Evaluation of Training Programme on Vision Screening and Primary Eyecare for the Frontline Healthcare Workers in Kathua District, India: A Mixed-method Study Design

PRIYANKA SODANI[1], YANGCHEN DOLMA[2], MONIKA JASROTIA[3], PARVEEN SINGH[4], ANUREET KOUR[5]

ABSTRACT

Introduction: Frontline healthcare workers are the first link between the community and health facilities. By acquiring proper training and providing them with basic logistics, frontline health workers can identify patients with vision impairment and refer them to primary eye care centres.

Aim: To assess the training outcomes of frontline healthcare workers in primary eye care and vision screening.

Materials and Methods: A prospective cohort study (mixed-method) was conducted in the Kathua district from February 2022 to February 2024, involving 96 frontline healthcare workers from five blocks of the district. A one-day training session was conducted for each block using charts, diagrams, role-plays and small group discussions. The training of frontline healthcare workers was evaluated on four aspects of the Kirkpatrick model. Data analysis was performed using Open Epi version 3.01. Quantitative data analysis was conducted using paired t-test and Chi-square test, with a p-value <0.05 considered significant. For qualitative data analysis, all audio responses were transcribed, and themes were generated for each component.

Results: Out of 96 frontline healthcare workers, 56 were included in the study. The mean age of the frontline healthcare workers was 36.14 years, ranging from 20 years to 58 years. Pre- and post-training scores were 7.08±2.29 and 10.75±2.58, respectively, with p-value <0.01 (paired t-test). Focus Group Discussions (FGD) revealed that healthcare workers were now confident in performing vision screenings and could guide people regarding eye diseases. They also mentioned issues related to transportation and incentives. There was no significant difference in Outpatient Department (OPD) patient turnout three months before and after training when considering the five blocks of Kathua district.

Conclusion: Training of frontline healthcare workers has notably increased their knowledge about primary eye care and their skills in vision screening. This observation reinforces the potential of frequent training for healthcare workers to ensure sustained outreach, follow-up and compliance with treatment regimens, which are often challenging in remote and underserved areas. The study also highlights the experiences, practical problems and challenges faced by healthcare workers, as well as their knowledge application in the community, which needs to be addressed by healthcare policymakers.

INTRODUCTION

Frontline healthcare workers are the first link between the community and health facilities. By acquiring proper training and providing them with basic logistics, frontline healthcare workers can effectively identify patients with vision impairment and refer them to primary eye care centres [1,2]. In India, despite ongoing efforts, the proportion of blindness and visual impairment due to avoidable causes includes 92.9% and 97.4%, respectively [3]. Avoidable causes of blindness account for 91.2% of all blindness and 95.0% of severe visual impairment [4]. According to a study on global causes of blindness, the leading causes of moderate to severe visual impairment in 2015 were uncorrected refractive errors, cataract, age-related macular degeneration, glaucoma and diabetes [5].

Accredited Social Health Activist (ASHA) workers and other frontline healthcare workers, who serve as grassroots-level healthcare providers [6], have played a vital role in the success of various National Rural Health Mission (NRHM) schemes [7]. Their role can be further strengthened and strategically utilised to achieve the goals set by World Health Organisation (WHO) universal eye health initiative and to globally reduce avoidable blindness. This workforce has an immediate association with the community, allowing them to understand both the felt and unfelt, as well as deep-rooted healthcare needs. With proper training, they can become pivotal in early detection and timely referral, significantly reducing the burden on secondary and tertiary care systems. Moreover, empowering these workers with practical knowledge and hands-on skills in vision screening not only enhances their capacity but also promotes a culture of preventive eye care within communities. Their continued involvement can ensure sustained outreach, follow-up and compliance with treatment regimens, which are often challenging in remote, underserved areas.

The aim of the study was to assess the training outcomes of frontline healthcare workers in primary eye care and vision screening, with the broader objective of establishing a sustainable model for community-based eye health interventions. The findings are expected to serve as a foundation for future policy planning and the integration of primary eye care into the public health framework, ultimately helping to reduce the incidence of avoidable blindness in the region.

