

IS UNENDING POLIO BECAUSE OF RELIGIOUS MILITANCY IN PAKISTAN? A CASE OF FEDERALLY ADMINISTRATED TRIBAL AREAS

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Increasing Polio outbreaks in Pakistan have put the global Polio eradication at risk. The Federally Administrated Tribal Areas (FATA) has been the hub of Poliovirus making Pakistan the major contributor of Polio cases. Despite receiving huge foreign funding and carrying out several campaigns for countering Polio over the past several years points to the hard fact that there have been some serious lapses in state's efforts in addressing this grave issue. The purpose of this research was to examine the households' level of understanding towards the debilitating disease of Polio and perceptions of Muslim religious scholars regarding the Polio vaccine. The study was carried out in the three tribal agencies of FATA and multi-stage sampling techniques were adopted in targeting the study respondents. Apart from religious militancy and armed-conflict, it was noticed that conspiracy theories against Polio vaccine and mistrust on Polio vaccinators have been the exacerbating factors responsible for the failure of Polio eradication in the region. In order to overcome such factors and to stop the transmission of the devastating disease, serious efforts would be required by spreading meticulous awareness and health education in the region.

Keywords: Polio, Religious Militancy, Awareness, FATA, Pakistan

1. Introduction

Poliomyelitis, commonly called Polio, is a crippling and potentially fatal infectious disease that can lead to paralysis, breathing problems, or even death. The term Poliomyelitis is originated from the Greek word poliós meaning grey, myelós referencing the spinal cord, and -itis meaning inflammation (Sass et al., 1996). Like many other infectious

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diseases, Polio victims tend to be some of the most vulnerable members of the human population. The victims include children under age five, pregnant women, and those with compromised immune system. Anyone who has not been immunized against Polio is especially susceptible to contracting the infection (Crosta, 2014). Polio is caused by the Poliovirus, a highly contagious virus specific to humans. Usually this virus contaminates the environment via infected feces hence in the areas with poor sanitation; the virus spreads through the fecal-oral route, contaminated water or food. In addition, direct contact with a person infected with the virus can cause Polio (WHO, 2010).

Polio is a contagious, historically devastating disease that has been around since ancient times. At the height of the Polio epidemic in 1952, nearly 60,000 cases with more than 3,000 deaths were reported in the United States alone. However, with widespread vaccination, wild-type Polio, or Polio occurring through natural infection, was eliminated from the United States by 1979 and the Western hemisphere by 1991 (Green, 2014). Launched in 1988 after the World Health Assembly passed a resolution to eradicate Polio worldwide, the Global Polio Eradication Initiative (GPEI) led by a coalition of international organizations that includes World Health Organization (WHO), the United Nations Children's Fund (UNICEF), the U.S. Centers for Disease Control and Prevention (CDC), and Rotary International (RI) has helped countries to make huge progress in protecting the global population from this debilitating disease. As a result, global incidence of Polio has decreased by 99% since the eradication initiative launched (GPEI, 2015).

Although Polio essentially has been eradicated worldwide but children and adults in Nigeria, Afghanistan, and Pakistan are still contending with this disease. Sadly, all these countries have been impacted by religious militancy and armed-conflict, doubling the challenges against Polio at this critical stage. The battle is so pitched that the WHO declared a "public health emergency" in an effort to garner greater cooperation among countries to prevent the spread of Polio, especially from the three endemic countries (Thrope, 2014).

Polio has no cure, but there are safe and effective vaccines based on preventing infection by immunizing every child to stop transmission. The first Polio vaccine was developed in 1952 by Jonas Salk¹. Today, there are two forms of the vaccine: Inactivated Polio Vaccine (IPV) and Oral Polio Vaccine (OPV) (Thomsen, 2014). Vaccination is the best way to protect people and is the only way to stop the Polio disease from spreading. Nevertheless vaccination may be opposed for a variety of reasons, including mistrust, misconceptions and religious reasons about what the vaccines do. The religious opposition by Muslim fundamentalists is a major factor in the failure of immunization programs against Polio in Nigeria, Afghanistan, and Pakistan. For instance, in 2003 in Nigeria, when the leadership of a prominent Muslim group, Jama'atul Nasril Islam and Nigeria's Supreme Council for Shari'a questioned the vaccine's safety and established a boycott. The council's then president publicly claimed that there were strong reasons to believe that the Polio immunization vaccine was contaminated with anti-fertility drugs, contaminated with certain virus that cause HIV/AIDS, contaminated with Simian virus that are likely

¹ Jonas Edward Salk was an American medical researcher and virologist. He discovered and developed the first successful inactivated Polio vaccine.

to cause cancers (Cooke and Tahir, 2012). In Afghanistan, the Taliban issued Fatwa² denouncing vaccination as avert the will of Allah (God) and American ploy to sterilize Muslim population (Warrach, 2009). In Pakistan, similar rumors have surfaced in addition to some claims that the vaccines contain pig fat (which, for the country's large Muslim population, is non-halal) (Thomsen, 2014).

