ASSESSING THE PULSE POLIO IMMUNIZATION PROGRAMME (PPIP) AT GRASS ROOT LEVEL: A PUBLIC OPINION

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ABSTRACT

Polio has caused paralysis and death for most of human history. India overcame huge challenges to stop polio virus transmission, implementing strategies with unrelenting focus and rigour, continually evaluating the programme and introducing innovations to ensure vaccination campaigns reached all children especially those at highest risk of getting polio. The programme did this by persuading the refusal families. Nation is committed to tame this dreaded disease. Achieving Universal access is impossible without the awareness & deep involvement of the Public. It is of significance to examine the aspects like personal knowledge, attitudes of the public and aspects related with operation & success of the Pulse Polio Immunization. The present study assesses the public perception about the operation of Pulse Polio Immunization Program in Faridkot District of Punjab.

KEYWORDS: Immunization, Public, PPI, Satisfaction, Faridkot

INTRODUCTION

Before the launch of the Global Polio Eradication Initiative, polio crippled an estimated 200,000 children in India each year. As recently as 2009, India reported almost half the world's cases – 741 out of a total 1604 cases worldwide. Many health experts predicted India would be the last country to eradicate polioyet in 2012 India achieved a major milestone. By passing one full year without recording any cases, India is no longer considered a polio endemic country.[1]

Polio transmits via the faecal-oral route; polio virus invades the central nervous system and as it multiplies, destroys the nerve cells that activate muscles, causing irreversible paralysis in hours. Of those paralysed, 5-10% die when their breathing muscles become immobilized. There is no cure for polio, but there are safe, effective vaccines which, given multiple times, protect a child for life.[2] If sufficient numbers are immunized against polio, the virus is unable to find susceptible children to infect, and dies out.

Pulse Polio Immunization Programme

The Pulse Polio Immunization (PPI) was successfully implemented during 1998-99 and 13.59 Crores children in the age-group of 0-5 years were given doses of oral polio vaccine in the country on December 6, 1998 and 13.84 crores children in the same age-group were given oral polio vaccine on 17 January 1999. A system of Surveillance for cases of Acute Flaccid Paralysis was set up for the detection and containment of poliomyelitis all over the country. Additional round of PPI was conducted on 14 March 1999 in Uttar Pradesh, Bihar, Madhya Pradesh and Rajasthan. Despite such gigantic efforts so far 5-7 per cent children were still not immunized under PPI. Because of these shortcomings, the strategy had been intensified with additional measures for the year 1999-2000. India took a lead in introducing Bivalent Polio Vaccine (BOPV) in January 2010. Despite global shortage of both BOPV and trivalent Polio vaccine, India tapped domestic market for timely supply of vaccine to ensure pulse polio rounds without interruptions. The prorgamme has been in the forefront of adopting technological innovations. The more efficacious monovalent oral polio vaccines were introduced in the Pulse Polio campaigns in 2005 which helped curtail the most dangerous type 1 polio strains to record low levels by 2009. In 2010 the bivalent oral polio vaccine was introduced which helped curtail both Type 1 and Type 3 polioviruses simultaneously and as efficaciously as the monovalent vaccines. President PratibhaDevisinghPatil introduced the bivalent oral polio vaccine in the National Immunization Programme for the first time in January 2010.

The progress was indeed remarkable considering in 2009, India had 741 cases accounted for nearly half the global cases. However, there was no case of polio was recorded since 13th January, 2011. This was the India's tireless and persistent efforts and had set an example with the highest level of political commitment to the programme which reflected in its resource allocation, continuous efforts to identify and reach out to the most vulnerable children with tailored strategies for maximum reach, optimum use of available vaccines under the guidance of top national and international experts. The strategies and program response became sharper in the last few years. As per the recommendation of the India expert Advisory Group on Polio Eradication every case, anywhere in the country was being responded to as a public health emergency. While India made unprecedented progress in the area, yet the threat of polio persists. India exported poliovirus to other countries in the past and was now at risk of poliovirus importation into the country through the same migration. The program now not only needs to continue to maintain its present thrust and force, rather further strengthen the efforts and remain vigilant. The key challenge now was to ensure any residual or imported poliovirus in the country and to rapidly detect and eliminate it.[3]