MATERIALS AND METHODS

The study was a prospective cohort study (mixed-method) conducted in the Kathua district from February 2022 to February 2024. Ethical approval was obtained from the Institutional Ethical Committee prior to the study (IEC/GMCK/117 dated 25/08/2021).

Inclusion criteria: All frontline healthcare workers who provided consent were included in the study.

Exclusion criteria: Frontline healthcare workers suffering from acute or chronic illnesses and any dropouts during the study period and follow-up were excluded from the study.

Kathua district is divided into five blocks: Hiranagar, Nagri-Parole, Billawar, Basoli, and Bani. The frontline healthcare workers enrolled in the study comprised Auxiliary Nursing and Midwifery (ANM), General Nursing and Midwifery (GNM), pharmacists, technicians, ASHA workers and Female Multipurpose Health Workers (FMPHW). Convenience sampling was used to include the frontline workers who were present during the Ayushman Mela camp in all the blocks.

Sampling frame: A two-stage sampling method was adopted for the study. In the first stage, the Kathua district was selected from all districts. In the second stage, all the blocks of Kathua district, namely Billawar, Bani, Basoli, Hiranagar, and Nagri-Parole, were selected. All frontline healthcare workers from all blocks who fulfilled the inclusion criteria and attended the healthcare facility during the Ayushman Mela camp were included in the study.

One-day training sessions were conducted for each block using charts, diagrams, role-plays and small group discussions. A detailed lecture with pictographic descriptions of common eye diseases was delivered, emphasising their symptomatology and risk factors. Training was imparted by an ophthalmologist. The healthcare workers were taught about the basic structure and function of the eyes using an eye model and charts. They were made aware of the various risk factors involved in eye diseases that can cause impairment and blindness.

Healthcare workers received hands-on training in screening the vision of individuals above six years of age using two 'E' charts of 6/60 and 6/18 optotypes. They were provided with a kit that included screening cards, referral slips, educational material and pens. They were informed of their roles in various eye diseases and when to refer patients to a specialist or an eye centre. The session was interactive, focusing on knowledge sharing and skill development, including referral protocols.

The training of frontline healthcare workers was evaluated using four aspects of the Kirkpatrick model, namely reaction, learning, behaviour and measurable outcomes [8-11]. The Kirkpatrick Model is a widely used framework for evaluating the effectiveness of training programmes. Developed by Donald Kirkpatrick in the 1950s, it consists of four hierarchical levels:

1. **Reaction:** Measures participants' immediate reactions to the training, including satisfaction, engagement and perceived relevance.

2. **Learning:** Assesses the knowledge, skills and attitudes acquired by participants during the training.

3. **Behaviour:** Evaluates the extent to which participants apply their learning on the job, including changes in behaviour and performance.

4. **Results:** Measures the impact of the training on organisational outcomes, such as productivity, quality and financial performance.

An interaction with the frontline healthcare workers was conducted immediately after the training to assess their immediate reaction. The knowledge gained from the training was assessed using a pretested questionnaire administered twice: first, prior to the training and, second, immediately after the training.

The questionnaire contained questions on common eye diseases, risk factors, primary eye care and visual acuity. During the analysis, the questionnaire was divided into sections pertaining to refractive errors (2 questions), cataracts (5 questions), glaucoma (3 questions), diabetic retinopathy (1 question), risk factors for common eye diseases, and primary eye care (4 questions). Sub-questions included reasons for low vision, age-related decline in vision, the recommended distance needed to measure vision, flu symptoms, symptoms of eye diseases like cataracts and glaucoma, the causes and treatment options for cataracts and glaucoma, preventive measures for eye diseases, and the need for regular eye check-ups for diabetic patients.

The skill of vision testing was assessed immediately after training. The skill was graded as good (4 marks), satisfactory (3 marks), and poor (≤ 2 marks) based on the following criteria:

a) Accurate distance estimation (1 mark)

b) Correct card position (1 mark)

c) Tumbling the vision chart at least 3 times (1 mark)

d) Taking uniocular vision and recording the vision (1 mark) [1].

