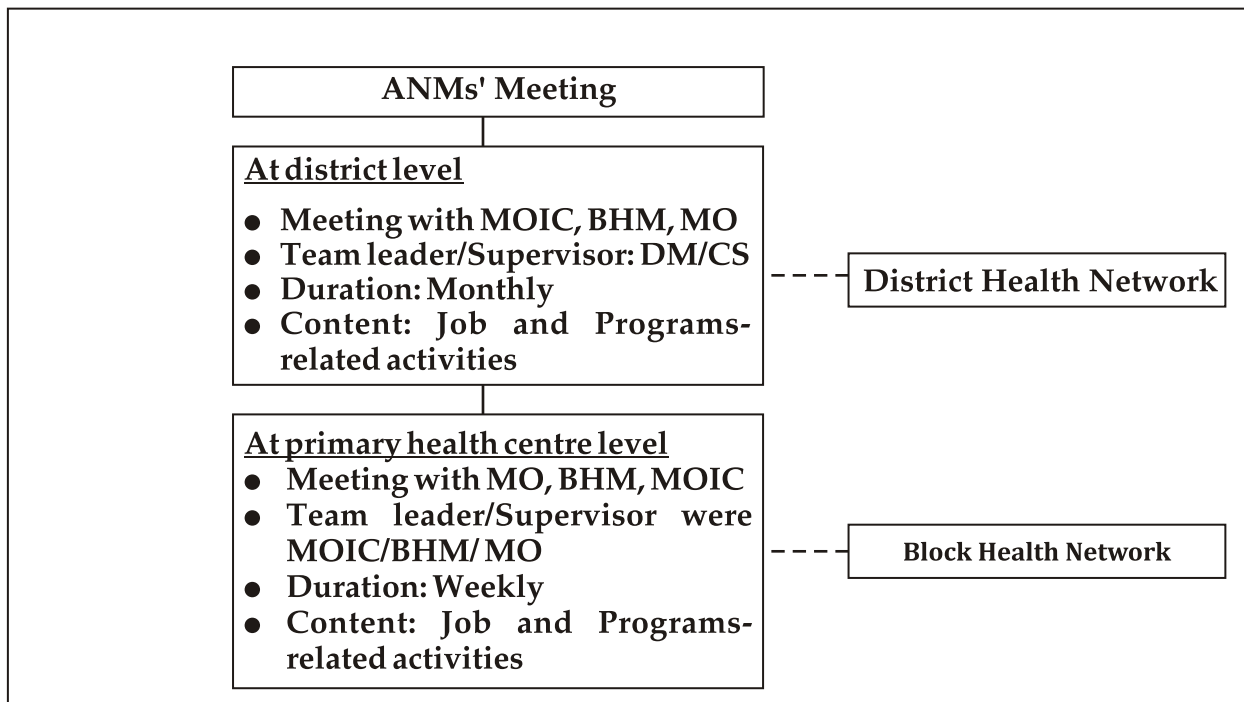


Figure 1: Depicting the role of Auxiliary nurse midwives (ANM) in the current study



Box 3: Showing the meeting, training and supervision pattern among ANMs in the current study