Earlier this year, the World Health Organization (WHO) had removed India from the list of polio-endemic countries. If no fresh case is reported till 2014, the country will be declared polio free. On 27th March, 2014 India a polio free country with no case of disease being reported in last three years.[4]

The expanded Programme on Immunization in Punjab was simultaneously launched countrywide which was later on replaced by more comprehensive immunization programme known as Universal Immunization Programme. Polio was a crippling disease affecting more number of children in India and to deal with the situation, a more specific programme was

launched in India in the name of Pulse Polio Programme in 1995 which was adopted by the state of Punjab in the same year.

The success of the programme had reduced the cases of polio stucken children and the Programme gets enough publicity nationwide and statewide. At the grassroot level, the program is implemented through the District level machinery with the help of Primary Health Care Institutions.

MATERIALS AND METHODOLOGY

The present study was conducted in the Faridkot district of Punjab which happened to be one amongst the oldest districts of the State. This study was conducted in 2 Blocks of Faridkot district namely Jand Sahib and Bajakhana. While selecting the Blocks, care was taken that these Blocks were comparative on the basis of population, basic infrastructure and number of health institutions. The primary data was collected from the public and a sample of 100 respondentswhich included one parent (Mother) less than 18 years of age and one parent (Grandparents) more than 58 years of age. As the study related to rural health care, the sample included more of illiterates and matriculates thus more of female respondents who were advised treatment by Government Hospitals.

The sample was taken on the basis of convenient sampling technique to assess the public perception about the operational aspects of PPI programme. The interview schedule was devised to draw the responses. For the collection of secondary data, various books, journals, publications, reports, statistical abstracts, guidelines of the select programmes and policies of the both the Central and the State Government were consulted. Various Internet sites pertaining to health programmes were searched for relevant material. The secondary data wherever used has been supported by the reference from where it was obtained.

RESULTS

The analyses of the data presented in the Table 1 indicated irrespective of any variable, cent percent of the respondent agreed with the statement indicating that they were aware of the Pulse Polio Immunization Programme. *Hence, statistically, highly significant association was found between the variables the statement.*

The data presented in the Table 2 revealed that all the respondents younger in age (100. 00 per cent) **agreed** as against the respondents middle & senior in age group (above 90.00 per cent) with the state mentindicating that the Pulse Polio Programme whereas was operative in their area. Further it was found that more of male respondents (96.80 per cent) **agreed** as compared to the female respondents (94.20 per cent) with the statement. *Hence, statistically, significant association was found between the variable of age and the statement.*

On assessing the data presented in the Table 3, it was seen that all the respondents younger and senior in age group (100.0 per cent) were **agreed** with the statement as compared to the respondents of middle age group. However, more of female respondents ((97.10 per cent) **agreed** as compared to the male respondents (90.30 per cent) with the statement indicating that health personnel visited the respondents to provide the polio drops to their children. *However, statistically, no significant association was found between the variables and the statement.*

On examining the data presented in the Table 4, it was noticed that all the respondents younger, senior and most senior inage group (100.00 per cent) **agreed** the statement as against the respondents middle in age (97.10 per cent)where as more of female respondents (98.60 per cent) agreed as compared to the malerespondents (96.80 per cent) that that the

facility of polio both was available in their area by the respective organizers.

