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**"HEALTH IS AN ACHOOOT BEAT"  
FACTORS INFLUENCING PAKISTANI JOURNALISTS' COVERAGE OF  
POLIO VACCINATION**

**BY**

**SAYYED FAWAD ALI SHAH**

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M.A., Communication and Journalism, University of Peshawar, 2008

DISSERTATION

Submitted in Partial Fulfillment of the  
Requirements for the Degree of

**Doctor of Philosophy  
Communication**

The University of New Mexico  
Albuquerque, New Mexico

**July 2018**

## **DEDICATION**

Dedicated to the children who were killed by terrorists in the Army Public School in Peshawar. Their memories will always stay with us.

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**"HEALTH IS AN ACHOOT BEAT"**  
**FACTORS INFLUENCING PAKISTANI JOURNALISTS' COVERAGE OF POLIO VACCINATION**

by

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**ABSTRACT**

Pakistan is one of the three countries where polio remained endemic in 2017—the other two being Afghanistan and Nigeria. The highest number of polio cases, 15, was recorded in Pakistan in 2016. A majority of the polio cases emerged among the ethnically Pakhtun population living in Pakhtunkhwa, FATA (the Federally Administered Tribal Areas), and Karachi, a metropolitan city in the Sindh province where Pakhtun immigrants from Pakhtunkhwa and FATA work and live. The resistance to polio vaccination among Pakhtuns has been associated with several factors, including a lack of knowledge about polio and anti-polio vaccine, the ongoing “war on terror,” conspiracy theories surrounding the vaccination campaigns, the public’s lack of trust in the government, and poor health infrastructure in the Pakhtun-dominated areas. The government of Pakistan and UNICEF devised a strategy that stresses the importance of media in reaching the resistant communities. Journalists play an important role in the creation and dissemination of health information and, therefore, are important potential stakeholders in the polio eradication campaigns. However, past research did not examine the role of the local journalists in the local public health issues, especially the polio vaccination campaigns in Pakistan. Furthermore, past scholarship focused on journalists’ identity and their role in dissemination of health-related information in high-resources settings,

predominantly in English speaking countries. The voices of local journalists who are also active members of their communities are missing from the dominant discourse on health issues in their communities and the media coverage of those issues in the subaltern context. It is therefore important to understand the perceptions of local journalists about health issues in their communities and their role in covering health issues in the subaltern contexts.

Using a constructivist grounded theory approach, this study seeks to understand: 1) the perceptions of local journalists about the media coverage of health issues; 2) what journalists say are the factors that influence their own coverage of health issues; 3) their perceptions of the reaction to polio vaccination among the Pakhtun communities; 4) their own perceptions of the importance of the vaccination; 5) their perceptions of the media coverage of polio vaccination; 6) the factors that influence their (own) coverage of polio vaccination.

The journalists recruited for this study included local journalists (n=26) covering health for Urdu language newspapers (n=9); journalists covering health for radio outlets (n=6); and journalists who covered different beats, including health, for several media outlets from districts or agencies (n=11). They ranged in age from 27 to 59 (M=36.01), and their experience as journalists ranged from five years to 23 years (M=7.51); most of them have covered health beats for more than two years (M=2.7). All of the journalists were married. All of them were male.

The overarching analytical category that emerged was a tension between western-like ideals of journalism and the political-economic reality of the local context. The journalists were performing several identities and the intersection of those identities



created a tension that resulted in the poor coverage of health issues. The local health journalists had a journalistic identity that was influenced by western ideology of journalism, but they tried to adjust the western journalistic ideology to the local realities. The journalists walked a thin line between maintaining their professionalism and surviving in the job market. The tension between professionalism and survival forced the journalists to perform what I theorize as hybrid professional identities. The participants noted that the media organizations based in the major cities downplayed or ignored the health issues in Pakhtunkhwa and FATA—the two areas in the peripheries of Pakistan. The participants regarded lack of personal/professional capacity of journalist to cover health issues and lack of professionalism in the field of journalism as the two main factors that influenced their own coverage of health issues. A majority of the participants associated resistance to polio vaccination in the Pakhtun communities to the lack of basic health facilities in the Pakhtun in the communities, the inability of the government and its international partners to frame polio as a local public health issue, and religious beliefs that resulted in rumors about polio vaccination. The local journalists also believed that they were not equipped to cover polio vaccination related issues properly that at times result in the inclusion of rumor-based information in their news stories.

Based on the findings of my study, I propose a model of influencers on the local health journalists' coverage of health issues in the low resources subaltern context. I also add to the literature on agenda-building theory by problematizing the relationship between journalists and public relations officers in a subaltern context.

In order to create awareness about health issues UNICEF, WHO, and health communication and public health scholars need to tailor their communication strategy to eradicate polio vaccination according to the needs of the local communities.

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## **Chapter1**

### **Introduction**

I come from Khyber Pakhtunkhwa, the northwestern province of Pakistan adjacent to the Federally Administered Tribal Areas (FATA). Pakhtunkhwa and FATA are home to ethnically Pakhtun population— marked as a high-risk group in the polio eradication campaigns. Pakistan is one of the three countries where polio remained endemic in 2017—the other two being Afghanistan and Nigeria (GPEI, 2016b). The highest number of polio cases, 15, was recorded in Pakistan in 2016. A majority of the polio cases emerged among the ethnically Pakhtun population living in Pakhtunkhwa, FATA, and Karachi, a metropolitan city in the Sindh province where Pakhtun immigrants from Pakhtunkhwa and FATA work and live (UNICEF, 2016). Resistance to polio vaccination, provided by the government of Pakistan in collaboration with UNICEF, WHO and other international partners, is high in these areas.

A majority of the Pakhtun population lives in the areas where the Pakistan military is fighting al-Qaeda-backed militants called the Tehreek-e-Taliban Pakistan (TTP). The resistance to polio vaccination among Pakhtuns has been associated with several factors, including a lack of knowledge about polio and anti-polio vaccine, the ongoing “war on terror,” conspiracy theories surrounding the vaccination campaigns, the public’s lack of trust in the government, and poor health infrastructure in the Pakhtun-dominated areas (Bhootrani & Tahir, 2012; Closser, 2010; Khan & Chiau, 2015). Though the number of recorded polio cases decreased during 2016-17, resistance to vaccination persists in some parts of the country. Despite a nationwide media campaign by the government of Pakistan and its international partners and several community-based

projects, knowledge about polio vaccination remains low among the resistant communities, and conspiracy theories prevail. The government of Pakistan and UNICEF devised a new strategy that stresses the importance of media in reaching the resistant communities (UNICEF, 2016). Journalists as newsmakers and news gatekeepers play an important role in the creation and dissemination of health information and, therefore, they are important stakeholders in the polio eradication campaigns. Journalists not only create messages and deliver information about health issues like polio vaccination but as part of the community they are also influenced by the community's perception of health issues. Therefore, it is important to understand not only the journalists' perceptions of media coverage of such issues but also their perceptions of the factors that influence their own coverage of those issues. Using a constructivist grounded theory approach, this study seeks to explore 1) the perceptions of local journalists about the media coverage of health issues; 2) what the local journalists say are the factors that influence their own coverage of health issues; 3) their perceptions of the reaction to polio vaccination among the Pakhtun communities; 4) their own perceptions of the importance of the vaccination; 5) their perceptions of the media coverage of polio vaccination; and 6) the factors that influence their (own) coverage of polio vaccination.

In the context of this study, a *journalist* is someone who reports or edits news stories for media organizations from different cities or districts of Khyber Pakhtunkhwa (henceforth Pakhtunkhwa) or smaller administrative units, called agencies, in FATA. The term *media* in this project refers to radio and newspapers— the two most popular sources of information in Pakhtunkhwa and FATA. Newspapers and radio remain the two most powerful news sources in the country to reach populations in the semi-urban and rural



areas (BureauofStatistics, 2015). As newspaper circulation has decreased in the West, Pakistan has seen a rise in its number of newspapers due to the nation's increasing literacy rates and investment in the media market. Currently, there are more than 2,000 daily newspapers in the country with over six million readers, compared to 1,100 dailies in 2002 with a circulation of three million (Siddiqi, 2016a). It is also estimated that each newspaper is read by at least five people, therefore the actual readership stands at 30 million in a country of 207 million people (Siddiqi, 2016b). Similarly, the country has seen a rapid boom in its radio industry. There are around 150 radio stations, including 28 owned by the government. Radio has been successful due to its reach to the underprivileged population, especially those living in FATA and the far-flung areas of Pakhtunkhwa

### **Communication Strategies to Eradicate Polio from Pakistan**

The refusal of polio vaccination in the Pakhtun-populated areas is a complex phenomenon (Closser, 2010). The reasons for refusal range from a lack of trust in international organizations to religious beliefs. However, one of the factors is the lack of knowledge surrounding polio vaccination that gives birth to different conspiracy theories. The government of Pakistan is using different communication strategies to counter these conspiracy theories and convince parents to vaccinate their children. The strategies include large-scale media campaigns, social activism, the involvement of religious scholars, and improving the capacity of polio health workers to communicate with the caregivers properly and deliver the vaccine according to the standards set by UNICEF. Media, especially radio and newspapers, remain at the center of communication strategies in Pakistan (UNICEF, 2016). The government of Pakistan is arranging quarterly briefings

for media employees, pitching stories to media employees, having interactions with reporters and editors, and training public information officers at the district level (Pakistan, 2015). The government of Pakistan and its international partners like UNICEF plan to use media to create awareness about polio vaccination by providing information about polio, associated risks, campaign efforts, vaccine efficacy, and safety (UNICEF, 2016). The Global Polio Eradication Initiative (henceforth GPEI), under its new mass-media message strategy, is attempting to positively portray the image of health workers in the field, presenting them as heroes to the general population (Pakistan, 2015).

In order to get favorable coverage in the media for polio vaccination, the government of Pakistan and UNICEF conduct training programs for journalists from Pakhtunkhwa and FATA, and also provide them information subsidies. The communication strategy of the government of Pakistan and UNICEF focuses on creating awareness among journalists about polio and vaccination by training them in how to cover polio vaccination for their respective media outlets. The communication strategy also stresses the provision of information subsidies (UNICEF, 2016). However, these strategies were not examined in research and there is evidence that they were not effective. For instance, despite these efforts, media regularly publish or broadcast stories that are either anti-vaccination or do not provide enough information to readers or listeners to enable them to make an informed decision about vaccination (National Emergency Operation Center, 2016). At times, media outlets publish or air anti-vaccine stories that are based on rumors. For example, in December 2016, both national and local media outlets reported that one child had died and eight others were in critical condition after receiving polio vaccines (Farooq, 2016). The Ministry of Health regarded the

reports as false and baseless. Therefore, it is important to understand how journalists cover polio vaccination specifically and health issues generally, and the factors that influence their reporting on these issues.

### **Media and Vaccination**

Even though media have the potential to create awareness about public health issues, the media coverage of such issues in Pakistan remains an understudied area. Recent research on the coverage of HPV vaccine in the U.S. shows that the media's reporting on vaccination lacks depth, comprehensiveness, and transparency (Bodemer, Müller, Okan, Garcia-Retamero, & Neumeier-Gromen, 2012; Calloway, Jorgensen, Saraiya, & Tsui, 2006). The poor coverage of health issues in general and vaccination particularly has been associated with the journalists' inability to translate science or health information for the common public, journalists' lack of training, time constraints, organizational routines, journalists' own perception of the issue at hand, and the disconnect between journalists and public information officers or public relations officers (Shuchman & Wilkes, 1997; Voss, 2002; White, 2012). Further, the media can reinforce conspiracy theories and create doubts in the minds of readers about scientific interventions by including scientifically invalid information.

Despite the importance of media in public health programs, especially in polio vaccination campaigns, the media coverage of polio vaccination remains understudied. Studies done in Nigeria and India show that media as channels and journalists both as newsmakers and members of civil society can play a critical role in the success of polio vaccination campaigns (Obregón & Waisbord, 2010; Olufowote, 2011; Warigon et al., 2016). Similarly, local journalists as newsmakers and members of the community can

provide an insider-outsider perspective of the media coverage of health issues in Pakistan. However, in the context of Pakistan, I could not find any academic study that examined journalists' perceptions on the media coverage of polio vaccinations and health, or the factors that influence the local journalists' coverage of health issues in general and polio vaccination specifically. Most of the studies on the journalists' perceptions of health issues are done in the Western context. Universally, journalists share professional norms or values, work role identity, and ideology; however, their national, religious, and economic identities and ideologies can override universal professional norms and work role identities (Deuze, 2005; Pintak, 2014; Weaver, 2004). Journalists in Pakistan also define journalistic ethics, professionalism, and their work role identity in the context of local cultural, religious, and political identities (Pintak & Nazir, 2013). Journalists, like others, are influenced by their historical and cultural contexts, which, in turn, shape their worldviews. Dutta (2004, 2016) stresses the need for recovering voices from the marginalized spaces or subaltern contexts that have been systematically missing from epistemic structures. My study aims at providing agency to the journalists from a marginalized community by co-construct meaning of health and journalism with them. Therefore, constructivism (Charmaz, 2000) helps me to best explore my questions of 1) the perceptions of local journalists about the media coverage of health issues; 2) what journalists say are the factors that influence their own coverage of health issues; 3) their perceptions of the reaction to polio vaccination among the Pakhtun communities; 4) their own perceptions of the importance of the vaccination; 5) their perceptions of the media coverage of polio vaccination; 6) the factors that influence their (own) coverage of polio vaccination.

Constructivism is looking for both the researcher's and respondents' meanings of a phenomenon, or a process. Charmaz (2006) argued that constructivist grounded theorists pursue differences and variations among research participants and co-construct meaning with them. Engaging in the constructivist research project involves power-sharing between the researcher and the participants of the study. The constructivist grounded theory approach provides me the flexibility of taking successively more analytical control of the data and the emerging theoretical ideas. At the same time, the constructivist grounded theory approach allows me to co-construct ideas and meanings with the participants, in this case journalists who are experts in their field.

### **Positionality**

I am using a constructivist grounded theory approach in this study. As a journalist who has worked for different media outlets for more than eight years, and as a journalism teacher, I have a considerable knowledge of the journalism culture, ethical standards, and media industry in Pakhtunkhwa and FATA. I also have had exposure to different media theories developed in the Western context. Therefore, like many other grounded theory scholars, I entered this project with the knowledge of the area of research but with an open mind (Charmaz, 2014). My knowledge as a journalist in Pakistan and exposure to the Western theories helped in framing some of my interview questions. In this section, I discuss some of these Western media theories about the influences of and on media coverage of different issues. A number of Western scholars have theorized the influence of media coverage on publics, and the factors that influence journalists' coverage of different issues. I want to discuss some of these ideas to provide context for the present study. Several communication scholars have posited that media coverage of different

issues influences public opinion on these matters. However, the media coverage of various issues is itself affected by various internal and external factors.

### **Communication Theories**

Several Western scholars have theorized the influences of media coverage on publics, and the factors that influence journalists' coverage of different issues in general. Agenda-building theory posits that media, government, and society reciprocally influence each other. In the context of health and science, researchers have found a strong influence of official and medical sources on journalists' coverage of those issues (Berkowitz, 1987, 1989). However, though health journalists are dependent on information subsidies and official sources, they have the power to increase or decrease the salience of a part of the information provided by sources by framing their story in a certain way.

Framing theory posits that journalists can highlight and prioritize a particular problem or causal interpretation by the selection of a few aspects of a perceived reality, making them more salient in a text (Entman, 1993). The news frame helps journalists construct their stories in a systematic way (Lopez-Escobar, Llamas, & McCombs, 1998). On the other hand, gatekeeping theory posits that journalists play the role of gatekeepers in the information flow (Shoemaker Pamela & Reese Stephen, 1996). The journalists' role as gatekeepers is influenced by several factors including individual influence, routine influence, organizational influence, social institutions, and social systems (Shoemaker & Reese, 2013). The hierarchical model claims to provide a framework to understand journalism in a glocal context (McQuail, 2010; Wasserman & Rao, 2008) All of these theories, however, have been developed in a Western context. This is the reason I am using a constructivist grounded theory approach for this study. This approach helps me in

staying closer to my data and looking at the issues through the eyes of the participants, in this case local journalists, rather than letting preexisting theoretical concepts guide my study.

### **Statement of the Problem**

Despite the efforts of the government of Pakistan and its international partners, polio vaccination campaigns are resisted by people in certain communities (UNICEF, 2000, 2004, 2012, 2014, 2016). Polio eradication efforts are supported by large-scale communication strategies. However, the communication efforts have not been successful in molding the public opinion of a major chunk of the non-compliant Pakhtun families in favor of vaccination (National Emergency Operation Center, 2016; Pakistan, 2015). Even those who vaccinate their children due to pressure from the government or community remain skeptical of the eradication campaigns. Overall, there is a vacuum of information about polio and polio-vaccination despite a multi-pronged communication strategy developed by the government of Pakistan and UNICEF to reach the targeted population (Jan & Shah, 2014). Media play a central role in this (National Emergency Operation Center, 2016). Along with involving religious scholars, doctors, and local health workers in the campaigns, the new strategy also stresses the importance of journalists as opinion makers in the polio vaccination campaigns (Pakistan, 2015; UNICEF, 2016). However, there is a dearth of literature on media coverage of polio and anti-polio vaccine in Pakistan. Similarly, we don't know how journalists perceive their coverage of polio vaccination and other health issues, or the factors that influence their reporting. Research on health reporters and media coverage of health issues in the West suggests that the reporters are not adequately trained to cover health issues and are reliant on information

subsidies and official sources (Leask, Hooker, & King, 2010; Voss, 2002; White & Wingenbach, 2013). Similarly, literature on media coverage of HPV vaccination in the West suggests that the coverage normally lacks comprehensiveness and transparency, and that it misguides the audience (Abdelmutti & Hoffman-Goetz, 2009; Bodemer et al., 2012; Calloway et al., 2006; Habel, Liddon, & Stryker, 2009; Hilton, Hunt, Langan, Bedford, & Petticrew, 2010).

There is a need to understand journalists' perceptions of the media coverage of polio vaccination and other health issues, and the factors that influence the coverage of these issues. The exploration of the journalists' perceptions can help improve the coverage of polio vaccination and other health issues.

### **Objectives**

In the absence of any academic literature, it is hard to evaluate the role played by media in creating knowledge that is essential for informed decisions about polio vaccination. Journalists, as newsmakers, play an integral part in how media covers an issue. The media coverage of an issue depends on the individual, routine, organizational, and societal level influence on the journalists who covers the issue (Shoemaker & Reese, 2011; Shoemaker Pamela & Reese Stephen, 1996; Shoemaker, Eichholz, Kim, & Wrigley, 2001; Shoemaker & Reese, 2013). Using a constructivist grounded theory approach (Charmaz, 2014), this study aims to explore the perceptions of health journalists in Pakhtunkhwa and FATA in order to understand how they look at the media coverage of polio vaccination specifically, and health issues generally. The study also examines the perceptions of the journalists about the factors that influence their coverage of polio vaccination and other health issues. This study provides an insight into the lives of



journalists and their perceptions of different health issues in an area using a totally different structure from that of western journalism. For example, in Pakhtunkhwa and FATA, most of the journalists, especially those working at the district or agency level, do not get any salaries from the media organizations they work for (Khan, 2011). Therefore, it is imperative to understand how these journalists approach polio vaccination and other health issues.

The following research questions will guide this study:

Research Question 1 (RQ1): How do participants describe local coverage of health issues?

Research Questions 2 (RQ 2): How do local journalists describe reaction to polio vaccination among Pakhtun communities?

Research Question 3 (RQ 3): How do local journalists perceive the importance of polio vaccination?

Research Question 4 (RQ4): What are the perceptions of local journalists about the media coverage of polio vaccination in Pakistan and the factors that influence the coverage of polio vaccination?

The research questions will be answered using qualitative analysis of semi-structured intense interviews with journalists.

## **Overview of Chapters**

**Chapter 2.** The second chapter of this study discusses polio eradication efforts in Pakistan. The chapter reviews literature about polio and anti-polio vaccination in Pakistan; communication strategies devised to counter polio in the country; the media landscape in Pakistan; the history of polio globally, with a special focus on the U.S.; the

communication strategies used to eradicate polio from the world with a focus on Pakistan, Nigeria, India, and Afghanistan; media coverage of vaccination, health, and science; and the theoretical framework guiding this study.

**Chapter 3.** This chapter explains the research design for this study, the paradigmatic approaches of the researcher, and the analytical tools used to investigate the research questions for this study.

**Chapter 4.** This chapter will describe results of the study.

**Chapter 5.** This chapter will discuss the results to draw inferences. It will also examine the limitations of the study and propose future directions.

## **Chapter 2 Literature Review**

### **Overview**

The first section of this chapter discusses polio in Pakistan, the Global Polio Eradication Initiative (GPEI) in Pakistan, and the hurdles to the elimination of polio in the country. The second section explores the media landscape in Pakistan generally, and in Pakhtunkhwa and FATA specifically. The third section reviews literature on the mass media coverage of vaccination, and health and science reporting. The fourth section explores the history of polio in the U.S., resistance to polio vaccination globally, and the communication campaigns developed by UNICEF to counter resistance to polio vaccination globally. The last section discusses research questions guiding this study.

In the next few paragraphs, I discuss the literature available on polio vaccination efforts in Pakistan. I have divided the literature into five sub-sections: 1) parents' perceptions of the polio vaccination; 2) perceptions of health workers and vaccinators; 3) social and administrative problems; 4) structural and cultural problems; and 5) communication and administrative strategies of the government of Pakistan and UNICEF.

### **Parent-Level Barriers to Polio Vaccination**

Parents are crucial to the success or failure of public health initiatives targeting children. Parental barriers were previously explored using diverse approaches and methodologies (UNICEF, 2000, 2014, 2016). Reichler et al. (1997) conducted a survey in four districts of Pakistan after the NIDS in 1994. They selected two urban and two rural districts of the country to explore the immunization uptake by individuals and households, problems faced by people in vaccinating their children, and their primary

source of information. They found that the majority of the parents surveyed for the study vaccinated their kids. They identified parents' lack of knowledge about the vaccination as the primary reason for non-vaccination of their children. Some parents did not know the vaccination dates, and others had concerns about the nature and side effects of the immunization. At that time the principal sources of information for parents about the vaccination were television and radio stations. Pakistan Television Network and Radio Pakistan were the only electronic media options available since the country did not have any private electronic media. Most of the people relied on state-owned media to gratify their information needs. The authors concluded that the government should make efforts to increase parents' knowledge of polio and vaccination. Since that time, other scholars have also studied parents' participation in the immunization campaigns, and their knowledge surrounding vaccination. Most of these studies have been conducted in the less-privileged areas of Karachi city.

For example, Khowaja, Khan, Nizam, Omer, and Zaidi (2012) assessed parents' knowledge surrounding polio and polio vaccination campaigns in Karachi. They recorded self-reported participation in the Supplementary Immunization Activities (SIAs) targeting children aged less than five years. They conducted a mixed-methods study that included a cross-sectional survey and in-depth interviews with the parents in different parts of Karachi. A total of 1017 parents participated in the study. The respondents included low-income Pakhtun families, low-income non-Pakhtun families, and middle-to-high-income families from all ethnic backgrounds. They found that Pakhtun children were seven times less likely to participate in the SIAs than were children of low-income non-Pakhtun families. Low-income Pakhtun parents were 2.2 times more likely to lack information

about polio than low-income families of non-Pakhtun background. Similarly, the odds of low-income Pakhtun parents never having heard about the SIAs in their areas were six times higher than the low-income non-Pakhtun families. Therefore, it is possible that these ethnic differences in vaccination rates are not only related to differences in information and knowledge but are also caused by them.

For interviews, the researchers selected fathers in the households who were ethnically Pakhtun, did not send their children for polio vaccination, or whose children did not participate in the last two SIAs. Interviews with the fathers revealed that they were skeptical of the motivations of the government for the vaccination. The parents considered polio vaccination as a conspiracy against Islam and Pakistan. The caregivers also believed that polio vaccination renders children sterile and infertile. The authors recommended involving fathers and religious leaders in the high-risk communities in polio eradication efforts in order to increase uptake of polio vaccination.

Since the publication of the above paper, the health ministry of Pakistan, in collaboration with UNICEF, has taken steps to involve parents, especially fathers, and religious leaders in the polio campaigns. Similarly, Naeem et al. (2011) conducted a cross-sectional survey in Peshawar district to identify factors associated with the coverage of polio vaccination and the determinants of the non-participation of parents in the immunization campaigns. Among the 600 respondents, 121 did not vaccinate their kids. The primary reasons given by the parents for not vaccinating their children were vaccinators not visiting their homes (n=77, 63.3%), and lack of awareness of the importance of the polio vaccination (n=18, 17.4%). They also found that all the parents who did not vaccinate their children were either ethnically Pakhtun Pakistani or Afghan.

In addition to ethnicity, the researchers found a link between the economic status of the families and participation in the polio vaccination campaigns. Low-income households were most likely to not vaccinate their children. The researchers also interviewed health workers involved in the polio immunization campaigns. The polio workers reported that the level of knowledge of community leaders and parents about polio and polio vaccination was not satisfactory and served as a barrier to vaccination. Thus, the resistance to polio-vaccination among Pakhtun families is multi-faceted. The lack of knowledge about vaccination and lack of trust in the vaccination are the main hurdles to polio eradication.

Sheikh et al. (2013) carried out an observational, cross-sectional survey in two clinics that served the low-income population of the metropolitan city of Karachi. Using a convenience sampling technique, they recruited 1,047 parents who visited the pediatric outpatient departments of the civil hospital in Karachi and the National Institute of Child Care in the city. They aimed to elucidate primary reasons behind non-vaccination of children. The researchers found a statistically significant association between vaccination status and income, ethnicity, number of children, and parental occupation. Mass media were identified as the principal sources of information about vaccination of children. Similar to Naeem et al. (2011), they also identified parents' lack of knowledge about polio and vaccination as the primary hurdle to the polio eradication efforts in Pakistan.

The studies cited above generally focus on individual level barriers to polio vaccination. They did not account for structural and social level barriers. The resistance to polio vaccination in Pakistan is multi-faceted. Structural and social level barriers also play an important role in increasing resistance to polio vaccination.

Scholars believe that improving health care systems in polio endemic countries will increase parents' trust in the systems and increase vaccination uptake. For example, Closser et al. (2015a) carried out a systematic comparative ethnography in seven countries to assess the impact of the Global Polio Eradication Initiative (GPEI) on local health systems. They chose seven sites for their study. The SITE Town<sup>1</sup> area of Karachi was selected to represent Pakistan. The researchers found that there were pockets in the SITE Town that refused to vaccinate their children for political and religious reasons. They also found that the health facilities were not good enough, and the patients were not treated properly by the doctors. The absence of basic health facilities and lack of trust in the doctors prompted anti-polio vaccination sentiments. For example, in one hospital, they noted that the doctor would come late to her office and spend only 30 minutes in the hospital. The patients waiting for their turn were told to show up at her private clinic. The attitude of doctors and the overall conditions of health facilities in those areas contributed to the suspicion of the parents. A mother told the researchers:

I cannot trust the polio workers and those drops that are given in the polio campaign... Polio campaigns should be stopped now. Routine immunization is a good thing. Medicine should be free, and there should be a doctor sitting in the clinic. (Closser, Juma, et al, 2015, p. 14)

The researchers noted that many considered polio vaccination as a conspiracy of Americans, prohibited in Islam, and blasphemous. However, few efforts have been made by the government of Pakistan to address parents' concerns directly. Similarly, Closser

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<sup>1</sup> The SITE town is named after the Sindh Industrial and Trading Estate. The area is host to members of the Pakhtun population who migrated from Pakhtunkhwa and FATA.

(2010) criticized the global polio eradication program as colonial in nature. She noted that the policy makers from international organizations don't take all the stakeholders into their confidence before making decisions. The top-down flow of information that does not take parents' reservations into account increases mistrust in the polio vaccination campaigns.

Along with structural problems, social-level influences also play an important role in parents' behaviors and attitudes towards polio vaccination. Factors include religious beliefs, political vacuum, security issues, weak governance and social responsibility, lack of awareness and inequity, inaccessible areas, and general illiteracy (Mushtaq et al., 2015; Shah et al., 2011). The political, religious, and security level barriers to polio vaccination increased in the Pakhtun and FATA when the CIA killed Osama Bin Laden—the al-Qaeda chief—in a military operation in Pakistan (Jan & Shah, 2014; National Emergency Operation Center, 2016). Soon after the military operation, Pakistani media reported that the CIA used vaccination campaigns to track Bin-Laden. Since the killing of the al-Qaeda chief, more than 50 health workers, police officials protecting polio teams, and doctors associated with polio vaccination campaigns have been killed in the Pakhtun areas (Larson & Bhutta, 2013; Mushtaq et al., 2010; Riaz & Rehman, 2013). Therefore, some areas in Pakhtunkhwa and FATA still remain inaccessible for polio vaccination teams. In those areas, media remain the most important sources of information about polio vaccination for the residents.

### **Health Administrators and Vaccinators' Identified Barriers**

Along with polio health workers, health administrators at the district and provincial levels play a vital role in the polio vaccination campaigns. They work in the



field and engage in conversation with the communities, thus serving as a bridge between the government and the communities. Mushtaq et al. (2010) explored the perceptions of managers and health workers involved in the Polio Eradication Initiative in the Nankana district of the Punjab province. They conducted a cross-sectional qualitative study that included focus group discussions and in-depth interviews with health officials at the district and *tehsil* (administrative units within districts) levels. The participants highlighted logistical, administrative, and communication issues. They noted that the vaccines were stored and delivered correctly. However, they pointed out that problems were caused by lack of authority at the district and *tehsil* levels. The health managers lamented that all the major decisions about the campaigns were made at the central level. The managers said they did not have any authority in the allocation of resources and human resource management. They opined that the development of communication strategy and communication material at the center also created problems because the campaign material did not take the local context into account. Based on their findings, the authors recommended providing more authority to the health managers at the district level, involving female health workers in the vaccination programs. The authors also suggested arranging customized communication training for staff at the districts, to improve the communication skills of the vaccinators. This study was done in the Punjab province of Pakistan where resistance to polio vaccination is minimal. This could be one of the reasons the respondents did not highlight religious, cultural, or social resistance to polio vaccination.

Similarly, Mangrio, Alam, and Shaikh (2008) conducted a cross-sectional qualitative study in three districts of Sindh and a district of Karachi to explore the

perceptions of the local health administrators, Lady Health Workers (this is an official term used for female health workers who visit houses in less privileged communities), Vaccinators, and District Health Officials about the barriers to improving immunization in their respective districts. They conducted focus groups and in-depth interviews to understand the issue. The health managers and vaccinators identified different hurdles in the vaccination efforts. They were concerned about political interference by politicians in the human resource management at the district level. Politicians were interfering in the recruitment of health workers. They also pointed to the lack of incentives to the vaccinators as a hurdle. The vaccinators were being given enough incentives for the nature of the job they were doing. The lack of incentives also reduced their mobility in the field. The vaccinators lamented that pediatricians were not interested in the vaccination efforts at the hospitals where immunization was offered. They also noted that the National Immunization Days (NIDs) negatively impacted routine immunization efforts. They recommended integrating polio vaccination with routine immunization. The sample for this study was taken from areas that were populated by non-Pakhtuns. This could be a reason why the respondents did not talk about social or cultural resistance to polio vaccination campaigns.

I could not find any empirical study that explored the perceptions of health administrators and health workers working in FATA. However, some peer-reviewed letters, editorials, UNICEF documents, and newspaper reports suggest that the primary hurdles for polio vaccination campaigns in the Pakhtun-dominated areas are anti-polio social and religious norms that lead to attacks on polio health workers and district level health administrators involved in the polio vaccination campaigns (Closser, 2010; Khan

& Chiau, 2015; National Emergency Operation Center, 2016; Pakistan, 2015).

### **Summary**

The literature reviewed in this section suggests that majority of the refusal cases of polio vaccination in Pakistan have been recorded among Pakhtun population living in FATA, Pakhtunkhwa, and Karachi (Kazi, Murtaza, Khoja, Zaidi, & Ali, 2014; Mushtaq et al., 2015; National Emergency Operation Center, 2016; Riaz & Rehman, 2013; UNICEF, 2016; UNICEF, 2014). The parents' lack of knowledge about polio and vaccination is a major factor associated with the refusal of vaccination. In such an information vacuum, they start believing in conspiracy theories. The majority of the parents refuse vaccination because they think vaccination is anti-Islamic and a plot against the Muslim world. The health managers and vaccinators are not empowered to deal with the local issues and need to be trained. The government also needs to provide improved basic health infrastructure.

The government of Pakistan and UNICEF have decided to revamp their communication strategy by utilizing both mass media and interpersonal communication. Radio is their medium of choice, since the majority of the people living in FATA prefer that medium as a source of information due to their low levels of literacy and lack of access to other media like television and newspapers. They also want to empower vaccinators so that parents could trust them (UNICEF, 2016). The literature describes mass media as major sources of information about polio vaccination.

Since media play a major role in the current communication strategy of government of Pakistan and UNICEF, it is important to understand the media landscape in Pakistan. The next section explores the media structures in Pakistan. Starting with the

current status of media in the country, the section discusses the development of media in Pakistan and the state-media relationship in the country. The section also reviews literature that casts light on the current status of journalism in Pakistan.