The qualitative aspect was assessed through FGDs, and changes in behaviour were evaluated three months after training. The venue for the FGDs was selected at an urban health centre that caters to a population of 50,000. The study team consisted of a facilitator/moderator to lead the group, a recorder to assist the moderator in capturing a detailed account of participants' input, a report writer to draft a summary of the results and a data analyst to conduct the qualitative analysis. The format for discussion was prepared, and all field team members received training.

At the start of the discussion, the moderator explained the purpose of the session, encouraged participants to express their views, perceptions and perspectives freely, and introduced all team members. The moderator began the discussion with open-ended questions, while the recorder audio-recorded all narratives to ensure that no comments were missed. Meanwhile, the report writer took notes of the responses for data collection.

The topics discussed included the experiences gained from working in the field for eye screening after the training session, challenges faced during screening, work output and experiences in screening children. Throughout the discussion, the moderator used culturally sensitive language to facilitate open conversations about shared experiences, perceptions and perspectives. The discussion lasted for one hour.

Measurable outcome: The OPD data was collected three months before training and three months after training from all five blocks of Kathua district.

STATISTICAL ANALYSIS

Data was entered into Microsoft Excel. The analysis was performed using Open Epi version 3.01. Quantitative data analysis was conducted using the paired t-test and Chi-square test. A p-value <0.05 was considered significant. For qualitative data analysis, all audio responses were transcribed, and themes were generated for each component.

RESULTS

Out of 96 frontline healthcare workers, only 56 (58.33%) were included in the study. At the time of the study, only 57 matching pre- and post-test assessments from the 96 originally completed questionnaires could be obtained, and one participant dropped out as she had to leave early from training. The mean age of the frontline healthcare workers was 36.14 years, ranging from 20 to 58 years. The majority were female, with the highest proportion being ASHA workers [Table/Fig-1].

The study was evaluated according to Kirkpatrick's model.

Reaction: Prior to training, the frontline healthcare workers felt uncertain about various eye problems and had a desire to learn, as this was something new to them. After the training, participants felt more confident and expressed satisfaction with their newly gained knowledge about common eye diseases and vision screening.

Learning: To assess the knowledge gained by participants, a pre- and post-test questionnaire was used, and vision testing skills were

Socio-demographic variable		Number of participants n (%)
Age group (years)	20-29	14 (25.00)
	30-39	22 (39.29)
	40-49	18 (32.14)
	>50	2 (3.57)
Gender	Male	10 (17.86)
	Female	46 (82.14)
Healthcare Worker	ANM	11 (19.64)
	GNM	10 (17.86)
	Pharmacists	4 (7.14)
	Technicians	2 (3.57)
	ASHA	21 (37.50)
	FMPHW	8 (14.29)

[Table/Fig-1]: Socio-demographic profile of the respondents (n=56).
ANM: Auxiliary nursing and midwifery; GNM: General nursing and midwifery; ASHA: Accredited social health activist; FMPHW: Female multipurpose health workers

scored from 0 to 4. The paired t-test revealed significant improvement in knowledge post-training (p-value <0.01). Participants showed significant improvement in their knowledge about various eye diseases, particularly in the areas of refractive errors, glaucoma, diabetic retinopathy, and primary eye care after training [Table/Fig-2].

Section (Question numbers of questionnaire)	Max	Pre-training Mean±SD	Post-training Mean±SD	p-value
Section-I: Refractive errors (Q2,Q3)	2	1.04±0.69	1.91±0.35	<0.001
Section-II: Cataract (Q6,Q7,Q8,Q9,Q10)	5	2.04±1.03	3.18±1.18	<0.001
Section-III: Glaucoma (Q.11,Q12,Q13)	3	0.80±0.92	1.16±1.06	0.0054
Section-IV: Diabetic Retinopathy (Q14)	1	0.80±0.40	1±0.00	<0.001
Section-V: General eye care (Q1,Q4,Q5,Q15)	4	2.32±0.86	3.18±0.79	<0.001
Total score	15	7.08±2.29	10.75±2.58	<0.001

[Table/Fig-2]: Change in knowledge before and after training (n=56).