On analyzing the data presented in the Table 5 it was reflected that more of respondents in middle and senior most age group (above 80.00 per cent) **agreed** that they availed free treatment facilities under the pulse polio programme as against the respondents (75.00 per cent) of younger in age group. However, more of male respondents (96.80 per cent) **agreed** as compared to the female respondents (92.80 per cent) with the statement. *However, statistically, no significant association was found between the variables and the statemen*t

The data illustrated in the Table 6 highlighted the aspect that community benefitted from programme and the responses reflected that cent percent of the respondents (100.00 per cent) younger in age agreed in comparison to middle &senior most age (above 80.00 per cent) grouprespondents. While analyzing the data on the basis of gender variable it was noticed that more of male respondents (96.80 per cent) **favoured** the statement in comparison to female respondents (94.20 per cent). *Thence, statistically, significant association was found between the variable of age and the statement.*

On analyzing the aspectwhether the Governmental efforts to disseminate knowledge regarding prevention and control of Poliomyelitis were adequate, it was found on the basis of responses presented in the Table 7 that more of respondents (above 75.00 per cent) younger & middle in age**agreed** than the respondents (above 50.00 per cent) senior in age. In relation to gender variable, it was found that more of female respondents (72.50 per cent) agreed with the statement whereas more of the female respondents than the male respondents (67.70 per cent) agreed with the statement thereby establishing that more of female respondents were satisfied with the efforts of the state government. *However, statistically, no significant association was found between the variables and the statement.*

From the analysis of the data presented in the Table 8 it was noticed that more of respondents in the younger and middleage group (above 75.00 per cent) found the programme was effectively operating in their area. However, it was seen that respondents in senior most age group were least agreed with the statement. In context of gender nearly identical proportion of male & female respondents (above 70.00 per cent) agreed with the view point. *Therefore, statistically, significant association was found between the variable of age and the statement.*

On assessing the data presented in the Table 9 in relation to the statementthat whether the PPI programme was helpful in reducing the Poliomyelitis cases in the area, it was found that with the increase in the age the responses were decreased thereby suggesting that lessof senior in age respondents (66.70 per cent) found the programme was helpful in reducing the Poliomyelitis cases in the area. Further, on assessing gender variable, it was noticed that more of the male respondents (90.30 per cent) as against the female respondents (87.00 per cent) opined that programmereduced the Poliomyelitis cases in the area. *However,statistically, significant association was found between the variable of age and the statement.*

While assessing the responses as presented in the Table 10, it   got reflected that majority of respondents of middle & younger in age group were **satisfied** with the operation of the PPI programme in their area whereas more of the male respondents (90.30 per cent) than the female respondents (87.00 per cent) satisfied with operation of the programme. *However, statistically,   no significant association was found between the variables and the statement.*

DISCUSSION/MAJOR FINDINGS

- All the public respondents were aware of the National Pulse Polio Immunization Program.

- Highly significant majority of public respondents found that the pulse polio program was operative in their area.

- Highly significant majority of public respondents agreed that health personnel visited their place to provide polio drops.

- Highly significant majority of public respondents supported the issue that organizers provided Polio Booth in their area.

- Highly significant majority of public respondents availed free treatment facilities under the program

- Highly significant majority of public respondents were of the opinion that community was benefited from the Pulse Polio Immunization program.

- Majority of respondents felt that governmental efforts to disseminate knowledge regarding prevention and control of poliomyelitis were adequate.

- Majority of respondents were of the opinion that program operated effectively.

- Significant majority of respondents were of the view that program was helpful in reducing the cases of poliomyelitis in their area.

- Majority of respondents were satisfied with the operation of the Pulse Polio Immunization Programme.

CONCLUSIONS AND RECOMENDATIONS

From the above analysis it can be seen that the Pulse Polio Immunization Programme was working satisfactorily in the rural area of the Faridkot district. However the overall analysis projected that more of senior in age and male respondents have shown their satisfaction with the operation of the programme whereas more of male respondents have shown their satisfaction with some aspects of the Programme. On the basis above discussion some of the issues and challenges emerged which needs to be addressed to make the PPImore effective and efficient. Some of the recommendations are: that there should be medically supervised treatment to ensure its effectiveness, systematic monitoring of the patients and the treatment, improved supply of drugs (Polio Dropsvials), quality training, commitment of health workers and involvement of Public with Pulse Polio Immunization Program should be encouraged. There is need to have better record management of the old children and new children, commitment of the children's parents with treatment and follow up be ensured during further round of Pulse Polio Program.