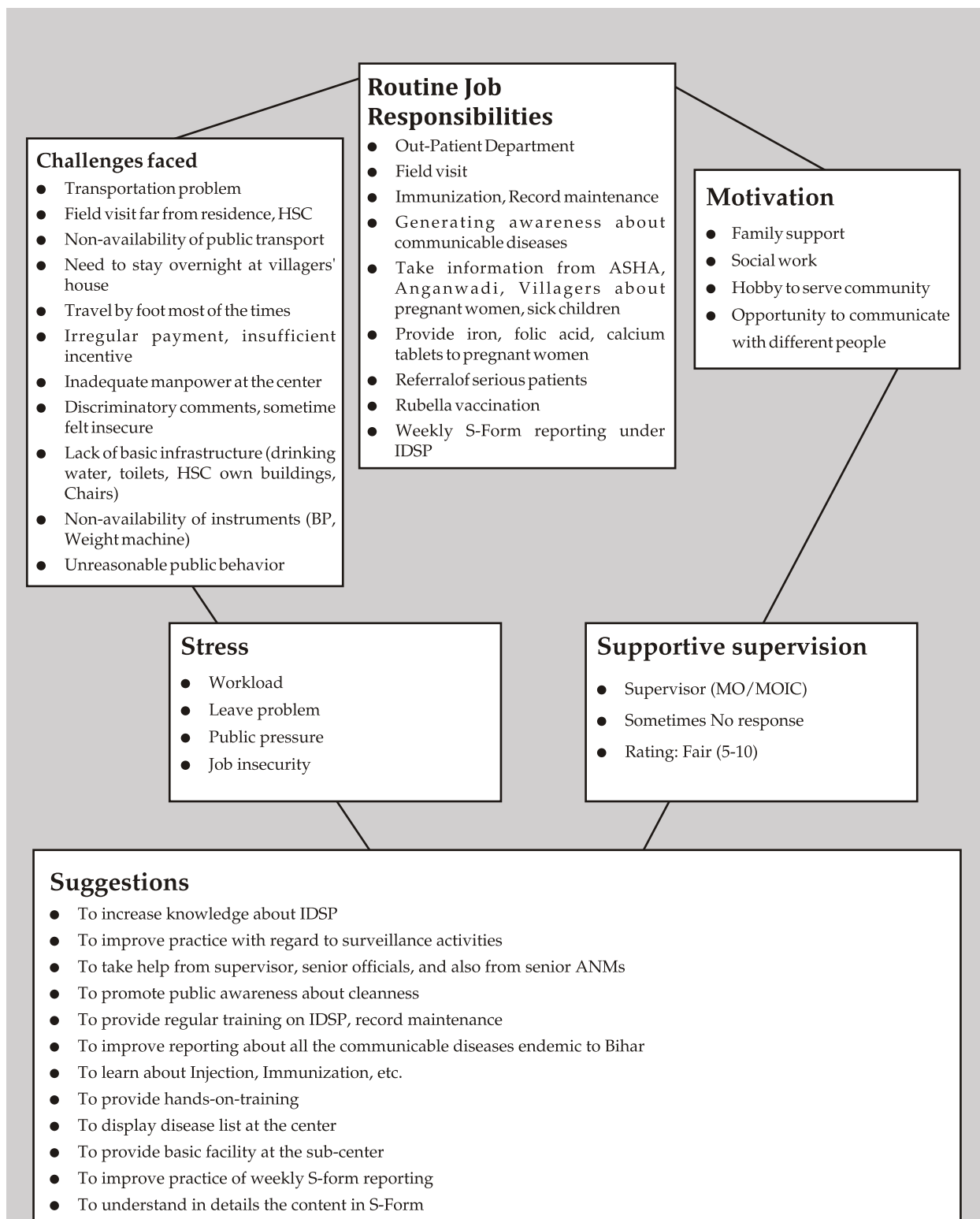


Figure 2: Snapshot of experiences and opinions shared by ANMs in the Bhojpur district