The vaccination fears have now created a strong opposition in other Muslims' states too, giving more tough time to the humanitarian aid workers. In recent years, the security threats facing humanitarian aid workers have been the subject of headlines and debates. The year 2013 has been reported a record-breaking year for violence against humanitarian aid workers especially the Polio workers in which 155 workers were killed, 171 were seriously wounded, and 134 were kidnapped in 30 countries. But surprisingly three-quarters of them took place in just Afghanistan, Syria, South Sudan, Nigeria, Pakistan and Sudan (Stoddard et al., 2014).

1.1 Background

Pakistan has been endeavoring to eradicate Polio since 1998. From the year 2000, the eradication program was expanded, including an increase in personnel and the number of rounds, as well as the adoption of a door-to-door strategy (Bates, 2004). The national Polio eradication effort made major strides in reaching out to children with immunization in all parts of the country as Polio cases reached a low of 28 in 2005 but the country has witnessed alarming increase in the number of Polio cases since 2009. In 2014, Pakistan recorded its highest number of cases of any country in the world, and also the highest number since the start of eradication campaign. The following Table-1 shows the region and province wise Polio breakouts in the country:

Table-1: Yearly Polio Breakouts in Pakistan

Region/Province	2009	2010	2011	2012	2013	2014
Punjab	17	7	9	2	7	4
Sindh	12	27	33	4	10	30
Khyber Pakhtunkhwa	29	24	23	27	11	68
FATA	20	74	59	20	65	179
Baluchistan	11	12	73	4	0	25
Gilgit-Baltistan	0	0	1	1	0	0
Total	89	144	198	58	93	306

Source: End Polio Pakistan, 2015

In Pakistan, Polio cases are heavily concentrated in the Federally Administered Tribal Areas (FATA), where religious militancy and armed-conflict are also prevalent. The region is viewed as a sanctuary for Taliban and Al-Qaida militants (Ahmad, 2010). Since the deadliest incident of 9/11³, the U.S. invasion of Afghanistan made these militants flee to

² A fatwa is an Islamic legal pronouncement, issued by an expert in religious law, pertaining to a specific issue, usually at the request of an individual or judge to resolve an issue where Islamic jurisprudence, is unclear.

³ The incidence of terrorists' attack on the World Trade Center, New York, USA on September 11, 2001.

FATA because of porous security arrangements in the mountainous region of bordering Pakistan and mutual consent of anti-Americanism by the local inhabitants (Wazir, 2014). Joining hands with U.S., the government of Pakistan launched military operations to flush out all foreign and local Taliban and Al-Qaida militants hiding in FATA and adjoining areas. Militants used FATA as a launching pad to avenge the atrocities committed by the U.S., its allies and the state of Pakistan owing to its alleged cooperation with the “infidels”. The drone strikes by U.S. have killed several dozen Al-Qaida and Taliban leaders in FATA (Taj, 2010). Meanwhile, the U.S. Central Intelligence Agency (CIA) with the help of Pakistani Physician, Dr. Shakeel Afridi⁴, carried out a fake Polio vaccination campaign as a cover to facilitate the search for Al-Qaida leader Osama bin Laden. The campaign confirmed the presence of bin Laden in Abbottabad city of Pakistan by obtaining DNA samples of his family members (Maqbool, 2012) and killed by U.S. special forces in Pakistan in 2011 (Schabner and Karen, 2011).

The militants began targeting NGOs and Polio workers increasing their deadly violent attacks in the guise of revenge; killing and kidnaping, snatching vehicles and attacking their offices. The aggressive reaction by the militants against NGOs and Polio workers is highlighted in the Human Rights Watch (2014) that during Dec, 2012 – April, 2014 more than 60 Polio workers and people guarding them were killed in Pakistan. As most of the region in FATA was under the control of Taliban, in June 2012, leaflets distributed by the Taliban commander in FATA mentioning that *“In the garb of these vaccination campaigns, the U.S. and its allies are running their spying networks in FATA which has brought death and destruction on them in the form of drone strikes”* (The Guardian, 2012). Taliban banned the Polio vaccination campaigns in the region and openly announced that *“who so ever found involved in social and human rights activities in FATA would be killed”* (Afridi, 2012). The ban on Polio vaccinations and attacks on Polio worker have made thousands of children vulnerable to the crippling disease in FATA. An estimated 300,000 children in North and South Waziristan regions were forbidden from vaccinations (Richmond, 2013).