To conclude the Public was by & large satisfied with Pulse Polio Immunization programme operation in the area though few grey areas were spotted.

ACKNOWLEDGEMENTS

REFERENCES

1. *www.unicef.org/**india**/Polio_Booklet-final_(22-02-2012)V3.pdf*

2. *Ibid*

3. *http://news.oneindia.in/2011/01/22/presidentpatil-launches-2011-pulse-poliocampaign-aid0121.html*

4. *WHO certifies India polio-free. The Hindu. 27 March 2014*

APPENDICES

Tables

Table 1: Are You Aware of the National Pulse Polio Immunization Programme

Variables	Groups	Agree	Disagree	Undecided	P
Age	**Less than 18years**	4 (100.0)	0 (0.00)	0 (0.00)	0.00**
	19- 38 years	66 (100.00)	0 (0.00)	0 (0.00)	
	39- 58 years	22 (100.00)	0 (0.00)	0 (0.00)	
	Above 58 years	6 (100.00)	0 (0.00)	0 (0.00)	
Gender	**Male**	31 (100.00)	0 (0.00)	0 (0.00)	0.00**
	Female	69 (100.00)	0 (0.00)	0 (0.00)	

Source: *Computed from primary data. Figures in parentheses are percentage, p value significant at 0.05 level.*

Table 2: The Pulse Polio Programme is Operative in Your Area

Variables	Groups	Agree	Disagree	Undecided	P
Age	**Less than 18years**	4 (100.0)	0 (0.00)	0 (0.00)	0.01*
	19- 38 years	66 (97.10)	0 (0.00)	2 (2.90)	
	39- 58 years	20 (90.90)	0 (0.00)	2 (9.10)	
	Above 58 years	5 (83.30)	1 (16.70)	0 (0.00)	
Gender	**Male**	30 (96.80)	0 (0.00)	1 (3.20)	0.77
	Female	65 (94.20)	1 (1.40)	3 (4.30)	

Source: *Computed from primary data. Figures in parentheses are percentage, p value significant at 0.05 level.*

Table 3: Health Personnel Visit Your Place to Provide Polio Drops to Your Children

Variables	Groups	Agree	Disagree	Undecided	P
Age	Less than 18years	4 (100.0)	0 (0.00)	0 (0.00)	0.45
	19- 38 years	66 (97.10)	2 (2.90)	0 (0.00)	
	39- 58 years	19 (86.40)	2 (9.10)	1 (4.50)	
	Above 58 years	6 (100.00)	0 (0.00)	0 (0.00)	
Gender	Male	28 (90.30)	2 (6.50)	1 (3.20)	0.22
	Female	67 (97.10)	2 (2.90)	0 (0.00)	

Source: Computed from primary data. Figures in parentheses are percentage, p value significant at 0.05 level.

Table 4: Do the Organizers Provide Polio Booth in Your Area

Variables	Groups	Agree	Disagree	Undecided	P
Age	Less than 18years	4 (100.0)	0 (0.00)	0 (0.00)	0.99
	19- 38 years	66 (97.10)	1 (1.50)	1 (1.50)	
	39- 58 years	22 (100.00)	0 (0.00)	0 (0.00)	
	Above 58 years	6 (100.00)	0 (0.00)	0 (0.00)	
Gender	Male	30 (96.80)	1 (3.20)	0 (0.00)	0.26
	Female	68 (98.60)	0 (0.00)	1 (1.40)	

Source: Computed from primary data. Figures in parentheses are percentage, p value significant at 0.05 level.

Table 5: You Avail Free Treatment Facilities under This Programme

Variables	Groups	Agree	Disagree	Undecided	P
Age	Less than 18years	3 (75.00)	0 (0.00)	1 (25.00)	0.25
	19- 38 years	65 (95.60)	0 (0.00)	3 (4.40)	
	39- 58 years	21 (95.50)	0 (0.00)	1 (4.50)	
	Above 58 years	5 (83.30)	0 (0.00)	1 (16.70)	
Gender	Male	30 (96.80)	0 (0.00)	1 (3.20)	0.43
	Female	64 (92.80)	0 (0.00)	5 (7.20)	

Source: Computed from primary data. Figures in parentheses are percentage, p value significant at 0.05 level.