### **Media Landscape in Pakistan**

Pakistan is a country with a population of around 200 million. The country consists of five provinces and semi-autonomous areas administered by the federal and provincial governments. The provinces are Punjab, Sind, Baluchistan, Khyber Pukhtunkhwa, and Gilgit Baltistan. The semi-autonomous areas include Federally Administered Tribal Areas of Pakistan (FATA) and Provincially Administered Tribal Areas (PATA). Additionally, Azad (Independent) Kashmir has its own governance mechanism.

Pakistan is a multi-lingual and multi-ethnic country. Overall the country has six major languages and over 57 local languages. Urdu is the national language of the country, whereas English is the official language. Urdu and English are considered the languages of the elite (Rahman, 1996). The learning of Urdu and English are mandatory at school and college levels. The schools in most parts of the country use either Urdu or English. Punjabi and Seraiki are spoken in the Punjab province. Sindhi is the language of people living in the Sind province. A majority of the people living in Pakhtunkhwa, FATA, and PATA speak Pashto. Baluchistan hosts ethnically Baluch and Pashto speaking people. Since Urdu and English are the national and official languages, people speaking other languages have to learn these two languages in order to get jobs and other economic opportunities (Ayres, 2003).

A majority of the polio cases in Pakistan emerged among the ethnically Pakhtun population living in Pakhtunkhwa, FATA, and Karachi (GPEI, 2016b). Khyber Pakhtunkhwa is the northwesternmost province of Pakistan. The Federally Administered Tribal Areas of Pakistan (FATA) are semi-autonomous areas bordering Pakhtunkhwa and Afghanistan. Karachi is a metropolitan city in Sind, where the Pakhtun population migrated for economic opportunities or to seek shelter from the ongoing war on terror in Pakistan. The capital of Pakhtunkhwa is Peshawar. A majority of the population in both regions is Pakhtun. The literacy rate in Pakhtunkhwa is 53%, compared to 49.7% in FATA, and 58% nationally. There is a huge gap between male and female literacy rates both in Pakhtunkhwa and FATA. In Pakhtunkhwa, the male literacy rate is 72% compared to 36% among women. The male literacy rate in FATA is 33.3 % compared to 12.7% among females (Bureau of Statistics, 2015).

Pakistan has one of the most vibrant media systems in the South Asian region. Pakistani media are regarded as robust and outspoken in the region (Mezzera & Sial, 2010a). Pakistani media witnessed a rapid growth in 2002, after the military ruler of the country at the time, General Parvez Musharraf, relaxed media laws in the country and issued licenses to private media organizations. The country has 90 television channels, 115 radio stations, and around 1,800 newspapers and magazines (Jan, 2015). Pakistani media, despite many restrictions from the government, state agencies, and non-state actors, talk openly about different political and security issues (Ricchiardi, 2012).

The Pakistani media demographics reflect a multi-linguistic, multi-ethnic, and stratified class society with a clear divide between Urdu and English media (Pintak & Nazir, 2013). The English language newspapers target elite members of the country such

as politicians, businessmen, military officers, and bureaucrats and therefore they play a role in the policy making of the country, whereas Urdu language newspapers are consumed by the rural population and low-middle class urban population and play a significant role in building public opinion about different issues. Radio stations are popular in the rural areas of the country, especially in those areas where electricity is not available for most of the day in which the literacy rate is low. There are also television channels, radio stations, and newspapers that deliver information to the public in vernacular languages (infoasaid, 2012). However, the importance of newspapers cannot be downplayed in the context of Pakistan. Due to the recent conflict in the tribal areas of the country, a major chunk of the population migrated to the settled areas (major cities). Similarly, due to the unavailability of colleges in those areas, the educated people of FATA live in or regularly visit cities and read newspapers. Based on my experiences, I argue that the opinion makers in those areas access newspapers either online or in print. Further, I worked with Radio Free Europe/Radio Liberty's (RFE/RL) Pashto radio station as a reporter. My colleagues and I used to scan newspapers every morning to get ideas for our news stories. In my experience, these newspapers usually set the agenda for radio stations in the context of Pakhtunkhwa and FATA. One of the reasons for this is the lack of acceptability of radio journalists. Radios are popular in the tribal areas but are not a medium of choice of bureaucrats. Even radio journalists find it hard to get membership in press clubs. This is why I am interested in looking at newspapers along with the radio news broadcasts.

### **Major Media Groups in Pakistan**

As newspaper circulation decreases in the West, Pakistan has seen a rise in the number of newspapers published. Currently, there are more than 2,000 daily newspapers in the country with over six million readers, compared to 1,100 dailies in 2002 with a circulation of three million. It is also estimated that each newspaper is read by at least five people, therefore the actual readership stands at 30 million in a country of 200 million people (Siddiqi, 2016a). Similarly, the country has seen a rapid boom in the radio industry. There are around 150 radio stations, including 28 owned by the government. The radio has been successful due to its reach to the underprivileged population, especially those living in FATA and the far-flung areas of Pakhtunkhwa.

Four major conglomerates have a monopoly over the media landscape of Pakistan (Mezzera & Sial, 2010b). These private media groups run their own newspapers (both in Urdu and English) and television channels. These media groups have political and ideological positions that are evident in their editorial policies; among them are Jang Media Group, Dawn Media Group, Express Media Group, and Nawa-i-Waqt Media Group (Mazzera & Sial, 2010a). Radio listenership is divided between Radio Pakistan, BBC Pakistan, Deewa Radio (the Pashto service of Voice of America), and Mashaal Radio (the Pashto service of Radio Free Europe). However, FM radio stations are not allowed to produce or broadcast news content due to restrictions on media operations in the country (Ricchiardi, 2012). The Pashto services of BBC, Voice of America, and Radio Free Europe are aired through transmitters of Pakistan. These services broadcast talk shows and news reports on a daily basis, and maintain teams of reporters in all the major Pakhtun-dominated cities. However, these radio stations are not considered members of the mainstream media. A majority of the reporters working with these radio

stations also work with other local media organizations to maintain their memberships in the local press clubs. However, the reporters working with these radio outlets are well-paid compared to reporters working with local media organizations.

Jang Media Group is considered the largest media group in Pakistan. It publishes the Urdu-language newspaper *Jang* and the English-language newspaper *The News International*, and also owns few television channels (infoasaid, 2012; Mezzera & Sial, 2010b). The Dawn Group publishes the largest circulated English-language newspaper, *Dawn*. It also owns the Urdu language television channel *Dawn News*. Express Group or Lackson Group owns the broadly circulated Urdu-language newspaper *Daily Express*, the English language newspaper *Express Tribune*, and the Urdu language television channel Express News, along with a few other publications. *Nawa-i-Waqt* Group owns the largest circulated Urdu language newspaper *Nawa-i-Waqt*, the English daily *The Nation*, and the television channel Waqt News, along with a few magazines. Jang Group tends to have a moderately conservative perspective; Dawn Group is flagged as liberal and secular and Express Group is moderate, whereas *Nawa-i-Waqt* Group is considered to be conservative (IMS, 2009; InfoasAid, 2012). Besides these, there are some regional newspapers that have higher circulations in different provinces; among these are *Daily Mashriq*, and *Daily Aaj*, which are two Peshawar-based newspapers that have a broad readership in Pakhtunkhwa and some parts of FATA (Bureau of Statistics, 2015; infoasaid, 2012).

### **Media and State Relations**

It is pertinent to explore the relationship between state and media in Pakistan to understand the country's media operations. Pakistani media have always been under the



influence of the state in one way or the other. Niazi (1986) said that after the creation of Pakistan in 1947, media were suppressed by both elected governments and military dictators. He noted that the first curbs on the freedom of opinion came during Ayub Khan's military government in 1958-69, when a major group of independent newspapers was nationalized by the government under the banner of the National Press Trust. Even that was not enough, and the military dictator promulgated the Press and Publication Ordinance, clipping the wings of whatever independent media then remained. The Ayub regime reintroduced the colonial “press advice system” under which the Press Information Department’s officials could “request” newsrooms to suppress or highlight a particular story (Niazi & Mustafa, 2010).

Freedom of opinion was further suppressed during Zia ul Haq’s rule (1977-87), when hundreds of journalists were jailed and some even lashed for criticizing the martial law regime (Niazi, 1986). During that era, newspapers were not allowed to publish anything against the government and were used to demonize the opposition. The dictator's regime installed military officials whose consent was necessary before publication of news items. The military officials would check every story and would recommend edits as per the government policy before giving a nod for its release.

Mezzera and Sial (2010a) explained that media in Pakistan, even in the 21<sup>st</sup> century, work under the influence of the government. They argue that the government and military officials use different tactics to suppress the freedom of opinion. The military use brutal force against journalists and the government uses secret funds to corrupt reporters and use advertising as a tool to make the media organization toe the line drawn by the government. The authors argued that since the launch of the so-called war

on terror, a majority of the journalists has started self-censorship to avoid the wrath of the government.

However, Pervez Musharraf's (1999-2007) regime promulgated a new law in 2002, which for the first time allowed the establishment of privately owned electronic media in Pakistan (Ricciardi, 2012). Until 2002, there were just three television channels, all of which were owned by the state. Now there are 90 privately owned television channels, which have made it difficult for the government to control the flow of information effectively. Unlike in the developed countries, in Pakistan newspapers' circulation has increased even during the Internet age. Newspapers are one of the primary sources of information for the people. With a growing private sector that generates more advertisements, newspapers are becoming less dependent on the government for ads. This decreased dependency has ensured more freedom for newspapers. However, journalists and news media face more threats from other actors like terrorists, religious extremists, and militant organizations.

### **Media Landscape in Pakhtunkhwa and FATA**

All national newspapers, television channels, and radio stations are available in most parts of Pakhtunkhwa. However, residents of FATA have very limited access to private television and newspapers. Ninety-four percent of the residents of Pakhtunkhwa have access to radio broadcasts, although there are no data suggesting what percentage of the population in Pakhtunkhwa uses radio as a source of information. However, a recently conducted survey claimed that 23 percent of households in Pakhtunkhwa use newspapers as sources of information (BureauofStatistics, 2015). According to the FATA Communications Strategy report of 2009, over 80% of adult men and 70% of adult

women in FATA regularly listen to a radio while fewer than two percent use newspapers as a source of information. No newspaper is published in FATA, but newspapers published in Pakhtunkhwa are available in semi-urban areas of FATA.

**Newspapers and radio stations in Pakhtunkhwa and FATA.** More than 30 newspapers and magazines are published in Peshawar. However, among national Urdu language newspapers only *Daily Express*, the third largest newspaper in the country, has a local edition. The two other major Urdu-language newspapers are *Daily Aaj* and *Daily Mashriq*.

***Daily Aaj.*** The newspaper claims on its official website to be the largest newspaper of Pakhtunkhwa and FATA. The owner of the paper is a journalist himself. The newspaper has its headquarters in Peshawar. It is published daily in Peshawar, Abbottabad, and Islamabad. The newspaper carries health, education, entertainment, information technology, sports, and district news.

***Daily Mashriq.*** This is another widely circulated newspaper in Pakhtunkhwa and FATA (infoasaid, 2012). The newspaper was launched in 1967 by the state-owned National Press Trust. It was privatized in 1994, and since then it has become one of the largest newspapers in the province. On its official LinkedIn account, the newspaper claims to have bureau offices in different parts of the region. The newspaper is owned by the Mashriq Group of Newspapers and is based in Peshawar. It is simultaneously published in Peshawar and Islamabad

The most famous radio stations that deliver current affairs and news are BBC Pakistan, Deewa Radio (Pashto language transmission of Voice of America), and Radio

Mashaal (Pashto language broadcast of Radio Free Europe/Radio Liberty) (infoasaid, 2012; Reporter, 2015).

***BBC Pashto.*** According to the official Facebook page of the BBC Pashto, the service was launched by BBC World in 1981 to cater to the information needs of the Pashto-speaking population of Afghanistan and the border areas of Pakistan. However, the Pashto service of BBC uses Afghan accent and mainly focuses on Afghanistan-related issues.

***Radio Mashaal (“Torch”).*** This is the Pashto service of Radio Free Europe/Radio Liberty. The service was launched on January 15, 2010, to counter the extremist radio stations operating in FATA (RFE/RL, 2010). Radio Mashaal mainly focuses on Pakistan related issues. Its headquarters is in Prague. It has a station in Islamabad and reporting teams in Peshawar, FATA, and Baluchistan. It runs talk shows, current affair programs, news bulletins, and entertainment segments for nine hours a day. It uses the frequency of Voice of America Deewa Radio.

***Deewa Radio (“Lamp”).*** This is another favorite Pashto language broadcast in FATA and Pakhtunkhwa. The service was launched by Voice of America in 2006, to counter extremist narratives in the border areas of Pakistan and provide "objective and transparent information" to the Pakhtun population of Pakistan and border areas of Afghanistan. It has its headquarters in Washington D.C., and a team of reporters in Islamabad, Peshawar, and FATA. It also runs talk shows, news bulletins, entertainment programs, etc., for nine hours a day.

Pakistan has a vibrant media industry, however, the role of media in creating knowledge and awareness about the polio and anti-polio vaccine has not been studied. In

the next section of this chapter, I discuss the role of mass media in the success or failures of vaccination campaigns generally, the literature on health and science reporting, and the theoretical framework for this study.

### **Journalists in Pakistan**

Although the exact number of journalists in Pakistan is not known, the estimated number is around 18,000 to 20,000 (Pintak & Nazir, 2013). The minimum wage of newspaper journalists is officially 15,000 Pakistani rupees per month (100 USD), equal to the minimum wage set by the government of Pakistan for unskilled labor. However, a majority of the journalists, especially those working with Urdu language newspapers, earn less. Further, the majority of the journalists do not get regular contracts and benefits that people working in other industries get (Khan, 2011; Siddiqi, 2016a). Only journalists working in metropolitan cities with major media organizations get regular contracts and other benefits like annual salary increments and health insurance. Even at some vernacular newspapers, the journalists are asked to bring advertisements for the newspapers along with bringing news stories (Khan, 2011). Journalists are not only underpaid, but they also lack job security, they cannot get access to information, and cannot publish the information they want to post as a part of their story (Khan, 2011; Mezzera & Sial, 2010a, 2010b; Pintak & Nazir, 2013). The district level journalists usually stay in the profession to earn money through bribes. The journalists also face security threats from state and non-state actors while performing their duties (Niazi, 2005). These threats make their jobs even worse and condemn them to self-censorship (Mezzera & Sial, 2010b). Journalists have established professional organizations like the Pakistan Federal Union of Journalists (PFUJ) to protect their interests (Dickinson &

Memon, 2012). Every major city has a press club. Press clubs work as an official association of journalists. However, not all press clubs are officially recognized by PFUJ.

Journalists in Pakistan can be divided into three different categories: 1) those working in cities like Karachi, Lahore, and Islamabad that are headquarters of the major media outlets; 2) those working in provincial capitals like Peshawar and Quetta; and (3) those working at the district level, in the Federally Administered Tribal Areas of Pakistan (FATA), and in the Provincially Administered Tribal Areas (PATA). Journalists operating in the three top cities of the country are more educated and better trained, whereas journalists working at the district level are least trained and educated. Journalists working in the headquarters and bureau offices in the major cities work with one organization and are usually assigned beats; whereas journalists working at the district level, FATA, and PATA don't have specific beats and are supposed to cover all the major news in their region. Their beats are based on their geographical location. Generally, journalists in Pakistan are not adequately trained to cover different news events with fewer than 30% having a degree in journalism (Siddiqi, 2016b). However, journalists working in the rural areas and districts are the least trained, followed by journalists working in the bureau offices.

### **Professionalism and Ethical Standards of Journalists**

“Professionalism in the Pakistani media is more of a self-concept than reality” (Khan, 2011, p. 252). The financial, cultural, and security environments in which the majority of the journalists work make it difficult for them to follow Western professional and ethical standards. Some Western professional journalistic values such as objectivity and balance are difficult to attain on the ground (Pintak & Nazir, 2013). The

professionalism of journalists is also attached to the local political and cultural realities. For example, Pintak and Nazir (2013) conducted a cross-sectional survey of 395 Pakistani journalists to explore their perceptions of their identity, their mission, and the role of media in the country's social and political development. They found that more than a quarter of the respondents identified themselves as journalists first, and Muslims or Pakistanis later. However, around 60% of the journalists opined that journalists should inform the public and the same time show respect to the local culture.

Similarly, a majority of the respondents stated that journalists should be objective; however, at the same time, more than half of the journalists believed that reporters should interpret information for the audience. Eleven percent of the respondents said that journalists should include their opinion in the stories, and should attend political rallies. The study shows that whereas a majority of the interviewees prioritized their identities as journalists, a significant chunk of them did not follow the Western model of journalistic values and ethics. Pintak and Nazir (2013) concluded:

Like journalists in other parts of the developing world where the chains on media freedom are being loosened, Pakistani journalists are carving out their approach to the profession; shaping journalistic values born elsewhere to fit local culture, mores and realities; aspiring to greater freedom and a higher level of professionalism but eschewing the combative approach found in the US and some parts of Western Europe. (p. 661)

Journalists in Pakistan face many challenges. They have to work within social, economic, and political constraints, while at the same time maintaining professionalism. However,

as noted by Pintak and Nazir (2013), the majority have a different perception of the Western concept of professionalism.

### **Mass Media Coverage of Vaccination**

Media can play an important role in creating awareness about vaccine-preventable diseases. Due to their capacity to reach a large number of people simultaneously, media outlets are effective tools for dissemination of information about diseases and the vaccines used to counter them (Abdelmutti & Hoffman-Goetz, 2009; Bodemer et al., 2012; Clarke, 2008; Dixon, 2002). Still, media coverage of polio and vaccination remains understudied. However, some scholars have studied media coverage of other vaccinations such as the human papillomavirus (HPV) vaccine. In the context of HPV, the media content has been found to be lacking comprehensiveness, transparency (facts), and relevant information about the diseases caused by HPV and the vaccines developed to counter the virus. Bodemer et al. (2012) conducted a systematic content analysis of web sites and newspapers in Germany and Spain to explore the completeness, transparency, and correctness of information about HPV and vaccination on these two platforms. Their sample included 61 websites and 141 newspaper articles from Germany and 41 articles and 293 news stories from Spain. They developed a checklist of the scientific information about cervical cancer and HPV to counter-check the information provided in the websites and newspaper stories. They noted that only 10% of web sites and 6% of newspapers in Germany provided information on the vaccine's safety. Only two percent of the Spanish websites and none of the news stories reported effectiveness correctly. They concluded that the media coverage of the HPV vaccination lacked transparency (scientifically valid facts), correctness, and completeness. Similarly, Calloway et al. (2006) conducted a



content analysis to describe the information about HPV reported in U.S. newspapers. Using the Lexis-Nexis database, they identified 25 articles published in leading U.S. newspapers about HPV vaccines. They coded the news articles for sources, nature of events, vaccine, transmission of the virus, impact and side-effects of the vaccine, and HPV's link to cervical cancer. They concluded that detailed information about HPV and its link to cervical cancer was missing from the news stories. They argued that the lack of detailed information could lead to the misunderstanding among parents about HPV and its link to cervical cancer.

Similarly, Quintero Johnson, Sionean, and Scott (2011) identified the nature of the information presented about HPV vaccine after its approval by Food and Drug Administration. They searched through Lexis-Nexis database for articles published about HPV vaccine from June 1, 2006, to December 31, 2007. Through random sampling of articles found in the database, they selected 547 articles for the final analysis. They coded the articles for the frequency of general information about HPV, sources used, personalized stories, and message frames in the articles. The results showed that the newspapers did not provide detailed information about HPV and HPV vaccination despite its approval from the federal drug regulator. The newspapers relied on government, medical professionals, and CDC as the sources of information. Habel et al. (2009) also analyzed the content of 250 online news stories about HPV vaccine. They found that on average 3.5 out of 10 stories provided necessary information on HPV vaccine. Kelly, Leader, Mittermaier, Hornik, and Cappella (2009) also conducted a comprehensive study to find the nature of media coverage of HPV vaccine and its impact on the knowledge regarding HPV. Their study included content analysis of newspapers

and a survey to assess people's knowledge about HPV. They selected 18 highly circulated U.S. newspapers, four television channels, and the AP for the content analysis. They sampled 381 news stories published in these media outlets from December 2005 to November 2006 about HPV and cervical cancer for the final analysis. A monthly random-digit-dialing survey was conducted to examine the impact of media coverage of HPV on people's level of knowledge. It was a nationally representative survey. They concluded that exposure to media reports about HPV increased knowledge about the vaccine and helped readers /listeners establish a link between HPV and cervical cancer. However, many of the stories analyzed for the research lacked important information.

In a somewhat similar vein, White (2012) argued that health reporters need to interpret complex public health issues in a simple and understandable way that empowers readers to make informed decisions. She analyzed news stories in two British newspapers to explore how those newspapers framed MMR-Autism controversy. She noted that "missing from both the *Times* of London and *The Daily Mail* were, among other frames, elaboration of scientific principles involved in creating immunity through vaccination [and] risk-benefit calculations concerning vaccines side-effects vs. the impact of vaccine-preventable diseases..." (p. 88). In sum, these studies showed that media coverage of vaccination in different contexts and countries tends to lack comprehensive information and transparency, and creates uncertainty about the vaccine. The information in the media about vaccination also lacks accuracy.

Biased and non-transparent media coverage of health issues is a major risk for public health. The lack of background information about diseases and vaccinations developed to treat them can misguide audiences. Similarly, false-balancing a news story

can create uncertainty around vaccination. False-balancing is the act of journalists trying to balance their news stories by countering scientifically valid information with the scientifically invalid or factually incorrect information (Thomas, Tandoc Jr, & Hinnant, 2017). The lack of comprehensive information could be a result of the disconnect between a journalist and his/her source, lack of experience of the public relations officers of health organizations, or the difference in the level of knowledge of a journalist and his/her sources, especially if those sources are medical professionals.

Since stories about all vaccinations including polio vaccination are covered by either health or science reporters, in the next section, I analyze literature on media coverage of science and health to understand how journalists cover science and health and what factors influence their reporting.

### **Health and Science Reporting**

Health and science reporters everywhere play a major role in the dissemination of health and science information to the public across the globe. The reporters covering these two beats work as intermediaries between health practitioners/scientists and public. Also, the news media coverage of science and health issues can influence the public's beliefs, attitudes, and behaviors by creating knowledge about issues and increasing the salience of health-and science-related issues by framing them in a certain way. Although no studies have been done in the Pakistani context, studies done in the West show that the full potential of media coverage of health and science issues has been undermined by their poor coverage. For example, media coverage of science and health issues has been criticized for presenting speculations as facts, using deceptive headlines, failing to provide attribution to the original sources, and confusing information received from an

interview with information from a research journal (Moyer, Greener, Beauvais, & Salovey, 1995). Similarly, health and science journalists create fear and uncertainty around theoretical risks by not providing in-depth information about such risks and mentioning that such risks are not scientifically proven (Wilson et al., 2004). The media coverage of interventions in the West has also been described as poor. The media fail to provide comprehensive information about such interventions in their health sections or segments and therefore fail to create awareness (Wilson, Bonevski, Jones, & Henry, 2009). Due to the lack of context and explanation of the health issue at hand (Voss, 2002), the journalists writing the news stories fail to make an impact on the reader's knowledge and awareness. Health reporters usually write sensational stories and distort facts (Klaidman, 1991; Maron, 2008). Due to the lack of context, inaccuracies in stories, and deceptive headlines, the media coverage of health and science issues often lacks informative value (Larsson, Oxman, Carling, & Herrin, 2003).

**Reasons for “poor” health and science coverage in the media.** Media play a major role in the creation of knowledge about health issues. However, the importance of health and science beats usually goes unnoticed. Media outlets give preference to other beats like politics, crime, and sports (Ghanta, 2012). Similarly, journalists' choices to cover certain issues as news stories while ignoring others are influenced by many factors including their personal norms, routines, organizational structure, and social norms (Shoemaker & Reese, 2013). Newspaper characteristics; impacts of reporter specialization, and newspaper location, ownership, and circulation on source choice and news story; work-role identity and source selection; difference between journalists and public relations professionals; lack of communication between journalists and Public

Information Officers; and reporters' training and abilities have been associated with the quality of health and science reporting (Voss, 2002; White, 2006, 2012, 2013).

***Lack of training.*** Some research scholars believe that lack of proper training has been one of the primary reasons for the poor performance of health and science reporters. For example, Voss (2002) explored U.S. Midwestern reporters' perceptions about their ability to cover health news and the factors that influence the coverage. She found that the majority of the journalists she studied were not adequately trained and lacked the capacity to comprehend complex health information, specifically finding that:

Only 31% and 9.7%, respectively, felt very confident in reporting health news and interpreting health statistics. In contrast, between 66% and 85% of respondents assessed four of five critical skills required for sound health reporting as sometimes difficult to nearly always difficult. Four troublesome skills for respondents are understanding key health issues, putting health news in context, producing balanced stories on deadline, and interpreting statistics. (p. 1159)

Voss (2002) also found that reporters were not satisfied with the coverage of health issues in the media. Reporters lack training in their beats, and their inability to comprehend complex health- and science-related information leads to poor media coverage of the health and science beats. In another study, 77% of journalists recognized their inability to comprehend complex scientific data (Hartz & Chappell, 1997). Some scholars associate the lack of training of the reporters -- leading to their failure to understand and translate complex health and science information for the consumption of the public -- to the lack of interest in the human resource development by the media organizations. Scholars such as McCleneghan (1997) argue that the lack of training is a

major issue at local newspapers, where editors lack the time and resources to train journalists. However, Schwitzer (2008) argues that the lack of training of journalists and poor coverage of health issues is not just limited to smaller newspapers. He conducted a content analysis of 500 news stories in U.S. newspapers to assess the quality of coverage of health issues. He noticed that some of the stories appearing in the nation's leading newspapers were incomplete, and some of the stories published in the second-tier newspapers got high marks for comprehensive coverage of health issues. He noted that "attaining excellence in health news stories is not just an issue of resources" (p. 25). Most reporters are trained on the job, and a majority of them do not strive to make complex science information comprehensible for the public or to work as translators between scientists and the public (White, 2013).

### **Summary**

A review of the existing literature shows that media coverage of science and health issues lacks depth, and is often incorrect and deceptive. The lack of reporters' training and differences of work role identity between reporters and public information officers are some of the factors associated with the poor quality of media coverage of health and science issues.

Media play an important role in the dissemination of information about science and public health issues. However, research shows that media most of the time fail to properly play their role in the creation of awareness about critical health issues. Research done in Western countries shows that media fail to provide comprehensive, transparent, and correct information to readers/listeners that would allow them to make informed

decisions about their health and their children's health. Vaccination coverage, especially, has been described as poor.

### **Theoretical Framework**

I am using a constructivist grounded theory approach in this study. As a journalist who has worked for different media outlets for more than eight years, and as a journalism teacher, I have a considerable knowledge of the journalism culture, ethical standards, and media industry in Pakhtunkhwa and FATA. I have also been exposed to different media theories developed in the Western context. Therefore, I began this project with the knowledge of the area of research but with an open mind. As most grounded theory researchers do not always enter their research with any knowledge of the area of the research, they must, instead, approach it with an open mind (Charmaz, 2014). My knowledge as a journalist in Pakistan and my exposure to Western theories helped in framing some of my interview questions. Several Western scholars have theorized the influences of media coverage on publics, and the factors that influence journalists' coverage of different issues. Below, I discuss some of those theories in order to provide context for what has already been theorized in the context of influences on journalists in the West.

### **Agenda Building**

Many media scholars have focused on the agenda building research to analyze the social impact of media (McCombs, 2005). Agenda building theory has its roots in the agenda setting theory first developed by McCombs and Shaw (1972). Agenda building theory posits that media, government, and society reciprocally influence each other.

Some scholars give more power to the government in the agenda-building process, some to the social institutions, and some to the media. For example, Weaver and Elliott (1985) attended meetings of a city council in New York and then conducted a content analysis of the coverage of the meetings. They found that the press passed on information and priorities set by the government and institutions. They noted that in the case of council meetings, the press just forwarded priorities established by the council officials to the readers. They also pointed out a strong source-media interaction in the agenda-building process. They concluded that sources set the agenda for the press. Similarly, Berkowitz (1987) argued that journalists, especially television journalists, rely heavily on routine news events like press conferences, briefings, etc. He noted that during these events and interactions, officials and executives dominate the news agenda. Berkowitz (1989) also argued that journalists do not necessarily set the agenda for themselves as they are not fully independent of other elite institutions. He pointed out the influences of organizational and institutional sources on the agenda-setting process.

The literature is divided on who has more power in the agenda-building process. For example, Corbett and Mori (1999) revealed how the medical community impacts and affects the reporting of medical problems. They contended that journalists rely heavily on medical sources for their reports on health issues. Medical professionals, they argued, set the agenda for news reporters. These scholars assign more power to sources in the agenda-setting process. However, there are scholars like David et al. (1999) who argue that public relations officers draft the information subsidies while keeping the news values of journalists in mind. It means that journalists also have power in the agenda-



building process. The studies cited above also show that the journalist-source relationship plays a critical role in the agenda-building process.

This relationship becomes more important in the context of health and science since research shows that the majority of health and science reporters lack the knowledge to comprehend complex and scientific information and translate it for public consumption. The relationship between journalists and their sources of information depends on several factors, including the level of education of both parties, the work-role identity conceptualization by both parties, and other organizational characteristics. Since the use of different sources by health journalists is a central part of the investigation of my research, in the next section, I review studies to understand what has been written about the use of sources by health and science reporters, and their relationship with different sources such as public relations officers, public information officers, and medical or technical experts.

**Journalist-source relationship.** Journalists rely heavily on information subsidies provided by different interest groups and governmental and non-governmental organizations (Gandy, 1982). The link between the agenda-building role of sources and information subsidies becomes more evident in the health and science beats. The lack of advanced knowledge of health and science information among reporters makes them rely heavily on their sources. For example, Tanner (2004) analyzed the agenda-building process at local television channels in the U.S. More than half of the health reporters working with local television channels who participated in the study acknowledged that they directly received story ideas from a source, and contacted a source for the explanation of technical information. Similarly, more than 60% of respondents believed

that sources affect information that goes on air. Viswanath et al. (2008) also conducted a nationwide survey of health journalists. Their findings resonated with Tanner's (2004) results. A majority of the respondents in Viswanath et al.'s study admitted that initial story ideas come from their sources, followed by press releases. Sallot and Johnson (2006a) conducted semi-structured interviews to understand journalists' perceptions of public relations officers and information subsidies. They noted that 44% of the content was influenced by public relations officers or information subsidies.

However, public relations officers and public information officers do not always have the upper hand in their relationships with health and science reporters. The reliance on public relations officers, public information officers, press releases, and medical and science experts these sources is mediated by different factors. For example, Wallington, Blake, Taylor-Clark, and Viswanath (2010) noted that journalists' level of education determined the extent to which they relied on information subsidies. Health reporters also share sources with each other due to lack of time, resources, and knowledge (Larsson et al., 2003).

Similarly, beat assignments in a news organization also play a significant role in determining the relationship between a reporter and his or her sources. For example, reporters who regularly cover science or health beats develop a long-term relationship with public relations officers and other sources. Those who do not regularly cover science and health beats find it difficult to get in touch with sources or explain a story to their readers the way a regular science or health beat reporter might be able to do. White and Rutherford (2009) conducted a content analysis of agricultural news and found that science-specialty beat reporters were more likely to use scientists and agricultural

scientists as the sources of their news stories than did non-specialty beat reporters. Sallot and Johnson (2006b) noted that experienced journalists reported an improved relationship with public relations practitioners compared to less-experienced journalists.

Besides beat assignments, other factors also influence journalists' choices of sources when they cover health and science beats. For example, White and Rutherford (2012) analyzed newspapers' coverage of 2003 bovine spongiform encephalopathy (BME) to explore the relationship between the nature of sources used in a news story based on the geographical location, circulation, and ownership of the newspaper in which the news item is published. They discovered a relationship between the use of scientists and agricultural scientists as sources and the newspaper ownership. They also identified a statistically significant association between the number of sources used in a story and the geographical location of the newspaper. They concluded that a newspaper's locality, ownership, and circulation impacts a reporter's choice of sources in the coverage of science-intensive stories.

Though health and science journalists rely heavily on public relations sources and information subsidies, not every information subsidy or press release makes it into newspapers or onto broadcast media. Viswanath et al. (2008), in a national survey of health journalists noted that journalists preferred press releases that were newsworthy. The journalists stated that they preferred press releases that had impact for the public, consisted of new information, and had human interest and local angles. Similarly, Len-Rios et al. (2009) noted that journalists preferred information subsidies that they could edit. They also noticed that journalists had little sympathies for the information subsidies received from federal agencies and pharmacies.

The strong link between sources and journalists are well documented in the health and science beats. Both categories of stakeholders rely heavily on each other to convey public health and scientific information to the public. However, the poor coverage of health and science issues in the media illustrate that journalists and their sources (PROs, PIOs, and medical and scientific experts) are not on the same page.

White and Wingenbach (2013) investigated the differences in beliefs of journalists and Public Information Officers about how news stories should be covered and how science, technology, and health journalism should be shepherded. The authors found that “PIOs and journalists think differently about at least some components of their jobs, including information sourcing, determinants of issue coverage, the public’s agenda, gatekeeper attitudes, and journalist bias” (p. 133). The authors argued that the differences of beliefs between PIOs and journalists lead to disconnect between the two groups and negatively impact the coverage of critical issues. Similarly, White (2012) investigated the relationship between PIOs and journalists and the reasons for professional disconnect between the two groups. She found that though journalists and PIOs have the same educational and professional backgrounds, and share the goal of providing information to the public, they have different attitudes towards their work-role identities. She argued that the journalists and PIOs have a difference of opinion about the coverage of news stories and professional standards. Similarly, Avery, Lariscy, and Sohn (2009) noted a generalized disagreement between public information officers and health reporters. They contended that the disagreement between PIOs and health reporters is negatively impacting the standards of health reporting. The agenda-building theory adds to this study by helping us understand several influences on media coverage of different issues.