Rumors that Polio vaccine is Western plot to sterilize Muslims circulated in Pakistan but thousands of families in different parts of the country refused to take Polio vaccination owing of Dr. Shakeel Afridi’s conspired involvement in Bin Laden affair. Maqbool (2012) explored that about 40,000 families refused anti-Polio drops during the recently held Polio campaign; of these, 19,000 families were from FATA and Khyber Pakhtunkhwa (KP) province. Earlier on, only educated families used to refuse Polio vaccine but, now, even poor and uneducated families are also resisting vaccination for the same reason. People are merely suspicious of the activities of aid agencies; now, they have reasons to believe that these organizations have multiple agendas to implement. Several NGOs and UN organizations suspended Polio vaccination campaigns in the country particularly in FATA because of fear. The UNICEF accepted that the incident of bin Laden has caused a serious damage to the credibility of UN Agencies and other NGOs working in Pakistan. Moreover,

⁴ For more details about Dr. Shakeel Afridi, please see the link: <http://www.thefortress.com.pk/dr-shakil-afridi-an-exclusive-report/>

the health workers also announced a boycott of the immunization drive due to murdering and kidnaping of Polio workers⁵.

1.2 An Overview of Health Situation in FATA

FATA is the most impoverished region with 60 percent of its population living below the national poverty line. Residents in FATA have a Per capita income that is half of the already-low national Per capita income of \$250 per year while the mean Per capita public development expenditure is reportedly one third of the national average (FDS, 2005). With a small industrial and service sector base, more than 90 percent of the population derives its livelihood from agriculture. Poverty and illiteracy are the biggest curses that have affected the social and economic growth of the region. FATA has consistently been ranked as the most deprived area in the country against the key sets of human development indicators including health, education, water & sanitation and housing etc. (FDMA, 2012). The overall estimated literacy rate is 24.05 percent compared to the 60 percent nationally. The male literacy rate is 36.6 percent while the female literacy rate is a mere 10.5 percent compared to the national 48 percent for females (BOS – FATA Cell, 2012; PSLM, 2013).

Since independence, FATA has consistently been a low priority of the central government in Pakistan (Orakzi, 2009). The people of this region face enormous difficulties in their daily lives as there are negligible fund allocations for the socioeconomic uplift of the region. Sadly, there is only one health facility on every 50 square kilometers serving a large clientele in the porous border regions. The total number of hospitals in FATA is reported to be 33 with 302 dispensaries and 56 mother and child healthcare center (KPKBS, 2011). According to a recent study, there are about 577 doctors available for a population of 4.285 million people and 280 Lady Health Visitors (LHV)⁶ for 1.8 million women in FATA (Burki, 2014). Although there are no private hospitals, services are offered by private practitioners including unregistered doctors, local prayer leaders and faith healers (FATA Directorate of Health and Population Welfare, 2006). Counterfeit and substandard pharmaceutical drugs are also widely available.

Similarly, the health indicators for FATA are extremely disappointing. Communicable diseases are prevalent, with the added risk of widespread HIV infection and a growing problem of drug addiction. Access to reproductive health care is curtailed by cultural norms which restrict the movement of women in the public sphere and prevent them from consulting male health care providers. These limitations are compounded by the fact that modern health care practices (institutional delivery, neonatal care) are not widely accepted. As a result, infant mortality is estimated to be high, at 87 deaths per 1,000 live births, while maternal mortality is estimated to be greater than 600 deaths per 100,000 live births

⁵ For details please see the link: <http://reliefweb.int/report/pakistan/khyber-vaccinators-decide-boycott-anti-Polio-drive>

⁶ In Pakistan, particularly in FATA, women are largely dependent on men (family members) and access to health services is not more than a nightmare to tribal women during pregnancy. The Lady Health Visitors (LHVs) therefore, visits the homes for women counselling, provide basic health-care assistance and family planning advices.

(FATA, Directorate of Health, 2006). The rate of malnutrition for children and women is also above the threshold of 11–14 percent (UNICEF, 2011). Official records show that 56 percent of the population is supplied with drinking water but less than a third of this supply is in the form of individual connections to households. Sanitation facilities are even less available and more difficult to assess. Overall, it appears that only 10 percent of the population has access to adequate sanitation in the form of toilets, sewerage, drainage and disposal of solid waste. Other development indicators paint a similarly dismal picture of basic services (GoNWFP, 2005; GOP, 1998).