In the skill assessment of vision screening, the scoring was classified as good for the majority of respondents (75%), indicating a positive outcome from the training [Table/Fig-3].

Performance	Number of participants n (%)
Good	42 (75)
Satisfactory	7 (12.5)
Poor	7 (12.5)

[Table/Fig-3]: Skill assessment scoring (n=56).

Behaviour: All the audio responses of FGD were transcribed and themes were generated for each component. The qualitative data analysis was conducted with the ASHAs and FMPHW of Kathua three months after the training session [Table/Fig-4].

Experience gained after being involved in eye screening: The respondents felt confident and had gained new experience that enabled them to guide patients.

Practical problems in screening: As per the participants, patients often do not agree to hospital consultations for various reasons, like loss of daily wages, non compliance with medication, reluctance to wear glasses, long queues at hospitals and a preference for traditional healers.

Problems faced during referral to hospital: The healthcare workers conducted eye screenings smoothly and screened all family members. They found that people usually preferred self-medication and sought private consultations rather than using the public sector.

Challenges faced during eye screening: ASHAs felt that their work was not respected, encountered transportation issues and received no incentives for their efforts.

Facing problems screening children more than adults: Participants reported that they faced no specific problems while screening children.

Measurable outcome: The OPD data for the five blocks of Kathua district three months before and three months after the training was recorded. There was no significant difference in OPD patient turnout before and after training (Chi-square=2.17, Degrees of freedom=4, p-value=0.70) [Table/Fig-5].

DISCUSSION

The Coronavirus Disease of 2019 (COVID-19) pandemic highlighted the importance of leveraging frontline healthcare workers in various capacities. They can receive training in basic eye care, vision screening and referral protocols. There are an estimated 4.95 million blind individuals (0.36% of the total population) and 35 million people with vision impairment in India [12]. Avoidable blindness is a significant public health issue in the country [3]. Early detection and treatment of avoidable blindness are crucial for reducing the prevalence of blindness and visual impairment. Therefore, the involvement of grassroots-level workers in primary eye care and vision screening is justified. There is a global focus on Health System Strengthening (HSS) as a key strategy to develop services and ultimately improve health outcomes [13]. The 2014-2019 Global Action Plan for Universal Eye Care is also based on an HSS approach, which calls for the integration of eye care into all levels of the healthcare system [14].

In the present study, the mean age of the 56 included participants was 36.14 years, ranging from 20 to 58 years, with 82.14% being

Questions	Statement (local language)	Theme
1. How do you feel being involved in eye screening?	"Agar koi puchta hai ab mujhe thodaa ata hai" "Hum apna experience enjoy karte hain" "Agar koi bhi eye ke related problem ho toh ab hum guide kar pate hain" "Logo ko counsel kar pa rahe hoon" Mene kuch naya seekha, ab meh patients ko guide karsakti hoon ankhon ke hygiene se related" "Diabetes or hypertension ke patient ab apni eyes time se check karwa rahe hain"	1) We enjoy new experience and can guide patients now 2) Can guide people with eye related problem 3) Can counsel people 4) Can also counsel people for eye related hygiene , 5) The diabetic and hypertensive patients do timely check-up.
2. What were the barriers faced during eye screening?	"Koi pareshani ni hue" "Patient nahi chahte aaspatal jana inke dihadi choot jati hain" "Patient ni manta dawaye roz leneke liye" "Chashma lagana ni mante" " Log fan Dakarwate hai, allopathy pe unko kam vishwas hai: "OPD meh rush aur lambi line ke karan loga aspatal jana prefer ni karte"	1) Didn't faced any problem 2) Patient do not agree for hospital consultation due to loss of daily wages and long waiting at OPD 3) Did not comply to medicine 4) Not willing to wear glasses 5) People belief in traditional healers
3a) Were you able to screen eye disease? 3b) How many you screened	"Koi problem ni hue" "Vision testing aasani se hue" " 30 screen kiya" "Poori family screen kiya" "log apni medicine letey hai" "log zayda private jate hai"	1) Did not face any problem 2) Vision testing went smoothly 3) Screened all family members 4) People prefer self medication and private consultation