## **Framing**

Framing, another theory of media influence on society, is closely associated with agenda-setting and agenda-building theories. Some scholars posit that framing is an extension of agenda-setting (Ghanem, 1997). Entman (1993) defined framing as highlighting and prioritizing a particular problem or causal interpretation by the selection of few aspects of a perceived reality and making them more salient in a text. The concept of framing proposes that the news media place more emphasis on some attributes of a news item than others and therefore make people think about these aspects of the news (Lopez-Escobar et al., 1998). Gitlin (1980) argued that frames constructed by journalists not only help them organize their writing but also help readers to interpret their news reports. Neuman, Just, and Crigler (1992) noted how journalists give different news angles to their stories. The angles are influenced by the organizational structures and journalists' professional judgments. Gamson (1989) contended that journalists do not necessarily purposely frame their news stories in a particular way. He argued that news frames are also constructed unintentionally due to the influence of organizational norms and individual routines or conventions of journalists.

Besides media frames, individual frames are also important in the process of framing. Entman (1991, p. 7) argued that individual frames are "information-processing schemata." These individual schemata are influenced by the individual's pre-existing knowledge and political ideologies, as well as by short-term opinions of the news at hand.

Dunwoody and Shields (1984) noted that individual frames and media frames are inter-linked. The media framing of news can be influenced by different factors and can influence audience interpretation of an event. For example, journalists' political

ideologies and their workloads might influence the way they frame news stories. Similarly, the way journalists frame their news stories might influence readers' perceptions about an issue. Scheufele (1999) argued that media scholars have used framing as both independent and dependent variable in their research since news frames are influenced by different factors, but the frames created by the media also have the capacity to influence individual frames or the way an audience interprets an event.

Media frames attribute salience to certain information and interpret that information for the readers. Gamson and Modigliani (1989) described media framing as an outcome of the complex relationship between professional practices of journalists and different interest groups. Similarly, Tuchman (1978) argued that media frames are influenced by the organizational structures and routines of journalists. Gamson (1989) believed that news sources also have a strong influence on news framing.

Among the proponents of using framing as an independent variable are Pan and Kosicki (2001) and Entman (1993). These scholars argue that due to the influence of media framing on different issues on audiences/readers, it is important to analyze the content of the media to understand how different messages are framed. In the context of health journalism, the role of media frames becomes even more important. The media framing of health issues has the capacity to make complex public health and science information understandable by reading. Therefore, in the case of health and science news, the importance of media framing increases manifold.

### **Gatekeeping**

Gatekeeping is the process of selecting a few messages from a large number of messages and passing them on to the receivers. The term “gatekeeper” was first used by

Lewin (1947), who wanted to explore the process of social change in a society. He developed a model to explain how food items had to pass through many gates to reach the dining table. Lewin argued that food items from the market go through different channels before reaching the table, where they are consumed. He contended that in order to go from one channel to the next one, the food items are encountered by gatekeepers, noting that all the people who buy, transport, and prepare food are therefore gatekeepers. He explained that each gatekeeper has his/her own selection criteria.

White (1950) was the first person to use gatekeeping theory in the media context. He explored how news editors selected, from a stream of news items received from news wires, a few stories for publication in the newspaper. He observed the news story selection process of an editor and concluded that personal beliefs and values of the editor affected the gatekeeping process. After Manning's gatekeeping studies, the use of gatekeeping theory multiplied in the field of communication and media studies. However, Shoemaker et al. (2001) argued that the concept of "gatekeeping" used by Lewin should not be taken literally. They contended that gatekeepers and channels are not necessarily physical. For example, in case of media, the process of news production or processing of information is referred to metaphorically as a channel.

Early adopters of gatekeeping theory broadly theorized two different influences on the gatekeeping process: individual level influences and routine influences. However, more recently, Shoemaker and Reese (2013) presented a hierarchical model that explains five different influences on the gatekeeping process: 1) Individual Level ; 2) Routine Level; 3) Organizational Level; 4) Social Institutions; and 5) Social Systems. The hierarchical model presented by Shoemaker and Reese (2013) is the most comprehensive

and complex model presented so far that explains the gatekeeping process in media organizations. Shoemaker and Reese (2013, p. 8) described the different levels of the hierarchical model as follows:

At the center is the micro [or] individual level which includes the characteristics of the individual communicator. The routines level includes the most immediate enabling and constraining structures... The organizational level is distinguished from routines in describing the influences of the larger organized entity within which the individual operates... The social influences level describes the influences arising from the larger trans-organizational media field... The social system is the outermost ring of the model, including influences from content from system as a whole.

Shoemaker and Reese (2013) argued that research scholars may not be able to account for all the levels in a single study at the same time, however, they can “pick and choose locations for measurement while interpreting findings within the context of other level” (p.11).

The gatekeeping theory adds to the present study by helping me understand different influences on the journalists’ gatekeeping role in the production of news generally.

### **Summary**

Media can play an important role in the success of polio eradication efforts. However, the literature on media's role in the polio eradication campaigns is scarce. Since one of the main reasons for refusal of polio vaccination is a lack of knowledge and awareness surrounding polio and vaccination, there is a need to explore the content of



media and journalists' perceptions on the coverage of polio vaccination in Pakistan. Due to their reach to large segments of the society, mass media can play a major role in the creation of knowledge about polio vaccination. There is a need to understand the role of mass media in reaching the remaining one percent of the population, a significant chunk of whom live in the border areas of Pakistan and Afghanistan, where community mobilizers cannot operate due to the political and security situation (Afzal & Rai, 2009; John & Vashishtha, 2012; Khan & Qazi, 2013; National Emergency Operation Center, 2016; Pakistan, 2015; Walsh, 2007). The majority of people in those areas are reliant on radio stations and newspapers for their information.

Mistrust of polio health workers in those areas rose after the killing of Osama Bin Laden in Pakistan, in 2011, when media reported that the CIA used a fake vaccination campaign in its efforts to track down the al-Qaeda chief (Ahmad, 2007; Khan & Chiau, 2015; Riaz & Rehman, 2013). Therefore, in the areas where media are considered more trustworthy than government employees and polio health workers, it is important to investigate the role of media in creating awareness about the polio vaccination campaigns. Obregón and Waisbord (2010) argue that media are key political and social institutions and should be considered essential components of the social mobilization efforts of the GPEI. Media content is directly influenced by journalists' perceptions and opinions about polio vaccination (Obregón & Waisbord, 2010). Journalists, on the one hand, are bound by journalistic values of providing correct and truthful information, and on the other, they are siblings and parents themselves and can easily be influenced by the opinion of their communities about polio and vaccination. Journalists can end up writing news stories based on their cultural beliefs and rumors and can reinforce existing

misconceptions about polio and vaccination in the communities. Therefore, it is critical to understand how journalists perceive media coverage of health issues generally and polio vaccination specifically and the factors the barriers and facilitators in the coverage of health issues generally and polio vaccination specifically.

Before discussing the research questions of the present study, I want to discuss the history of polio globally, and in the U.S. specifically. The U.S. remains one of the major funders of global polio eradication initiatives. During the first half of the 20<sup>th</sup> century, the country was for a long time one of the victims of polio and suffered thousands of casualties due to the virus. However, due to geopolitics, the role of the U.S. in the global polio eradication initiatives remain controversial, especially in Pakistan, Nigeria, and Afghanistan— the remaining polio endemic countries.

### **The History of Polio**

The polio virus has existed since the pre-historic era although its presence remained unnoticed. From 1880 onwards, it was given different names by scientists and health care officials. Initially, doctors referred to it as “debility of the lower extremities,” “Heine-Medin’s disease,” or “infantile paralysis.” Eventually, it was given a Greek name, *Poliomyelitis*, which means inflammation (Paul, 1971; Sass, Gottfried, & Sorem, 1996). Polio in itself is an intestinal infection. The infection is caused by a virus that is transmittable from person-to-person by shared objects, contaminated water and food, and unwashed hands. The virus was discovered after the invention of the microscope in 1930 (Oshinsky, 2005). The virus enters the human body through the mouth and stays in the lower intestine (Horstmann, 1985). It causes an infection that affects the nervous system. The nature of the damage posed by the disease is determined by the resistance offered by

the nerves and muscles of the attacked body. Some infected nerves and muscles will fight and defeat the virus, and others will die. The infection can cause irreversible paralysis and even death (Albrecht et al., 1963; Horstmann, 1985; Oshinsky, 2005; Rogers, 1992).

**History of polio in the U.S.** It is important to discuss the history of polio and vaccination in the U.S. before addressing polio vaccination efforts in other countries. The U.S. remained a major victim of polio virus from the 1920s until the early 1950s. Also, the vaccines to counter polio were first developed in the U.S. The U.S. is a major donor for vaccination efforts, but usually people across the globe fail to understand the contributions of U.S. in the polio eradication efforts. This section puts the role of the U.S. in polio eradication efforts into perspective.

Researchers have found traces of polio-affected humans in ancient art. However, the contagious nature of the disease was not known for many centuries (Paul, 1971). The virus caused concern when it was first noticed in Europe, in the 1880s and 1890s (Rogers, 1992). After that initial phase, polio went through three different stages; endemic, epidemic, and post-vaccine (Oshinsky, 2005). By 1920, the virus had attacked, paralyzed, and killed thousands of children in the U.S., England, Germany, France, Sweden, Norway, and Australia (GPEI, 2016a; Paul, 1971). The epidemic targeted people, especially children, in both the rural and urban areas of those countries (Rogers, 1992). However, the spread of the infection remained mysterious and haphazard. Most of the time only one person in a family was infected, and his/her siblings, school friends, and neighbors remained untouched (Apps, 2013).

Parents and children were fearful of polio. For people in the U.S. who are more than 60 years of age, the word polio still brings a lot of unwanted memories to mind.

People from that generation saw their schools closed down because of the fears of the outbreak of polio, they could not go to playgrounds, they saw community swimming pools closed, children waiting in line for vaccination, and a president paralyzed by polio (Albrecht et al., 1963; Apps, 2013; Oshinsky, 2005). The first polio epidemic in the U.S. was recorded in the Otter Valley, Vermont, in 1894. The case was noticed by Charles Caverly, a physician interested in public health. He registered 123 cases, among whom 50 were irreversibly paralyzed, and 18 died. The majority of the victims were male and under the age of six. He noticed that all the patients had similar initial symptoms, including fever, fatigue, nausea, and stiff neck (Oshinsky, 2005).

*The 1916 epidemic.* In 1916 the U.S. faced the worst polio epidemic in its history. The outbreak started in Pigtown, an immigrant-populated area in Brooklyn, where parents started bringing their children to the hospital for the treatment of a mysterious disease. Initially, 4,215 cases of polio were reported in New York City including Pigtown. The number increased in the following months. At least 8,900 cases of polio, including 2,400 deaths, the majority of whom were children, were reported in New York City alone.

By the end of the year, the epidemic had killed 27,000 people (Oshinsky, 2005). However, the causes of the outbreak remained unknown. The government granted special powers to health officials to police polio victims and those who were suspected of being affected by the disease. Health authorities were also ordered to find solutions to the epidemic. Fear engulfed the whole state and businesspeople demanded that government develop means of identifying people and objects that carried polio (Rogers, 1989). The government and people were frustrated by their inability to determine reasons for the

epidemic. They could not devise a plan to control the disease. In this situation, the government and health officials, looking for a scapegoat, started blaming immigrant communities' unhygienic lifestyles and unsanitary habits for the spread of the disease. The immigrant families that had arrived from Southern and Eastern Europe were mainly targeted (Paul, 1971; Rogers, 1992).

***Post-1920 scenario.*** The disease affected many parts of the country in the 1940s and 1950s. Those were the times when it was dealt with as a national crisis. The government, industries, and scientists started investing more time and money to find a cure for the disease (Paul, 1971). The disease struck terror in the population and challenged American values. The U.S. scientists who were leading the world of science and technology at that time were left with many unanswered questions. The disease was targeting the country's children randomly. No one felt safe as the disease could target anyone at any time. People in wheelchairs, leg braces, and with deformed limbs could be seen everywhere in the affected areas (Rogers, 1989).

Between 1917 to 1950, up to 68 cases per 100,000 population were recorded annually. These included paralytic, non-paralytic, and not stated cases. On average, 55 percent of cases reported between 1940 to 1950 were crippled (Albrecht et al., 1963). The ten years immediately following World War II, 1946-1955, were the worst in U.S. history. Polio caused havoc in many regions. For example, San Angelo, Texas, hospitals started receiving children with fever, fatigue, and aches. Twenty-five cases of polio were registered in one hospital. The doctors knew that the disease had reached epidemic levels in the area, but they did not know how to cure it. They employed the general guidelines of advising parents to avoid visiting parks, markets, and swimming pools, and to keep

their bodies and houses clean (Oshinsky, 2005). Similarly, in 1952, Wisconsin had its worst polio epidemic; the state recorded 931 cases of paralysis and 134 deaths caused by polio. That year, 60,000 cases were recorded throughout the country (Apps, 2013). Meanwhile, as the public remained terrified, the government, continuing its struggle to eradicate polio, created the National Foundation for Infantile Paralysis, which not only provided scientists the support they needed to investigate a cure for the disease but also started a nationwide campaign to create awareness about polio.

**Vaccination experiments.** Jonas Salk, a 39-year-old scientist, with a grant from National Foundation, did research on an anti-polio vaccination. He invented a vaccine using killed polio virus (Meldrum, 1999). In 1951-52 he tested his vaccine on 161 children enrolled in different institutions and got positive results without any side effects (Carter, 1965). In January 1953, he presented his findings to the Committee on Immunization of the National Foundations in Hershey, Pennsylvania. He convinced the majority of its members of the effectiveness of his vaccine, but a few members were cautious and wanted more trials before introducing the vaccine nationwide (Dawson, 2004). The next phase of trials, conducted in 1954, was also successful and was celebrated across the country. The government introduced the vaccines in a nationwide campaign in 1955. The success of the vaccination also created many enemies for Salk among scientists and doctors. Some doctors were opposed to the large-scale immunization campaigns, as they wanted the vaccination to take place in their private clinics (Oshinsky, 2005). The scientists challenged the effectiveness of Salk's vaccine as well as his ethics. They claimed that he betrayed the profession of science by taking dictation from bureaucrats and private organizations (Carter, 1965).

From 1955 to 1961, the government administered 300 million doses of inactivated polio vaccines (IPV). The nationwide vaccination resulted in a 90% decrease in polio incidences nationwide (de Quadros, Andrus, Olive, de Macedo, & Henderson, 1992). IPV did not eradicate polio during that period, but the outbreak incidences were lower in people who got at least three doses of the vaccine (Albrecht et al., 1963). In 1963, another scientist, Albert Sabin, developed a live oral vaccine to counter polio. The vaccine soon became the first choice for health officials (Oshinsky, 2005). Oral vaccine clinics were established in local communities and were publicized through posters, banners, radio, newspapers, television, and information pamphlets (Day, 1965). There were supporters and opponents of both inactivated and live vaccines. The live oral vaccine, however, resulted in incidences of vaccine-related polio. In February 1997, the US Advisory Committee on Immunization Practices decided to rely more on inactivated vaccines developed by Salk to reduce the number of vaccine-associated polio cases (Meldrum, 1999).

### **Global Polio Eradication Efforts**

When polio vaccines were invented in 1955 by Jonathan Salk, people rushed to clinics to vaccinate their children. People had seen victims of polio virus for decades, and they knew how important the vaccine was. At that time the fear of polio overshadowed the fear of vaccines (Oshinsky, 2005). The vaccines were also adopted by other countries. At that time no large-scale or organized resistance to polio vaccines was recorded anywhere in the world. The countries that recorded a high number of polio cases in the 1970s and 1980s lacked administrative and financial resources to vaccinate their children. Communication efforts played a minimal role at that stage since no public resistance to

the polio vaccine was recorded. In 1988, the WHO passed a resolution to start a Global Polio Eradication Initiative (GPEI), whose goal was to eradicate polio worldwide by the year 2000. The WHO provided administrative and financial support to its members to counter polio. Due to successful polio vaccination campaigns supported by WHO, the region of the Americas was certified polio-free in 1994, followed by the Western Pacific region in 2000, and European region in 2002 (WHO, 2016). The success of GPEI is evident from the fact that in 1987, 1,000 cases of polio were recorded daily globally, however, as of April 2016, polio cases emerged in only three countries: Pakistan, Afghanistan, and Nigeria; and the number of people refusing to vaccinate their children is lower than 1% worldwide (Larson & Ghinai, 2011; UNICEF, 2016).

### **Resistance to Polio Vaccination Globally**

Pakistan is far from the only site of polio vaccination resistance. After 1955, when the anti-polio vaccine was introduced, the debates about its effectiveness of polio vaccination continued among medical scientists and physicians, however, there was no large scale public movement of resistance against polio. The debate mostly focused on which of the vaccines was more efficient (Meldrum, 1999).

A significant controversy around the effectiveness and side-effects of polio vaccination first erupted in the U.S. when *Rolling Stone* magazine published an article accusing a polio scientist of exporting HIV/AIDS virus from monkeys to human bodies through oral polio vaccine (Cohen, 2000). The magazine did not have scientific evidence to support its claims, but it created controversy around the polio vaccination (Oshinsky, 2005). In 2000, *The Atlantic* magazine published an article linking oral polio vaccination with some diseases including lung cancer (Bookchin & Schumacher, 2000). The article



created more controversy around polio vaccination. However, no *en masse* refusal of vaccination was noticed in the world until 2003, when a few religious groups in Northern Nigeria boycotted the polio vaccination campaigns (Jegade, 2007). Influential religious scholars who also had strong support in local Nigerian communities managed to convince residents of the areas that the polio vaccination was forbidden in Islam, harmful to their children, and caused AIDS and infertility (Ghinai, Willott, Dadari, & Larson, 2013; Larson & Ghinai, 2011; Olufowote, 2011). The boycott led to an increase in the number of recorded polio cases (Nasiru et al., 2013).

The conspiracy theories that started in Nigeria later reached Pakistan and India. From 2003 onwards, part of the Muslim population started refusing polio vaccines to their children. They believed that polio vaccination was un-Islamic as it was made of pig fat and fatal for the health of their children (Hussain, McGarvey, Shahab, & Fruzzetti, 2012; Singh & Bharadwaj, 2000). During the same period (i.e., 2003 onwards), resistance to vaccination in Pakistan also increased manifold. Resistance to polio vaccination in Nigeria, India, and Pakistan shared some characteristics. For example, the resisting communities were underprivileged, marginalized, and Muslim. The reasons for vaccine refusal in the three countries were also the same; i.e. polio vaccines were believed to cause infertility, to be un-Islamic, and to represent a Western conspiracy against Muslims.

The resistance to polio vaccination in Pakistan, India, Nigeria and Afghanistan is of a complex nature (UNICEF, 2016). For example, in Western countries, the resistance against immunization was mostly due to lack of trust in science, skepticism about the effectiveness and side-effects of vaccination, and individual freedom concerns (Blume,

2006; Kennedy, LaVail, Nowak, Basket, & Landry, 2011; Omer, Orenstein, & Koplan, 2013; Poland & Jacobson, 2001; Rosenstock, Derryberry, & Carriger, 1959; Vashisht & Puliyeel, 2012). However, resistance to polio vaccination mostly among Muslim populated countries involved local politics, mistrust of science, global politics, lack of basic health facilities, and socio-economic factors (Chaturvedi, 2014; Closser et al., 2015b; Hussain et al., 2012; Jegede, 2007; Khowaja et al., 2012; Olufowote, 2011; Renne, 2006). Different communication strategies that were applied across the globe, especially in India, Nigeria, and Mexico, resulted in the increase of polio vaccination coverage and eradication of polio from those countries.

Some scholars believe that in order to increase the polio vaccination uptake and convince the remaining one percent of the world's population to vaccinate their kids, the governments of the respective countries and international organizations need to strengthen their social mobilization programs, increase knowledge about the campaigns through sustained mass media coverage, maximize reach to marginalized communities through interpersonal communication skills, empower and train health workers to enable them to convince parents to vaccinate their children, and develop more data-driven tailored communication strategies for the targeted communities (Obregón et al., 2009; Obregón & Waisbord, 2010; Taylor & Shimp, 2010; UNICEF, 2016). Pakistan, Afghanistan, and Nigeria remain the only three countries where polio cases were recorded in 2016, and resistance to polio vaccination remains high among certain communities. In the next section of this chapter, I discuss literature on the communication strategies used by UNICEF and partner countries to counter resistance to polio vaccination.

## **Global Communication Strategies for Polio Eradication**

In this section, I explore communication strategies used for elimination of polio from the world. The global communication strategies for polio eradication can be divided into two parts: 1) identifying barriers to polio vaccination; and 2) communication interventions to increase polio vaccination uptake.

**Identifying obstacles to polio vaccination.** The first significant resistance to polio vaccination was noted in the northern states of Nigeria, where Muslim communities boycotted vaccination campaigns. The boycott was instigated by the religio-political leaders in those communities. Due to the boycott, the degree of non-compliance with polio vaccination increased in Nigeria, resulting in the increasing number of recorded polio cases. The boycott in Nigeria also led to the reemergence of the disease in neighboring countries. The conspiracy theories that resulted in the boycott of the polio vaccination campaigns in northern Nigeria also spread to Pakistan, India, and Afghanistan, where some pockets of the underserved Muslim communities refused to vaccinate their children. There were cultural, religious, and economic similarities among the resistant groups in the three countries: the non-compliant houses were predominantly Muslim, culturally conservative, and belonged to the lower economic segments of the society.

Since the Nigeria boycott, organizations like WHO and UNICEF, alongside academic scholars, have tried to understand the individual, social, cultural and political factors that lead to the refusal of polio vaccination. Olufowote (2011) conducted a content analysis of the leading newspapers of Nigeria to understand the role of fragmentation in the global public health initiatives. Using a culture-centered approach,

he analyzed local voices in the newspapers' coverage of polio and vaccination to understand the resistance to immunization. The author concluded that western imperialism, perceptions of local people about Western philanthropy as self-serving, and mistrust in the vaccine contributed to the undermining of the polio vaccination campaigns in Nigeria. However, the resistance to polio vaccination is a complex phenomenon.

Lack of trust in international organizations is one of the reasons for the spread of conspiracy theories, but there are other factors that affect parents' decisions regarding vaccination. For example, Chaturvedi et al. (2009) did a qualitative study to understand the social resistance to polio vaccination and conspiracy theories about the vaccination. They conducted in-depth interviews and focus groups with different stakeholders in two districts of the Uttar-Pradesh state of India on identifying factors that lead to refusal of polio vaccination. The authors noted that resistance to polio vaccination in those districts was multi-faceted. For example, the marginalized Muslim communities did not trust the government, and in the Hindu polio-workers, they saw the face of the state. Similarly, the resistance communities were also skeptical of the polio vaccination campaigns because of the lack of government interest in the basic health infrastructure. The communities demanded improvement of basic infrastructure instead of the polio vaccination. Some leaders in those communities used polio vaccination as a political ploy. They demanded developmental projects for the success of polio vaccination campaigns in their communities. The complexity of social resistance to polio vaccination was also studied in Pakistan by Closser et al. (2015a). They conducted a qualitative study to understand the social resistance to polio vaccination in the SITE area of Karachi. Their study was based on analysis of the documents of the healthcare offices, in-depth interviews, and

participant observations during polio immunization campaigns. They noted that the resistance to polio vaccination was rooted in global politics, lack of trust in the government, lack of basic health facilities, local politics, and low wages of health-care workers.

***Social norms as barriers.*** Some scholars have studied resistance to polio vaccination under the framework of social norms. Hussain et al. (2012) explored the social norms associated with the refusal of polio vaccination in the Aligarh district of Uttar Pradesh, India. They employed rapid ethnographic methods to investigate the issue. As part of their research, they conducted in-depth interviews, held focus groups, and relied on participant observations in the clinics that administered polio vaccination. A total of 27 stakeholders who were part of the polio eradication campaigns and 80 families who participated in the program were interviewed. The researchers contended that the social resistance to polio vaccination was deeply rooted in the miscommunication from the officials involved in the polio eradication campaigns. The caregivers did not know why it was necessary to vaccinate their children against polio virus every month. Some parents were skeptical of the effectiveness of the vaccination. The parents argued that they had not received any satisfactory answer to their questions. The authors recommended the provision of transparent and easily understood information to the caregivers to build trust with the communities.

The lack of knowledge about the necessity and effectiveness of polio vaccination has emerged as a major problem. The information vacuum, especially among marginalized communities, along with other factors led the parents to believe in different conspiracy theories. For example, Dasgupta et al. (2008) conducted a qualitative study

based on in-depth interviews with various health care officials, caregivers, and participant observations of the polio campaigns in the Moradabad and JP Nagar districts of Uttar Pradesh state. These areas had recorded the highest number of polio cases in India in 2006. The researchers followed a purposive sample technique to choose five blocks from each district for the study. The blocks were selected based on the data of GPEI and the government of India that tracked resistance to polio vaccination in different districts. The authors noted that parents needed a logical answer for the acceleration of the immunization campaigns in their areas. The incentive packages were also poorly received by the community members. The communities, instead of cash packages and other incentives, demanded a better health care system. The providers were also skeptical of the use of cash and other incentives as a measure to convince parents to vaccinate their children. The study also found that due to the lack of knowledge and proper advocacy around polio vaccination, parents considered polio to be the government's problem, not theirs.

The lack of knowledge surrounding polio and polio vaccination is a major hurdle in the way of eradicating polio globally. The lack of knowledge creates a vacuum that leads to misconceptions about polio vaccination campaigns. The misconceptions about polio and vaccination are not only limited to marginalized communities with low literacy. Knowledge about polio, its causes, and vaccination has been found to be deficient among high-literacy and low-risk populations as well. Joseph, Subba, Nelliyanil, Kotian, and Haridath (2011) conducted a study in two semi-urban areas of Mangalore city, in the South of India, to explore the knowledge of general population about polio vaccination and the Pulse Polio Immunization program. The houses where children under the age of

five lived were part of the convenience sample of the study. The researchers interviewed an adult member of the selected households by administering a semi-structured questionnaire. The number of participants in the study was 320. The literacy rate of the participants was 99%. The researchers noted that despite the high literacy rate, only 35 (10.9%) knew about the correct mode of the transmission of the polio virus. Similarly, only 128 (40%) knew that polio vaccine could be given to children even if they are suffering from minor illnesses. More than one-quarter of the participants also believed that polio was a curable disease. The authors concluded that despite a high literacy rate, the level of awareness of the participants about polio vaccination and Pulse Polio India was unsatisfactory. This study shows that despite the success of the polio vaccination campaigns in India, there is a knowledge or information gap in surrounding polio vaccination.

Mothers' knowledge of polio and vaccination has been found to be significantly associated with immunization of children (Odusanya, Alufohai, Meurice, & Ahonkhai, 2008). Scholars like Musa (2015) have used the social norms theoretical framework to understand parents' decisions to refuse or accept vaccination. Musa conducted semi-structured interviews with a conveniently selected sample of 26 parents in the Somalia town of Kano state, in northern Nigeria to understand social norms surrounding polio vaccination campaigns. He noted that individual, descriptive, and injunctive norms surrounding polio vaccination influenced parents' decisions regarding vaccination. He pointed out that some negative personal, descriptive, and injunctive norms like the rejection of vaccination existed among the communities. He advocated for the promotion of healthy social norms in the society through communication campaigns.

Parents' behaviors and attitudes towards polio vaccination are influenced by opinion leaders in the community. Especially in the rural areas of less-developed countries like Pakistan, India, and Nigeria, parents' health behaviors are influenced by traditional health practitioners. Anderson et al. (2015) explored the knowledge, attitudes, and perceptions of traditional health workers in Benin, Nigeria, and Senegal. The researchers recruited 696 traditional health practitioners in Senegal through a snowball sampling technique. The researchers measured the practitioners' knowledge, attitudes, and perceptions about polio vaccination through an interviewer-administered questionnaire. They concluded that traditional health practitioners were knowledgeable about polio and vaccination. However, the practitioners also had concerns about the effectiveness of the vaccination. They were also concerned about the competencies of bio-medical practitioners and the health workers who delivered vaccines to the children. The practitioners also acknowledged that their perceptions of the vaccination were influenced by cultural taboos and rumors about vaccination in the community. To address concerns of parents and other stakeholders, international organizations like WHO, UNICEF, and the governments of polio-endemic countries have devised several communication strategies and interventions. The communication strategies include advocacy, social mobilization, and mass media campaigns to create knowledge and awareness among parents and convince them to vaccinate their children.

The review of the literature shows that the resistance to polio vaccination is multifaceted. Imperialism, lack of trust in the international organization, poor health care infrastructure in the polio-endemic countries, lack of knowledge and awareness of polio



vaccination that leads to conspiracy theories are some of the barriers to the success of polio vaccination.

In the next section, I discuss different communication strategies employed in polio eradication campaigns across the globe, with a particular focus on Pakistan, India, and Nigeria. The discussion of communication strategies in these three countries is imperative in the context of my study. Resistance in all three countries is rooted in religious beliefs, cultural taboos, and lack of trust in international organizations. The resistant communities are predominantly Muslim, underprivileged, and marginalized.

**Communication interventions.** The use of communication in the Global Polio Eradication Initiative has evolved over time. Initially, the communication efforts were solely focused on delivering knowledge about the polio virus and vaccination to create awareness among parents. Mass media were used during the initial phases. However, after the boycott of the polio vaccination in Nigeria, international organizations and local governments came up with innovative communication strategies involving local communities, leaders, and stars from local film industries and sports organizations (Ansari et al., 2014; Coates, Waisbord, Awale, Solomon, & Dey, 2013; Obregón & Waisbord, 2010; Singhal, 2013; Sood, Klassen, Cronin, Massey, & Shefner-Rogers, 2015; Weiss, Rahman, Solomon, Singh, & Ward, 2011).

These international organizations also started using real-time data to guide the communication strategies. For example, Taylor and Shimp (2010) contended that over time the GPEI took into account the overall ecological factors that could influence parents' perceptions of polio vaccination and behaviors to vaccinate their children in Pakistan and Nigeria. They argued that the GPEI communication strategy in the initial

stages lacked clear objectives. Initially, the program was focused on individuals' knowledge and beliefs without taking into account the surrounding political, cultural, and economic factors. However, the program managers learned from their experience and started following a more comprehensive socio-ecological framework.

The communication component of the GPEI also started using more-rigorous analytical techniques of the data such as mapping, and measurement of program communication activities targeting missed children and resistance communities. Social mobilization activities played a central role in the success of the GPEI. The social mobilization activities in Pakistan, India, Nigeria, and Afghanistan were based on real time data and helped address non-compliant parents' concerns about polio and anti-polio vaccine. Obregón and Waisbord (2010) argued that the social mobilization activities carried out as part of the communication component of the GPEI included community involvement, interpersonal communication channels, the involvement of religious and political leaders, and celebrities. The social mobilization activities were guided by empirical evidence and aimed at improved vaccination uptake among the targeted communities. The communication strategies used to reach non-compliant care-givers and convince them to change their attitudes and behaviors towards polio and anti-polio vaccine were multi-pronged. The strategies involved media campaigns and social mobilization.

The role of social mobilization in the polio vaccination campaigns has been extensively studied in the context of Nigeria and India. However, the role of media in the creation of knowledge and awareness about polio and anti-polio vaccine in these

countries remain understudied. In the next paragraphs, I describe the Social Mobilization strategies used to reach the resistant population in Nigeria, India, and Pakistan.

*Communication strategies in Nigeria.* UNICEF and the government of Pakistan also adapted many communication strategies that were successful in decreasing resistance to polio vaccination in Nigeria. After religious leaders boycotted polio vaccination campaigns in Nigeria in 2003, several communication interventions targeting the religious leaders in the northern states of the country were carried out.

A good example of the social mobilization activities in Nigeria is the involvement of religious leaders in the country's polio vaccination efforts. Nasir et al. (2014) described the formation of the Northern Traditional Leaders Committee for polio eradication and its efforts to involve *imams* (prayer leaders) in the polio vaccination campaign and the impact of the involvement of the *imams* on the polio eradication efforts in the resistant communities in Nigeria. Under the leadership of Sultan, an influential political and spiritual leader, the government of Nigeria formed a team of Muslim scientists to talk to the religious leadership in the high-prevalence areas. The *imams* were invited to meetings. Special training sessions were arranged for the imams. The team educated them about polio and solicited their support for the polio eradication initiative. There were a few *imams* who were skeptical of the polio vaccination campaigns and refused to attend the meetings and training sessions. The help of the local traditional leaders was sought for the involvement of the skeptics. The authors posited that the participation of the *imams* was central to the success of polio eradication efforts in the northern states of Nigeria. However, just linking the involvement of the religious leaders in the social mobilization activities with the success of polio campaigns in Nigeria would

be an oversimplification. The social mobilization activities in the country were more complex. Some social mobilization projects involved different stakeholders in the high risk communities at the same time in the process.