The religious militancy and continued armed-conflict in the tribal areas of Pakistan is one of the biggest hindrances to effective Polio vaccination. Here, access for Polio vaccination teams is severely restricted by the conflict and insecurity. Moreover, the Taliban's ban on Polio campaigns in FATA, Polio eradication is now a big challenge for the government and GPEI organizations to reach thousands of children in the region. Davis (2014) argues that when there is war in regions, Polio makes a comeback because vaccine efforts are interrupted. On the other hand, illiteracy, mistrust and religious misconceptions are other major factors in the failure of immunization programs against Polio. Despite receiving huge foreign funding and carrying out several campaigns for countering Polio over the years points to the hard fact that there have been some serious lapses in state's efforts in addressing the issue. FATA continues to grapple with Polio outbreaks, and holds the majority of the global cases every year. With the total reaching 306 in Pakistan in 2014, at least 179 infected children belong to FATA (End Polio Pakistan, 2015). In spite of multiple supplementary immunization campaigns, the failures in Pakistan's Polio eradication campaigns are now complicating the global scenario for a Polio free world. Pakistan's persistent failure in obliterating Polio reflects the acute lack of commitment and obligation on part of the government and society towards saving children from the scourge of this devastating disease.

With this backdrop, this research seeks that why the families' refusal cases and the rumors against Polio vaccination are getting stronger day by day? How people believe that Polio vaccine is contaminated with prohibited ingredients? Is the misconception created by the scientific research and health organizations themselves? For instance, Dr. Mercola (2012) argues that the oral vaccine has reined in wild Polio; the wild virus is being replaced by vaccine-derived Polio virus (VDPV), which causes acute flaccid paralysis. The oral Polio vaccine is made from a live Polio virus, which carries a risk of causing Polio. The World Association for Vaccine Education (WAVE) has also disclosed that all cases of Polio in the United States since 1979 have been caused by the Polio vaccine. Between 1980-1985, 51 Polio cases documented (out of a total of 55) were caused by the vaccine itself. Vaccination campaigns have been associated with significant increases (outbreaks) of vaccine-derived Poliovirus (VDPV) throughout the world, (Haiti 2002, Oman 1988 and 1989, Gambia 1986). The Polio vaccine has been proven to cause acute flaccid paralysis, Guillain Barre Syndrome, Cancer and Demyelination⁷ (WAVE, 2015). The same discussion has also been reported by the National Vaccine Information Center (NVIC)⁸.

⁷ For more details please see "Evidence of Polio Vaccine Risk" available at: <http://novaccine.com/Polio-vaccines/>

⁸ For more details please see "Polio: Quick Facts" available at: <http://www.nvic.org/Vaccines-and-Diseases/Polio-SV40.aspx>

This research is neither focused to study the role of government and GEPI organizations nor to discuss their strategies in eradicating Polio from FATA, but aims to empirically identify the factors responsible for the failure in eradicating Polio from FATA with the following specific objectives:

1. To examine peoples' level of understanding towards the debilitating disease of Polio in the study area,
2. To know the perceptions of Muslim religious scholars regarding Polio vaccine in the study area,
3. To explore the views of Polio workers to operate in the study area.

2. Methodology

Pakistan and Afghanistan are two of the three remaining countries yet to interrupt wild-type Poliovirus transmission. Both countries are facing significant challenges in reaching unvaccinated children due to continued religious militancy and armed-conflict. The recent increase of Polio cases in Afghanistan is directly linked to the recent increase in Pakistan and health officials consider the two countries to be part of the same epidemiological area (Chang et. al, 2012). FATA is a mountainous region which shares an approximately 2500 kilometer border with Afghanistan known as the Durand Line.⁹ Throughout history, FATA have always been an important region due to its strategic location. As an important link between both the countries, it has been an important trade route between Central Asia and South Asia. FATA is comprised of seven tribal agencies and six frontier regions¹⁰, consisting of approximately three thousand rural villages with an estimated population of 4.285 million (ICG, 2006, and FDS, 2010).

The study was carried out in three purposively selected tribal agencies of FATA namely; "Bajaur Agency", "Kurram Agency" and "Orakzai Agency" respectively. The researchers, however, were unable to visit other tribal agencies due to military offensive against Taliban and Al-Qaida militants. Considering the time dimension, it was a cross sectional study as the survey was not supposed to be repeated at any other time. Multi-stage sampling was adopted, involving the purposive and random sampling techniques, however; three different semi-structured questionnaires were used in data collection. The stages are explained below:

- *First Stage:* In order to examine households' level of understanding towards the debilitating disease of Polio, a total of 600 households from 15 different villages in each tribal agency were targeted. Out of total, a sample size of 200 households from each agency was selected by using random sampling technique.
- *Second Stage:* To know the perceptions of Muslim religious scholars regarding the polio vaccine, total 75 Muslim religious scholars from each tribal agency were contacted in the community mosques and information were gathered accordingly.

