

Analysis of Religious Controversy and Anti-Polio Rumors as Impediments to Polio Eradication Process

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Abstract

The study aims to analyze anti-polio and religious controversy and its link with polio eradication process. Data is collected from a sample of 200 employees of Health department, UNICEF and WHO through questionnaire. Sample size is allocated using proportionate allocation sampling technique. Chi square test is used to measure the association between dependent and independent variables.

The findings of the study reveal a significant association of polio vaccination as un-Islamic, opposition of religious scholars, polio as foreign agenda, suspecting the quality and efficacy of oral polio vaccination and fear of reaction with polio eradication process. Moreover, perceiving polio vaccination rounds as needless and vaccination as overdosing were found to be strongly linked with polio eradication.

In light of the findings, it is suggested that anti polio and religious controversies surrounding polio vaccination needs to be intelligently overcome. The study further suggests that for any awareness campaign on media or otherwise, religious scholars may be taken on board along with civil society activists.

Key words: Polio vaccination, Religious controversy, Foreign agenda, Rumors, Religious scholars

Introduction

Poliomyelitis (Polio) or infantile paralysis is a viral disease of infectious nature. It mainly assaults the central nervous system of human beings. Initially the patient may suffer a mild, non-paralytic infection, but may result in complete paralysis over time. Fundamentally, it targets kids less than the age of five years. It may also put a child to death in certain cases¹. Keeping in view the seriousness of the problem, various endeavors are made to overcome the issue and to make the world free from polio. One of these endeavors is known as The Global Polio Eradication Initiative (GPEI) started by the World Health

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Organization (WHO) in 1988². The Global Polio Eradication Initiative is credited with saving the life of 250,000 kids. Moreover, another 5 million kids are able to walk on their feet that generally would have been incapacitated to walk³. Furthermore, efforts were made by WHO and different other organizations that constrained polio to just three countries in the world that includes Afghanistan, Naigeria and Pakistan⁴.

As a signatory of the World Health Assembly (WHA), Pakistan is spending incredible human and budgetary assets with a specific end goal to meet the worldwide polio eradication. Furthermore, vaccines, technical support and some of the operational expenses have been given by other accomplice organizations of the world (Baig, 2004). Through these endeavors in the most recent years, the world achieved success in actualizing polio elimination techniques and a lessening in the proliferation of polio infection in various countries including Pakistan. Polio still exists which is a risk to the rest of the polio free world⁵.

Pakistan is striving to achieve global objectives with reference to polio eradication however, in 2014 and 15, 306, 54 cases were reported respectively. In such an alarming situation, Pakistan initiated a National Emergency Action Plan in 2015 for combating the issue⁶. As noted by various studies about the religious controversy surrounding polio vaccine and vaccination program. These misconceptions and rumors have the potential to serve as obstacles in the way of polio eradication⁷.

Therefore, this time, the government tried to involve popular religious ulema in its campaign where they have issued *Fatwa* (Edicts) in favor of polio immunization, including the Fatwa by Sunni Ettehad Council which favored polio eradication⁸. Likewise, in Khyber Pakhtunkhwa Darululoom Haqqania Nowshehra had issued a Fatwa for polio crusades (The daily News, 2013). Nevertheless, even after the issuance of these *Fatwas*, the anti-polio rumors have not yet vanished and they are still hurting the polio eradication process in Pakistan. The possible reason could be the long rooted rumors about the polio vaccination which might need more and consistent efforts for the campaign to be a success.

The study at hand is aimed to inquire about anti polio and religious controversy impeding polio eradication process in Pakhtun society. Technically speaking, study aims to delineate association of anti-polio and religious controversy with polio eradication process in Pakhtun society. The

next section compiles relevant literature focusing anti-polio and religious controversy surrounding polio.

Literature Review

Polio vaccine and polio eradication encompassed conspiracy theories. Anti-polio rumors and misconceptions have adversely influenced polio eradication initiative and have come about disappointment in the eradication of polio. These rumors are across the board at mass level and serve as bottlenecks in the way of polio free Pakistan.

One of the reasons is that oral polio immunizations contain sterility substances and human immune deficiency virus⁹. It is likewise a typical spread talk that it is scheme of western countries and non-governmental organizations to reduce and control Muslim population and fertility level¹⁰.

Another significant reason for non-eradication in Pakistan is the religious discussion and controversy encompassing the immunization program¹¹. The Pakistani Taliban reported that they oppose the polio immunization as an article of faith. This contention is emphatically bolstered by some Muslim religious leaders on religious grounds¹². Some religious leaders unequivocally resist polio immunization and they pronounce polio inoculation as un-Islamic. It is believed that western countries are investing money as an endeavor to challenge will of God¹³. Such kind of thinking that connects polio vaccinations with western planning, agenda of foreign N.G.Os and Muslim fertility control. All these make polio immunization as taboo and its success as unthinkable¹⁴.