An example of the involvement of different stakeholders in a communication program is the community-based intervention project called Majigi, based in Northern Nigeria (Nasiru et al., 2013). The Majigi campaign was carried out in Gezawa local council in Kano state. Gezawa was selected for the intervention because of the low vaccination uptake and the highest number of recorded polio cases in the area. The researchers produced video clips about polio and vaccination that provided information about the disease, addressed the concerns of the communities and negated the rumors prevailing in the local communities. People in different leadership positions in the area were approached, and their support was solicited. The researchers arranged gatherings where they showed video clips about polio, victims' accounts of the sufferings due to polio, and PowerPoint presentations to provide further information about polio. The gatherings were attended and addressed by local leadership, both religious and political. The researchers conducted a survey after six months of the Majigi project. They found that vaccination uptake among the targeted communities increased by relative 310%. The success of the Majigi project shows that the use of multiple communication channels at the same time can produce the desired outcomes. The health officials also made efforts to involve journalists in the social mobilization efforts. The involvement of journalists as social mobilizers played a vital role in the success of polio eradication efforts in Nigeria.

Warigon et al. (2016) analyzed the role of journalists in the eradication of polio in Nigeria. The authors noted that the negative portrayal of polio vaccination campaigns

was one of the hurdles in the elimination of polio from Nigeria. WHO officials approached journalists to seek their cooperation in countering negative propaganda against polio vaccination. WHO and the journalists agreed to collaborate to eradicate polio from Nigeria. The journalists developed an association called Journalists Initiatives on Immunization against Polio (JAP). The association operated in the high-risk northern areas of the country. The association ensured not only positive coverage of the vaccination but also arranged many social and community advocacy events to create awareness about polio vaccination. Based on data from UNICEF, WHO, and GPEI, the authors claimed that there was a measurable improvement in the vaccination uptake after the formation of the association. This is an important study. It shows that journalists can play a significant role in the success of polio vaccination campaigns. However, it does not explain whether the involvement of journalists in social events improved the vaccination uptake or if the quality of news stories improved after the association was formed. Also, the authors associate polio vaccination uptake in the high-risk areas to the relationships formed by the journalists without taking into account other factors such as interpersonal communication channels, community involvement, administrative improvements, and enhancements in the quality of vaccination, etc. Additionally, the participation of journalists in a public cause can compromise their professionalism. The article does not explain whether the organizations that journalists were associated with permitted their participation in these activities.

*Communication strategies used in India.* The analysis of communication strategies in India is also important in the context of Pakistan. The non-compliant population in India and Pakistan shared some common demographic features: Muslim,

low-income, low-literacy rate, and considered vaccination a conspiracy against Muslims. India was declared a polio-free country in 2012. The success of polio eradication efforts in India was also rooted in the use of multiple communication channels, with a particular focus on social mobilization efforts (Ansari et al., 2014; Chaturvedi, 2014; Chaturvedi et al., 2009). Singhal (2013) analyzed the communication strategy used for polio eradication in the Indian states of Uttar Pradesh and Bihar, where polio was endemic in 2003. He contends that polio was eradicated from these two states through what he called an adaptive macro and micro communication strategy. The plan included intensive social mobilization and behavior change communication campaigns. The mapping of the polio cases and official records were kept at the state, district, and block level (blocks are administrative units within districts). Social mobilization was done at the community level to make sure that each and every household received information about polio vaccination. The author argues that the macro-micro communication strategy resulted in unprecedentedly positive results. Around 4,300 social mobilizers were deputed at the 107 high-sensitive blocks in the two states. The social mobilizers (both men and women) countered rumors or misinformation about polio and vaccination at the community level. The mobilizers analyzed the rumors or misinformation about the vaccination campaigns in their respective communities, and created messages to counter them. The messages intended to counter rumors or misinformation were then tested in the field and then delivered to the targeted population.

Singhal (2013) argues that one of the strengths of this strategy was the high level of community trust in social mobilizers. In underserved communities, social mobilizers were collaborating with local political and religious leaders. The communication strategy

was adaptive and data-driven. For example, when the epidemiological data showed that the immunity levels of children under the age of five were on the rise, the social mobilizers started focusing on newborns (Singhal, 2013). The social mobilization efforts were not limited to the recruitment and training of local health workers as social or community mobilizers.

Different strategies were applied to recruit social mobilizers in various communities. For example, in the Aligarh district of Uttar Pradesh, UNICEF and Rotary International hired medical interns at Aligarh Muslim University as social mobilizers. The interns were trained by experts from Rotary International and tasked with convincing parents in high-risk neighborhoods to vaccinate their children. Ansari et al. (2014) evaluated the impact of this social mobilization initiative on vaccination uptake in the Aligarh district. The social student mobilizers were divided into two teams, A and B. The teams were tasked to visit households resistant to polio vaccination due to rumors or other misconceptions. A total of 309 families were identified during a house-to-house activity of team A. Team A managed to convince 219 of the households to vaccinate their kids. Team B was tasked to visit the remaining households that were showing stern resistance to the campaign. Team B successfully persuaded 71 households to vaccinate their children. Despite the high rate of conversion to vaccination achieved by the social mobilizers, 19 households remained resistant. However, like Singhal (2013), Ansari et al. (2014) also associate the success of polio vaccination efforts in India to social mobilization without acknowledging the fact that other communication interventions simultaneously carried out in the targeted communities, like mass media campaigns, cash

incentives etc., might have played an important role in the success of social mobilization activities.

Another interesting social mobilization project in India was Social Mobilization Network (SM NET). The project was launched by UNICEF in collaboration with a network of the U.S.-based CORE Group and local governmental organizations to increase vaccination uptake in the Uttar Pradesh state of India. Under the project, thousands of community mobilizers from high-risk communities were trained to encourage vaccinations and track the vaccination history of children in their respective areas. Behavior change communication theories were used to produce advocacy materials to create awareness among the non-compliant households.

The social mobilization network had a hierarchy. The community mobilization coordinators kept track of children's immunization history at the community level and involved parents in the polio vaccination campaigns. Block Mobilization Coordinators worked at the block level (an area consisting of several villages). Some officials monitored the activities of the group at the district, state, and country/regional levels. The project was guided by real-time data (Coates et al., 2013). Community Mobilization Coordinators (CMCs) played a central role in the project. The Community Mobilization Coordinator visited households with vaccination teams and mobilized local communities for the vaccination. The CMCs tried to address concerns of the resistant parents through interpersonal communication messages and in some cases sought help from the community leaders to convince parents to vaccinate their children. Weiss et al. (2011) assessed the vaccination outcomes in the districts where SM NET and CORE Groups operated. They analyzed secondary data of routine monitoring information collected by



SM NET and government of India. They noticed that some SM NET district recorded high uptake in vaccination non-SM NET districts. However, they also noticed that in some SM NET districts the vaccination uptake was at par with non-SM NET districts. The results of the study were inconclusive. However, the author argues that since SM NET was operating in high-risk areas, even being at par with non-SM NET (low-risk areas) regarding vaccination uptake could be considered a success for the SM NET activities.

A majority of scholars focus on the success of social mobilization activities. However, there are scholars like Obregón et al. (2009) who attribute the success of polio vaccination campaigns to a multi-channel communication strategy. Obregón et al. (2009) conducted a review of the primary and secondary literature about communication strategies for the eradication of polio from India and Pakistan. They found evidence that the data-driven, multi-pronged communication strategy developed by UNICEF and its partners had helped in increasing the uptake of polio vaccination. Mass media were used to disseminate knowledge about polio and create awareness about vaccines and NIDs, whereas interpersonal communication and social mobilization efforts helped in answering particular questions of the community members and addressing their concerns. They noted that the data-driven communication strategy also involved engaging local influencers like religious leaders and doctors. The involvement of local influencers helped in building people's trust and confidence in polio vaccination. The authors argue that the synergy of mass media campaigns, advocacy, social mobilization, interpersonal communication, and gender and culturally sensitive messages played a significant role in the success of the Global Polio Eradication Initiative.

There were instances when the social mobilization framework used in Nigeria and India did not work in other countries and had to be modified to accommodate the cultural and political environments of the host countries. For example UNICEF (2008) noted that the previously high coverage of polio vaccination achieved in Afghanistan was declining. The communication experts involved in the GPEI realized that traditional strategies of communication that had been applied in other countries were not useful in some parts of Afghanistan where polio was endemic. This brought a change in their communication strategy. They initiated a strategy called "women's courtyard." Afghanistan is a country where women are not allowed to participate in social events or appear in public without a *burqa*. One of the possible reasons for the partial failure of the traditional communication strategy of involving the mass media, training teachers, and getting consent from *mullahs* (religious leaders) was that the message could not be delivered to all households. Also, the majority of the vaccinators were male, and women did not like to take their children to men for vaccination.

Under the new strategy, women were recruited, trained in courtyards, and mobilized to create awareness about National Immunization Days (NIDs) and vaccination among other women in their villages. This strategy included getting assurance from community leaders and *mullahs* that the women would be allowed to work in their communities. Radio and TV messages were refined to create awareness about female health workers. The female vaccinators were also included in the banners and posters. Schoolgirls were encouraged to volunteer as health professionals. All the newly recruited women were trained. This was a successful communication strategy. Independent post-

immunization surveys showed that 39% of women got information about NIDs from the volunteers of the women's courtyard project (UNICEF, 2012).

*Theoretical frameworks of the communication strategies.* The GPEI has initiated a campaign to launch IPV (inoculated polio vaccines) in underdeveloped countries. The vaccine has already been initiated in Rwanda. The GPEI's communication component is devising different strategies to introduce IPV to the current routine immunization schedule.

Sood et al. (2015) conducted a study based on secondary and primary data to identify communication strategies that could be used to successfully introduce IPV in Rwanda. The authors conducted a systematic review of the existing polio communication literature and did interviews and participant observations at two sites in Rwanda. The data were analyzed using a grounded theory approach. The authors noted that majority of the existing communication studies in the context of polio vaccination used social norms, socio-ecological model, and community approaches theoretical frameworks. They argue that multiple strategic approaches were used during the polio immunization initiative such as social mobilization, behavior change, social marketing methods, lay health workers, and policy-level approaches. The primary data revealed that participants preferred interpersonal communication. Among the mediated channels of communication, radio was the medium of choice. The community health workers spoke highly of the effectiveness of radio as a source of information for community members. They argue that providing information about IPV before visits of the community health workers will make their message more useful. The participants stressed the use of an

integrated approach “where radio messages reinforced and were reinforced by other information” (p. 17).

*Communication strategies used in Pakistan.* The government of Pakistan and UNICEF learned from the experiences in India and Nigeria. They used a multi-pronged communication strategy to eradicate polio from their own country. The social mobilization and real time data collection were important parts of those strategies. In Pakistan, just as in India and Nigeria, at the center of all the successful GPEI communication campaigns was the use of real-time data. The collection of the social and epidemiological data from the field helped communication experts develop and modify their strategies. The GPEI partners also introduced the latest communication technologies such as the cell phone to collect data from the hard to reach population in the high-risk areas.

Kazi et al. (2014) assessed the effectiveness of collecting data through the short message service (SMS), or texting, feature of cell phones. The researchers collected cellphone numbers of the caregivers of a random sample of eligible children. They used a cluster sampling technique to choose a selective representative sample of different areas of Karachi for the intervention. A computer-based system was generated to send text messages to the sample. The text message asked whether a vaccination team visited the household and if the children received polio vaccinations. All those who responded to the text messages were given 20 Pakistan rupees as an incentive. The researchers followed up with the non-responders through phone calls. They noticed that the initial response to the automated text messages was weak. However, as the computer system was updated and the language of the messages was improved, the rate of reply increased. They concluded

that the SMS system allowed for the separation of vaccination and monitoring teams and provided real-time data. Those strategies were successful in convincing a major chunk of the population to vaccinate their children. However, the strategies failed in some pockets of Pakhtun dominated areas.

In July 2014, the Harvard School of Public Health in collaboration with UNICEF released preliminary results of the Knowledge Practices and Attitude (KAPs) Polls in Nigeria and Pakistan. The study consisted of a series of polls to understand the perception of parents of children under five about polio and polio vaccination. In Pakistan, the researchers divided the population into the high-risk areas like FATA, and low-risk areas from the other four provinces. They noted that misperceptions and lack of knowledge among parents about polio and polio vaccinations were the main reasons for the refusal of polio vaccines. For example, they noted that 30% of the parents in Pakistan believed that their children could be cured if they were paralyzed by polio. Similarly, the parents (37% in FATA, 19% lower-risk areas) did not know that resistance against the disease maximizes every time they vaccinate their kids. The researchers also found a lack of trust in the vaccinators and the vaccine. Forty-eight percent of parents said they had heard rumors about polio vaccination and 33% said at least there was some truth to those rumors. Similarly, 60% of parents in the lower-conflict areas of Pakistan stated that they trusted the polio vaccinators who knocked at their door during the last vaccination campaign “a great deal,” and only 26% of parents in FATA shared that opinion. Interestingly, 11% of parents said they never heard of polio before.

The government of Pakistan developed a National Emergency Action Plan (2015-16) to improve the administrative and communication sides of the polio

vaccination campaigns based on the recommendation of the Harvard School of Public Health and UNICEF, which conducted the KAPs Polls. According to the plan, the government of Pakistan resolved to provide all the necessary tools like communication skills, security, and tailored data to the health workers to improve their performance. The vaccinators were put at the center of the strategy. According to the plan, mass communication channels were used to portray vaccinators as reliable and trustworthy, and communication efforts were made to engage social norms and beliefs related to the acceptance of health workers and vaccination. One example of this strategy is the portrayal of polio health workers as heroes and depicting the human and emotional side of their work to the public through mass media. The government of Pakistan also decided to target male members of households instead of females, since the decision-making power rested with men in the targeted population (Pakistan, 2015).

Learning from past experiences, UNICEF has also changed its communication strategy for the GPEI in Pakistan. The strategy has now shifted from risk management communication to social norms communication. The new communication strategy addresses social norms in the resistant communities. According to the Polio Communication Global Guide (2016) data collected from the field, the Socio-Ecological Model and the Theory of Reasoned Action guided the new communication strategy. The Socio-Ecological Model posits that an individual's decisions to adopt or reject a behavior are dependent on five factors: 1) intrapersonal influences; 2) interpersonal influence; 3) institutional level influences; 4) community-level influences; and 5) policy level influences (Hilyard, Quinn, Kim, Musa, & Freimuth, 2013). The Theory of Reasoned Action (TRA) explains the relationship among human beliefs, attitudes, intentions, and

behaviors (Fishbein, 1979). The theory posits that humans make their decisions rationally based on the information available to them, to weigh the benefits and costs of the intended action (Ajzen & Fishbein, 1975).

The decision to accept or reject vaccination is made by caregivers in several steps (UNICEF, 2016) The first stage is awareness. At this juncture, the caregivers get information about polio, polio vaccination, the efficacy of the vaccination, polio eradication efforts within their community, and visits of the health workers. At the resonance stage, through effective communication, the parents get information about vaccines and their efficacy. The communication at this juncture must take place at the rational, emotional, and social levels. After getting all this information, the parents go through the third stage: consideration. The parents then weigh their beliefs about vaccination and decide to vaccinate their children. The next step is getting in touch with health workers. The contact with health workers is critical in the current strategy. UNICEF officials believe that if the parents develop a favorable opinion towards the vaccinators or health workers, they are most likely to vaccinate their children, which is the next step in the model. If the parents vaccinate their children once, the loop from consideration to vaccination is repeated.

The model also stresses the importance of peer-to-peer communication. Mass communication channels, especially radio, play a significant role during the first three stages of the design, by creating awareness among parents, and providing them information about the use, efficacy, safety of vaccination, and importance of vaccination not just for them but for the whole community (Polio Communication Global Guide, 2016, NEAP, 2015). However, so far no study has been done to explore what role media

play in the polio vaccination, and whether UNICEF and its partners have been able to use media to deliver the messages to the masses that can create awareness among masses.

### **Summary**

The review of the existing literature on communication for polio eradication reveal that the GPEI followed a multi-pronged communication strategy to target different communities and increase vaccination uptake. The communication interventions have resulted in decreased resistance to polio vaccination and improved immunization rates. However, despite a large-scale success, the GPEI is struggling to convince the remaining one percent resistant population to vaccinate their children against polio. Social Mobilization has played a vital role in the success of the past polio eradication initiatives. However, the role of media in the global polio eradication initiative remains understudied.

UNICEF learned from its experiences in Nigeria and India, and initiated community engagement and Social Mobilization projects in Pakistan. However, despite succeeding in vaccinating a major chunk of the population in the country, the government of Pakistan and its international partners are still unable to convince non-compliant parents in the Pakhtun dominated areas to vaccinate their children. The literature shows that lack of knowledge about polio vaccination and global political issues such as the involvement of U.S.-funded agencies in the program are the major reasons for the resistance to polio vaccination in Pakistan (Abid et al., 2010; Afzal & Rai, 2009; Ahmed, Nishtar, & Memish, 2013; Bhootrani & Tahir, 2012; Closser, 2010; John & Vashishtha, 2012; Khowaja et al., 2012; Mushtaq et al., 2010; UNICEF, 2014). The government of Pakistan and UNICEF launched different communication strategies to reach the non-



compliant parents and convince them to vaccinate their children. The multi-pronged communication strategy stresses the role of media in creating awareness about polio and anti-polio vaccines to help parents make reasoned decisions about vaccinating their children (National Emergency Operation Center, 2016; UNICEF, 2016). The present study examines journalists' perceptions of the media coverage of health issues general, and influences on their coverage.

### **Research Questions**

The review of the literature shows that media can play an important role in the polio eradication efforts in Pakistan (UNICEF, 2016). However, media coverage of public health issues remains poor (Obregón & Waisbord, 2010; Voss, 2002). Generally, in the context of immunization and vaccination the media coverage has been described as lacking comprehensiveness, creating uncertainty by relying on both scientific and non-scientific sources, and failing in translating scientific knowledge for public consumption (Abdelmutti & Hoffman-Goetz, 2009; Bodemer et al., 2012; Calloway et al., 2006; Habel et al., 2009; Hilton et al., 2010; Kelly et al., 2009; Vamos, McDermott, & Daley, 2008). Moreover, I could not find any study that explored the influences on media coverage of polio vaccination and health issues generally in the context of Pakistan. Health journalists, as gatekeepers and producers of news about health, play a critical role in the dissemination of information about different issues including polio vaccination. Therefore, it is imperative to understand how those journalists approach polio vaccination in the context of other health issues.

The following research questions guide the present study:

RQ1: How do participants (local journalists) describe local coverage of health issues?

RQ 2: How do local journalists describe the reactions to polio vaccination among Pakhtun communities?

RQ 3: How do local journalists perceive the importance of polio vaccination?

RQ4: What are the perceptions of local journalists about the media coverage of polio vaccination in Pakistan and the factors that influence the coverage of polio vaccination?

I used a constructivist grounded theory approach to answer these research questions. I conducted semi-structured intensive interviews aimed to co-construct meanings with participants of the study and answer the research questions. My knowledge as a journalist in Pakistan and exposure to Western theories developed in the Western context helped in framing some of my interview questions. However, most of the interview questions were guided by my interaction with the participants.

## **Chapter 3**

### **Methods**

Using a constructivist grounded theory approach, this study aims to explore the perceptions of health journalists in Pakhtunkhwa and FATA in order to understand how they look at the media coverage of polio vaccination specifically, and health issues in general. The study also examines the perceptions of the journalists about the factors that influence their coverage of polio vaccination and other health issues.

The following research questions will guide this study:

RQ1: How do participants (local journalists) describe local coverage of health issues?

RQ 2: How do local journalists describe the reactions to polio vaccination among Pakhtun communities?

RQ 3: How do local journalists perceive the importance of polio vaccination?

RQ4: What are the perceptions of local journalists about the media coverage of polio vaccination in Pakistan and the factors that influence the coverage of polio vaccination?

I used a constructivist grounded theory approach to answer these research questions. I used semi-structured intensive interviews aimed at co-constructing meanings with participants of the study and answer the research questions. However, as constructivist grounded theory adherents argue, researchers bring their own knowledge and interest to the area of the research (Charmaz, 2014). My knowledge as a journalist in Pakistan and exposure to Western theories developed in the Western context helped in

framing some of my interview questions. However, most of the interview questions were guided by my interaction with the participants.

In the remaining part of this chapter, I will state the rationale for my philosophical assumptions and methodological choices in (a) my choice of a qualitative study; (b) design of this study, including my priorities; (c) data collection, and (d) analysis.

### **Rationale for Methodological Choices**

This study utilizes a constructivist grounded theory approach to answer the research questions. Constructivism involves looking for both the researcher's and respondents' meanings of a phenomenon, or a process. Charmaz (2006) argued that constructivist grounded theorists pursue differences and variations among research participants and co-construct meaning with them. Engaging in the constructivist research project involves power-sharing between the researcher and the participants in the study. The researcher prioritizes and analyzes the interaction that take place between the researchers and the participants (Mills, Bonner, & Francis, 2006a). Constructivist grounded theory researchers take both data and analysis as products of shared experiences between the researcher and the participants. The constructivist grounded theory researchers study "how and sometimes why participants construct meanings and actions in a specific situations. We locate our studies in the conditions of research as we develop abstract analysis" (Charmaz, 2014, p. 239). Charmaz (2000) contend that data and analysis are social constructions that reveal the environment of their production. Constructivist grounded theorists assume that both data and analysis are social constructions that reflect the conditions of their production (Charmaz, 2000).

“In the construction of such knowledge, the information generated needs to reveal depth, feeling and reflexive thought. For constructivists, though, there is a necessity to write such abstractions in such a way that they remain transparently grounded in the lives of those who constructed the data—the participants and researcher”(Mills et al., 2006a, p. 9).

Constructivist grounded theory scholars not only locate the explicit meaning of the participants narratives but also place their meanings and actions in the context of larger social structures, discourses, and power relationships (Charmaz, 2014). Constructivism also promotes self-reflexivity about their own perspectives, privileges, positions, and interactions and the implications of those factors as well as those of the participants. Such self-reflexivity helps the researcher develop meaningful linkages between personal, emotional, and intellectual analyses. Self-reflexivity aims to uncover the researcher’s implicit assumptions and make them explicit both to him/herself and the readers. I regularly wrote memos where I noted my own perceptions of the data and how my personal background may have influenced my perceptions of the data. The constructivist grounded theory approach provided me the flexibility of taking successively more analytical control of the data and the emerging theoretical ideas. At the same time, the constructivist grounded theory approach allowed me to co-construct ideas and meanings with the participants, in this case journalists who are experts in their field. The constructivist grounded theory also allows me the opportunity to remain closer to the data rather than letting pre-existing theoretical concepts drive the study, most of which have been developed by Western scholars. Even though I acknowledge exposure to those Western theoretical concepts of influences on journalists’ coverage of vaccination

specifically, and other health issues generally, during the interviews and analysis, I tried to give more control to the participants. Similarly, I used intensive interviewing techniques for data collection to give more space to the participants, in this case journalists (Charmaz, 2014). However, I position myself as an interpretivist scholar in this study.

**Interpretive paradigm.** While I believe that reality can be objective and numerically measured, I also understand that subjective human experiences of socially constructed reality can provide a better insight into the issues under investigation. Subjective human experiences provide a deeper understanding to researchers (Creswell, 2009). The qualitative part of this study is grounded in the interpretive paradigm. The subjective experiences of news reporters working with newspapers and radio stations in Pakhtunkhwa and FATA provided me with a deeper understanding of the coverage of polio vaccination-related issues and health issues by the media, and the barriers and facilitators that influence their reporting.

### **Setting**

This study was approved by the UNM Institutional Review Board. I recruited 26 journalists (news reporters and editors) working for Urdu and Pashto language newspapers and radio stations in Pakhtunkhwa and FATA. I recruited the journalists using purposive and snowball sampling techniques (Privitera, 2013). A systematic process was followed for the recruitment of journalists. First, I contacted personal friends, and officials of press clubs (Peshawar Press Club and Tribal Union of Journalists) in Pakhtunkhwa and FATA to get information about the reporters who cover health beats. The purpose of the study was explained to the shortlisted journalists, and

their verbal consent was sought. Full demographics of participants are presented in table 1 below:

**Table 1**

<i>Demographic characteristics of participants</i>	
Characteristics	n
Sex	
Male	26
Female	0
Age (range)	(27-59)
Media affiliation	
Newspaper	9
Radio	6
Several media	11
Experience as a journalist	(5-23)
Salary (range)	(0-900)

The journalists recruited for this study included journalists covering health for Urdu language newspapers (n=9); journalists covering health for radio outlets (n=6); and journalists who covered different beats including health for several media outlets from districts or agencies (n=11). They ranged in age from 27 to 59 (M=36.01), and their experience as journalists ranged from five years to 23 years (M=7.51); most of them had covered a health beat for more than two years (M=2.7). All of the journalists were married. All of them were male. Lack of diversity is due to the lower number of female journalists in the area. The press club documents listed one female journalist as a health reporter. However, she was not available for an interview. The salaries of these journalists ranged from zero to \$900 per month (M= \$120). A semi-structured interview protocol was utilized during the interviews. (Please see the interview protocol in the appendix.) The interviews were conducted and recorded by phone in Pashto and Urdu, and then I translated them into English. The range of duration was 29 minutes to 63 minutes (M= 46).

## **Data Collection**

I followed the intensive interviewing technique (Charmaz, 2014) for data collection; this allowed me an open ended and in-depth exploration of journalists' perceptions of media coverage of polio vaccination and health issues in general. The intensive interviewing technique allowed for sharing interview space with the journalists and helped in observing responses and discourses created by the multiple identities and social connections of the journalists (Charmaz, 2014). These journalists not only reported for their respective media outlets but also had other identities (e.g., they were Muslim), and they held active roles in communities that resisted vaccination. The intensive interviewing helped me to understand how the intersection of these identities created discourses and responses. It also allowed me to pursue ideas that emerged during the interviews.

## **Data Analysis**

Consistent with the constructivist grounded theory approach as developed by Charmaz (2014), my analysis began during data collection. I conducted 26 semi-structured interviews with health journalists and those journalists who covered health side by side with other beats in different parts of the Pakhtunkhwa province and the adjacent Federally Administered Tribal Areas (FATA). The recorded interviews spanned almost 19 hours with a range of 29 to 63 minutes, which when transcribed generated a text of 44,576 words covering 103 single-spaced pages. I also recorded extensive memos throughout the process. The memo documentation included 37 double-spaced pages. I took notes during the interviews, and then wrote memos after each interview ended. I also wrote 3 memos after all the interviews were transcribed.



As recommended by constructivist grounded theory scholars, the data collection and analysis was an iterative process. I took notes and wrote memos during the interviews and after listening to the recorded interviews I modified my questions accordingly. For example, during the 13<sup>th</sup> interview a participant noted a gender bias during the polio vaccination campaigns. I followed that up with other participants and asked them about the gender biases in their communities. One other participant also observed a gender bias in vaccination in his community. I analyzed the gender bias in the vaccination campaigns at analytical level.

After all the interviews were done, I transcribed the interviews from Urdu and Pashto to English. I checked the transcriptions for errors and accuracy and then anonymized them. The anonymized transcriptions were then imported into NVIVO 10, a qualitative analysis data software program (QSR International 2010). I kept the memos I took during the interviews in a separate file. All the data were inductively analyzed using constructivist grounded theory approach.

The data analysis was a multi-step process. I took memos and did initial coding as I recorded and transcribed. The initial coding entailed line-by-line close reading of the data. During this phase, I remained open to all possible theoretical directions indicated by the data. At this stage, I tried to understand the journalists' views and actions from their perspectives (Charmaz, 2014). Secondly, I did focused coding. During this stage, I focused on the codes that appeared more frequently in the initial coding or were significant. The focused coding helped me synthesize, analyze, and conceptualize larger segments of data and advance the theoretical direction of the study (Charmaz, 2014).

Throughout the coding process, I engaged in constant comparative analysis. I not only compared statements and incidents discussed within the interviews of the participants but I also compared them with the similar statements and incidents described by other participants (Mills et al., 2006a; Mills, Bonner, & Francis, 2006b). As suggested by the constructivist grounded theory scholars, during the coding process I focused on actions and processes (Charmaz, 2014). Once the coding was completed, I grouped the instances that shared common features or characteristics. I gave those groups descriptive labels. The descriptive labels were at the low-level of abstraction. As I said earlier, throughout this process, I engaged in constant comparative analysis. The constant comparative analysis helped me analyze the data at a higher level of abstraction and come up with the analytical categories. At the analytical categories level, I interpreted the phenomena, as compared with the descriptive level where I just simply labeled them without interpretation. Both at the descriptive level and the analytical level, I not only accounted for similarities but also for differences between the narratives of the participants (Willig, 2013). I aimed to theorize a model of influencers on local health reporters' coverage of public health issues in the subaltern context.

## CHAPTER 4 FINDINGS

This chapter lays out the significant findings of this study. This chapter discusses the findings of each research question separately. The findings are presented below by research question.

### **RQ1: How do participants (local journalists) describe local coverage of health issues?**

I answer this question in two sections: 1) the participants' perceptions of the media coverage of health issues in Pakhtunkhwa and FATA; and 2) the participants' perceptions of the factors that influence the way they report health-related issues. Even though I tried to separate the participants' perceptions of the media coverage of health issues and their perceptions of the way they reported health issues, the two intersected on several instances.

In the first section, I explore the participants' perceptions of the media coverage of health issues in Pakhtunkhwa and FATA. The overarching analytical category (Charmaz, 2014), or theme that emerged in the participants' response to this question was their expectations that coverage of health issues would be accurate, would capture major health problems, and would reflect local issues, etc. But their expectations were never realized because media organizations were not interested in the coverage of public health issues from Pakhtunkhwa and FATA, which, in turn, resulted in ineffective coverage. Two analytical categories of the media coverage of public health issues in Pakhtunkhwa and FATA emerged from the analysis: a) Lack of media managers' interest in public health issues of the peripheries; and b) Participants' unfulfilled expectations from impact

of media coverage of health.

.The categories and sub-categories are summarized and described in the following section.

The participants noted that local media organizations based in major metropolitan areas were not interested in health beats since health did not earn them revenue whereas crime and politics had more viewership and hence attracted more revenues. Six participants, however, noted that international radio stations gave comparatively more airtime/space to health beat in their broadcasts. Other reporters, who were based in Peshawar and worked for national media outlets that had main offices or headquarters in Karachi, Lahore and Islamabad, noted that their media organizations did not give airtime or space to health stories. Danish, a reporter from Peshawar, complained that "it does not matter how big the story is, a health story will not make the headlines or won't be placed as a lead story."

The participants from Peshawar noted that all major media organizations were based in three metropolitan cities wherefrom revenue come in the shape of advertisements and sponsored programs. Therefore, news from smaller cities and towns is rarely reported if it is not about crime or terrorism. Seven reporters from FATA noted that even the media offices or editors based in Peshawar did not give the health beat any value. They alleged that whenever they sent health news to the newsrooms, the editors usually killed the story or downplayed it. The media organizations were least interested in those stories because their readers/listeners were based in the major cities whose residents only cared about terrorism or violence-related incidents in FATA and Pakhtunkhwa. Bitani, a reporter from FATA, lamented:

The media organizations treat us like foreigners. See just like *The New York Times* and the *Guardian*, the local [Pakistani] media is only interested in the “war on terror”-related incidents and politics from our areas. They don't care about the health beat.

The media organizations also do not focus on the capacity building of their reporters who cover health beats. Seven respondents noted that even when they covered health issues, the government did not take any action on their stories.

### **Lack of Media Managers’ Interest in the Public Health Issues of the Peripheries**

Eleven respondents attributed the lack of interest in the health issues of the peripheries to the lack of revenues for media from these areas, and lack of interest of the government and people living in the major cities of the country in the public health of the peripheries, in this case, Pakhtunkhwa and FATA. They contended that the major businesses that provide advertisements to the media outlets were based in metropolitan cities like Lahore, Islamabad, and Karachi. Therefore, media organizations catered to the information needs of audience/readers of those cities. Babu (a pseudonym), a reporter from Swat district, shared his experience in the following words:

They [the journalists] mostly focus on accidents and event-based reports. They want to cover something that their readers are interested in reading. Let me give you an example when a girl and a boy fall in love [with each other], and run away from home, newspapers or television would provide prominent headlines to this news, or if 10-20 people get killed in a bomb blast the story gets a prominent headline. However, if 56 people die and more than 10,000 are hospitalized because of dengue virus in a year, the media won't give that story similar space or

airtime. So for them, a bomb blast is more important than people dying of dengue [virus]. In 2013-14, according to government records, 10,000 people were hospitalized due to dengue virus in Swat only. According to unofficial sources, the number was 50,000; and 56 people died of the infection. However, media did not give them enough attention. So I think people's lack of interest in health and lack of awareness are the primary reasons for the lack of proper media coverage of health issues.

The reporters stationed in Peshawar (the capital city of Pakhtunkhwa) believed that the national media organizations did not encourage health reporting from both Pakhtunkhwa and FATA. They contended that the national media were only interested in the coverage of crime, politics, and terrorism-related issues; therefore, health reports did not get proper space or airtime. They relayed that the media focused on the health issues of the major cities at the cost of the public health issues in the peripheries. Mudassar, a television reporter from Peshawar, narrated:

The main reason for the poor coverage of health issues is the lack of local media. Most of the news channels and media outlets are based in Lahore, Karachi, and Islamabad. Therefore, coverage of health issues in Pakhtunkhwa and FATA do not help increase viewership/readership of media outlets. Whenever we do health reports, they do not get space or time, because people in major cities are not interested in health issues of the peripheries. They are only interested in negative things from our area like bomb blasts etc. Even when we do investigate stories, the organizations air those from midnight to 6 a.m., when most of the people are sleeping. For example, I went to a far-flung area the other day to report on the

primary health facilities. I traveled for hours, and my organization aired the story at 2 a.m. I was so disappointed.