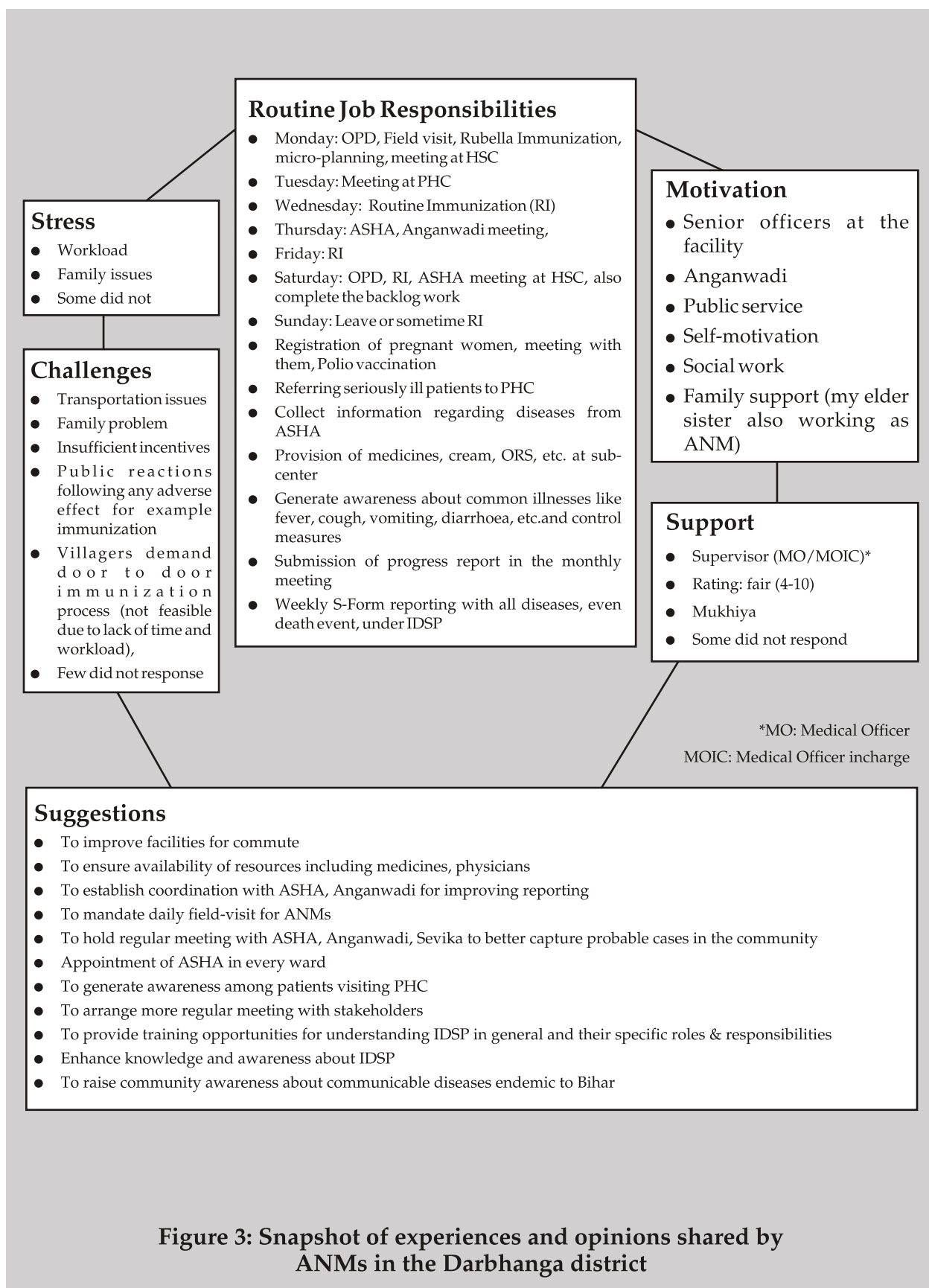


Figure 3: Snapshot of experiences and opinions shared by ANMs in the Darbhanga district