Similarly studies shows that some people doubt the quality and efficacy of polio vaccination. Individuals are dicey about the nature of polio vaccine that it may not anticipate or immunize children against polio. Some refusal families contended that a few children have been infected with polio even in the wake of being inoculated for many times¹⁵. Another point is that there are excesses of rounds of NIDs and it is seen as overdosing. Various studies affirmed that too numerous rounds of NIDS make issues for EPI employees¹⁶. Trepidation of the reaction of polio immunizations is another talk, which hampers polio elimination¹⁷. The individuals who decline to inoculate their children are of the view that there are excessively visit rounds of polio immunization and they expect that it might cause reaction in their children. Another point is likewise raised that neither polio is diagnosed nor pestilence then, why children ought to be inoculated¹⁸.

Various studies highlighted that masses raised objection against polio vaccination are that government and INGOs are focusing and investing money on polio. No such efforts are made regarding tuberculosis and cancer. There must be hidden agenda that is why polio is more focused and highlighted¹⁹. After synthesizing the literature, it can be stated that opposition by religious scholars, associating polio with population control and considering polio as an attempt to avert God’s will are some major bottlenecks the way of polio free Pakistan.

The study is carried out in Tehsil Katlang of district Mardan, Khyber Pakhtunkhwa. Population of the study is employees of provincial Health department, UNICEF and WHO. Employees are key stakeholders and directly involved in field with parents during vaccination. They have interaction with them and also faced problems like refusal. Therefore they are considered most suitable for this study. Total number of respondents is 434 as per data provided by District Health office. From the total population, a sample of size of 200 is selected in line with magic table given by Sekaran (1992). Detail of sample distribution is given as under:

A comprehensive questionnaire is developed with the help of researchers’

Table 1 Sample distribution Category	Total Employees	Sample
Lady health worker	230	106
Lady health supervisor	11	5
Expanded program on immunization Technician	17	8
In charge Basic health unit	10	5
Area in charge	42	19
Social worker	100	45
Tehsil temporary monitor	15	7
Union council polio worker	9	5
	Total: 434	Total: 200

Observation and literature review. The collected data is analyzed by using Chi Square in order to test the hypothetical association between dependent and independent variables. Next section contains results and its possible interpretation along with literature.

Results and Discussions

In the following section the study findings are discussed, inferences are

Drawn and results are compared with the available and referred literature under each statement.

Anti- polio and religious controversy regarding polio eradication process

For focusing the study, reaching to a logical and empirical conclusion, the variable under hand is restricted to certain statements that include polio contains sterility substances and HIV, perception of polio as plan to control Muslim population, polio campaign as foreign agenda, polio vaccination as un-Islamic, suspecting the quality and efficacy of polio, refusal due to fear of reaction i.e. fever and headache and considering polio vaccination as needless without diagnosis. All these assumed items were cross-tabbed with polio eradication process in order to know about its association.

The study findings show that the perception that polio contains sterility substance and polio eradication process was non-significantly associated ($P=0.797$). Likewise, a non-significant ($P=0.950$) association was observed between polio as a plan of population control and polio eradication process. The possible reason of non-significant association could be increased awareness about polio vaccination which dispelled these misconceptions up to some extent. It can be extracted that increased awareness might have dispelled these rumors up to some extent and hence may not affect vaccination process. Earlier studies reported that people refuse to vaccinate their children considering that polio vaccine is contaminated with sterility materials. Furthermore, respondents stated that people viewed polio campaigns as intrigue to control the population of Muslim countries. The findings are opposite to Ansari, Khan and Khan, (2007) and Arooj et al., (2013) who reported strong link of perceiving polio contaminated with sterility material and as a plan to control population with polio eradication activities.

Likewise, perception that polio contains HIV and polio eradication process were found to be non-significantly ($P=0.174$) associated. During data collection, respondents stated that earlier we used to face problem in vaccination due to this rumor but in this study, statistically, the relationship was found non-significant. In 2003 Nigerian religious leaders boycotted polio vaccination. They claimed that after 9/11 attacks the evil doers American and there western allies have contaminated polio vaccines with virus that causes HIV (Jegade, 2007). Such type of thinking is also prevalent in Pakistan but it is a positive sign that now it has dispelled up to a great extent. The result is in contrast to the findings of Mahmood and Aftab, (2013) and Murakami et al. (2014) which reported a strong link of HIV with polio eradication process.