Babu and Mudassar both pointed at the inequities caused by the larger power imbalances between the metropolitan cities of Pakistan and peripheries like Pakhtunkhwa and FATA. The national media outlets were only interested in the public health issues from FATA and Pakhtunkhwa if they impacted the lives of people living in the major cities of Pakistan. Afaq, a radio reporter from Peshawar, also echoed the concerns of Mudassar:

In a country where dozens die on a daily basis due to high crime rates and terrorist attacks, health issues are not a priority. People are more interested in crime and politics. So media organizations also do not cover health since coverage of health issues do not increase readership or ratings. Another factor is the lack of interest in the local health issues by the media based in Islamabad, Lahore, and Karachi. Peshawar and other areas of Pakhtunkhwa and FATA are peripheries for them. Why should they care?

Interestingly, the reporters who were based in FATA and other smaller districts like Swat and Bannu lamented that not only national media but local media organizations stationed in Peshawar also neglected health issues from FATA. They believed that the media outlets run from Peshawar considered FATA and other smaller districts as peripheries and therefore health reporting was even worse in those areas. For example, Sharafat, a reporter from FATA, noted:

I work for both local and national media outlets. See, they treat us equally. Even, people living in Peshawar that formed the core readership of my organization were only interested in militancy related stories from my area. Therefore, the

editors downplay any health stories I write and discourage me from spending time on health stories. I am asked not to spend too much time on health.

Bitani, a reporter from Bannu district who is associated with both local and national newspapers, echoed Sharafat's argument lamenting that the media were not treating public health issues in FATA and smaller districts on a par with the health issues of the major cities like Peshawar, Lahore, Islamabad, and Karachi:

The reason is simple: to them we are *achoot* [low caste] people so why should they care about our health? Then the health beat is *achoot* [low caste] among all the beats we cover.

The respondents from FATA noted that their media organizations only publish or air health stories that are sensational and could easily grab the attention of their readers. Sensationalism earned the media revenues and the journalist some space or airtime on the screen. Therefore, at least two journalists spoke about instances when they heard sensational news reports and sent them to the newsrooms without verification and their organizations ran those stories. Shabbir, a respondent from Kurrum Agency recollected:

When we cover a health issue, it does not matter how big the problem is and how important the story is, my organization does not value that. Unless it is something controversial, they don't publish a health story. They don't care about health [stories]. Once, my friends told me that diarrhea reached endemic levels in my area and I sent that story to the newsroom, and they published that without asking any questions. Later on, I found that my story was factually incorrect. However, I am sure if I had written a positive health story the editors would have never published that.



Shabbir, pointed at the lack of reporting on health issues from FATA and the inaccuracies in the health reports on issues emerging from FATA. Several respondents noted that the national media outlets did not take reports from Peshawar seriously and therefore did not check the quality of reporting from those areas, which results in misleading and inaccurate reporting from those areas.

Irfan, a reporter from Peshawar, also recalled an incident when the media inaccurately reported the endemic levels of diarrhea in his community:

Recently, I was sitting with a journalist friend. He received a text from a friend from Charsadda [a district of Pakhtunkhwa adjacent to Peshawar] informing him that diarrhea had reached an epidemic level in the area and people were taking their children to the hospitals. He forwarded the text to his newsroom. The television channel started running tickers based on that text. The channel claimed that dozens of children had been hospitalized in Charsadda district. I went to the hospital to cover the story. However, to my surprise, the doctors said they did not receive even a single case of diarrhea. So my friend's irresponsibility created panic in the area. The only explanation my friend gave was that he relied on a text message and that was a mistake.

In Pakistan hundreds of children die of diarrhea every year. The false news aired by the television created a snowball impact and was also aired by other media channels. That created an atmosphere of fear not only in Charsadda district, but also in the surrounding areas. The news story undermined the credibility of journalists in the area.

However, as mentioned earlier, six respondents who had experience with international news agencies noted that compared to the national and local media, the

foreign radio stations aired in Pashto comparatively gave more airtime to health issues of Pakhtunkhwa and FATA. Respondents felt that one of the reasons for more airtime by the international media could be that those radio stations are targeted at the Pakhtun population in Pakhtunkhwa, FATA, and neighboring Afghanistan. Therefore, they focus on all the issues of these areas. For example, Oman, a radio journalist from Peshawar, noted:

I am not satisfied with health reporting by national and local media. International media to some extent give time to health issues in the country. However, [health] reporting is negligible in the local media. For example, in 24 hours of coverage, they hardly give 15-30 minutes continuously to health reporting. They only cover health when something big happens. The electronic media, especially, focuses more on politics and crime.

Saqib, a respondent from Peshawar, also echoed Oman's opinion. Saqib relayed that though international radio stations gave more airtime to health stories, even their reports were of low quality. He said international radio stations also did not invest in human resources. Therefore, Saqib believed that health reports of international organizations did not make a big difference in creating awareness about health issues. Reporters from FATA believed that journalists working for local media outlets in Peshawar were in a position of power, like journalists in metropolitan cities, and they too ignored health issues of the areas that fall within the geographical boundaries of FATA.

Whereas a majority (n= 22) of participants noted that the media organizations were not interested in the public health issues due to lack of interest of their readers/listeners in health stories, three of these participants discussed the consequence of

this limited coverage on public awareness. They described a vicious circle in which the media set the agenda for the readers/listeners, the media's failure to give enough space/airtime to health issues and to build the capacity of the reporters to produce good health stories resulted in the decreased public interest and literacy in health issues. They believed that there was a lack of awareness about health issues among the public and it was media's job to give salience to those problems that would result in an increased public interest.

As Babu, a reporter from the Swat region of Pakhtunkhwa, noted:

... media ignore health issues because people are not interested in health stories. Or, let me say it this way: the journalists are unable to produce health stories that could engage the audience/readers... if the media start covering health issues comprehensively and add to health literacy of their audience/readers, then the public will get interested in these issues.

The three participants stated that due to lack of awareness of health issues or the extent to which health issues can impact the readers/listeners lives, the local people were also not interested in health stories about their communities unless a dramatic event took place.

Therefore, even if a health issue poses a significant threat, local communities do not bring those problems to the attention of the media.

The respondents also stated that they did not usually receive feedback from their target readers/listeners on health-related stories. They opined that the public does not bring their health issues to the attention of journalists. Taimur, a participant from Peshawar, noted:

Pakistan is politically vibrant. People are interested in politics. Almost everyone

is involved in politics in some way. The readers also like political news stories. You would hardly find someone coming to office with a health-related press release. The health-related press releases are usually issued by organizations working in the health sector, and they want to promote their causes. Around 95% to 98% of the press releases we get both from organizations and the public are political. A majority of people, including policymakers, focuses more on politics.

To summarize, participants felt frustration with media coverage of health issues of Pakhtunkhwa and FATA, and with their preference of the politics and crime beats over the health beat. The media organizations did not pay attention to health issues in the peripheries because their readership and audience were more interested in politics and crime stories from those areas. The downplaying of the health beat resulted in lack of capacity building of the reporters who covered health beats. Neither the organizations nor the reporters worked on improving the quality of the health reporting from the region. The reporters thought that since health issues were not on the priority list of their organizations, they therefore could get away with poor coverage of health. At least three participants believed that the lackluster attitude of media towards health reporting did not help improve the health literacy in the public. Therefore, the public also lost interest in the coverage of health issues.

### **Participants' Unfulfilled Expectations from Impact of Media Coverage of Health**

Participants envisioned the job of a watchdog for media. They shared that the media's job was to bring health issues to the attention of the public as well as relevant authorities for their resolution. They expected that their health reports would make the public health officials accountable and improve primary health facilities. However, many

participants (n=15) noted that government officials never positively responded to the media coverage of health issues. For example, Asif, a respondent from Mohmand Agency, complained:

Media reports are not useful. The government takes action only on one out of a thousand stories. Government officials visit hospitals and see the problems themselves; however, they do not care about them. We do not need to report on those issues. Look at the civilized world. Journalists in Western countries are reporting on unique topics. Usually, our reports are like, a hospital lacks health facilities, ten children die due to lack of vaccination.

Similarly, the journalists believed that the government takes no notice of the media stories on health issues but also discouraged the media from discussing those issues.

The respondents wanted to make an impact. They not only wrote reports about the poor health infrastructure in their localities but whenever they got a chance they raised the issues in the press conferences arranged by the government officials. They believed that as a journalists it was their responsibility to bring those issues to the attention of the authorities.

Three participants noted that since as journalists they had access to the high officials like bureaucrats and ministers, they brought such issues to the attention of these officials in those personal meetings. However, they believed that none of their tactics worked. Zada, a respondent from district Dir of Pakhtunkhwa, recollected:

We brought the health issues of the area, especially the conditions of the district hospital and local Basic Health Units, to the attention of a provincial health minister when he visited the city. He promised to resolve all these issues. The

hospital has a beautiful building. But there are no doctors. But he did not do anything to improve the facilities. I am not satisfied with health reporting. When a reporter, for example, wants to write about hospital issues, the local officials try their best to stop the reporter from writing a negative story about their organization. They can go to any extent [to halt objective reports about health issues].

The journalists believed that the public did not bring the health issues to their notice since they think that the government does not take any action on the reports published in the media. The respondents also contended that due to poor media coverage, and lack of response from the government officials several critical health-related issues in their areas go unnoticed and, as a result, hundreds of thousands of people suffer on a daily basis.

Amjad, a reporter from FATA, noted:

It is very discouraging that the government does not take any action on their news reports. Initially, the people used to bring their health issues to our attention, but then they also realized that even publishing in the media would not help them, so they stopped bringing those issues to our attention.

However, four respondents noted that the government took notice of their stories. They contended that the government takes seriously only the stories of those media organizations and journalists seriously that report fairly. They criticize their colleagues for misreporting facts that resulted in lack of public health officials' trust in their stories.

As Danish, a Peshawar based reporter, puts it:

I would say there are two sides of the coin: some of our friends do not blame themselves for the inaction by the public health officials on their stories. Their

organizations always publish sensational stories, and they do not verify facts, which result in lack of validity of their news stories among government officials. These people publish public statements as facts. Also, in some instances, the public health officials are unable to resolve every issue.

Nineteen respondents noted that they see their role as that of a watchdog for media. They wanted to make the government accountable for their reporting. Their priority was not the creation of awareness about public health issues. However, a majority of them believed that the government did not take any action on their reports, which was discouraging for them and one of the reasons they avoided writing health stories. Four journalists noted that the government does take notice of their stories that motivate them to write stories on structural problems in the health sector in Pakhtunkhwa and FATA.

Overall, the journalists were not satisfied with the media coverage of health issues in Pakhtunkhwa and FATA. The respondents believed that the media, both national and local, did not value health reports from these areas. They also criticized the quality of health coverage. The media organizations valued politics and crime beats over health beats, and therefore, paid no attention to the capacity building of health reporters. Also, there was tension between journalists regarding who set the agenda for health stories. A majority of the participants believed that readers/listeners living in the metropolitan cities were not interested in the health issues of Pakhtunkhwa and FATA. However, some participants disagreed by arguing that people were not interested in health stories because media did not provide salience to health issues and did not create awareness about health issues in the peripheries. They opined that if media generated awareness about health

issues through quality reports people would start taking interest in those stories. The journalists primarily saw media's role as that of a watchdog on the government and public health bureaucracy.

In view of the overall media landscape and barriers to health coverage as described in the earlier section, the overarching category that emerged in participants' perceptions of their own health-related coverage was that of tension between striving for professionalism, and meeting demands of their objective conditions. Participants described professionalism as providing clear, accurate, objective, and ethical coverage of health issues. However, conditions including lack of funding, threats to personal safety, and lack of education and training prevented them from meeting their professional goals. The journalists continuously negotiated and constituted their professional identities in response to the conditions in their respective areas.

Additionally, several participants described how they were forced by their organizations to file stories without verifying the facts. As Shabbir, a reporter from Kurrum Agency noted:

Once my friends told me that diarrhea reached endemic levels in my area and I sent that story to the newsroom, and they published that without asking any questions. Later on, I found that my story was factually incorrect. However, I am sure if I had written a positive health story the editors would have never published that.

The pressure from newsrooms necessitated compromising professional values of journalism. Some participants relayed that even though they wanted to talk to several sources to make their stories objective, they did not have the resources and time to



contact all the stakeholders. The participants maintained that they walk a thin line between professionalism and survival, making it difficult for them to stay objective in their reports and at the same time stave off threats to their lives and meet the financial needs. For example, most journalists do not get salaries from their organizations, therefore, they either run their own businesses or rely on publishing sponsored information to make their ends meet— a phenomenon I call hybrid professional identity. They believed that their editors were also not interested in quality reporting; they just wanted to publish more stories. Though they were critical of their reliance on information subsidies and official resources, they had to rely on them to make money and to keep winning the race for “breaking news”.

**The Participants’ Perceptions of the Factors that Influence the Way They Report Health-Related Issues**

Two analytical categories emerged from the narratives of the participants about the factors that influence the way they report health-related issues. The analytical categories are: (a) Lack of participants’ personal/professional capacity to cover health issues; (b) Lack of professionalism among reporters, (b). The categories were not mutually exclusive; at several points, one or more categories intersected with each other. The analytical were then further divided into sub-categories. The analytical categories and sub-categories are organized in table 1 below:

**Table 2**

Participants’ perceptions of their own health-related coverage	
Categories	Example

Lack of participants' personal/professional capacity to cover health issues	<p>“Health is a complex beat to cover, which involves scientific information. Our reporters do not understand science. Even I don't understand.”</p> <p>“ The journalists are not trained.”</p> <p>“The literacy rate of journalists is very low”</p>
Lack of professionalism among reporters	<p>“We do not know how to cover a subject adequately. We do not take care of journalistic ethics.</p> <p>Work-role identity.”</p> <p>“A professional journalist should be objective. He should just report facts.</p> <p>Reliance on official sources.”</p> <p>“News here for a journalist is what a doctor said or what was there in the press release.”</p>

**Lack of Capacity of Personal/ Professional Capacity to Cover Health Issues**

The most common concern of the participants related to their own professional capacity to disseminate accurate, valid, transparent, and unbiased health information. As recounted by Imran, a reporter from FATA the journalists in FATA and smaller districts of Pakhtunkhwa lacked basic health literacy. Their own lack of basic health literacy affected their coverage of health issues in several ways. For example, several respondents

said that they pass on health information to the readers/listeners as they receive it, even without verifying the basic claims. Another problem highlighted by the respondents that further complicated the health reporting process was the overreliance on oral interviews.

Imtiaz, a newspaper reporter from Peshawar, described how reporters in Pakhtunkhwa and FATA have to rely on oral information such as that which emerges in interviews with doctors most of the times. He opined that dealing with oral information becomes even more challenging when the health literacy of the journalists is low:

Health is a technical field. You hardly get written information. Usually, you do oral interviews. So when a less trained journalist tries to make a story from the oral interviews, they cannot comprehend the technical information. Most of the health reporters do not take their beats seriously. To cover health beat, the journalists must be well-equipped with the knowledge of health.

The “oral story” culture as described by several respondents, severely impacts the quality of health reporting and leads to misreporting of the facts in newspapers. In Pakistan, there is no culture of recording interviews for newspapers. So, the reporter has to write whatever he/she hears from the sources. This culture is more troublesome in the context of newspaper reporting where the reporters have to rely on their notes to develop a story. This results in inaccuracies in the stories. The correspondents who work for radio stations record the interviews but since they do not understand the complex terms used by their sources, they are unable to ask them follow-up questions.

Twenty-four respondents contended that they could not differentiate between facts and speculations and therefore created uncertainty around scientifically valid information through their reports. For instance, Danish, a radio journalist from Peshawar

believed that the overall coverage of public health issues in Pakhtunkhwa and FATA was due to poor health literacy or lack of professional capacity of journalists. He said:

The health reporters are not even aware of the nature of diseases and the type of stories they need to cover to disseminate critical public health information and create awareness. They are not trained. They don't understand the importance of covering public health issues. To them attending events organized by public health NGOs and government public health department is health reporting. They can't do in-depth health reporting.

The lack of understanding of basic health issues or public health concepts made the journalists heavily rely heavily on official sources or publishing the claims of other sources without any checks. For example, out of the 24 respondents who could not differentiate between facts and speculations, 13 respondents contended that they could not interpret complex health information for their readers/listeners because they themselves do not understand them. Farhan, a radio journalist from Khyber Agency (FATA) said:

I seek guidance from the internet. I look at medical terms online to try to understand different diseases. Because no proper training has been arranged to provide them [the journalists in FATA] specialized training on how to cover health issues. Imagine, I am relying on the internet to understand different medical terms. I fear that there is information on the internet that are factually incorrect, but I do not have the capacity to differentiate between that information from the factual ones. However, at times of confusion, I try to consult doctors who work for Extended Program on Immunization.

Reporters like Farhan who report from FATA or from smaller districts of Pakhtunkhwa have to cover several beats at the same time unlike journalists in Peshawar who cover one or two beats. Journalists reporting from FATA cover geographical regions. For example, Farhan, has to cover all the events taking place within the jurisdiction of Khyber Agency, “since health is not on the priority list of their organizations, therefore, they don’t invest time in understanding even the basic health information”.

Imran, a radio journalist from Mohmand Agency (FATA) echoed the opinion of Farhan by saying his colleagues are not aware of basic public health issues, “the health reporters from small (remote) towns are not even aware of the diseases. Like some of them would not even know why ultrasounds are used and what kind of diseases can be diagnosed with an ultrasound”.

Due to their own inadequate health literacy and professional capacity, a majority of the respondents said that they avoided doing in-depth health stories. For example, Irfan, a reporter from Kurrum Agency (FATA) believed that his inability to comprehend complex health information prevented him from covering health issues extensively:

The journalists are unaware of health issues... They do not understand health. All they report about health is problems in the administration of local hospitals.

Health is a complex beat to cover, which involves scientific information. Our reporters do not understand science. Even I don’t understand.

Since the journalists do not understand the public health issues in their areas, they consider their jobs as the watchdogs on government institutes. They report the stories of corruption or lack of facilities in the local hospitals. Their reports, therefore, do not

highlight other public health issues or create awareness about public health issues or concerns in their area. They use different strategies to overcome their inability to cover public health issues but in the absence of any proper mechanism their efforts are only partially successful. Zada, a journalist from lower Dir district narrated how he found health issues challenging to cover. He relayed that he needs outside help when he writes about health issues, “we face a lot of problems. We try to resolve this problem by using different techniques like asking our colleagues or senior journalists for explanations. This is problematic”.

The outside help to the journalists usually comes from people who are also not experts in the field. For example, Zakir, a health reporter for a newspaper in Peshawar, said that since he also runs a medical business, he usually explains to his colleagues the complicated terms that he knowss:

Even in the major news organizations, very few people can understand technical terms. Whenever the reporters talk to a doctor or cite an annual medical report of a hospital, they are unable to comprehend the technical terms. Since they are unable to understand those words, they report them the way they are. The inability to explain medical terms in common words negatively affects their reporting. I also run a small business in medicine and surgical equipment. Therefore, I try to guide reporters and explain some medical terms to them.

The respondents noted their colleagues’ and their own inability to comprehend complex health information as a significant reason for the poor state of health reporting in Pakhtunkhwa and FATA. Some of them described how they use different strategies to overcome that barrier. For example, they searched for the meaning of complex terms on

the internet and sought guidance from their senior reporters who have been covering health beats for more than a decade. However, these efforts were only partially successful and had the potential to result in inaccurate reporting. As Farhan noted that he tries to look at information online but can not differentiate between “accurate” and “false” information online. Similarly, Zakir stated that he explains “some medical terms” to the reporters since he runs a medical business. However, since Zakir himself face problems understanding the “complex” medical information himself, there is a chances that he misleads the reporters. All the respondents agreed that there was a need to arrange specialized trainings for health reporters from FATA and Pakhtunkhwa.

*Training.* Twenty-two journalists expressed the need for training in health-related topics to improve the coverage of health issues in Pakhtunkhwa and FATA. However, they highlighted several factors that impede the training of journalists especially those from peripheries like Peshawar and FATA. Mudassar, a television reporter from Peshawar believed that since the media organizations were not interested in the health beat they did not value the capacity building of their reporters:

Very few journalists are trained in covering health issues. They have the information about health issues just because they have been covering the beat for a while now and spend more time with health practitioners. Most of us do not have the capacity to cover health issues adequately. Even if an organization wants to train us, we do not get leave with pay from our organizations. Media organizations like the one I work for do not invest time and money in the development of the human resource. So even if I want to attend training, I could not do that.

The respondents noted that even if non-governmental or governmental organizations wanted to train journalists in health reporting some media outlets did not give them leaves with pay to attend those trainings. Therefore, the journalists had to choose between their salaries and capacity building.

Babu, who works for both print and electronic media in Swat district (Pakhtunkhwa) noted that due to the lack of training the scope of health beat has significantly narrowed down in Pakhtunkhwa and FATA:

There are two reasons [that journalists do not cover health topics effectively]. The first reason is that journalists do not have enough awareness of the issue. They do not know how to cover health beats. They cannot think of possible story ideas and the angles with which they can cover different health issues. They are not aware themselves. Secondly, newspapers/media ignore health issues. The people are not interested in health stories or let's say this way. The journalists are unable to produce health stories that could engage the audience/readers. They [the journalists] mostly focus on accidents and event-based reports.

The respondents noted that since due to the lack of training they were not able to produce or write health stories in an engaging way, and as a result the readers/listeners are also not taking interest in health stories anymore.

Seven respondents contended that journalists reporting from FATA and the districts need more training compared to their counterparts in Peshawar. Farhan, a radio journalist from Khyber Agency (FATA) emphasized this point:

I saw a video on the internet. It was about an international program called J2J. This is a kind of program in which journalists train other journalists on how to



cover environmental issues, TB, AIDS, etc. We need these types of programs in Pakistan. If journalists are trained, and then, in turn, those journalists train other journalists that would be of great help. At least this way the journalists will learn the basic terminology. It is awful when journalists write about health issues, and they even do not know the biological names of a disease, etc. They are not aware of the medical terms. They are unaware of the jargon.

The respondents noted that the health literacy levels of the journalists from Peshawar differed significantly from the health literacy levels of journalists in FATA. They noted that journalists in Peshawar are mostly specialized health reporters whereas most reporters in FATA are general reporters who also report on health. They contended that the reporters from FATA and smaller districts required more comprehensive training than the reporters from Peshawar. However, the reporters from FATA and smaller districts felt ignored in training programs. Zada, a newspaper reporter from lower Dir district (Pakhtunkhwa) also stressed that there was a need to initiate specialized trainings in health for journalists, “we do not know how to approach health stories and explain different information. Since I joined the field of journalism, I got training on coverage of education, elections. However, no one trained me on how to cover health”.

Zada complained that the media organizations were not interested in the capacity building of the reporters who work in the peripheries since they did not generate revenues from those areas. Interestingly, the reporters from Peshawar also described themselves as reporting from peripheries since they compared themselves with reporters from other metropolitan cities such as Islamabad, Lahore, and Karachi. However, the reporters from

FATA considered reporters from Peshawar as stationed in the center, since they considered Peshawar as part of the larger cities that hosts media offices' bureaus.

**Low literacy.** Six respondents noted that the literacy rates of journalists reporting from districts and FATA were low. They relayed that since the organizations do not pay salaries to reporters from FATA and districts of Pakhtunkhwa, they hire many people who are high school graduates or dropouts, and therefore lack the educational background to cover health-related issues. Basit, a newspaper reporter from Khyber Agency (FATA) described the low-literacy rate as another critical problem that intersects with the lack of training:

As you may know, there are 30 to 40 journalists in Landikotal [an administrative unit of FATA]. Hardly five of them might have professional degrees in journalism. Most of them are high school dropouts. They do not have basic knowledge of health issues.

Salman, a radio journalist from Orakzai Agency, also discussed the low-literacy rates among the journalists reporting from FATA “they are ordinary people who graduated from school (12<sup>th</sup> Grades) and then joined the field of journalism. These people are not professional journalists; instead, they entered the field to protect their illegal businesses through their journalism work”.

Imran, a radio journalist from Mohmand Agency (FATA) said that the low literacy rate is a major hurdle in training these journalists. He noted that the trainings arranged by different organizations for “tribal” journalists have not been successful as the trainers do not take the literacy-levels into consideration:

... However, another critical factor is the lack of educated people reporting from

FATA. Most of the reporters do not have higher education. So when someone decides to train them, the trainers are most probably going to use English words, documents like brochures, etc. which will be difficult for these journalists to understand. In our area people understand Pashto, and in Punjab they prefer Punjabi, so if the trainers use local language, then there are chances that the journalists will understand something otherwise if trainers use English then journalists won't be able to benefit from that. This is the reason why training arranged in the major cities for tribal journalists fail. The journalists attend those trainings to get PKR 1000 or 2000 as per diem for three days and will do some outing in major cities such as Islamabad etc. The organizations should devise a proper mechanism to choose journalists for training so that good people could benefit from those trainings.

Imran's views resonated with the opinion of five other respondents who said that organizations arrange separate training sessions for the journalists from FATA and other districts. They contended that trainings for these journalists should be developed keeping the education levels of the journalists and their health literacy levels in mind. They believed that since there was a big difference in the literacy levels of journalists from Peshawar and FATA, therefore, a generalized training module would not work.

### **Professionalism**

Twenty-three participants discussed the lack of professionalism among journalists as the primary reason for poor health reporting in Pakhtunkhwa and FATA. The respondents opined that a majority of health reporters were lacking the values and traits that are necessary to become professional journalists. The participants associated

professionalism with relevant education, training, and adequate salaries. They believed that health reporters do not follow the established norms and values of journalism due to the socio-economic conditions, and restraints from their organizations. The participants believed that they try to remain objective and report accurately but at times they have to do that at a personal cost. Imtiaz, a health reporter from Peshawar believed that despite facing several problems he tries to report professionally:

Professionalism, in my opinion, is doing objective stories, maintaining people's privacy especially the privacy of patients, and then keeping trust with different people. A professional journalist should know everything about his/her field. The journalists should study regularly. If a journalist goes to the field without having an idea of what he or she is going to report on, he is not a good journalist. The journalist should know what his target is before he/she goes to the field to report. The journalists should do a lot of research before he/she reports on a topic. He/she should have no personal motives when reporting. Personally, people have beaten me, I was abducted, but I did not write stories about the people who did wrong to me. I remained silent because those were personal issues. I did not want to be personal with someone. If I call someone to get his opinion on a story and he does not respond positively, I should not write a story against him the next day. It is a non-professional act. Whenever we should write a story, we should know why we are doing that story. Are we doing this story because of personal reasons, or to appease the owners of the media organizations, or perhaps for the general good?

The journalists walked a thin line between maintaining their professionalism and surviving in the job market. They recounted incidents when they thought the information

they or their colleagues collected was inaccurate or the story they or their colleagues were doing was unethical but the editors forced the reporters to cover the events or file the stories. Imran, a radio reporter recounted:

There is no check and balance in Pakistan. For example, a newspaper will run a news story that a virus or bacteria caused deaths in a village without confirmation and the next day they will publish a press conference from the health officials denying that the deaths were caused by virus or bacteria. Only one of those two claims can be right, but they do not bother to investigate or go in-depth or make the reporters responsible. I am surprised at the irresponsibility of the editors. In my opinion, either the editors are ignorant of the facts or they just don't bother about facts and want to sell their newspapers through such stories.

Several respondents said that they valued objectivity, and followed the ethical guidelines. But they also stated that their friends who had hybrid professional identities usually cross the line of professionalism, and that resulted in the lack of credibility of journalists among the masses.

For example, Basir, a newspaper reporter noted:

A professional journalist should be objective. He should just report facts. I should report and let people discuss and decide my story. I will have to follow the ethical standards and bear pressure from all the stakeholders. These days some journalists are misusing social media. There is a senior journalist in our area who posted something negative against an organization. The organization's representative in his comments on the post blamed the journalists for pressurizing and blackmailing the organization. These journalists are a threat to our credibility. The journalists

should carefully and professionally use social media. A professional understands rights of their own and those of others.

However, nine participants believed that journalists who remained objective, maintained privacy of sources, and were aware of their field could be categorized as professionals, and 11 participants thought that professionalism was being trained or having a degree in journalism, and working for organizations that pay salaries in time. Saeed, a radio reporter from Waziristan Agency (FATA), noted:

Every beat is important. Health and Education are more important because they relate to human life. Unfortunately, as I said, in FATA most of the journalists do not even have the basic 10th-grade schooling. In Pakistan and especially in Pakhtunkhwa and FATA, the easiest thing to do is journalism. Whenever a child is unable to achieve anything in life, his parents ask him to go and start writing. Look at even the social media pages of the journalists, they just malign people in their reports. There is no factual reporting. In my opinion, as there is a required qualification for every profession, there should be some requirements for hiring journalists. Media is the fourth estate, why are we hiring uneducated people as journalists? Hardly, you will see three people with journalism degrees in FATA. Therefore, the people who do not have degrees in journalism and specialized training should not be allowed to enter the field of journalism. There is no professionalism.

Four of the 11 participants, who believed that journalists were professionals if they get salaries from the organizations, explained that the wage in itself was not a test of professionalism, but lack of wages lead to circumstances in which journalists have to give

away their freedom and get influenced by outside sources. For example, Sharafat, a newspaper reporter commented:

The journalists are not professional. They are easily influenced by different stakeholders. At least 90 per cent of the journalists in FATA get perks from the government-appointed administrators called political agents. Once you rely on someone to meet your financial needs, you cannot report independently. The people who provide perks do not want to get the truth out there.

Gulab, a television/newspaper reporter echoed that opinion:

Journalism is a profession, and just like other professions, people working in this profession should get paid. If they do not get paid in time, they are going to get influenced by outside forces. So, salary makes a journalist professional.

Eleven participants also believed that journalists did not follow the professed ethics and performance guidelines and could not correctly conceive their work-role identity, which resulted in poor coverage of health issues. Ismail, a newspaper health reporter from Peshawar contended “we do not know how to cover a subject adequately. We do not take care of journalistic ethics. Our reports are usually not fair, and we do not try their best to cross check information from relevant authorities”.

Pir agreed with the assessment of Ismail. He added:

We consider someone as a good journalist if he/she criticizes each and everything and resorts to spreading baseless information. We do not see to what extent these people do ethical reporting. I have close friends who have more than 20 years of experience and work with reputable local organizations, but they do not verify the news.

The participants believed that due to local cultural, political, and socio-economic realities, there was a work-role/professional identity crisis among the journalists. For example, even though a majority of the participants were aware of the ethical sensibilities and their role in the society as journalists, they said they could not follow the professional guidelines due to lack of training, and low or no salaries. Several other journalists were doing journalism to get recognition in the society. Asif, a radio journalist stated, “let me tell you about agency “X”... Usually, journalism is a side business. We get a press release and share that and make a story out of that”.

Afaq, a radio journalist echoed the opinion of Asif. He believed that work-role identity crisis resulted in lack of professionalism and therefore, reduced reporting of health issues among journalists. He thought that most of the journalists in FATA were doing journalism to get power and authority in their areas. Therefore, they were not ideologically associated with the field of journalism and did not care about journalistic ethics and professional values. He believed that there was a close connection between professional self-identification, professionalism, and coverage of health issues.

Imran, a radio journalist from Mohmand agency, agreed with other respondents who believed that lack of incentives from the media organizations resulted in a work-role identity crisis and in reduced health reporting. He stressed that the journalists do other jobs to meet their financial responsibilities and they always faced the tension of balancing both their work-related identity. Since at times their identities as journalists and a civil servant often consisted of two contradictory systems of beliefs, ideologies, and occupational standards. He contended:



If I tell the truth, professionalism is lacking in our journalists. If I talk about journalists working in FATA, even other areas like Dir and FATA. In those areas, the media organizations don't pay the journalists. This is the reason why journalists do other full-time jobs like serving in government organizations. In Mohmand Agency, around 60 to 70 per cent journalists have positions in the government education and health sectors. So even if they want to do an excellent in-depth or investigative report, they cannot do that. For example, if someone is working at a government school or in the health department, if he tries to do a story against their organizations, the organizations take action against them. They also receive illegal benefits. Like they do not perform their duties, and no one can make them accountable just because they are journalists.

Salman, a radio journalist from Orakzai Agency, added that the trend of hybrid professional identities was more common in FATA and smaller districts compared to Peshawar:

These people are not professional journalists; instead, they entered the field to protect their illegal businesses through their journalism work. These people blackmail the government officials as journalists and protect the businesses. This type of journalist does not care about the health and well-being of common people. These two are leading reasons.

Whereas a majority of journalists contended that low salaries or no salaries were the primary factors behind the lack of professionalism among journalists, three newspaper reporters from Peshawar placed a strong emphasis on doing journalism as a passion. They believed that since people in Pakistan already know that there is no money

in journalism, they should take the financial aspect of the field into consideration before joining journalism as a profession. They believed that journalism was a passion for public service rather than a field to earn money. Therefore, they contended that lack of salaries or low salaries should not be an excuse for lack of professionalism and a hybrid professional identity. Raees, a newspaper reporter from Peshawar said:

Pay is not an issue. They are lazy. They just pass the time. I got lower salaries, but I worked hard. You can get good salaries if you do good stories by working hard. Pay can be an impediment when you are traveling to different cities. However, if you are reporting for a town, then salary should not be an impediment.

Imtiaz, echoed Raees's opinion:

See, it depends on the individuals. I leave my home early morning and return late at night. Some people do journalism as a duty (to earn money), whereas some do it as a profession. See, journalism to me is a profession. This is the only thing I do good. So lack of money is not an excuse; it is a passion.