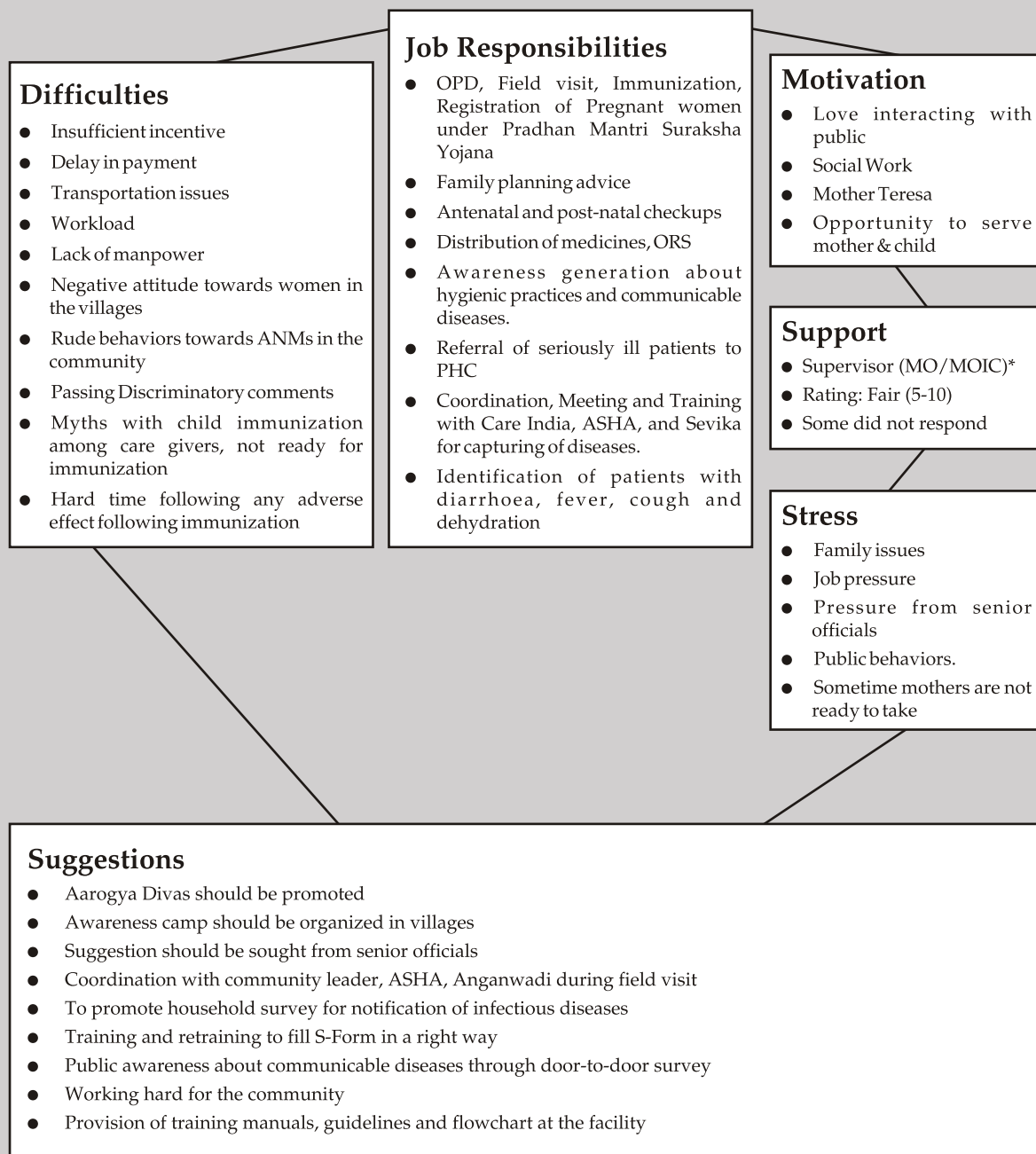


Figure 4: Snapshot of experiences and opinions shared by ANMs in the Begusarai district

*MO: Medical Officer

MOIC: Medical Officer-in-charge

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The Centre for Health Policy (CHP) at the Asian Development Research Institute (ADRI) has been set up with support from the Bill & Melinda Gates Foundation to strengthen the health sector in Bihar with a multidimensional and multi-disciplinary approach. Its aim is to engage in rigorous analysis of the health system and inform policy makers to fine-tune interventions for even stronger outcomes.

- Research and Analytical Studies

It constitutes the core of CHP's activities. The areas of research include health infrastructure and delivery with emphasis on equity, health outcomes such as IMR, MMR, TFR and its predictors, health financing, private-public partnerships, regulatory framework and its implementation, and other issues which might emerge.

- Informing Policymakers on Strengthening the Existing Health System

CHP aims to be the trusted partner of the state Government in providing evidence-based inputs in making the health system stronger, resilient and equitable.

- Sustainable Health Solutions

CHP recognizes the need for establishing a strong health system which will be self-sustaining. It means immunity to natural disasters/calamities, financial uncertainties and other unanticipated factors. These pillars may be interrelated; CHP will provide a framework of synergy among actors working on these pillars.

- Collaboration

CHP engages in collaboration with an extensive network of academic and policy research institutions both in India and abroad in health and the broader social sciences.