Contrary to the above, a significant ($P=0.033$) association was found between perceiving polio as un-Islamic and polio eradication process. It is widely spread among the masses that polio vaccines contains Pork and Muslims are prohibited to consume it. In this connection, it is common and widespread among the masses that polio vaccination is un-Islamic as it contains Pork. Literature suggests that people perceive that polio vaccination is not in line with Islamic teachings. Polio vaccination is viewed as “artificial alteration in the fate determined by God” (Murakami et al. 2014). This type of thinking seems to be one of the reasons of non-eradication of polio from Pakistan. This result is in line with findings of Ansari, Khan and Khan, (2007) and Mahmood and Aftab, (2013) who stated the parents refused to vaccinate children and declared polio vaccine as un-Islamic.

A highly significant ($P=0.000$) association was observed between opposition of religious scholars and polio eradication process. Pakistan is a religious state and the influence of religious scholars is evident in our daily life. Religious scholars play the role of opinion leaders in Pakistani society. In this connection, opposition by religious scholars has greatly affected activities of polio eradication initiative (Mahmood and Aftab, 2013). The findings suggest that stronger the opposition by religious scholars more may be refusal to vaccination and hence polio may not be eradicated. These findings are in line with Islam, (2013) and Murakami et al. (2014) whose studies reported that opposition by religious scholar has affected polio eradication activities.

Moreover, results suggested a significant ($P=0.023$) association perceiving EPI as foreign agenda and polio eradication process. If masses believe that PEI is not their own rather foreign agenda having some hidden motives then success of polio campaign seems almost impossible. During data collection, respondents/employees had an impression that they do not own this program or they are concerned with their salary only. This result is in line with Arooj et al. (2013) and Khan and Qazi, (2013) that reported that people consider polio vaccination as foreign agenda. Similarly, a significant ($P=0.012$) association was found between suspecting quality of polio vaccine and polio eradication process.

Likewise, a highly significant ($P=0.000$) association was found between suspecting efficacy of polio vaccine and polio eradication process. It was revealed while filling questionnaire that people and employees have mistrust in polio vaccines. They argued that sometimes cold chain is not maintained and hence it may not work properly. It was also highlighted that

some people refused to vaccinate as they think that even after vaccination a child may get affected by the virus. When people suspect the quality and efficacy of vaccine then in such a situation refusal to vaccination seems to be normal response. These findings are supported by previous studies like Mushtaq et al. (2010) and Islam, (2013) which reported that mistrust in polio vaccination has hampered the goal of polio free pakistan.

Results further showed that fear of reaction and polio eradication process were observed to be highly significantly ($P=0.005$) associated. It is observed in certain cases that children face problems after vaccination. Some respondents stated that parents refuse to vaccinate with a plea that vaccination causes fever/temperature, headache, weakness or other problems in children. The findings are in line with findings of Naeem et al. (2012) and Warraich, (2009) which reported that mothers refused to vaccinate children due to fear of reaction. It is extracted that fear of reaction is a bottleneck in vaccination process.

Perceiving polio rounds as overdosing and polio eradication process were found to be significantly ($P=0.019$) associated. NIDs are carried out after a period of every 3 months. In special cases SIAs (Supplementary Immunization Activities) are also conducted. Respondents stated that some parents refuse to vaccinate considering these vaccination as overdosing. It was derived that considering polio vaccination strongly affects polio-combating activities. Findings of current study are in congruence with Naeem et al. (2011) and Shah et al. (2011) which reported that employees face problems due to many rounds of NIDs.

Likewise perceiving polio vaccination as needless without diagnosis and polio eradication process was found to have a highly significant ($P=0.000$) association. Literature suggests that usually parents come with an argument that if polio is not diagnosed so there is no need of vaccination. These parents are not aware about shift in medical field which focus on prevention rather than treatment. Vaccination is based on the principle of immunization. Immunization can be done with or without presence/occurrence of a disease (GPEI, 2013). Some of the parents refused to vaccinate. In such cases, children are not vaccinated and hence vulnerable to Poliovirus. In such a situation, other children are also at risk of being attacked by poliovirus. This finding is analogous with findings of Murakami et al., (2014) and Shah et al., (2011) which asserted that parents refused to vaccinate children with out diagnosis of polio.