Overall, the participants believed that lack of salaries, lack of training, and low literacy rates resulted in the inability to follow ethical guidelines, and confused work role identities (hybrid professional identities and lack of professionalism among journalists), which in turn led to the poor coverage of health issues in Pakhtunkhwa and FATA. Another field where health reporters discursively negotiated and constructed their professional self-identification was their relationship with their sources.

**Dependence on official sources.** Reliance and dependence on official sources created an additional tension among participants. Eighteen journalists described their relationship with the official sources and NGOs working in the health sector as a

contentious field of negotiations. The respondents relayed that they were dependent on official sources since most of the story ideas came from those sources. The respondents stated, further, that another major reason for reliance on official sources was their inability to find out news stories on their own. However, at the same time, they were also skeptical of the official sources, since they believed that it was against journalistic values to publish whatever the official sources said or was provided to them through information subsidies. They said that they are in a continuous process of negotiations with the official sources. Their relationship with the official sources and NGO subsidies is mediated by their financial restrictions and by their professional self-identification. Asif, a radio reporter from Mohmand Agency (FATA) contended that reporters rely heavily on official sources due to lack training and financial resources:

News here for a journalist is what a doctor said or what was there in the press release.

They do not have the capacity to go in-depth or challenge the official version. The reality is that journalists get paid to publish press releases. So if an organization funds an individual or his press club, their press releases are going to get published. However, if they don't pay the press club, there is no guarantee that their version will get published.

The journalists who worked for local newspapers and radio stations were asked by their editors to not only bring in news stories but also earn revenues for their organizations in the form of advertisements. Similarly, since the journalists working for local and national media did not get any financial compensation from their organizations, they got money from the sources to publish their press releases. All the respondents noted that reliance on

press releases was not ethical or professional, however, they had to do that due to their lack of financial resources and training.

Farhan, a radio reporter from Khyber Agency, noted that due to the lack of personal capacity and training the journalists were unable to challenge the official version of stories even if they wanted to:

The press releases are issued by the government offices like Health Department or NGOs. They issue press releases to earn a good name for their organizations.

However, journalists should not rely on their press releases. In FATA secretariat, the malaria control program issued a press release claiming that they distributed a large number of anti-malaria medicines and bug protectors and the newspaper publish their claims without questioning the authenticity of the claims. The reporters should counter check the claims made in the press releases. Let me give you an example of Jamrud. No one challenges why there is no anti-malaria spray in that areas? Why do we still have so many malaria patients etc.?

Challenging the claims in the information subsidies is a difficult task for the health reporters from FATA and Peshawar. The respondents contended that they had to file several stories a day and therefore they did not have enough time to counter check the claims made in a press release. Usually, the health related press releases were issued by the Department of Health and the NGOs working in the health sector. The reporters consider these organizations as valid sources and could not think of any other source that could verify the information provided in their press releases.

Idrees, a radio reporter from Peshawar believed that reliance on information subsidies like press releases was an easy way to get news reports:

Let me tell you an interesting thing. The journalists have created syndicates such as cultural reporters group, health reporters group, etc. Usually, only one reporter is present at a press conference. He reports that event not only for his organizations but also distribute that among members of the syndicate. However, the worst part of the whole episode is that the reporters who receive details of the press conference from the friends who attended the event, do not even bother to change a single word in the draft he/she received from the friend. They publish it as received. That is so irresponsible. At least they can contact the person who addressed the press conference through the phone. Usually, they are reliant on press releases. They get press releases through emails, phones, or printed copies. They publish those press releases without authenticating the information provided in those releases. The stories based on those press release are, therefore, one-sided.

At least seven reporters noted that the officials working for the government and non-governmental organizations do not cooperate with them when the journalists do in-depth stories that go against the interest of those health organizations. Amjad, 41, a newspaper reporter from Waziristan Agency, noted, “we the journalists do not have access to information. The health department is not forthcoming with data. Why should journalists spend three months for nothing?”

Sharafat, a newspaper reporter from Khyber Agency (FATA) also echoed the same opinion:

Access to information is another major problem. The officials in the health department are not forthcoming with the information or data. They don't provide

information even after we contact them through legal means like filing a Right to Information petition.

In sum, the respondents noted that the official sources end up being a major influence on their reporting and professional identities due to financial restraints, journalists' lack of training, and the inaccessibility to official data. Whenever they try to do in-depth stories official sources and non-governmental organizations working in the health sector do not cooperate with them. This renders their health stories superficial, one-sided, and incomplete.

**RQ 2: How do local journalists describe reaction to polio vaccination among Pakhtun communities?**

The second research question examined the perceptions of journalists about reactions to polio vaccination in their respective communities. They also narrated the stories of their interactions with their friends, family members, and the communities which they covered for polio-related news. They opined that the nature of resistance to polio vaccination has changed over time. The opposition to polio vaccination in Pakhtunkhwa and FATA was multi-layered. Overall, the participants felt that the government had failed to frame polio as a public health issue for the local communities. The journalists discussed opposition to polio vaccination among parents.

Three major analytical categories emerged from the analysis of the data. The categories are (a) Lack of basic health facilities in Pakhtunkhwa and FATA, (b) Inability of the government to frame polio as a local public health issue, and (c) Religion and rumors. The categories were not mutually exclusive; at several points, one or more

categories intersected with each other. The categories were divided into sub-categories. The categories and sub-categories are organized in table 2 below:

**Table 3**

<b>Findings for RQ 3: How do local journalists describe resistance to polio vaccination among Pakhtun communities?</b>	
Category	Examples
Lack of basic health facilities in Pakhtunkhwa and FATA	“People do not see examples of polio in their everyday lives. However, they see children dying of diarrhea.”
Inability of the government to frame polio as a local public health issue	“The people also know that if they resist polio, they can blackmail the authorities.”
Religion and Rumors	“The resistant parents believe that the polio vaccine is a conspiracy of western countries against Muslims.”

**Lack of Basic Health Facilities in Pakhtunkhwa and FATA**

All the respondents agreed that the primary cause of the resistance to polio vaccination in Pakhtunkhwa and FATA was the lack of basic health facilities. They contended that the lack of basic health facilities, like the availability of gynecologists and pediatricians in the local hospitals, and the emphasis on only polio as a public health problem made parents question the intent of the government and its international partners. According to the participants, the resistant parents were unable to comprehend why the government is focusing so much on a disease that even does not exist in their

community while ignoring diseases that were killing their children. Salman, a reporter from FATA, noted:

The lack of basic health facilities is one of the primary reasons for resistance to polio vaccination. If the government and international organizations were to focus on other diseases as much as they focus on polio eradication, then people would not question the intentions behind the polio vaccination campaigns. If the international organizations want to eradicate polio, they will have to make the government responsible for improving health infrastructure. However, I must say that this year we only reported two polio cases in FATA. People want to vaccinate their kids. However, when their children suffer from other diseases and there is no way to treat those diseases, and a polio worker knocks at his/her door offering to vaccinate the children against polio that creates doubts in the minds of the people. The stress on the polio vaccination in the absence of other health facilities is counter-productive for the polio immunization campaigns.

The respondents believed that people in the Pakhtun community were more concerned about the persisting diseases. The members of the communities could not trust a government's message that asked them to protect their children from a disease that "might handicap," them when their everyday life experiences showed that the government is not interested in public health of the communities. The mistrust of the government resulted in the distrust of the polio vaccination.

Danish, a respondent from Peshawar, contended:

See, people are going to question the polio vaccination campaigns if they are not going to get basic health facilities in their hometown and have to travel for



hundreds of miles just to treat fever. However, the polio teams regularly go to their doorsteps to vaccinate their children against a disease that they have never witnessed in their lifetime.

As described by Danish, the polio campaigns are not consistent with the community's priorities. They represent the government priorities instead and are therefore not trustworthy for the community. The respondents opined that parents see their children or the children of their neighbors die because of other diseases due to the lack of facilities. The basic health units are not adequately equipped. There are no female doctors or midwives to treat their wives during pregnancy. The people have been demanding those facilities for decades, but the government never listened to them.

However, the government provides polio vaccination free of cost at the doorsteps of their homes, which created doubts in the minds of people leading to different rumors. Imran, a reporter from FATA, noted, "people have concerns about polio vaccination campaigns. The primary question they ask is why the government just provides polio vaccines free of cost every month. Why the government does not focus on other diseases?"

Ismail, a journalist from Peshawar, also echoed Imran's opinion. Ismail contended, "people do not see examples of polio in their everyday lives. However, they see children dying of diarrhea and women of pregnancy/delivery complications".

Sharafat, a journalist from FATA also described the lack of basic health facilities as a significant hurdle for polio eradication:

The parents see that their children are dying of other diseases like malaria and the government is not paying attention to all of the diseases equally. The government

machinery is just focused on the eradication of polio. When people see their children die of other diseases and the health workers knock at their doors for polio vaccination, it creates doubts in their minds.

The journalists opined that neither media nor the organizations involved in the polio vaccination campaigns get the non-compliant parents engaged in a productive discussion, and do not answer their questions. They believed that the improvement of basic health facilities had the potential to reduce resistance to polio vaccination. Since the people were unable to comprehend the purpose behind the polio vaccination campaigns, they believed in whatever rumor they heard about polio vaccination.

### **Inability of the Government to Frame Polio as a Local Public Health Issue**

Eighteen respondents believed that the local communities did not see polio as a public health issue and they blamed the government for failing to frame it as such. The participants believed that the parents described polio vaccination as a government problem as well as a global issue. The participants told several stories of parents refusing to vaccinate their children so as to force the government to address parents' political or economic problems. Twelve respondents believed that since polio is an international problem, the government had to meet all of their demands under the international pressure if they boycott polio vaccination campaigns. Nafees, a Peshawar based journalist, said:

Some families are demanding of the government to build roads in their areas and only then they will vaccinate their children. Recently, around 280 families in the suburbs of Peshawar demanded that the government close the factories in their neighborhood that produces pollution and then they will vaccinate their children.

Oman, a journalist from Peshawar, echoed Nafees's opinion. He believed that communities, both in FATA and Pakhtunkhwa, were using boycotts of polio vaccination as a tool to force the government to meet their demands. For example, he remembered an incident that took place in Khyber Agency, FATA:

For example, a political administrator in FATA closed a market due to some reasons. In retaliation, the local people boycotted polio vaccination campaign in the area. So when we talked to the local communities, they said the boycott was a way to threaten the government and force it to accept their demands. We have met parents who are poor. They demand that unless the government pays them something they would not vaccinate their children.

The respondents noted that the resistant community members did not consider polio to be a significant or immediate threat. The parents believed that there were more critical issues to be taken care of than polio. For example, Salman, a journalist from FATA, recounted how people in his area boycotted polio vaccination campaigns to demand electricity supply from the government:

Some people have boycotted the polio vaccination campaigns to force the government to provide electricity to their villages. The people also know that if they resist polio, they can blackmail the authorities. The government is under immense pressure by international organizations to end polio. The international organizations should pressure the government to improve basic healthcare facilities and education facilities. Once the education and health sectors are improved, resistance to polio vaccination will automatically end.

The participants believed that the resistant parents thought that the government of

Pakistan was promoting the cause of international organizations and did not care about their well-being. The resistant parents argued that if the government were serious about the public health issues, it would have resolved more critical problems.

**Punishments and Gender Bias.** The officials of the government of Pakistan are arresting parents for refusing to vaccinate their children. Fifteen respondents noted that the arrest of parents did not help in increasing polio vaccination compliance among parents. The respondents relayed that the governments tactic of arresting parents created more doubts about polio vaccination campaigns and further strengthened parents' beliefs that polio was not their problem but rather a government problem. According to the participants the parents came up with new ideas of not vaccinating their children and at the same time avoiding arrests. For example, Sharafat, a journalist from FATA, noted how his neighbors vaccinated girls in the house but did not vaccinate the boys:

So some parents started vaccinating girls and protected their boys from vaccination to dodge the government officials. If a home had ten children, five girls, and five boys, they vaccinated the girls and did not vaccinate the boys. In some parts of FATA, girls are considered a burden. People celebrate the birth of boys by distributing sweets and resorting to aerial firing. Giving birth to a boy is prestigious. A boy is considered a long-time investment. Whereas, a girl is viewed as a liability. So they vaccinated the girls. For example, if a girl dies of the vaccine that would not make a big difference. So, vaccinating the girls served two purposes: 1) the parents avoided arrest by showing that they did vaccinate their children; 2) they protected their male children from the harm caused by the vaccine. This trend continues.

Amjad, another journalist from FATA, echoed Sharafat's opinion. He noted that his brother only let the health workers vaccinate only his daughters:

The calculation is simple. He [the respondent's brother] believes that polio is not beneficial for human body and polio is not a public health issue. So, to avoid arrest he gambles with the health of his daughters. Why risk a boy?

The journalists contended that the government and its international partners have so far not been able to devise campaigns that keep local cultural and socio-economic factors in mind. They believed that by providing incentives to the people to vaccinate their children, the government framed polio as a problem for the state, not the people or communities. Had the government framed polio as a problem for the communities, that would have discouraged the trend of a boycott of the polio vaccination campaigns as a political tool. Also, the arrests of non-compliant parents further increased the trust deficit between the communities and the government.

### **Rumors and Religion as Barriers to Polio Vaccination**

Seventeen participants relayed that different rumors were spread about polio vaccination that created doubts about polio as a disease and the side effects of the immunization used to counter polio. The religious scholars spread the rumors. Due to the involvement of the U.S. agencies in the polio eradication campaigns, the religious people started propagating the claim that the U.S. and other Western countries were using polio vaccination as a tool to control the Muslim population and as a tool of espionage. The respondents believed the ongoing "war on terror" in the region was a significant reason behind the opposition of religious people. The opposition, according to them, was mostly from Deobandi religious scholars [a religious faction of Muslims closely associated with

Taliban and al-Qaeda] who were proponents of the cause of the Taliban.

For example, Babu, a journalist from Swat region of Pakhtunkhwa noted:

There is resistance by religious beliefs. Initially, Mullah Fazlullah banned vaccination. Now there is no more forced boycott of vaccination after the Taliban were defeated in the region. However, still there are religious extremists who oppose vaccination. See poor people cannot decide on their own. They hear about vaccination from extremists that the vaccination is *haram* [forbidden in Islam] and it's a Western conspiracy, or it is used for family planning. Most of the times I hear the arguments that in this world people don't get anything for free, then why do the government and international organizations provide vaccination for free. There is something fishy. This is the reason why some people do not vaccinate their children.

Imtiaz, a journalist from Peshawar, noted that rumors that polio vaccination is a conspiracy against Muslims were initially floated by Nigerian doctors in support of a local religious party. He recollected covering “the first” anti-polio vaccination press conference arranged by Nigerian doctors in Peshawar:

In 2004-05 a team of African doctors visited Pakistan. They were hosted by the leaders of Jamaat-i-Islami. It was the time when the Northern Areas of Pakistan were struck by an earth quake. The African doctors held a press conference in which they claimed that the polio vaccines contained elements that were detrimental to human bodies. They primarily argued that the vaccines make the girls attain puberty before the natural time frame and decreases immunity in the body. A lawyer then filed a case in the Peshawar High Court. The lawsuit was

filed by the so-called educated people. Then the government made the mistake of not involving the community. The way they engage the communities now should have been done earlier.

The first major organized resistance to polio vaccination among Muslim communities on the basis of religion was recorded in Nigeria in 2003. Imtiaz's account attests that the rumors about polio vaccine as anti-Islamic reached from Nigeria to Pakistan. In Pakistan, the absence of basic health facilities in the Pakhtun dominated areas, and the inability of the government to frame polio as a public health issue for the local communities, combined with the ongoing "war on terror" means that the Pakhtun land served as a fertile ground for those rumors. The rumors created doubts in the minds of the community members and some religious scholars and political parties took advantage of the situation. Bitani, a journalist from FATA, believed that the absence of basic health facilities in KP and FATA made it easier for the religious people to sell their message to the public, "people do not see examples of polio in their everyday lives. However, they see children dying of diarrhea and women die of pregnancies. Then when the religious people started propaganda against polio vaccination, the ground was ready."

Eleven participants believed that after the defeat of militants in FATA and the involvement of religious scholars in the polio vaccination campaigns, resistance to polio vaccination by religious beliefs decreased in their communities. Saqib, a journalist from Peshawar, noted, "now the government has involved religious scholars like Maulana Samiul Haq. The involvement of the religion scholars has decreased the number of non-compliant parents".

Ishtiaq, a respondent from FATA, echoed Saqib's opinion, relaying the following:

The involvement of religious scholars has decreased resistance to polio vaccination. Notably, the participation of religious scholars in the polio vaccination has worked with the parents who were confused whether to vaccinate their children or not based on the religious concerns. However, the staunch opponents of polio vaccine still resist vaccination.

Six respondents opined that the government and international organizations required a better strategy to involve religious scholars in the polio vaccination campaigns.

Raees, a respondent from Peshawar, noted:

See, there are different denominations of religious scholars. They hate each other.

The government did not involve the religious scholars on a large scale. The involvement of mosque and clergy is limited. So for example, if you hire and compensate one scholar from a particular faith or school of thought, other start campaigning against polio vaccination campaigns just because their enemy was the representative of the campaign.

These participants believed that the failure of the government to involve religious scholars from local communities and every school of thought was a significant gap in the polio eradication efforts. They believed that the infighting between religious scholars, caused by the involvement of some religious scholars in the program while ignoring others, had done damage to the cause of polio eradication from Pakistan. Danish, another respondent from Peshawar, noted:

As far as polio vaccine is concerned, I will narrate the story of a local religious scholar. There is a famous mosque in Peshawar. Remember The Major Mosque



prayer leader? I once talked to him, and he is a religious authority. He said he had reservations about the vaccine. The prayer leader contended that it has pig's fat and reduces production capacity [potency] among male. He demanded the inclusion of authentic religious scholars on the national committee to eradicate polio. However, he said he would not accept religious scholars who are puppets of the government.

The ongoing war on terror in the region and the sectarian divisions among religious scholars made the involvement of the religious scholars in the polio vaccination campaigns more complex. For example, as noted by different respondents, if the government involved scholars from one school of thought, others started negative campaigning about polio vaccination to discredit the religious scholars from other sects involved in the polio vaccination campaigns. There is room for improvement in the strategy of the involvement of the religious scholars in the polio vaccination campaigns.

In summary, the respondents believed that the primary cause of resistance to polio vaccination was the poor health infrastructure in FATA and rural area of Pakhtunkhwa. The basic health units in these areas do not have medical specialists, and community members have to take their wives and children to large cities like Peshawar even for issues like childbirth and fever. People see children die of fever or diarrhea. Due to lack of government interest in the development of basic infrastructure, people question the rationale of delivering polio vaccination for free at their doorsteps. The respondents also noted that the government and international organizations are framing polio as a problem of the state and the international community, rather than an issue for the community members. The government of Pakistan provided incentives like cash payments and food

to some households to vaccinate their children. Similarly, they started punishing the parents who did not vaccinate their children by sending them to jails. This policy had short term success. However, it created further suspicions about the campaigns in the communities. The community members got the impression that the eradication of polio was the government's problem and that they could use the boycott of polio vaccination as a tool to make government accept their political and economic demands. Therefore, some communities boycotted polio vaccination campaigns to pressure the government to accept their demands such as the provision of electricity to their villages or monetary compensation. The respondents noted that some parents refuse polio vaccine to their children due to their religious beliefs. There are some parents who think that polio vaccination is a Western conspiracy against Muslims. The parents who refused polio vaccination to their children based on religious beliefs associated the polio vaccination campaigns with the ongoing war on terror in the region. They believed that the U.S. and its international partners wanted to kill Muslim children to win the war in Afghanistan.

### **Findings from RQ 3: How do local journalists perceive the importance of polio vaccination?**

The third research question explored the journalists' perceptions of polio and anti-polio vaccination campaigns. Four analytical categories emerged from the narratives of the participants. The categories are (a) Polio is not a major public health issue; (b) Pro vaccine and knowledgeable; (c) Suspicious journalists; (d) Journalists' interactions with the community members. The categories are not mutually exclusive and intersected with each other at several points. Two of the four categories had sub-categories. The

categories and subcategories are summarized in table 3 and described in the following section.

**Table 4**

Findings from RQ 3: How do local journalists perceive the importance of polio vaccination?	
Categories	Sub-categories
Polio not a major public health issue	“In my opinion, the primary health issues are the lack of basic infrastructure in the far-flung areas of Pakhtunkhwa and FATA.”
Journalists vaccinated their children	In my personal opinion, I always tell my family members to make sure to vaccinate my children.
The skeptical journalists	“Our children are not getting basic health facilities, but people are knocking on their doors asking them to vaccinate their children.”
Interactions with Community Members about Polio vaccination	“Usually, when I visit local communities for reporting purposes, people usually ask questions about polio vaccines.”

**Polio is not Perceived as a Major Public Health Issue**

A majority of the participants agreed with the community that there are more pressing health issues than the polio vaccination. When asked what were the major public health issues in their localities, 24 respondents noted that the lack of basic health facilities like the poor healthcare infrastructure, deaths of pregnant women due to non-availability of trained midwives, and absence of pediatricians, and the prevalence of hepatitis were the major health issues in their communities. Only two of the journalists in Peshawar that I spoke with thought that polio was a major health concern. Even the respondents who noted that polio was a major public health issue did not consider it as the disease that “needed” the time and investment that it was getting from the government and international organizations. Fourteen respondents believed that the government’s “obsession” with polio vaccination has resulted in lack of attention to other health facilities in rural areas. Imran, a reporter from FATA, noted:

The major health problem, especially in FATA, is the absence or lower number of specialist doctors. Yesterday, I reported the inadequate facilities in the four hospitals located in Anbar area of Mohmand Agency. Those are Basic Health Units. None of the hospitals has professional doctors. The doctors [who are appointed] don't perform their duties. The hospital buildings are occupied by security forces. There is not even a [medical] technician. The doctors do not want to serve in the far-flung less privileged communities. The doctors don't feel secure in those areas these days. Before the militant uprising, doctors would visit the hospitals once every ten days, but after the law-and-order situation was affected by militancy, the doctors stopped visiting those areas. Government also did not require them to perform their duties. The doctors do not want to return to their

duty stations even after the security forces cleared the area from the militants. Another problem is the lack of necessary health facilities in the hospitals and basic health units. Whenever I visit hospitals in Peshawar, I see people from Bajaur Agency, from Malakand agency visiting those hospitals to get treatment for routine diseases like a fever. When I ask them why they visit Peshawar for these everyday problems, they say that they do not have medical staff in the hospitals or basic health units in their areas. So, they cannot even get treatment for fever in the health facilities in their regions let alone major health issues. When I talk to doctors serving in those hospitals, they also talk about lack of services. Like some doctors say that they get medicine from the government to be distributed free of cost among indigent patients. However, due to lack of cold storage facilities, the medicines lose their efficacy and cannot be given to patients. That is the reason why people visit hospitals in Peshawar even for minute things. There are no facilities not only in FATA but also in the far-flung areas of Khyber Pakhtunkhwa. Another major problem is the absence of or small number of gynecologists in FATA. Most BHUs do not have the services of gynecologists. Most of our women die because of the lack of specialist doctors. During pregnancies, they get treated by Lady Health Workers or *Daes* [midwives], who are not as good as a gynecologist. They cannot handle complex issues related to delivery.

Afaq, another reporter from Peshawar, also echoed Imran's opinion:

In my opinion, the primary health issues are the lack of basic infrastructure in the far-flung areas of Pakhtunkhwa and FATA. There are no health facilities. People

have to travel for hundreds of miles to treat even minor diseases. They have to take their pregnant wives to Peshawar, and many of them die while moving. Also if there are hospitals, due to the negligence by authorities, the medical staff does not perform their duties. The people are left to the mercy of God. In the absence of basic health facilities, people take their children and wives to religious scholars to treat them through *dua* [prayers]. They do not have any other option. God is the last resort.

The government of Pakistan has established basic health units (BHU's) where professional doctors are sent to perform duties. However, the doctors do not perform their duties in those far-flung areas, according to the respondents. They said the government did not keep any check on the performance of those doctors. Therefore, the doctors, instead of performing their duties at government hospitals in the rural areas, run private clinics in the major cities. The journalists told several stories about having to take their children, wives, or other family members for treatment either to doctors in Peshawar or untrained pharmacists or faith healers. Amjad, a reporter from FATA, noted:

My wife was pregnant last year, and I had to take her to Peshawar to deliver the baby. Is not it ridiculous? She barely survived. It was a 90-minute drive on a bumpy road. However, the government does not care. Similarly, in the absence of specialized doctors, I either rely on untrained pharmacists' prescriptions or self-medication.

Bitani, another journalist from FATA agreeing with Amjad, also described his ordeal:

My wife and daughter were diagnosed with hepatitis two months back. Now for a month, the local doctor could not diagnose that. He kept giving them antibiotics without diagnosis of the actual disease. He wanted us to visit his private clinic in Peshawar so that he could make money. Finally, when their health deteriorated, I rented a taxi and took them to Peshawar where the doctors diagnosed them with Hepatitis B. So, whatever people say, our major problem is the absence of specialist doctors and the presence of a poor health infrastructure.

Even the journalists who worked in Peshawar believed that polio was not a major public health issue. They felt that even though health facilities in Peshawar were better compared to those in FATA, yet compared to other major cities, the facilities were not sufficient. The journalists who live in Peshawar contended that even though they perform their duties in Peshawar, due to low salaries, they could not afford to rent a house for their families in Peshawar. Therefore, their families suffer due to the inadequate health facilities in the surrounding areas. Saqib, a reporter from Peshawar, said the following:

My family is based in Charsadda [a rural district 30 miles from Peshawar]. See, I always have to bring my son to Peshawar for treatment. It is crazy. There is not even a single MBBS doctor in my village. So, of course, those are my primary concerns. These are the public health issues the government needs to address.

The ongoing “war on terror” also contributed to the poor health infrastructure in the area. Due to the “war on terror,” several hospital buildings were either destroyed by militants or came under friendly fire of the Pakistan military. However, the respondents noted that the government did not take any measures to rebuild those hospitals. They relayed that the government did not take any serious steps to improve the basic health

facilities in the rural areas, and this resulted in the communities' lack of trust in the government. Asif, a journalist from FATA, noted:

See, we had ten basic health units in the Mohmand Agency. Most of them have been destroyed in the recent conflict. We have district headquarters hospital in Ghalanai, but you would hardly see one or two patients in that hospital. Doctors and other medical staff deputed in the hospital do not perform their duties. Last time when I went to the emergency hospital, a critically injured elder was laying on the bed, and the medical staff wanted to shift him to a hospital in Peshawar due to the absence of facilities. People avoid going to the hospital. There is a perception among people that this hospital is worth nothing. Therefore, they prefer going to the hospitals in Shabqar in Charsadda, and Peshawar. It also increases the burden on the hospitals in the major cities like Peshawar. This is the situation of health care in the area. There are buildings but no staff. Similar is the case of the BHUs recently reconstructed by the government. Once a patient told me that the BHUs do not cater to the need of the public.

The journalists believed that they understood that polio vaccination was a public health issue. However, it does not deserve the attention it is getting from the authorities. Therefore, they wanted the authorities to give equal attention to all the public health problems in their communities.

#### Journalists Vaccinated their Children

Even though none of the journalists believed that polio was the primary health concern of their communities, they stated that they vaccinate their children. All the journalists had the basic knowledge of polio. For example, all of them knew that polio



was a virus, it was contagious, and that it spreads through water, sanitation, and human stool. Asif, a reporter from FATA, commented:

In my personal opinion, I always tell my family members to make sure to vaccinate my children. Whenever I return home I inquire about that. If polio teams do not pay a follow-up visit, I take my children to the nearby BHU. Polio vaccination efficiently eradicated the virus from major parts of the globe, so the vaccine works... now that people are vaccinating their children the number [of polio victims] reduced drastically. I cannot risk my children's lives.

Five journalists noted that they realized the efficacy and importance of polio vaccination after joining the field of journalism and covering polio-related stories. For example, Sharafat, a reporter from FATA recalled:

One of my experiences is the end of polio across the world. Even Nigeria managed to eradicate polio. I will give you some examples. In 2012, Hafiz Gul Bahadur [al-Qaeda backed militant] banned polio vaccination in North Waziristan. After June 2012, when the ban was imposed... the cases reached 195 in just North Waziristan. I have the table of polio cases with me. Polio reached an endemic stage in Waziristan specifically. In 2014, after Operation Zarb-e-Azab, when people were shifted to the camps, they were adequately vaccinated and the number of polio cases dropped to zero in 2016. In 2017, still, the cases are zero. It means that if the campaigns are carried out correctly, the vaccines are effective. However, my neighbor in Bannu still refuses to vaccinate his children. So, there is still resistance to these campaigns in FATA, Pakhtunkhwa, and some parts of Punjab.

Whenever the journalists interacted with their sources to write news stories about the polio vaccination, those interactions played a critical role in their decisions to vaccinate their children. Therefore, all of them vaccinated their children. Several respondents noted that they realized that polio virus had affected Pakhtun communities disproportionately due to resistance to vaccination.

**Polio a Pakhtun disease.** Five respondents discussed how they believed polio was a threat to Pakhtun children. They described the existence of poliovirus in the cities populated by Pakhtuns as unfortunate. They explained how the polio cases brought a bad name to Pakhtun communities and were causing isolation of Pakhtun communities from rest of the country and the world. Imran, a respondent from FATA noted:

Look, polio remains endemic only in Pakistan and one other state. In Pakistan, most cases were recorded among the Pakhtun population. The government vaccinates them at the airports whenever they want to go abroad. We are getting isolated from rest of the world due to this disease. Why not vaccinate our children? See, in our areas, we do not have medical facilities for disabled children. We even cannot provide regular medical services. Therefore, the only good option is to vaccinate our children. Polio destroyed children's dreams. They cannot get an education; they cannot play. This is called Pakhtun virus.

The journalists believed that Pakhtun parents only realize the importance of the polio vaccination when their children are paralyzed by the virus. Gulab, another respondent from Peshawar lamented, “it is so unfortunate that polio cases are emerging among Pakhtuns be that in Afghanistan or Pakistan. See FATA, Peshawar, Karachi,

Balochistan everywhere this disease affected Pakhtuns. I would call it a Pakhtun disease”.

Even though these journalists acknowledged that polio cases were only recorded among Pakhtun communities, they still did not consider it as a major public health issue in their communities and believed that it should get as much attention as the other diseases get.

### **Skeptical Journalists**

Although all the journalists said that they vaccinated their children, 11 said that they shared their community’s suspicions of the polio vaccination campaigns. Two journalists who showed their mistrust of the polio vaccination campaigns had been trained by the government of Pakistan in the coverage of polio-related issues. The journalists’ concerns were rooted in their community’s concerns. The journalists who were skeptical of the polio vaccination campaigns included journalists from both Peshawar and FATA. Afaq, a journalist from Peshawar, noted, “we are also a part of the community. We also share their suspicions about the campaigns. Our children are not getting basic health facilities, but people are knocking on their doors asking them to vaccinate their children.”

Whereas the absence of basic health facilities in the communities was the primary catalyst behind the refusal or suspicions of polio vaccination campaigns, there were other factors that strengthened their doubts. Salman, a reporter from FATA, noted that the interest of the foreign agencies makes the polio vaccination campaigns fishy:

I have been covering polio campaigns for a while now. Frankly speaking, before I joined the field I was told that polio vaccination is a conspiracy against Pakistan

and the Muslim world. I believed that theory. I thought, since very few people in Pakistan are affected by polio, and there is only a threat of its spread, then why are the international organizations focused on this disease? Why are they investing so much money and resources to counter this disease? In comparison, hepatitis is widespread in Pakistan, infant mortality rate is high. However, there are no resources in the hospitals to treat those diseases. The government has ignored other health issues and is just focusing on polio. But when I extensively covered polio vaccination campaigns, I realized that America, Canada, and Australia are investing money to eradicate polio from Pakistan to protect their people from poliovirus. They do not care about health facilities in Kurram. They are only worried about the spread of poliovirus.

Similarly, Noman, a reporter from Peshawar, who had received training in the coverage of polio vaccination campaigns, said that he had doubts about the purpose behind polio vaccination campaigns. He argued:

Let me tell you one more thing. In Pakhtunkhwa and FATA, 11 physicians some of whom work in the major hospitals refused to vaccinate their children. It means there is something wrong. Why would doctors refuse to vaccinate their children if it's not harmful? Imagine how that would affect the decisions of those parents who know these doctors. People say that polio is present in some countries of the world. However, people don't die of poliovirus. You see polio projects get foreign funding and that's good. Most of the people have their doubts. They say that there are other diseases that are killing people and governments are ignoring those issues, so why so much focus on polio vaccine?

The root of the journalists' concerns about the polio vaccination campaigns was the inability of the government to provide basic health facilities in their areas, despite the fact that the government has invested and provided polio vaccination for free.

**The vicious circle.** Despite the fact that all of them said they vaccinated their children, five journalists acknowledged that their family members or journalist friends do not want to vaccinate their children. Interestingly, two journalists noted that their family members or journalist friends stopped vaccinating their children when they read the news stories that polio vaccination caused the deaths of children in the Khyber Agency (an administrative unit of FATA). Farhan, a reporter from FATA, noted, "when an incident in Khyber Agency happened where media wrongly reported that children died of polio vaccination, many of my journalist friends refused to vaccinate their children."