⁹ In 1893, British civil Servant, Sir Henry Mortimer Durand and the ruler Amir Abdul Rehman Khan demarcated boundaries between Afghanistan and British India that was named as "Durand Line" (Aslam, 2008).

¹⁰ The Seven Agencies of FATA are: Bajaur, Mohmand, Khyber, Orakzai, Kurram, North Waziristan and South Waziristan, and the Six Frontier Regions (FR) are: Peshawar, Kohat, Bannu, Lakki, Tank and D.I. Khan. For more details please explore the link: <http://fata.gov.pk/>

- *Third Stage:* As key informants, a total of 9 doctors within the agency headquarter hospitals of each tribal agency were also interviewed to understand their views about Polio vaccination for the children and health situation in the region.
- *Final Stage:* To understand the views of Polio workers to operate in the study area, an effort was made through the Directorate of Health and Population, FATA Secretariat and Department of Health, Khyber Pakhtunkhwa province to meet a total of 100 Polio workers including both male and female. The researchers visited their offices which were located in the Peshawar city (the capital of Khyber Pakhtunkhwa province which is also the nearest settled city to FATA).

Secondary source of data, in the form of health reports, government statistics, published academic papers, news reports and other written material were applied to form part of the analysis. The primary data were analyzed through Statistical Package for Social Sciences (SPSS) and MS-Excel programs for compilation and calculation of descriptive statistics.

3. Results and Discussion

3.1 Understanding of Households towards Polio

Understanding is knowledge and ability to judge a particular situation or subject whereby one is able to think about it and use concepts to deal adequately with that situation. When the head of households in all the three selected tribal agencies asked *do you know what Polio is? what causes Polio? how it effects on the children’s health? and how can Polio be prevented?* The average majority (94%) of the head of households answered that Polio is a disease harmful for health; while about 95% of them were not able to comprehend that what causes Polio. An average of 87% of the head of households expressed that Polio affects the health of children by making them physically disable and paralyze. Surprisingly, about 90% of them said the Polio can be prevented by Polio vaccine. It is quite clear from the Figure-1 given below that majority of the head of households was familiar to Polio disease,

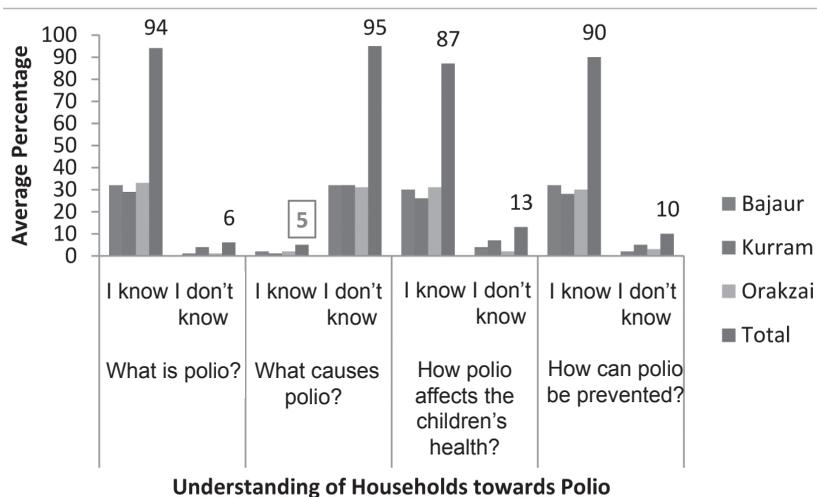


Figure 1: Understanding of Households towards Polio

its effects on children health and Polio prevention through Polio vaccine but they had not any knowledge of what causes Polio and how it spreads. The data in the figure also shows similar responses from all the three selected agencies.

3.2 Polio Vaccination for Children

Prevention is better than cure. Vaccination is the administration of antigenic material (a vaccine) to stimulate children's immune system to develop adaptive immunity to a pathogen. Vaccines can prevent or ameliorate morbidity from infection. The effectiveness of vaccination has been widely studied and verified. When the head of households in all the three selected tribal agencies asked that *do you vaccinate your children against Polio?* The average majority (69%) of the head of households replied that they vaccinate their children when the Polio workers visit their homes, while 31% of the head of households said that they don't vaccinate their children. From these results, we may conclude that majority of the tribal households prefer to vaccinate their children when the Polio vaccination services available to them at their doorsteps. The following Figure-2 indicates agency-wise responses of head of households:

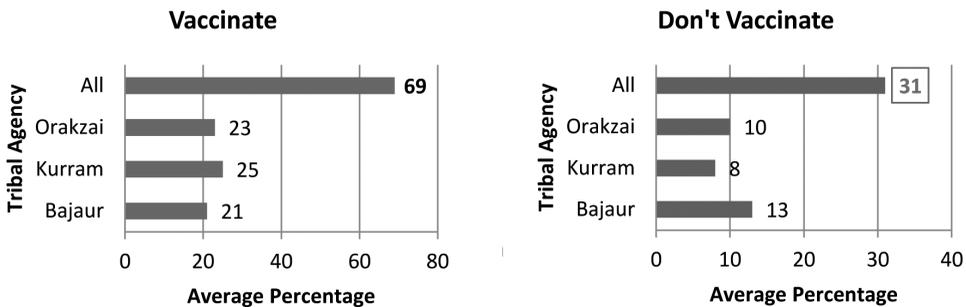


Figure 2: Polio Vaccination for Children

However, when the reasons of refusing Polio vaccine were asked from the head of households who expressed that they don't vaccinate their children, an average majority (39%) of them carried the view that the vaccination drive in the name of Polio disease is actually a hidden agenda of anti-Muslims particularly of Muslims in FATA. They said that the people of FATA are famous for their bravery and they have sacrificed a lot for the Islam, that's why such forces are targeting them to crush their generation. About 28% of the head of households explained that there is no Polio disease in FATA and the Polio vaccine itself can be the cause of Polio disease. Some 21% of the respondents argued that the government receives huge funding from the international donor agencies but never focused the basic health services for the poor people of FATA as the hospitals and health units are in catastrophic situation. They expressed concern over lack of basic healthcare facilities and shortage of doctors and medical staff in the hospitals and other health units in all the three tribal agencies. They stated that the government officials are involved in corruption only and they are using FATA as the base of funding. However, 12% of the head of households replied that they don't trust the Polio vaccinators because in the drive of Polio campaign these vaccinators can leak out our family and personal information.

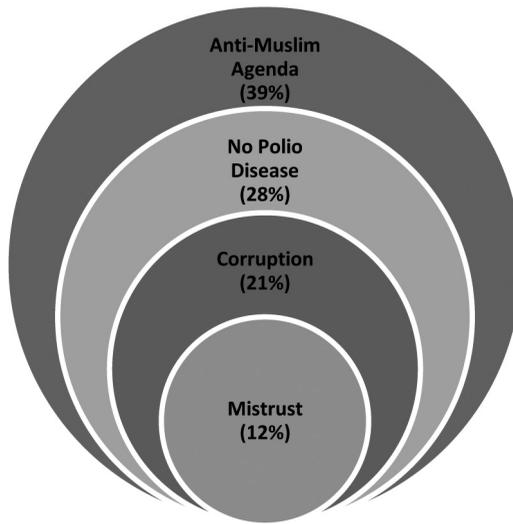


Figure 3: Reasons for Refusing Polio Vaccine

3.3 Sources of Information about the Harmfulness of the Polio vaccine

When the head of households were asked *how do you come to know that Polio vaccine is harmful for the health of your children?* The average majority (49%) of the head of households explored that people in the villages discuss the harmfulness of Polio vaccine and through communication they come to know it. About 24% head of households described that they receive text messages on their mobile phones from friends as well as unknown numbers about the harmfulness of the vaccine. Some 19% replied that they have heard from the religious scholars to strictly refuse the vaccination when the Polio workers visit your homes. While a few 8% of the head of households mentioned that they read in the pamphlets and booklets etc. The following Figure-4 shows the sources of information for the head of households:

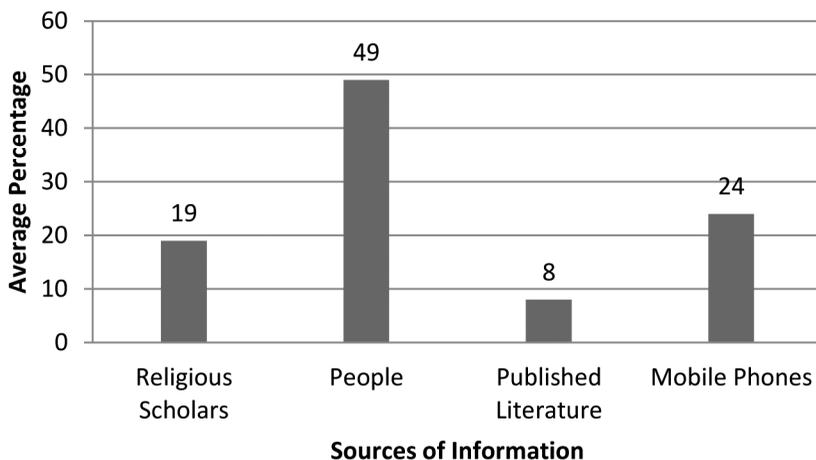


Figure 4: Source if Information about the Harmfulness of Polio Vaccine

3.4 Perceptions of Muslim Religious Scholars

When the Muslim religious scholars were asked that *what are your perceptions about the Polio vaccine?* The average majority 73% of them replied that the Polio vaccine is very necessary for the children to save them against this fatal disease. They explored that FATA has been the hub of Polio cases and due to frequent military operations by the Pakistan Armed Forces against Taliban and Al-Qaida militants, thousands of people have been displaced from all the tribal agencies. The government either vaccinated the children in the Displaced Persons’ Camps or carried out vaccination campaigns in the secure regions of FATA only; the insecure regions still required vaccination and there might have more Polio cases. They further described that they also allow and appreciate Polio workers to vaccinate their children. On the other hand, an average of about 27% of the religious scholars expressed their views that Polio vaccine is harmful for the children as this is only and only fake propaganda of West against them. When these 27% scholars asked that *“have you ever test the Polio vaccine in a laboratory and found any prohibited ingredients in the test?”* All of them replied *“we never tested the vaccine in the laboratory”*. They argued that they have only accepted the fatwa from our senior Muslim scholars and will always follow them because they won’t be wrong. The following Figure-5 shows the perceptions of Muslim religious scholars:

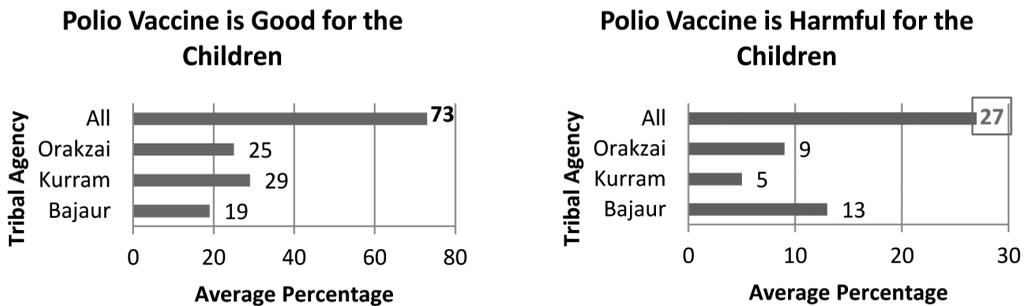


Figure 5: Perceptions of Muslim Religious Scholars

3.5 Views of Doctors

During detailed interview, the doctors in each agency headquarter hospital of the selected tribal agencies explored that Poliovirus spreads primarily through the fecal-oral route, especially in areas where sanitation is inadequate. FATA is one of the poorest regions in the country where lack of basic necessities like water and sanitation has caused communities to question government spending on Polio vaccines. Other times, vaccination may be prevented by armed-conflict or political unrest that makes it difficult and unsafe for vaccination campaigns to take place. They explored that the health indicators for FATA are highly disappointing but the armed-conflict between Pakistan Armed Forces and Taliban militants has further turned down the quality of life in the region. They described that majority of the population in FATA is supplied with drinking water but less than a third of this supply is in the form of individual connections to households. In many rural areas,

women are required to travel long distances to fetch water. Sanitation facilities are rarely available and more difficult to assess. Water-borne diseases are creating serious health problems especially for children and women in the villages.

The doctors further explained that the humanitarian situation in many parts of the Agencies remains a concern, particularly for displaced persons. Most of the local and international NGOs continue to deliver basic services in increasingly crowded camps. While several immunization campaigns have been undertaken by the Ministry of Health in the tribal Agencies but primary health services are generally in deprived situation in these areas. The government doesn't have the capacity to facilitate the huge affected population of FATA; therefore, most of the NGOs are providing basic health assistance as well as promoting water sanitation and hygiene programs in the region. This will definitely support in eradicating Poliovirus. However, Polio vaccination is a sensitive issue, and local doctors cannot openly support the Polio campaigns because of fear of religious militants, therefore, the Ministry of Health is responsible for immunization campaigns, while NGOs can only facilitate in water sanitation and hygiene related issues.