| 4. What are the challenges you faced during eye screening? | "Koi pareshane ni hue"
 "Koi paisa nikaam karne par"
 "Log theek se welcome ni karte"
 "Log izaat ni karte"
 "Aane jane meh dikkat hoti hai, gadi ni hai" | 1) No incentive received for screening
 2) People don't respect our work
 3) No convenience of transportation |
| 5. Did you faced problem screening kids more than adults? | "Koi problem ni hue"
 "Bachon meh screen karna seekh liya"
 "Koi fark nahi laga bachaon aur bado meh" | 1) Learned to screen children
 2) Did not face any problem in screening children |

[Table/Fig-4]: Themes of Focus Group Discussion (FDG).

Place	OPD before training	OPD after training
Bani	193	171
Billawar	538	437
Basohli	197	177
Nagri-Parole	377	298
Hiranagar	928	730

[Table/Fig-5]: OPD scores three months before and after training. (Chi-square- 2.17, Degree of freedom -4, P -0.70)

female. The respondents included ASHA workers, ANMs, GNM, pharmacists, and FMPHWs. In a study by Shukla P et al., 102 ASHA workers were included, and their mean age was 37.5 years [1]. In a study by Bhandari DJ et al., 82 ASHA workers were included, with a mean age of 32.3 years [15]. A study by Echieh CI et al., found that out of 109 community primary health workers, 92% were female, with a mean age of 38 years [16]. The mean age of the participants in this study was similar to those in the aforementioned studies [15,16].

The present study was evaluated using Kirkpatrick's model, which is a standard method for assessing training effectiveness. Smidt A et al., Rouse DN, and Dorri S et al., also suggested that this model is a widely used framework for evaluating training programmes and assessing their effectiveness and impact [8-10]. Kirkpatrick's model is considered effective for evaluating educational programmes, as outlined in a study by Bates R, [11]. Nurses and midwives were also assessed using this model in a study by Sudarmika P et al., [17].

In this study, a questionnaire pertaining to refractive errors, cataract, glaucoma, diabetic retinopathy, risk factors for common eye diseases and primary eye care was administered to all participants both pre- and post-training. Scores increased from 7.08±2.29 and 10.75±2.58 (p-value <0.01, paired t-test). In a study by Shukla P et al., a questionnaire was used before training, after training, and for a final assessment one year post-training of ASHA workers, which was not included in this study due to feasibility issues [1]. In a South African study by Lilian RR et al., the clinical knowledge of nurses regarding primary eye care was also assessed using a pre- and post-questionnaire [18]. In their study, one day's training significantly improved knowledge scores, from a median of 46% pretraining to 66% post-training (p-value <0.01). A study by Heydari MR et al., also recommended teaching and training workshops for healthcare workers [19]. Pre- and post-test questionnaires are helpful for understanding the level of knowledge gained by trainees, which is also documented in a study by Duke PL [20].

In the present study, learning was assessed through a questionnaire and showed a significant improvement after one day's training. In this study, 75% of frontline healthcare workers conducted good vision screenings compared to 44.1% in a study by Shukla P et al., [1]. Participants in this study reported feeling more confident and knowledgeable after the training. A study by Garg PK et al., also emphasised the importance of training ASHA workers for the effective delivery of healthcare services [21].

FGDs in the study revealed the problems faced by participants during fieldwork, as well as their experiences and challenges while conducting vision screenings, all shared in their local language. Poor transportation facilities in a terrain like Kathua district were a major hindrance to their work in screening individuals for eye diseases and raising awareness about primary eye care. Additionally, the lack of incentives further diminished their motivation. FGDs were also conducted in a study by Brahmbhatt et al., which highlighted work-related issues faced by ASHA workers. The issue of poor transportation was similarly noted by ASHA workers in their study [22]. A study by Shukla P et al., also raised concerns about the lack of incentives for ASHA workers [1]. Kumar S et al., study suggests that incentives are important for enhancing work performance [23].