Interestingly, not only some journalists believed the rumors about polio vaccination published in the newspapers about the side-effects of the polio vaccine, but in some instances, their families also believed those rumors. Danish, a journalist from Peshawar, noted that he had to fight his wife to get his children vaccinated. His wife heard rumors spread through media that polio vaccine caused deaths of children:

My wife was so worried. She did not want to vaccinate our children. She believed in the news reports published in the newspapers. She trusted media. I told her that the deaths were not caused by vaccination, but she was not ready to listen to me.

The journalists believed that at times they were stuck in a vicious circle where their interactions with community members create doubt in their minds and at times their inaccurate reporting results in the strengthening of their families' and communities' concerns about polio vaccine.

## **Interactions with Community Members about Polio Vaccination**

Eight participants noted that whenever they do field reporting on health issues, the community members asked them questions about polio vaccination. Only two out of the eight journalists said they tried to answer the community members' questions about the polio vaccine. Oman, a journalist from Peshawar, noted that he knows that the community members will ask him questions about the polio vaccine, so he prepares himself to answer their questions. He believed that before convincing others he himself needed to be convinced of the purpose behind polio vaccination campaigns and the effectiveness of the vaccine:

I have asked tough questions from the experts like why so much investment, why the involvement of the security forces, etc. I have to get knowledge about the vaccination because when I interact with my community members, they think that as a journalist I will have information about polio and they ask those questions from me. So I try to be well prepared to answer their questions. In my opinion, polio is a disease. We have seen so many people affected by polio. You see examples of polio victims on a daily basis.

Imran, another reporter from FATA, echoed Oman's opinion. He also believed that journalists need to be prepared to answer the community's questions. He relayed:

Usually, when I visit local communities for reporting purposes, people usually ask questions about polio vaccines. They are curious to know why government runs polio vaccination campaigns every month. I usually tell them that polio is a disease which is not curable. Other diseases like fever are curable through medicine. Even a broken limb is treatable. However, polio is really dangerous. In

my opinion, people should vaccinate their children.

Unlike Oman and Irfan, six journalists noted that they were not prepared to answer the questions raised by community members. The six journalists who contended that they understood that polio was incurable and contagious also supported their communities' concerns. They said questions raised by community members also created doubts about polio vaccination in their minds. Basit, a journalist from FATA, who had also attended a one-day training workshop on the coverage of polio vaccination, noted:

Several community members raise questions about polio vaccination that we are unable to answer and create doubts in our minds too. For example, people ask if there are diseases that kill more people than polio, for example, cancer and other diseases, then why the government and international organizations spend so much money on polio vaccination and campaigns. There is no outbreak of polio.

Diarrhea is more dangerous than polio. Why so much focus on polio? I don't know. That's why they call it American agenda. I don't know what agenda the government is pursuing in the disguise of polio vaccination campaigns. However, I don't want to infer too much.

Basit's opinion was also echoed by Saqib, a journalist from Peshawar:

I know that polio is contagious but so are other diseases; why doesn't the world invest in the eradication of other diseases? People always ask tough questions that I am unable to answer. See their questions are genuine. The government is running these campaigns since 1994, but so far it has not been able to answer these questions. There is something fishy.

Even though the reporters had basic knowledge of polio vaccine, including the

fact that it was a virus that was contagious, they were still unable to answer the community members' questions. Their inability to answer the community's questions show that they themselves were not able to understand the complexity of the polio vaccination campaigns. This points to the lack of training of these journalists in the coverage of polio vaccine.

A tension emerged from their discussion of the polio vaccine. Overall, all the journalists noted that they vaccinated their children. Several journalists even knew polio was endemic in the Pakhtun communities. However, at the same time, several participants shared their communities' concerns about the purpose behind the polio vaccination campaigns. Since their families were not getting basic health facilities like access to gynecologists and pediatricians in their home towns, they were skeptical of the government's efforts to provide no-charge polio vaccination at their doorsteps, which one journalist described as "freebies". The journalists' perceptions about polio vaccination were shaped by the press releases received from the government's health department, events or workshops arranged by UNICEF and EPI, and their interactions with medical experts and their community members. The information they received from the medical experts, the government of Pakistan, and their communities were contradictory. Several journalists noted that when they went to the field to report about polio vaccination, the community members asked questions about the vaccine that they were unable to answer. The community's concerns created doubts in their minds about the vaccination campaigns itself.



**RQ4: What are the perceptions of local journalists about the media coverage of polio vaccination in Pakistan and the factors that influence the coverage of polio vaccination?**

The fourth research question explored the journalists' perceptions of media coverage of polio and anti-polio vaccination campaigns, and the factors that influenced the journalists' coverage of polio vaccination. The overarching theme that emerged from the analysis was the individual, routine, organizational and social influences on journalists. The respondents noted that media only publish a news story when they receive a press release from a government organization, or when parents claim that the polio vaccine had side effects on the health of their children. The journalists could not question the claims due to lack of training and their inability to comprehend complex polio-related information. The journalists noted that lack of professional capacity also resulted in news stories based on factually incorrect information that strengthen the arguments made by "anti-vaxxers." Several respondents said that whenever the communities that resist polio vaccination see a story about deaths of children due to polio vaccine, they use it as a proof to support their argument, even if the media organizations later on retract it. Similarly, several respondents told that though news media report the emergence of polio cases in the country and announce the dates of the launch of vaccination campaigns in specific areas, however, the information is not enough to enable the parents to make an informed decision.

I answer my final research question in two sections: 1) Media coverage of polio vaccination, and 2) The factors that influence journalists' coverage of polio vaccination. The sections were divided into analytical categories and sub-categories. The categories, and sub-categories are summarized in table 4 and described in the following section.

**Table 5**

Findings from RQ 4: What are the perceptions of journalists about the media coverage of polio vaccination in Pakhtunkhwa and FATA and the factors that influence Journalists' own coverage of polio vaccination?	
Categories	Examples
Local media are rumor mills	“Journalists write news stories that are based on rumors.”
Provision of basic information on polio	“My job is to provide just the basic information about the polio vaccination campaigns.”
Factor influencing journalists' coverage of polio vaccine	<p>“The journalists are not aware of the complexities of the polio vaccination campaigns”.</p> <p>“The journalists are not trained to cover polio vaccination”</p> <p>“There is no check and balance on the reporters”</p> <p>The journalists do not trust the public relations officers involved in the polio vaccination campaigns.”</p> <p>“We have to cover 10 stories in a day with no compensation from our organization.”</p>

Influence of journalists own perceptions and  
the communities' concerns on polio coverage

### **Local Media Are Rumor Mills**

All the respondents pointed out that the local media, instead of addressing the concerns of the communities about vaccination, escalated the situation by publishing or airing factually incorrect claims of “anti-vaxxers.” They admitted that international radio services did not broadcast factually incorrect stories about polio vaccination. However, they also did not provide complete information in their news stories, leaving space for rumormongers to fill the gap. At the same time, journalists working for local media presented anti-vaxxers’ statements as facts. The airing or publishing of factually incorrect information provided credence to the rumors that polio vaccine cause death. A respondent from Orakzai Agency of FATA told this story:

Let me give you an example. A rumor spread that polio vaccination was causing infertility. In that case, the job of a professional journalist was to investigate those rumors. However, none of the journalists investigated that story. A month back a rumor spread that due to polio vaccination a child died. According to the news, the father of the sick child had requested the polio vaccination team not to vaccinate his child. Reportedly, the immunization in the earlier rounds had a negative effect on the health of the child. Some journalists instead of investigating the rumors gave validity and credence to those stories by covering the rumors as facts. They did not verify the news from any other source. The news reports

created resistance to vaccination among the locals. Ideally, the journalists should have done a proper investigation. Journalists do not have the ability to determine on their own that a child died of vaccination.

All the respondents agreed that one factually incorrect story causes damage that cannot be undone even by publishing positive stories about polio vaccines for weeks. A respondent from Khyber Agency of FATA told another story:

For example, in Khyber Agency, a few children died during a polio vaccination campaign. Probably, the children died due to other reasons. However, the journalists reported that the deaths were caused by the vaccination. The journalists also stated that the quality of the vaccine was low. I am sure the reporters did not know what the criteria for a good or poor-quality vaccine was or how they could investigate whether the vaccine was expired or not.

The publication of these factually incorrect stories negatively impacted the polio vaccination campaigns. Many parents who were vaccinating their children before the publication/airing of this story refused to do so any longer. It took the government and international organizations weeks to clarify the situation because they were waiting for medical reports from the National Institute of Health. However, according to the respondents, the damage had already been done. For example, Farhan, a respondent from FATA, noted:

After a rumor that some children died from vaccination, I was traveling to Jamrud in a taxi. I informed the taxi driver that a polio vaccination campaign was underway in the area and asked whether he planned to vaccinate his children against polio; the driver said he used to vaccinate his children in the past but did

not want to anymore since the vaccine killed children in his area. I told him that his information was incorrect, however, the driver wanted written guarantee from the polio supervisor and me that his children would not die after vaccination. People believe in rumors quickly. The government of Pakistan, UNICEF and WHO issued clarifications about the issue but they did not handle the problem correctly. They did not allow the parents to talk to anyone to clarify the point. Parents of one child claimed that their son was perfectly fine before vaccination but after the vaccination his health deteriorated and he died. The incident has caused so many silent refusals.

Twenty respondents believed that journalists working for local media never tried to investigate stories properly. They did not investigate both the pro-vaccine press releases of the government and the anti-vaccine statements or claims by different stakeholders.

The journalists want to cover a story that could increase readership of their newspapers or the ratings of their televisions. Therefore, the respondents believed, journalists were more interested in refusal cases or stories about deaths of children due to polio vaccination.

### **Provision of Basic Information on Polio**

Twenty-four out of 26 respondents admitted that journalists provide only cursory information about polio vaccinations. The information included the start of polio vaccination campaigns, dates of the campaigns, statements of public health officials and other government officials about the campaigns, and the emergence of new polio cases in their areas. Eighteen respondents believed that by providing just basic information the

journalists were not doing justice to the cause of polio eradication; their stories do not help parents in making an informed decision on whether to vaccinate their children or not. They blamed their inability to do research-based stories about polio on the lack of encouragement from their organizations, lack of their personal capacity to understand the complexity of polio vaccine campaigns, and poor communication from the public relation officers of the EPI (Extended Program on Immunization). They acknowledged that most of their stories are based on the opinion of one party. Sharafat, a respondent from Kurrum Agency, believed that he could not do detailed stories on polio vaccine due to lack of interest on the part of his editor:

Journalists in my agency portray a positive image of polio vaccination campaigns. However, we also did not do reporting that could influence parents' perceptions about polio vaccination like why polio eradication is essential. We do not provide that information just because we do not get space from the editors for health stories. Only the journalists from big cities can publish detailed information.

Four other journalists supported the argument of Sharafat that a “positive” story was not always good and a “negative” story not always bad for the cause of polio eradication. For example, Danish, a respondent from Peshawar, argued:

The polio officials and their public relations officers always box the polio related stories into negative and positive binaries. I would say 99.9 per cent of our stories are positive. We provide dates of the campaigns, the places where people can get their children vaccinated etc. But we do not have time or the capacity to answer the community’s concerns in our stories. So even if we write a hundred positive stories with basic information and then end up writing one factually incorrect one,

people just use that as an example because they already have suspicions that are strengthened by the incorrect story.

These respondents described mere provision of basic information as “poor reporting.” They believed that in order to counter conspiracy theories, journalists needed to write in-depth stories. They also opined that public relations officers needed to include more details in their press releases, which would improve the quality of news stories. Similarly, they argued that media monitoring officials working at the EPI (Extended Program on Immunization) should think beyond the positive-negative binaries. For example, Saqib, a journalist noted, “A detailed story may sometime challenge some claims of the officials but that helps in addressing communities’ concerns.” So every negative story is not necessarily bad for the campaign.

However, four participants who reported from small towns in Pakhtunkhwa and FATA noted that the provision of basic information was not “poor reporting” but rather a community service. They argued that even access to basic information was a privilege for their communities. They said that most of the people in their communities live in hilly areas and they are dependent on radio for information. Therefore, even the provision of basic information is a blessing for those communities. For example, Zada a reporter from Dir district of Pakhtunkhwa, said, “Dir is a hilly area. People rely on radio broadcasts to get information. So, when we include just the basic information that helps them. The detailed stories can confuse them.”

These four participants believed that their job is to provide just the basic information and then let the people make their own decisions. They believed that doing detailed stories tantamount to doing activism for polio vaccination campaigns. They

thought journalists should not work as activists as that would be against their professional practices.

### **Factors Influencing Journalists' Own Coverage of Polio Vaccination**

The respondents noted that media coverage of polio vaccination was influenced by several factors, including lack of awareness among journalists, lack of their ability to comprehend complex information, reliance on official handouts, and financial and time constraints.

*Lack of awareness among journalists.* The respondents said that the primary reason for the spread of rumors in media was the lack of awareness about polio and vaccine among journalists. They noted that journalists did not know how “irresponsible” reporting could impact the overall wellbeing of their communities. They opined that the journalists lacked basic knowledge of polio as a disease and the efficacy of the vaccine to counter poliovirus. A Peshawar-based reporter, said the following:

The processing and confirmation of all those stories require skill and time. For example, if a parent calls me and tells me that his child died from polio vaccination, I am most probably going to believe him unless I know that polio vaccine does not cause death. I need to seek a lot of information about polio vaccination before digging deeper into that story.

The respondents believed that journalists were not aware of their civic responsibilities. They do not like to invest time in investigating issues and improving their knowledge of the topics they cover. They just want to get the story out there. Another Peshawar-based respondent opined:

Journalists do not read books. They do not follow political updates. I have seen a



lot of religious leaders supporting polio vaccination efforts. However, some newspapers like to spread rumors or promote the discourse of militants or radicals. These journalists are confused themselves. Even a single rumor spread through media affects public opinion about an issue.

Due to the lack of knowledge, journalists are not able to comprehend even the basic polio-related information. They write up the report the way they receive them. Several correspondents relayed that at the district level in Pakhtunkhwa and the agency level in FATA, a majority of the journalists did not even know what EPI meant.

***Lack of professional training.*** Sixteen out of 25 respondents have received at least one training by the government of Pakistan or UNICEF on how to cover polio vaccination. They also acknowledged that there were more opportunities to get training on the coverage of polio vaccination than to get training on coverage of health beat in general. However, they stated that the trainers were more focused on training journalists from Peshawar. They contended that the number of journalists from FATA and districts of Pakhtunkhwa was very high and a significant number of them remained untrained. A reporter from Swat district noted:

Yes, I got one training. However, only a few journalists got that training. The trainers focus on a few media outlets. As I said out of the 60 regular members of Swat press club only two were trained by UNICEF on polio reporting.

Journalists from FATA also shared their concerns about the lack of training opportunities for media persons from their area. They also believed that trainers focus on journalists who work for major media outlets and are based in major cities. A respondent from Mohmand Agency said the following:

The journalists working or reporting from big cities usually get training, but journalists working from peripheries do not. They even do not get payments from their organizations. I do not think people are not interested in training them. I believe that journalists in FATA especially need training. However, organizations are not interested in training them.

The journalists who got training were divided on its effectiveness of the training.

Some respondents believed that training was helpful for them, whereas others contended that training did not improve their ability to cover polio-related stories. Those who did not find the trainings useful believed that trainings were a way to bribe journalists into writing what the government wanted them to write. For example, a Peshawar-based journalist said:

When they want to get the information out, then they bribe us in different ways. They invite us to lavish dinners. They encourage us to trainings, but those trainings are less about learning and more about bribing journalists. For example, at the time they gave around .7 to .8 million rupees to journalists as travel allowance. They take them to hill stations for those trainings. They talk about polio and emphasize the role of media in eradication of polio.

These respondents believed that the trainers were usually doctors who assumed that journalists had high literacy level and therefore used jargon during the training sessions. A Peshawar-based journalist noted:

Yes, they provide trainings, but those are worth nothing. The trainers are usually doctors who discuss technical information which most of the journalists find very hard to comprehend. The most productive training I got was from the

Communication School of Johns Hopkins University. Their training was very fruitful. That training changed my thoughts in so many ways. For example, initially, I believed that government should punish parents who do not vaccinate their children. That was also reflected in my stories. However, after the training, I realized that all humans have the same rights and one of the rights is the refusal to vaccinate. So, the government has no right to force someone to vaccinate his/her children.

Overall, the journalists believed that despite large-scale communication campaigns run by the government and international organizations both journalists and community members lacked awareness about polio and vaccination. This resulted in the publication of rumors as news stories. However, they believed that lack of awareness was not the only reason for the publication of fabricated or factually incorrect stories.

*Lack of checks and balances.* Seventeen respondents agreed that a second major reason for the inaccurate or incomplete polio coverage of media was the lack of in-house checks and balances. They argued that reporters did not think that editors could catch their mistakes or they could be held responsible for publishing inaccurate information. A reporter from Peshawar observed:

No, the editors are also responsible. Let's take an example of the stories published or aired on media based on rumors that polio vaccination killed children. We did not hear that any editor or news editor or assignment editor made any reporter responsible. The editors do not take action against reporters.

The respondents believed that editors themselves did not know how to catch mistakes. They thought that editors are under pressure not to miss any critical news story

that their competitors publish or broadcast. So, even if at times a polio-related story is not validated by medical professionals, the editors publish or air it. Danish, a reporter from Peshawar, recollected:

Recently, there was a rumor that a child got killed due to polio vaccine in Peshawar. Some local television channels broadcasted the story. Now my editor wanted me to file the story in two hours. I told him that the government officials are denying the claims of the parents that vaccine caused the casualty. However, my assignment editor said “let us first run the parents’ claim as a story and then later on air the official version”.

There are several instances where editors instead of discouraging reporters from filing incorrect stories, encourage them to file even factually incorrect information so that they can compete with their rivals in the market. If the story is incorrect, in some instances the editors issue a clarification or they believe that “people will forget about it.”

***Lack of Trust.*** Eleven participants were not satisfied with the role of public relations officers or focal persons who served different organizations working to eradicate polio from Pakistan. Eight of the 11 journalists who were not satisfied were from FATA. The journalists believed that public relations officers provided them information that helped the cause of their organizations. They thought that the data supplied by public relations officers was inaccurate. Farhan, a reporter from Khyber Agency, contended:

The communication or public relations officers do not disclose information. They do not give us the accurate number of recorded polio cases. They do not coordinate with us and do not help us in getting their version of the story about an

issue. After a lot of adverse reporting, the FATA Emergency Center realized that they needed to issue press releases in Urdu and English. However, even now when a journalist works on investigative or in-depth stories, the PROs hesitate to provide relevant information. They issue press releases and want you to cover that, but they do not provide us information on our request.

The journalists believed that the lack of cooperation from the communication officers and their inaccessibility to journalists was one of the reasons for inaccurate reporting or the lack of in-depth stories. Sharafat, a Peshawar-based reporter, noted:

The officials involved in polio vaccination campaigns are the primary problem. They are not forthcoming with data and accurate information. Doctors hesitate to talk about the issue. They only share data of their interest. When we do a story that goes against their interest, they do not give the data and tell us that we are harming the national interests by doing that story. Whenever we do an exclusive or investigative story, they are not available to answer our questions. It is tough to get data from officials.

Despite the lack of trust in public relations officers, the journalists relayed that they depend on press releases issued by government or related organizations in the absence of other reliable sources. Saqib, a Peshawar-based journalist, opined:

The major problem is over-reliance on data provided by the government. We cannot challenge or counter check the information provided by government officials. For example, if the officials claim that 1,000 children missed vaccination since they were out of town, we do not have the resources to visit mountainous regions to report the real situation.

The respondents believed that if public relations officers provided them accurate information and wrote the press releases in easy-to-understand language that would improve the media coverage. They also stressed that EPI officials should improve their communication with journalists from FATA and remote districts.

***Deadlines and financial constraints.*** The respondents also described tight deadlines and financial constraints as the factors that affected the quality of their work. They relayed that they had to file several stories in a single day, which left them with little time to spend on a story. They said they tried to confirm a story from authorities, however, if they did not get a response in time, they filed their stories incomplete. Zakir, a Peshawar-based journalist, noted:

In our organizations, we do not have enough time to work on stories. So, people make stories up out of whatever they hear. They don't dig the information out.

There is no culture of investigation or research in our organizations. Deadlines are another major issue. We have to file stories within a limited timeframe, let's say by 8 or 9 p.m. You have to look at so many stories. Since most of the reporters are also covering other beats along with health, only a few organizations hire reporters who just focus on health. Even if they are just covering health, they have to file so many stories a day.

The respondents noted that the lack of financial help from their organizations prevented them from doing research-based stories. Two correspondents, working for local newspapers and television stations, indicated that instead of providing incentives, their organizations punished them for doing in-depth stories on polio vaccination. Babu, a Swat-based respondent, said the following:

Let me say that in 2010 when people came back to Swat, I met the parents of a polio-affected child. I recorded a television package on that child. I invited the child, his parents, a physician, a religious scholar, and the local community members to talk about polio and why vaccination is mandatory. However, when I sent the recording to the head office, my managers called me saying that there is an organization called EPI that pays money to do such programs. Initially, they suspected that I had taken money from EPI to do the package. However, when I convinced them that I did not make any money to do that story, they asked me to demand money from EPI and transfer the money to the head office and only then they will run the package. They demanded an explanation from me. I told them that this was a public issue. However, they wanted money.

The incident narrated by Babu shows that some media organizations themselves are not interested in publishing detailed stories about polio vaccine. The owners and editors believe that if they published detailed stories, then the government of Pakistan and its international partners would not issue Public Services Announcements (PSAs) that are the source of revenue for the organizations themselves.

### **Influence of Journalists' Own Perceptions and The Communities' Concerns of Polio Reporting**

There was a difference of opinion among the respondents on to what extent journalists' personal opinions of polio vaccination impact their news stories. For example, 15 respondents noted that their colleagues and they themselves remain objective in their stories and only report "facts." These respondents believed that when a reporter does not write a factually correct story about polio vaccination, it was due to lack of resources and inability to understand scientific information. They believed that misreporting on polio

vaccination was due to lack of professionalism among journalists rather than due to their negative perceptions of vaccination. Asif, a reporter from FATA, noted, “a journalist forgets about his own feelings. He takes input from people and writes about facts. I report based on grounded realities.”

His opinion was echoed by Danish, another journalist from Peshawar who believed that journalists do not misinterpret information intentionally just because they did not like the vaccine. He relayed:

I never reported a story about polio. I know that even those who misreported the death of children due to polio vaccine did it out of ignorance. The journalists' job is to report facts and figures, and we report what we consider is the truth.

However, seven participants disagreed that their perceptions of polio did not influence their reporting. These participants believed that journalists were also social beings and their opinions were influenced by their community members. They noted that journalists wrote truth or facts but what was fact was determined by their social interactions.

Babu, a journalist from Swat district of Pakhtunkhwa, noted that journalists' reporting of polio vaccine is influenced by their perceptions in several ways:

The journalist who believes that polio is a disease and some vaccination can effectively counter that disease, do not miss any chance to do positive reporting. However, there are journalists who are against polio vaccination, and they try to avoid doing polio reports... So the journalists who report from rural areas do not take vaccination-related stories seriously and try not to write about polio vaccination. However, those who believe vaccination is a solution to polio, do



detailed stories about the effects of polio and vaccination. They include facts and figures and characters in their stories.

Two journalists noted that factually incorrect news reports published/aired by local media were a case that exemplified how journalists' perceptions or opinions influence their reporting.

Basit, a journalist from FATA, explained:

I vividly remember that incident. It was due to the non-professional behavior on the part of journalists. The incident took place in Bara. The children had pneumonia. We talked to the doctors and got all the relevant information.

However, the next day I found that one of my colleagues had misreported the story and the editors published his story. My colleague was inexperienced, and the children who died were his relatives. He presented parents' version as facts.

However, the story about the deaths of the children due to vaccine was incorrectly reported by a journalist who lost his cousins and trusted the claims made by his uncles. Once he reported this news story, the reporters working for other media organizations, instead of challenging the story, used the same sources and provided validity to the claims made in the first story. The two respondents believed that other journalists did the story because they did not have the capacity to question the claims made in the initial story and their organizations wanted to publish/air the story as a “breaking news.”

They pointed out lack of resources, lack of training, lack of professionalism among journalists, and their inability to comprehend complex polio-related information as the primary reasons for the poor coverage of polio news. However, they noted that compared to other health issues, media organizations gave more coverage to polio-related

news stories. The journalists said they write news to provide basic health information to the readers. The journalists were unable to write detailed or comprehensive stories because they did not have the professional capacity to write in-depth news reports. They were dependent on press releases, press conferences, and information provided in other events organized by the government and its international partners to write stories. The press releases, however, did not address the significant concerns of the parents and therefore the journalists were also not including that information in their write-ups. The journalists believed that media also regularly published or aired news that was factually incorrect and that increased resistance to polio vaccination in some communities. There is also tension among journalists as to what extent their reporting of polio-related news stories was influenced by their own and their communities' perceptions of the disease. Several journalists noted that they remained objective and fair in their news stories and only reported facts. However, some journalists did not agree with that argument. They believed that journalists' perceptions of polio and their communities' perceptions influenced the way they chose and wrote stories about polio vaccination.

## CHAPTER 5

### DISCUSSION

In this chapter, I discuss in depth the key findings of my study. I also discuss the contributions of my study to the existing literature on journalism and health communication. This chapter has six sections: 1) discussion of the findings by research questions; 2) practical implications; 3) theoretical implications; 4) research implications; 5) limitations; and 6) future directions. The purpose of this study was to explore: a) local health journalists' perceptions of the media coverage of health issues in Pakhtunkhwa and FATA— the two administrative units of Pakistan that are in the peripheries of the country; b) the local journalists' perceptions of the factors that influence journalists' coverage of health issues in Pakhtunkhwa and FATA; c) the local health journalists' perception of the reaction to polio vaccination among ethnically Pakhtun parents; d) the journalists' own perceptions of the polio vaccination; and e) the factors that influence the local journalists' coverage of polio vaccination.

I used a constructivist grounded theory approach, as developed by Charmaz (2014), to analyze the data collected through intensive semi-structured interviews with journalists from Pakhtunkhwa and FATA. The findings suggest that the journalists were not satisfied with the media coverage of public health issues in Pakhtunkhwa and FATA. The tensions around their professional or work-role identity, lack of professional capacity to cover health issues, and lack of checks and balances during the editorial process negatively impacted their reporting of health issues. Similarly, the journalists regarded lack of basic health facilities for children and women in remote areas as a major factor for

resistance to polio vaccination campaigns, along with a lack of trust in the government and international organizations, and resistance by religious scholars. The journalists themselves noted that they vaccinated their children against polio; however, they did not consider polio as a major threat to their children, which suggests that not all the caregivers or parents who vaccinate their children consider polio as a major threat. Just like the community members, they were skeptical of the government's exclusive focus on the polio eradication campaigns at the cost of other health facilities. Some respondents said that they knew journalist friends who did not vaccinate their children, which shows that just like some community members there are journalists who do not vaccinate their children. The journalists regarded their inability to understand complex health information, along with a lack of proper communication from the officials involved in the polio vaccination campaigns, as the most significant hurdles in covering stories on polio vaccination. The results of this study of health journalists, working among the marginalized communities in Pakistan, add to the emerging literature on health journalism in less-privileged countries. In the next section, I discuss findings by research question.

**RQ1: How do participants describe local coverage of health issues?**

The first research question examined the participants' perceptions of local coverage, including the influences on the journalists' coverage of health issues in Pakhtunkhwa and FATA.

The participants noted that the media organizations stationed in major metropolitan cities were not interested in covering health issues from peripheries since the coverage of health issues did not bring them any revenues. They noted that their

media organizations did not give time or space to the health issues that negatively affected health literacy in their communities. The journalists expected media organizations to create awareness about health issues in their locality, bring health issues to the attention of the authorities, and do fair, objective, and unbiased reporting. Overall, they were disappointed by the media coverage of health issues in their communities.

My study is the first to explore journalists' experiences and perceptions of health coverage, including that of polio vaccination in Pakistan. Whereas previous research examined perceptions of journalists about the coverage of health issues (Anderson et al., 2015; Dixon & Clarke, 2012; Entwistle & Watt, 1999; Shuchman & Wilkes, 1997; Tanur, 1990; Westwood & Westwood, 1999; Wilson et al., 2009) and the influences on health reporting (Amend & Secko, 2012; Avery et al., 2009; Hinnant & Len-Ríos, 2009; Len-Ríos, Hinnant, & Park, 2009; Len-Rios et al., 2009) in the western context, my study provides the groundwork for understanding the media coverage of public health issues in Pakistan, and the factors that influence the health journalists' coverage of those issues.

The first major influence on the journalists' coverage of health issues was their inability to understand complex health information and to present them in easy-to-understand language to their readers/listeners. The lack of journalists' ability to cover complex health issues was linked to the lack of training in covering health issues. Studies done in the Western context also show that Western journalists were not adequately trained to cover health beats or to comprehend complex health information (Hinnant & Len-Ríos, 2009; Voss, 2002). However, whereas Western journalists were described as merely inadequately trained, the majority of journalists in Pakistan were not trained at all. The lack of training could influence their reporting in several ways. For example, several

journalists described how they or their friends reported rumors as facts. The rumor-based stories created confusion among citizens about several important diseases and hurt the cause of public health. Similarly, due to lack of training a majority of the respondents were unable to identify public health issues that were critical.

The findings also suggest that the journalists were under immense pressure to compete with their colleagues in “breaking” news, cover several beats, and file several stories at the same time. These factors, combined with their lack of training in covering health issues, resulted in their over-reliance on syndicated news. Two types of agenda setters on health issues were identified: a) official sources/information subsidy providers; and b) inter-media agenda-setters as pointed out by Van Leuven and Deprez (2017). The journalists, despite being suspicious of health officials, were reliant on press releases issued by the health officials and the events arranged by them. Due to their inability to come up with health stories on their own and to validate health information, the journalists considered health officials—including medical professionals—as the primary and most reliable sources for their health stories. Similarly, since these journalists had to file several stories in a day, with little or no remuneration from their organizations, they had formed syndicates. All the press releases received and information collected from press conferences attended by one member were shared with all members.

My findings were consistent with the findings of Van Leuven and Deprez (2017) who pointed at strong inter-media agenda setting in the coverage of health issues in the Western context. Leask et al. (2010), in their research on health journalists in Australia, argued that the overreliance on official sources and press releases and on the syndicating of information could create homogeneity and harm the cause of critical journalism.

Whereas over-reliance on press releases and publishing the information contained in the press releases contradicts Western professional norms and values of journalism and erodes localism, in the context of Pakistan it offers an opportunity to public health officials to create awareness about critical public health issues through press releases. Press releases are a cost-effective way of reaching a large number of people (Len-Ríos, Cohen, & Caburnay, 2010), especially in an environment where journalists are over-reliant on press releases as is the case in Pakhtunkhwa and FATA. However, as Young, Willis, Stemmler, and Rodgers (2015) emphatically argue, to achieve this goal, there is a need to tailor the press releases, by including local information, and aligning them with the targeted audience of the media outlets.

Unlike the western journalists, who see their role as educational, as serving as public health ally and patient advocate, and as avoiding the creation of unnecessary fear among the public (Finer, Tomson, & Björkman, 1997), the participants in my study described their primary role as that of a watchdog, keeping a check on the provision of health facilities and the routine activities of Public Health Department in order to make health officials accountable. Similarly, studies done in the Western context show that the health journalists described their role of creating health content while keeping the demographic characteristics and market size of their targeted communities in mind (Friedman, Tanner, & Rose, 2014; Hinnant, Oh, Caburnay, & Kreuter, 2011). However, none of the participants in my study provided or strived to provide information tailored to their targeted communities. They were not even aware of the idea of creating messages for a targeted audience. The inability of the journalists to comprehend complex health information combined with a lack of clarity around their role, and unawareness of the

benefits of writing stories targeted at a specific community resulted in poorly written stories that failed to garner readership or audience.

The other major theme that emerged was the tension between striving for professionalism and meeting demands of their objective conditions. The journalists shared the Western journalistic professional norms and values as a professional goal, or ideal. The respondents believed that their job was to write clear, accurate, objective stories free of outside pressure, and stick to the ethical guidelines followed everywhere else in the world (Deuze, 2005; Hinnant, Len-Ríos, & Young, 2013; McQuail, 2010; Schudson, 2001). The Western journalistic professional values and norms are taught as standard in almost all Pakistani journalism schools and used as ideals in most of the country's newsrooms (Akhtar & Pratt, 2017). However, due to their working conditions, which include lack of salaries, threats to personal safety, and lack of education and training, they continuously negotiated and constituted their professional identities.

Deuze (2005) argued that journalists in elective democracies professes similar journalistic values but adapt those values in the context of the local realities. The journalists in the present study, despite facing economic and security issues and lack of training in covering health issues, subscribed to the "ideology of journalism (Deuze, 2005, p.25). However, several respondents noted many instances when they or their friends were unable to file stories that were accurate, balanced, objective, or free of outside influence stories. They aspired to those standards and held themselves and their friends accountable to use the Western journalistic values and standards as a model. However, the achievements of those realities were dependent on the economic realities of Pakistan as found by Pintak (2014), in his study in three Islamic countries, and the



pressures they faced from their organizations (Khan, 2011). Pintak (2014), in his study, stated that "In the three largest Muslim-majority regions, Islamic values are the prism through which journalists view what is accepted in the West as 'universal' values of journalism" (p.123). However, my study found that religious beliefs did not interfere with the journalists' professional identities. For example, a majority of the respondents stated that their religious beliefs never impacted their reporting of health issues, and that they considered doctors and medical experts more reliable sources on health information compared to religious scholars. One of the reasons for this could be that Pintak's (2014) study focused on journalists in general. It means his study included journalists who mostly covered crime, politics, and education beats. However, my research mainly focused on journalists covering health beats. Therefore, it may suggest that religion does not play a critical role in the coverage of health issues.