Table 6: Do You Think Community Has Benefited From This Programme

Variables	Groups	Agree	Disagree	Undecided	P
Age	Less than 18years	4 (100.0)	0 (0.00)	0 (0.00)	0.01
	19- 38 years	66 (97.10)	0 (0.00)	2 (2.90)	
	39- 58 years	20 (90.90)	0 (0.00)	2 (9.10)	
	Above 58 years	5 (83.30)	1 (16.70)	0 (0.00)	
Gender	Male	30 (96.80)	0 (0.00)	1 (3.20)	0.77
	Female	65 (94.20)	1 (1.40)	3 (4.30)	

Source: Computed from primary data. Figures in parentheses are percentage. p value significant at 0.05 level.

Table 7: Governmental Efforts to Disseminate Knowledge Regarding Prevention and Control of Poliomyelitis Are Adequate

Variables	Groups	Agree	Disagree	Undecided	P
Age	Less than 18years	3 (75.00)	1 (25.00)	0 (0.00)	0.08
	19- 38 years	54 (79.40)	8 (11.80)	6 (8.80)	
	39- 58 years	11 (50.00)	4 (18.20)	7 (31.80)	
	Above 58 years	3 (50.00)	1 (16.70)	2 (33.30)	
Gender	Male	21 (67.70)	4 (12.90)	6 (19.40)	0.71
	Female	50 (72.50)	10 (14.50)	9 (13.00)	

Source: Computed from primary data. Figures in parentheses are percentage. p value significant at 0.05 level.

Table 8: The Pulse Polio Programme is Operating Effectively

Variables	Groups	Agree	Disagree	Undecided	P
Age	Less than 18years	3 (75.0)	1 (25.00)	0 (0.00)	0.02
	19- 38 years	54 (79.40)	3 (4.40)	11 (16.20)	
	39- 58 years	13 (59.10)	1 (4.50)	8 (36.40)	
	Above 58 years	2 (33.30)	0 (0.00)	4 (66.70)	
Gender	Male	22 (71.00)	1 (3.20)	8 (25.80)	0.80
	Female	50 (72.50)	4 (5.80)	15 (21.70)	

Source: Computed from primary data. Figures in parentheses are percentage. p value significant at 0.05 level.

Table 9: This Programme Has Been Helpful in Reducing the Cases of Poliomyelitis in Your Area

Variables	Groups	Agree	Disagree	Undecided	P
Age	Less than 18years	4 (100.0)	0 (0.00)	0 (0.00)	0.01*
	19- 38 years	62 (91.20)	0 (0.00)	6 (8.80)	
	39- 58 years	18 (81.80)	0 (0.00)	4 (18.20)	
	Above 58 years	4 (66.70)	1 (16.70)	1 (16.70)	
Gender	Male	28 (90.30)	0 (0.00)	3 (9.70)	0.76
	Female	60 (87.00)	1 (1.40)	8 (11.60)	

Source: Computed from primary data. Figures in parentheses are percentage. p value significant at 0.05 level

Table 10: Are You Satisfied with Operation of This Programme

Variables	Groups	Agree	Disagree	Undecided	P
Age	Less than 18years	3 (75.00)	1 (25.00)	0 (0.00)	0.47
	19- 38 years	61 (89.70)	5 (7.40)	2 (2.90)	
	39- 58 years	20 (90.90)	1 (4.50)	1 (4.50)	
	Above 58 years	4 (66.70)	1 (16.70)	1 (16.70)	
Gender	Male	28 (90.30)	2 (6.50)	1 (3.20)	0.89
	Female	60 (87.00)	6 (8.70)	3 (4.30)	

Source: Computed from primary data. Figures in parentheses are percentage. p value significant at 0.05 level.