Anti-polio and religious controversy regarding polio eradication process

Factors	Attitude	Polio Eradication Process			Total	Statistics
		Yes	No	Uncertain		
People perceive that polio vaccine contains sterility substances	Yes	161(80.5%)	6(3%)	3(1.5%)	170(85%)	$\chi^2=1.663$ (.797)
	No	29(14.5%)	0	0	29(14.5%)	
	Uncertain	1(0.5%)	0	0	1(0.5%)	
People perceive polio vaccination as plan to control the population of Muslim countries	Yes	177(88.5%)	6(3%)	3(1.5%)	186(93%)	$\chi^2=7.709$ (.950)
	No	13(6.5%)	0	0	13(6.5%)	
	Uncertain	1(0.5%)	0	0	1(0.5%)	
People perceive that polio vaccine contains HIV virus	Yes	659(32.5%)	3(1.5%)	3(1.5%)	71(35.5%)	$\chi^2=6.361$ (.174)
	No	117(58.5%)	3(1.5%)	0	120(60%)	
	Uncertain	9(4.5%)	0	0	9(4.5%)	
People perceive polio vaccine as Un Islamic	Yes	169(84.5%)	5(2.5%)	3(1.5%)	177(88.5%)	$\chi^2=10.513$ (.033)
	No	20(10%)	0	0	20(10%)	
	Uncertain	2(1%)	1(1.5%)	0	3(1.5%)	
People refuse vaccinate children due to opposition of religious scholars	Yes	176(88%)	2(1%)	3(1.5%)	181(90.5%)	$\chi^2=36.576$ (.000)
	No	10(5%)	1(0.5%)	0	11(5.5%)	
	Uncertain	5(2.5%)	3(1.5%)	0	8(4%)	
People perceive EPI as agenda of foreign countries	Yes	178(89%)	4(2%)	3(1.5%)	185(92.5%)	$\chi^2=11.305$ (.023)
	No	11(5.5%)	1(0.5%)	0	12(6%)	
	Uncertain	2(1%)	1(0.5%)	0	3(1.5%)	
People suspect the quality of oral polio vaccine	Yes	164(82%)	2(1%)	3(1.5)	169(84.5%)	$\chi^2=12.821$ (.012)
	No	20(10%)	3(1.5%)	0	23(11.5%)	
	Uncertain	7(3.5%)	1(0.5%)	0	8(4%)	
People suspect the efficacy of polio vaccine	Yes	168(84%)	2(1%)	3(1.5%)	173(86.5%)	$\chi^2=58.414$ (.000)
	No	21(10.5%)	1(0.5%)	0	22(11%)	
	Uncertain	2(1%)	3(1.5%)	0	5(2.5%)	
People refuse	Yes	169(84.5%)	3(1.5%)	3(1.5)	175(87.5%)	$\chi^2=73.290$

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to vaccinate due to fear of the reaction of polio vaccine	No	21(10.5%)	0	0	21(10.5%)	($\chi^2=11.809$) (.019)	
	Uncertain	1(0.5%)	3(1.5%)	0	4(2%)		
People perceive too many rounds as overdosing	Yes	180(90%)	4(2%)	3(1.5%)	187(93%)	($\chi^2=53.463$) (.000)	
	No	9(4.5%)	1(0.5%)	0	10(5%)		
	Uncertain	2(1%)	1(0.5%)	0	3(1.5%)		
People are of view that without a diagnosis, it's needless to vaccinate children	Yes	171(85.5%)	0	3(1.5%)	174(87%)	($\chi^2=53.463$) (.000)	
	No	18(9%)	4(2%)	0	22(11%)		
	Uncertain	2(1%)	2(1%)	0	4(2%)		

Conclusion

Religion has a significant influence on the personal and social life of its followers. The religious leaders occupy a high social status in Pakhtun society with reference to their influence and outreach to the common masses. Anti-polio rumors and religious controversies have significantly undermined the polio eradication process in Pakhtun society. It is evident that rumors magnify the confusion and thereby affect the decisions of people. The same could be observed in the present study with regard to eradication polio from Pakhtun society.

Very lately the matter is recognized by the state and tried to involve religious scholars in its campaign for the process and programs of polio eradication in Pakistan and particularly in Pakhtun society. Findings of the study reveal that eradication of polio is not possible without overcoming the controversy surrounding polio vaccine and vaccination. It's evident from findings of that opposition of religious scholars is hurdle to polio eradication process. Moreover it is also confirmed that masses consider it as foreign agenda with aim to control Muslim population. Similarly people's suspect of quality and efficacy of polio vaccine was found to be significantly linked with polio eradication process. Fear of reaction and perceiving polio vaccination as overdosing were prevalent among masses which leads to refusal to polio vaccine.

Hence religious controversies and anti-polio rumors could only be controlled through reliable knowledge and its consistent dissemination by not only involving technical experts but also popular religious scholars of Pakhtun society as all these mentioned factors are bottlenecks in the way of polio free Pakistan.

Suggestions

The following suggestions are forwarded on the bases of study findings.

1. Awareness must be created among the masses to dispel misconception like the contamination of polio with sterility materials and HIV.
2. Media and civil society activists should be involved to build trust in EPI program.
3. Religious scholars should be involved in the efforts to minimize the refusal to polio vaccination.
4. Medical experts and health professional should inform the masses about the mechanism and efficacy of oral polio vaccine.

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