There was no significant difference in OPD patient turnout before and after training (Chi-square=2.17, Degrees of freedom=4, p-value=0.70). This may be attributed to the typical decline in OPD attendance during the extreme winter months, which coincided with our post-training period. It could also be due to the very early assessment (just three months pre- and post-training) conducted in extreme winter conditions in a challenging terrain like Kathua. This seasonal variation may be a confounding factor in the study, and the decrease in OPD could also be attributed to the immediate assessment of knowledge gained through pre- and post-training evaluations, with no measure of knowledge retention. This lack of knowledge retention might account for the negligible impact of the intervention on OPD data. A longer follow-up with frequent refresher training sessions is necessary to assess the actual effects of training and the services provided by frontline healthcare workers. In the study by Shukla P et al., there was an increase in patient referrals after nine months of training (approximately four times), but this showed a decline by one year to 18% above baseline, indicating the need for refresher training programmes [1].

Limitation(s)

At least one year of follow-up of OPD patient numbers would be an appropriate timeframe for assessing fieldwork. The small sample size due to resource constraints, the feasibility of follow-up and the difficulty of covering all the blocks of Kathua district with its varied terrain constitute major limitations of this study.

CONCLUSION(S)

The present study emphasises the training of frontline healthcare workers in primary eye care as an effective method for increasing their knowledge about common eye diseases and vision screening. Furthermore, addressing barriers by providing incentives and improving transportation facilities can further motivate them to conduct community screenings and raise awareness regarding eye diseases among the target population.

REFERENCES

[1] Shukla P, Vashist P, Senjam SS, Gupta V. Evaluation of a training program on primary eye care for an Accredited Social Health Activist (ASHA) in an urban district. Indian J Ophthalmol. 2020;68(2):p356-60.

[2] Soni P, Bhatt S, Gupta P. Role of ASHA workers in screening for low vision at grass root level. Int J Recent Trends Sci Technol. 2014;9(3):358-60.

[3] Vashist P, Senjam SS, Gupta V, Gupta N, Shamanna BR, Wadhwani M, et al. Blindness and visual impairment and their causes in India: Results of a nationally representative survey. PLoS One. 2022;17(7):e0271736.

[4] Bettadapura GS, Donthi K, Datti NP, Ranganath BG, Ramaswamy SB, Jayaram TS. Assessment of avoidable blindness using the rapid assessment of avoidable blindness methodology. N Am J Med Sci. 2012;4(9):389-93. Doi: 10.4103/1947-2714.100982.

[5] Bourne RRA, Flaxman SR, Braithwaite T, Cicinelli MV, Das A, Jonas JB, et al; Vision Loss Expert Group. Magnitude, temporal trends, and projections of the global prevalence of blindness and distance and near vision impairment: A systematic review and meta-analysis. Lancet Glob Health. 2017;5(9):e888-97.

[6]   Swain S, Swain P, Nair KS, Dhar N, Gupta S, Nandan D. A rapid appraisal of functioning of ASHA under NRHM in Orissa. Health Popul Perspect Issues. 2008;31(2):73-79.

[7]   Guha I, Raut AV, Maliye CH, Mehendale AM, Garg BS. Qualitative assessment of Accredited Social Health Activists (ASHA) regarding their roles and responsibilities and factors influencing their performance in selected villages of Wardha. Int J Adv Med Health Res. 2018;5:21-26.

[8]   Smidt A, Balandin S, Sigafoos J, Reed VA. The Kirkpatrick model: A useful tool for evaluating training outcomes. J Intellect Dev Disabil. 2009;34(3):266-74.

[9]   Rouse DN. Employing Kirkpatrick's evaluation framework to determine the effectiveness of health information management courses and programs. Perspect Health Inf Manag. 2011;8(Spring):1c.

[10]   Dorri S, Akbari M, Dorri Sedeh M. Kirkpatrick evaluation model for in-service training on cardiopulmonary resuscitation. Iran J Nurs Midwifery Res. 2016;21(5):493-97. Doi: 10.4103/1735-9066.193396.

[11]   Bates R. A critical analysis of evaluation practice: The Kirkpatrick model and the principle of beneficence. Eval Program Plann. 2004;27(3):341-47.