3.6 Views of Polio Workers

When the Polio workers were asked; *will you visit the three tribal Agencies for Polio vaccination campaign as these tribal agencies have been announced clear from Taliban and Al-Qaida militants?* The majority (68%) of the Polio workers refused to visit these tribal agencies because of fear of attack on them. They replied that even within security arrangements, Polio workers and their guards have been targeted and killed, so we will never go to these areas. From the views of these Polio workers, it is illustrated that insecurity still a big barrier between the Polio workers and the tribal region. The female Polio workers were on the majority for refusal. They also expressed their concern on low salaries. However, only 32% Polio worker were agreed to go to these tribal agencies and expressed their feelings *“if we will not visit there then who will visit? This is our duty to eradicate Polio from that region”*. The following Figure-6: clearly shows the views of both male and female Polio worker:

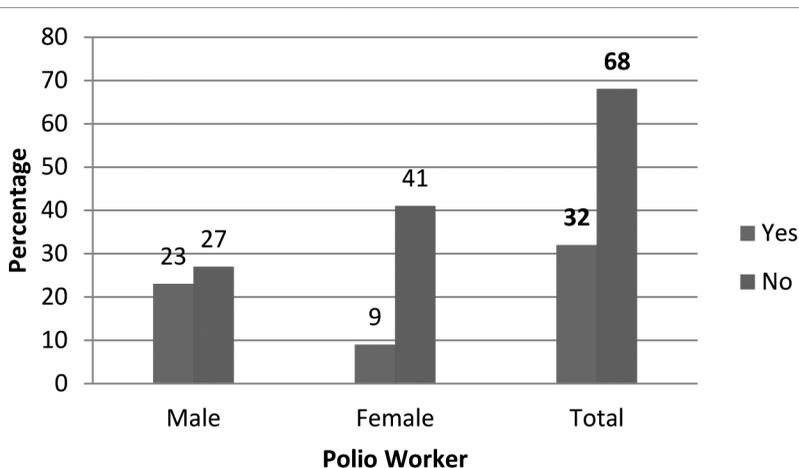


Figure 6: Views of Polio Workers

4. Conclusion and Recommendations

Despite spending millions of dollars and conducting several Polio eradication campaigns, the donors and the government have been failed to remove mistrust of the people as religious clerics had publicly been blaming the immunization drive as an attempt by the West to infertile males and reduce their population. This type of mindset had badly damaged reputation of the donors and their efforts to counter this malicious propaganda. Misled by clergy and their propaganda, Polio teams came under attack by the militants and religious extremists in certain areas and gunned down a number of Polio vaccinators, including females. Gone are the days when Polio teams used to march and walk freely in the streets and vaccinating children without any fear. Now a Polio team is not allowed to work without adequate Polio security even in the major cities. The parents refuse Polio drops and usually ask the Polio team why the government doesn't provide them health services free of cost when it sends teams every month to their homes for Polio drops. These are very genuine queries and the government and particularly the health department needed to answer them. Also, most of the resources meant for eradicating Poliovirus are being spent on fruitless indoor sessions, meetings, unproductive trainings and workshops but the real heroes (Polio worker) who risk their life and go door-to-door to administer drops to kids are being ignored and paid very little amount for their remarkable job.

There are certain areas in FATA where Polio teams had not been able to reach and vaccinate children. Even during the ongoing much-publicized campaign, Polio teams couldn't reach in maximum areas of South Waziristan and Khyber tribal regions due to insecurity and fighting between the Pakistani Armed Forces and Militants. One should not talk about North Waziristan as most of its population had been displaced due to the unending military operations since 2004. However, the military offensive in FAT has, paradoxically, opened up opportunities to provide health services to children from the FATA through care for displaced families. This could contribute to building community support and to re-establish the rule of law in conflict-ridden areas once people return. Ongoing support will be necessary to eradicate Polio: children require multiple doses of vaccine to build immunity. We fervently hope that the government and concerned agencies will devote their energies to scaling up full immunization efforts in these displaced and marginal populations. This is a chance to eradicate Polio from Pakistan.

The continued persistence and transmission of Poliovirus in Pakistan has become a national emergency. Pakistan is now at a risk of becoming the last and the only home of the Poliovirus in the world, and the last hurdle in achieving global Polio eradication. To accelerate the effort to stop transmission of Polio virus, Pakistan has been implementing national emergency plans that are overseen by its respective head of state and are helping to increase accountability and quality of Polio vaccination campaigns from the national to the local level. GPEI organizations are providing unprecedented levels of technical and financial assistance to the country, and improved vaccination campaign tactics are ensuring that more children are being reached. Better planning and modeling approaches are ensuring better use of resources. Increased awareness of Polio and a coordinated strategy involving relevant public and private institutions are crucial to eradicate the disease.

Religious scholars, health organizations and political leaders should cooperate and support the government to create awareness among the masses through health education.

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