[12]   Mannava S, Borah RR, Shamanna BR. Current estimates of the economic burden of blindness and visual impairment in India: A cost of illness study. Indian J Ophthalmol. 2022;70(6):2141-45. Doi: 10.4103/ijo.IJO_2804_21. PMID: 35648000; PMCID: PMC9359234.

[13]   World Health Organisation. Strenghthening health systems to improve health outcomes: WHO's framework for action. Switzerland: World Health Organization. 2007. [Internet]. [cited 2025 May 15] Available from: https://iris.who.int/handle/10665/43918/9789241506564_eng.pdf.

[14]   World Health Organisation. Universal eye health: A global action plan 2014-2019. Switzerland: World Health Organization. 2013. [Internet]. [cited 2025 May 15] Available from: https//iris.who.int/bitstream/handle/10665/105937/9789241506564_eng.pdf.

[15]   Bhandari DJ, Varun AR, Sharma DB. Evaluation of accredited social health activist in Anand district Gujarat. J Family Med Prim care 2018;7(3): 571-76.

[16]   Echieh CI, Okwejie JA, Echieh CP, Onyemelanu SC, Oyeniyi TI, Eze UA. Assessment of primary eye care knowledge and practice in a developing country: A survey among community primary health workers in Calabar, Southern Nigeria. Niger J Med. 2024;32(5):510-14.

[17]   Sudarmika P, Nurhaeni NLP, Agustini TF, Santyasa IW. Training evaluation for nurses and midwives using the Kirkpatrick model:A qualitative descriptive study. Int J of Health Sci. 2023;7(2):53-66.

[18]   Lilian RR, Railton J, Schaftenaar E, Mabitsi M, Grobbelaar CJ, Khosa NS, et al. primary eye care in South Africa: An assessment of services and prospective evaluation of a health systems support package. PLoS One. 2018;13(5):e0197432.

[19]   Heydari MR, Taghva F, Amini M, Delavari S. Using Kirkpatrick's model to measure the effect of a new teaching and learning methods workshop for healthcare staff. BMC Res Notes. 2019;12(1):388. Doi: 10.1186/s13104-019-4421-y.

[20]   Duke PL. How to evaluate training: Using the Kirkpatrick model. Professional Safety. 201;62(8):20-21.

[21]   Garg PK, Bhardwaj A, Singh A, Ahluwalia SK. An evaluation of ASHA worker's awareness and practice of their responsibilities in rural Haryana. Natl J Community Med. 2013;4(1):76-80.

[22]   Brahmbhatt MM, Sheth JK. Focused group discussion of urbanASHA workers regarding their work related issues. Indian J Commun Heal. 2017;29(2):187-90.

[23]   Kumar S, Kaushik A, Kansal S. Factors influencing the work performance of ASHA under NRHM -A cross sectional study from eastern Uttar Pradesh. Indian J Community Health. 2012;24(4):325-31.

PARTICULARS OF CONTRIBUTORS:
1.   Associate Professor, Department of Ophthalmology, Government Medical College (GMC) Kathua, Jammu, Jammu and Kashmir, India.
2.   Associate Professor, Department of Community Medicine, Government Medical College (GMC) Kathua, Jammu, Jammu and Kashmir, India.
3.   Ex Senior Resident, Department of Ophthalmology, Government Medical College (GMC) Kathua, Jammu and Kashmir, India.
4.   Associate Professor, Department of Community Medicine, Government Medical College (GMC) Kathua, Jammu, Jammu and Kashmir, India.
5.   Senior Resident, Department of Ophthalmology, Government Medical College (GMC) Kathua, Jammu, Jammu and Kashmir, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:
Dr. Parveen Singh,
Associate Professor, Department of Community Medicine, Government Medical College, Kathua-184101, Jammu, Jammu and Kashmir, India.
E-mail: singhparveen176752@gmail.com

AUTHOR DECLARATION:
• Financial or Other Competing Interests: None
• Was Ethics Committee Approval obtained for this study?   Yes
• Was informed consent obtained from the subjects involved in the study?   Yes
• For any images presented appropriate consent has been obtained from the subjects.   NA