Another important finding of my study is the conceptualizing of what I call "hybrid professional identities." Whereas the government of Pakistan has set a minimum wage rate of 15,000 Pakistani Rupees per month (\$145) for unskilled workers (the lowest in the country), all the respondents who worked for the local and national media outlets either did not get any salary or got less than the minimum wage set by the government of Pakistan for unskilled workers. Therefore, a majority of the journalists who report from FATA and districts (mostly remote rural areas) noted that they had to run a side business or do a government job to support their families since they were not paid by their organizations. These journalists described themselves as "journalists first" and traders/businessmen second, thus embracing a hybrid professional identity. However, most of their colleagues, who get regular salaries from their organizations and have

chosen journalism as their only profession, did not consider them “professional journalists.” They blamed them for writing inaccurate stories or reporting under the influence of external forces such as the government and their business partners. However, the journalists maintaining hybrid professional identities themselves argued that they subscribed to the professional journalistic values and most of the times they did objective reporting. This continuous tension between maintaining a professional identity and meeting financial needs affected their health reporting.

My study provided an insight into how the health journalists in Pakistan embraced, in theory, Western professional values and norms as ideal and showed commitment to shared professional values as indicated by Elliott (2009). However, their objective conditions prevented them from achieving the ideals of accuracy, balance, and independence from outside influence on their reporting. Therefore, they could not practically demonstrate those values. Several journalists did not use everyday language, they did not verify facts, and they did not include in their stories alternative opinions which are critical for public health reporting.

This study provides an insight into the way journalists in marginalized communities of the less developed countries construct and maintain their professional roles in the current media environment. Forsyth et al. (2012), in their research on health journalists in Australia, found out that western health journalists demonstrated their commitment to [Western] journalistic values by writing health information in everyday language, checking on scientific information with trusted expert sources before publication, and the inclusion of alternative perspectives in their stories. In contrast, a majority of respondents in my study noted their inability to cover complex health

information, low salaries and pressure from the newsrooms to bring in exclusive stories as preventing them from writing the stories in easy-to-understand language, counter checking the information with trusted sources, and including alternative perspectives in their stories. therefore, these findings suggest that training journalists in the coverage of health issues, and workload management can work as facilitators for the coverage of health issues in Pakhtunkhwa and FATA.

**RQ 2: How do local journalists describe the reactions to polio vaccination among Pakhtun communities?**

The second research question explored the journalists' perceptions of reaction to polio vaccination in the communities they live in. The respondents noted that the primary cause of resistance to polio vaccination among the Pakhtun communities was the lack of basic health facilities in their area. The participants told several stories where the community members in their interactions with journalists questioned the logic behind the provision of polio vaccine at their doorsteps, while at the same time their wives and children died of other diseases in the absence of medical staff in the hospitals and basic health units. The participants said that the inability of the government to frame polio as a public health issues for the communities was the second major reason for negative reaction to polio vaccination among the Pakhtun communities. The participants contended that their third major reason for resistance was the religious beliefs of some members of the community, which resulted in rumors about polio vaccination.

The respondents noted that the communities regarded the lack of basic health facilities, such as the unavailability of pediatricians and gynecologists in their localities as their immediate or major health problem. In the absence of basic health facilities, when

the polio vaccination teams regularly visited houses to vaccinate their children, it gave birth to suspicions about the purpose behind vaccination campaigns. According to the participants, the parents did not see examples of polio-affected children in their daily lives. However, they regularly heard news of the death of children and women due to diseases like diarrhea and pregnancy complications. These findings were consistent with previous studies (Closser et al., 2015a; Closser et al., 2015b; Renne, 2006; Renne, 2014; Yahya, 2007) that regarded structural problems like lack or non-existence of basic health services as a major reason for the resistance to polio vaccination campaigns.

The findings of my study are the first to throw light on the complex relationship between lack of basic health facilities or structural problems in these communities, religion, and the gaps in the communication strategies. For example, several respondents stated that the government of Pakistan and its international partners have failed to frame polio vaccination as an immediate or primary threat to the Pakhtun communities.

Moreover, several respondents narrated how the government of Pakistan used monetary incentives to lure resistant parents to vaccinate their children. Even though the strategy had short-term benefits in that some resistant parents vaccinated children, at the same time it created a long-term problem. The strategy gave the impression that polio eradication was the state's problem and not a problem of the community.

Some participants could not understand the logic behind providing financial incentives to resistant parents. Members of the communities got the impression that if they boycotted the polio vaccination campaigns, they could force the government to meet any of their other demands. The communities started looking at the polio vaccination campaigns as a blackmailing tool. Several participants described how people in their

communities boycotted the polio vaccination campaigns and instead demanded that the government builds roads, hospitals, and supply electricity to their localities. Similarly, the participants said that instead of convincing the resistant parents to vaccinate their children, the government of Pakistan started imprisoning the parents in the Pakhtun areas who refused to vaccinate their children. Again, the government's action to imprison parents who did not vaccinate their children strengthened the belief in the communities that polio was not their health problem rather the government wanted them to vaccinate their children under pressure from international organizations. The perception that polio was not a community problem but was instead the government's problem increased resistance to polio vaccination in the communities.

To my knowledge, the government's inability to frame polio vaccination as a public health problem has never been documented in any academic study prior to my own. The Pakhtun population is a marginalized segment of the Pakistani society. Being a member of that community, I observed that its members do not think too much about the future problems. To them the *present* is the life. There is an anecdotal saying that "If we get something to eat today, God will take care of tomorrow." It means, to them, that the *present* is the most important part of their lives. If the government of Pakistan and its international partners want to convince the non-compliant parents in Pakhtunkhwa and FATA to vaccinate their children, one way to do that would be to frame polio as an immediate or current threat instead of giving out messages like "polio could paralyze your children when they grow up"—the messages that present polio as a future problem. Similarly, consistent with the previous studies (Abimbola, Malik, & Mansoor, 2013; Adoghe, 2011; Ghinai et al., 2013; Jegede, 2007; Kaufmann & Feldbaum, 2009;

Khowaja et al., 2012; Naeem et al., 2011) the participants noted religious beliefs, lack of knowledge, and lack of trust in the government and its international partners as the reasons for resistance to polio vaccination.

Interestingly, even though the literature on polio vaccination suggests that resistance to polio vaccination based on Islamic religious beliefs first started in Nigeria (Jegade, 2007; Musa, 2015; Yahya, 2006, 2007), the people in Pakistan had similar concerns about polio vaccination. However, none of the studies done earlier could find a link between the resistance in Nigeria and Pakistan. Two participants in my study noted that the rumors that polio vaccination was forbidden in Islam and that it was a Western conspiracy against Muslims came to Pakistan from Nigeria. These participants, whose journalistic careers span over 20 years, attended a press conference arranged and addressed by Nigerian doctors in 2007 with the collaboration of a Pakistani religious party the Jamaat-i-Islami in which they made claims about polio vaccination being *haram* (forbidden) and a Western conspiracy against Muslims. Pakistan is a land ripe for such rumors.

The people lacked basic health facilities and the U.S. and the government of Pakistan was at war with militants in those areas; therefore, people started believing in those rumors. The “war on terror” and the alleged involvement of a Pakistani doctor in a U.S. covert operation to track down al-Qaida chief Osama bin Laden in the guise of a vaccine worker further complicated the issue and resulted in an increased resistance to polio vaccination and, in many instances, attacks on polio vaccination teams in Pakistan. Interestingly, the findings of my study suggest that the level of resistance to polio vaccination on the basis of religion among the Pakhtun communities has declined due to

the changing dynamics of the “war on terror” and the involvement of religious scholars in the polio eradication efforts. Several participants noted that as the government of Pakistan defeated militants in FATA and involved religious scholars from Deobandi school of thought<sup>2</sup> in the polio eradication efforts, the resistance based on religious beliefs declined. The government of Pakistan started military operations against the Al-Qaeda backed Taliban groups in FATA. Due to these operations millions of people were displaced from their homes. The Internally Displaced People (IDPs) settled in the camps set up by the government where it was easier for health workers to approach parents, provide them information about the vaccination campaigns, and in several instances, force them to vaccinate their children. Similarly, the rout of extremist militants in FATA enabled the polio vaccination teams to access areas that were previously inaccessible for them.

The government involved Deobandi school of thought in the polio vaccination campaigns. The involvement of the Deobandi religious scholars also helped in reducing resistance to polio vaccination based on the religious beliefs. The religious scholars argued that polio vaccine was not *haram* in Islam and that people should vaccinate their children. However, my study suggests that the involvement of the religious scholars in the polio eradication initiatives has been partially successful. Some participants noted that the communication teams of the polio eradication program needed to involve religious scholars from all religious schools of thought at the grassroots levels (e.g., villages) to further the polio eradication program. For example, several participants noted that the

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<sup>2</sup> Scholar belonging to Deobandi school of thought are the strong supporter of Al-Qaeda and Taliban militants in Pakistan

government involved famous religious scholars in the polio eradication and sought their *fatwas* (religious edicts) in favor of polio vaccination. However, the involvement of nationally reputable scholars left out local religious scholars or the people who control mosques in their localities. The local religious scholars did not agree with the famous religious scholars and started opposing polio vaccination since they felt left out of the initiatives.

Another finding of this study was the lack of trust in the efficacy of polio vaccine. The finding was consistent with previous studies (Closser, 2010; Olufowote, 2011; Pakistan, 2015; Sadat & Naser, 2015; Shah et al., 2011; UNICEF, 2016), which found that parents thought that vaccines were not effective or that vaccine had damaging side effects and was an international conspiracy against them.

Interestingly, the findings of my study noted a gender bias in some communities about polio vaccination. The parents who believed that the polio vaccines were not effective or that they had negative side effects, but who were forced by the government to vaccinate their children, vaccinated only their daughters but not their sons. According to the respondents, in a bid to avoid getting punished by the government of Pakistan for not vaccinating their children, the parents presented their daughters for vaccination and “protected” the boys from vaccination. The parents believed that the vaccine was a Western conspiracy; since the U.S. was at war with Pakhtuns in FATA and Afghanistan, it wanted to render the Pakhtun boys infertile and that way defeat Pakhtuns. So by presenting daughters for vaccination, they not only registered themselves as compliant of polio vaccination but also “protected” their sons from the perceived side effects of polio vaccine. This phenomenon was noted in the Pakhtun communities living in FATA, in the



areas that border Afghanistan. No previous research study observed this phenomenon. In some Pakhtun communities, women are considered a burden since they are not allowed to go out of the house and become earning members of households. Therefore, these communities prefer to have boys who can go out and earn for the family and also fight rivals in case of tribal feuds.

### **Findings from RQ 3: How do local journalists perceive the importance of polio vaccination?**

The third research question explored journalists' perceptions of the polio vaccination campaigns. It is the first study done in the context of Pakistan— a country where the highest number of polio cases was recorded globally in 2017— that helps in understanding the local journalists' perceptions of the polio vaccination campaigns. Journalists are very important parts of the polio eradication efforts.

Obregón and Waisbord (2010) argued that journalists are integral part of the social mobilization campaigns to eradicate polio from the world since journalists not only shape opinions about the polio vaccination by writing news stories about the issue; they are also parents and members of the communities whose opinion of public health issues are influenced by the opinion of other community members. The first major finding of this study is that journalists do not consider polio to be “major” public health issue. The participants were not satisfied with the basic health facilities available in their communities. They noted that the government's insistence on polio eradication, instead of providing basic health facilities like appointing pediatricians and gynecologists at the Basic Health Units made them question the purpose behind the polio vaccination campaigns. This shows that the journalists shared the same concerns as the community

members. Several studies (Closser, 2010; Closser et al., 2014; Closser & Jooma, 2013; Closser et al., 2015a; Closser et al., 2015b) done in Pakistan regarded structural problems such as lack of basic health facilities in the rural and suburban areas, where the Pakhtun population lives, as major hurdles to the polio eradication.

Compared to other community members, the journalists' perceptions of the polio vaccination campaigns were more complicated. For example, all the respondents in the present study noted that they vaccinated their children and that they had basic knowledge of polio and vaccination. In addition, they knew that polio was caused by a virus that is contagious and spreads through the sewer system and water and that it is not curable but preventable through vaccine.

However, despite having basic knowledge of polio and the vaccine and although they claimed that they vaccinated their children, several respondents were suspicious of the polio vaccination campaigns. Previous studies (Closser, 2010; Khowaja et al., 2012; Naeem et al., 2011; Owais, Hanif, Siddiqui, Agha, & Zaidi, 2011) identified lack of knowledge about polio and vaccination among parents/caregivers as a reason for resistance to polio vaccination. However, the findings of my study suggest that there is a need to redefine the term "knowledge" in the context of Pakistan— especially when dealing with Pakhtun communities. For example, the respondents in this study had a basic knowledge of polio and vaccination described as standard in the previous studies. However, despite having the "basic knowledge of vaccination" several participants were suspicious of the polio vaccination campaigns. They knew that polio was a contagious disease that is not treatable and that vaccine is the only way of preventing children from getting polio virus. However, they could not make sense of the fact that if the government

and international organizations were so interested in preventing their children or their communities' children from diseases, why don't they invest in diseases like diarrhea that kill children on a daily basis or why don't they send gynecologists to their communities. One of the main pillars of the UNICEF's communication strategy is the creation of awareness or knowledge about polio and vaccine.

The findings of the present study suggest that the government of Pakistan and its international partners should expand the definition of "knowledge". Knowledge should not be limited to the provision of basic information (what polio is, what causes polio, and how to prevent children from polio). The government of Pakistan and its international partners need to contextualize the basic information about polio vaccination in socio-historical context. The respondents in this study noted that whenever they went to the field to interview people for stories about polio vaccination, the community members asked questions that they were unable to answer. Their inability to answer their community members' questions also created doubts in their minds. For example, some respondents were suspicious of the involvement of the international organizations in the polio vaccination campaigns. Again, as discussed earlier, these suspicions originated from the lack of basic health facilities in the communities and the investment of international organizations in only polio vaccination campaigns.

My findings also point to another important aspect of polio vaccination campaigns. They draw attention to the presence of parents/caregivers in the communities who vaccinate their children but are skeptical of polio vaccination campaigns. The polio eradication communication strategists should target this population in the campaigns. This population offers risk to the overall polio vaccination efforts. For example, even

though they vaccinate their children, their decisions can change anytime, especially if they are exposed to anti-polio vaccination messages. Similarly, there are chances that these members of the communities help in strengthening resistance to polio vaccination by providing emotional or moral support to the parents who do not vaccinate their children. Notably, in the case of journalists who report on polio and other vaccination, there are chances that they will give more space or values to the claims or opinions of the people who are opposed to vaccination and who therefore end up creating more uncertainty around its necessity.

Similarly, my study suggests that the journalists mainly hold the system and social inequalities responsible for resistance to polio vaccination. Therefore, they ignore or underestimate the individual-level factors that influence parents' decisions to vaccinate their children against polio. Hinnant et al. (2011) did a quantitative study to understand journalists' perceptions of health issues in the United States and found that the American journalists regarded personal health choices and individual lifestyle to be the factors that are responsible for health and wellness. They argued that holding individuals responsible for their health and wellness might influence journalists' reporting in that they may ignore the social and structural issues. However, in my study, all the participants blamed structural and social inequalities for poor health choices, in this case, those concerning polio vaccination. Therefore, there are chances that their reporting may reflect that.

Overall, the findings suggest that journalists' perceptions of polio vaccination reflect the perceptions of their community members. Since journalists play a critical role in the polio eradication initiatives, there is a need to train these journalists and address their concerns about polio vaccination through workshops and seminars. The journalists

work as a source of information in those communities. They are the opinion makers. Their inability to answer community members' questions about polio vaccination could create further doubts in the mind of parents and caregivers.

**RQ4: What are the perceptions of local journalists about the media coverage of polio vaccination in Pakistan and the factors that influence the coverage of polio vaccination?**

The fourth research question explored journalists' perceptions of the media coverage of polio and anti-polio vaccination campaigns, and the factors that influenced the journalists' coverage of polio vaccination. To my knowledge, this is the first study that examines journalists' perceptions of the media coverage of polio vaccination and the factors that influence their coverage of polio vaccination. Media plays an important role in the dissemination of information about polio and vaccination. Media—especially radio stations—can play a central role in the dissemination of information and create awareness about polio and vaccination among Pakhtun communities that live in the far-flung areas of Pakhtunkhwa and FATA (Pakistan, 2015). Journalists as newsmakers can help in countering resistance to polio vaccination campaigns (UNICEF, 2016).

The government of Pakistan and UNICEF claimed to have involved journalists in their polio eradication campaigns. However, it is critical to understand how the local journalists themselves look at their involvement in these campaigns, and the role they and their media organizations play in polio eradication initiatives. To answer this question I examined: a) the journalists' perceptions of the media coverage of polio vaccination; and b) the journalists' perceptions of the factors that influence the media coverage of polio vaccination. I found that the journalists were not satisfied with the media coverage of

polio as a public health issue and the vaccine to counter poliovirus. The journalists believed that media organizations published factually incorrect stories about polio vaccination. For example, several journalists claimed that media organizations presented parents' claims that their children were killed by polio vaccine as facts and that this negatively influenced their communities' attitudes towards polio vaccine.

This finding was consistent with the findings of Obregón and Waisbord (2010), who found that newspapers and radio stations in Nigeria and India spread rumors about polio vaccination that resulted in increased resistance to polio vaccination. My findings were also consistent with several studies of media coverage of HPV vaccination done in the Western context (Bodemer et al., 2012; Calloway et al., 2006) that found the media coverage of vaccination lacked depth, comprehensiveness, and transparency. My respondents acknowledged that the media organizations they worked for only provided basic information about polio vaccine. They associated the provision of mere basic information about the vaccine with lack of journalists' capacity to report in-depth stories on polio vaccine, and lack of media organizations' interest in research-based stories on polio vaccine, and financial and professional constraints.

The journalists' lack of training and their inability to comprehend complex health information emerged as the major factors that resulted in the poor coverage of polio vaccine. Several participants noted that, due to lack of training, they were unable to challenge either the parents' claims that polio vaccine caused deaths of their children or the government officials' claims made in their press releases. They trusted whatever they heard about the vaccine and published that as news. Interestingly, the journalists who claimed that they did careful reporting did not do a good job either. For example, whereas

a majority of the journalists never waited to ascertain the claims made by the parents who claimed their children died of vaccine, even those who got training, instead of not publishing the claims made by the parents tried to balance their stories by providing the official stances of the EPI officials that the deaths of the children were not caused by polio. Their stories resulted in false-balancing. False balancing is an act of balancing a news story by countering the scientifically valid facts, with the claims that are scientifically invalid or are anecdotal (Thomas et al., 2017). The findings were consistent with studies done in the Western context that found that journalists were not adequately trained to cover health issues (Voss, 2002). However, whereas the literacy rates of journalists are higher in the West, the low literacy rates among journalists in Pakhtunkhwa and FATA made the situation even worse.

Neither the journalists who only provided parents' versions nor the journalists who "balanced" their stories by providing both sides of the stories did any good for the cause of polio eradication from the country.

Whereas studies done in the Western context have found that the journalists do not consider press releases and government health officials to be sources for their stories Len-Rios et al. (2009), my study found that despite being suspicious of the official sources, health journalists in Pakistan considered them the most reliable sources. They were dependent on the press releases issued by these officials to write health stories due to their inability to comprehend complex health information. The participants even found the language of press releases hard to understand. Therefore, the public relations/information officers working with the EPI and UNICEF have an opportunity to improve the coverage of polio vaccination, as long as they keep in mind the low level of

health literacy of these journalists in mind. However, there is a need for improved communication between journalists and public relations officers. The journalists believed that the public relations officers were most of the times hard to reach. They also failed to provide the journalists the information journalists they needed. Therefore, at times, the journalists had to rely on unreliable sources to get their stories published. Improved communication between public relations officers/ public information officers can also help improve the media coverage of polio vaccination.

Another significant influence on the journalists' coverage of the polio vaccination was their identities as community members. Consistent with the findings of Obregón and Waisbord (2010), my study found that because they themselves are members of the communities they cover, journalists' own perceptions of polio vaccination were influenced by the community members' concerns. Several participants noted their concern about the polio vaccination campaigns. They were skeptical of the role of the government of Pakistan and international organizations in polio eradication campaigns. Similarly, they noted that whenever they go out in the field to cover polio vaccination campaigns, parents ask them questions that they are unable to answer. The parents' questions create doubts in their own minds.

My study shows that due to their role in the communities as opinion makers and parents themselves, local journalists can play a central role in the polio eradication knowledge. However, the government of Pakistan has not taken full advantage of this resource. By properly training and involving journalists in the polio eradication initiative, the government can reach the parents who are hard to reach otherwise.

### **Practical Implications**



Based on the findings of this study, several suggestions can be offered for media managers, journalists, the government of Pakistan, international non-profit organizations involved in health campaigns in Pakistan, and public relations/information officers. This section is divided into four parts: a) suggestions for the improvement of media coverage of health issues; b) suggestions for the improvement of polio eradication communication campaigns; c) suggestions for improvement of the media coverage of polio vaccination; and d) suggestions for the media coverage of health issues in Pakhtunkhwa and FATA.

First, several participants were not satisfied with the Pakistani media coverage of health issues in peripheries like Pakhtunkhwa and FATA. They believed that the media organizations with headquarters in the major cities were only interested in coverage of crime, terrorism, and politics in the less-privileged areas. There is a need to alert media managers from the major cities about their policies towards less privileged areas or peripheries and how those policies impact the health of people living in those areas. I recommend developing and leading workshops where the media managers like editors, owners of media outlets, and reporters from FATA and Pakhtunkhwa are brought together. A dialogue between media owners, editors, and reporters from FATA and Pakhtunkhwa moderated by researchers or media advocacy groups can help reduce disparities in the coverage of health between major cities and peripheries. The media organizations should offer salaries to journalists or increase their wages. Several participants said that their organizations do not pay them wages or pay only meager wages. Due to low wages the journalists have to rely on other jobs or businesses to meet their financial needs, and this results in a lack of professionalism.

Secondly, several participants noted that their lack of training in coverage of health issues resulted in poor coverage of health issues. Several participants described that they were unable to understand or comprehend complex health information or terms. There is a need to arrange training for the reporters from FATA and Pakhtunkhwa in the coverage of health issues. Since the literacy rate of journalists in those areas is comparatively low, the training should be developed keeping the literacy of those journalists in mind.

Similarly, several participants stated that there was a communication gap between the journalists and the public relations officers working for the health department of the government of Pakistan and of non-governmental organizations. The public relations officers need to address that trust deficit. One such confidence building measures could be providing information the journalists need for their stories, as several participants noted that public relations officers hesitate to provide such information.

The findings suggest that due to lack of their ability to come up with ideas for health stories on their own, the journalists heavily rely on press releases issued by the government and non-governmental organizations. The public relations officers can improve the quality of health reporting indirectly by writing the press releases while keeping the low health literacy of the journalists/reporters in mind and providing all the detailed information in those press releases.

**Shortcomings of past campaigns.** A majority of the participants identified the primary reason for the resistance to polio vaccination as the lack of basic health facilities in suburban and rural areas of Pakhtunkhwa and FATA. The inadequate health facilities result in the communities' lack of trust in the government. The communities question why

the government does not care about their basic health needs but sends polio vaccination teams to their doorsteps on a regular basis. Therefore, the government can win the trust of the communities by addressing basic health issues of the communities like deploying gynecologists and pediatricians to basic health units.

Second, by punishing parents for not vaccinating their children and by providing monetary benefits to some households for vaccinating their children against polio, the government of Pakistan frames polio as a problem of the state. From these practices, the communities inferred that polio was not their issue; instead it was a problem for government to resolve. Therefore, the communities started using the boycott of the polio vaccination campaigns as a blackmailing tool. The communication experts working for the polio eradication campaign should frame polio as a community public health issue; doing so can help reduce resistance to polio vaccination.

Third, as noted by several participants, resistance based on religious beliefs was declining. However, the participants identified gaps in the strategy of the involvement of religious scholars in the polio vaccination campaigns. The resistance to polio vaccination is higher among the scholars and followers of the Deobandi school of thought. These schools of thought are then further divided into different interest groups depending on the seminary from which these scholars got their education. Therefore, the communication experts working for polio eradication campaigns need to involve religious scholars from every mosque in localities where resistance is high. However, involving renowned scholars from district, province or country level mosques may not work in some communities due to sectarian rifts and international lobbying within different sects.

Fourth, the government of Pakistan and its international partners need to improve the messages they send out through news reports, advertisements, and community mobilization. The findings of my study show that community members still have doubts about the intentions behind the polio vaccination campaigns and about the efficacy and side effects of polio vaccination. The government needs to directly address these issues in their communication campaigns. Addressing the concerns of the communities through communication messages that are tailored for that purpose could help reduce anxiety about the polio vaccine among the communities.

**Suggestions for future campaigns.** The findings of my study show that journalists, as community members themselves, share the concerns of their fellow citizens about polio vaccination campaigns. Interestingly, despite the fact that the participants had basic knowledge of polio and vaccination, they shared the communities' concerns about the government's stress on the polio vaccination at the cost of other basic health facilities. This shows that provision of basic information like “polio is a virus,” “it is contagious,” and that it can only be prevented through polio vaccine may not be enough to convince parents including journalists to vaccinate their children.

To address this issue and improve the media coverage of polio vaccination, the journalists should be provided detailed information about the socio-historical context of polio vaccination campaigns. In particular there is a need to shed light on the U.S.'s involvement in polio vaccination campaigns. For example, the U.S. suffered the most casualties from polio. This information can put the role of the U.S. in polio vaccination campaigns in context and address some of the concerns of the communities about the involvement of the U.S. in polio eradication campaigns. The journalists are opinion

makers in their communities. The government and its international partners should enable the journalists to answer community members' questions about polio vaccination. For example, in my study, several participants stated that journalists are unable to answer the community's questions about polio vaccination. The reporters who live in the communities should also be involved in social mobilization efforts.

Similarly, journalists should be adequately trained in covering polio vaccination-related stories. For example, the journalists who got trained by the government of Pakistan and its international partners believed that if parents claim that their children died due to polio vaccination, a journalist should report that story but balance that with the version of the government officials who would counter the claim of parents. The belief that a journalist should report the allegations of parents— even if the claims are proven scientifically wrong—results in false-balancing. Therefore, there is a need to tell journalists that not all claims are worth covering.

The journalists' reliance on press releases and official sources while covering polio and vaccination offers an excellent platform for public relations officers to get messages about polio vaccination out to the public without much interference from journalists. The public relations officers need to take advantage of this opportunity. They have the opportunity to directly address the communities' concerns about polio vaccination by including comprehensive information about polio and vaccination in their press releases. Several participants in my study noted how the public relations officers included just the basic information such as the dates of a polio eradication campaigns, its locations, and what is polio or vaccine. However, the basic information does not address the communities' concerns. Journalists should directly answer the questions raised by

communities about polio vaccination campaigns. The public relations officers should also avoid using complex terminologies in their press releases to help improve the quality of media coverage of polio vaccination.

### **Theoretical Implications**

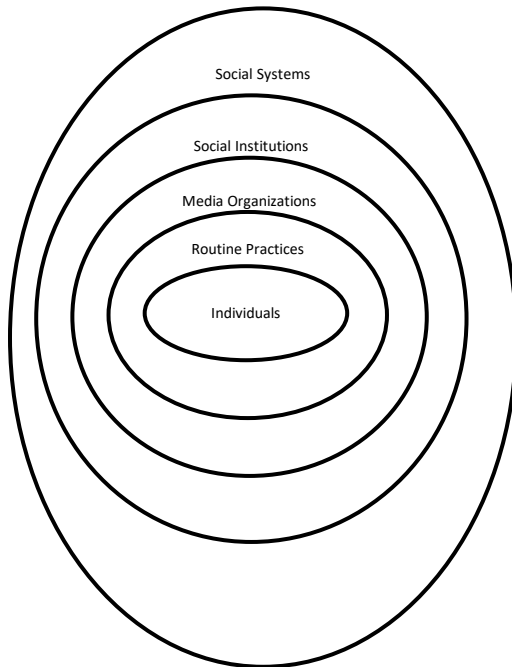
This section of the present chapter elaborates on the contributions of my study to theory. I see my study contributing both to Agenda-Building Theory and the Gatekeeping Theory, especially the Hierarchical Model of Influencers on the gatekeeping process developed by Shoemaker and Reese (2013).

The agenda building theory posits that the media, government, and society reciprocally influence each other (McCombs, 2005). Especially in the context of health journalism, studies done in the West found that the medical community, governmental sources, and press releases drive both the media agenda and the public agenda (Corbett & Mori, 1999; Sallot & Johnson, 2006a; Tanner, 2004). The findings of my study show the tension between elite sources and public agenda. On the one hand the respondents were dependent on the elite source and information subsidies to write their news stories; on the other hand the journalists and their organizations wanted to publish news stories that were of public interest. Lack of public interest in health stories was one of the reasons given by respondents for the inadequate coverage of health issues in the media, which shows that public has a role in the agenda-building process.

Secondly, my study expands scholarship on the gatekeeping process in the health news selection in the non-Western context of Pakistan. Shoemaker and Reese (2013) have developed a hierarchical model of influences on the gatekeeping process in the news

selection. According to the model (figure 1), individual, routine, organizational, institutional, and societal level factors influence the gatekeeping process of news.

**Figure 1**



Shoemaker and Reese's Hierarchical Model (Shoemaker & Reese, 2014)

Although the model was developed and tested in Western democracies, my findings suggest that in the non-Western context the health reporters are also influenced by factors at all five levels of the hierarchical model. However, these factors intersect at several points. For example, discourse about a health issue in the community shapes a journalist's beliefs and attitude towards a health issue. At the same time, a journalist's own beliefs and attitudes towards a health issues can influence the discourse about the health disease in the community. Similarly, a journalist's personal capacity— an individual level trait, according to the hierarchical model— is influenced by his organizational routines and/or decisions made by the higher management of the

organization. Therefore, my study problematizes the hierarchical model by exploring the tensions between different levels of this model in the context of health reporting in a non-Western environment. Based on the finding of my study I present a modified version of the Shoemaker and Reese's Hierarchical Model (figure 2).

**Figure 2**



Shah's modified version of the Shoemaker and Reese's (2014) Hierarchical Model

The findings of my study show that a reporter's individual level traits are shaped by routine practices, media organizations, social institutions, and social system.

Therefore, I propose a model that depicts the direct relationship between individual level traits and other traits.

Similarly, in the context of polio vaccination, I propose that the Public Relations Officers/ Public Information Officers are in control of the gatekeeping process of the news in Pakistan. A majority of the respondents in my study stated that they get their



story ideas either directly from the Public Relations Officers or Public Information Officers or through information subsidies provided by them. Since the reporters have low literacy levels and are not trained in health reporting, they forward the information the way they receive it to their readers/listeners. Similarly, a majority of my respondents noted that, in their organizations, the editors have minimal role in the gatekeeping process in the context of polio vaccination. The respondents relayed that the editors publish/air information just as they receive it from their sources without making any changes.

### **Implications for Health Journalism Research**

My study is the first of its kind done in Pakistan that explores health journalists' perceptions of the factors that influence journalists' coverage of health issues in Pakistan. Previous studies done in several Western and non-Western countries show that there exists a universal ideology or a set of journalistic values that are professed by journalists and journalists use or embrace the ideology of those professional values according to the local cultural, and economic realities (Deuze, 2005; Pintak, 2014; Pintak & Nazir, 2013; Weaver, 2004). My findings supported the findings of these earlier studies. Several participants in my study described how they considered Western professional journalistic values like “objectivity,” “fairness,” and “balance” in news stories as their ideals, but their workplace conditions like workload, lack of training, lack of salaries, and security threats prevented them from using those professional values.

An interesting finding of my study was the emergence of the phenomenon of what I call “hybrid professional identity” among journalists. This phenomenon has never been theorized before this study. Several journalists narrated how they or their friends

were both full-time journalists and businessmen, or full-time journalists and schoolteachers. The journalists were forced to maintain dual professional identities since they did not get any salary or got only meager salaries from their media organizations. However, the journalists who performed hybrid professional identities considered themselves as journalists first, even though their colleagues who were full-time media practitioners did not consider them professional journalists.

Similarly, in the context of health reporting, past studies done in the Western context (Hinnant et al., 2011) noted that health journalists blamed citizens' individual behaviors and lifestyles for their poor health and wellness. However, the narratives of participants in my study show that health journalists from the marginalized communities in Pakistan blame structural problems for health and wellness. The difference could be because of the sites of studies. Whereas Western society is individualistic, the participants in my society belonged to a collectivist social structure. However, putting the locus on the responsibility of the weak health structure and the state can result in reduced health reporting. Several participants said that their job was to serve as a watchdog on the health system in their respective areas and bring the fundamental health problems to the attention of authorities. Complete focus on structural issues may result in the stories that could empower individuals to take measures to improve their health and well-being such as doing informative stories that could help the readers or audience make informed decisions. Interestingly, in the U.S., minority journalists have been found to be more likely to use more than one source of information in their stories and to regard the development of health literacy and influencing public health behaviors as essential (McCauley, Blake, Meissner, & Viswanath, 2012). However, the findings of my study

show that the local health journalists who belong to minority groups said they were less likely than their colleagues in the major cities to use a variety of sources due to lack of training and financial and political resources. Similarly, several journalists noted that it was not their job to create health awareness or to promote healthy behaviors.

Likewise, the concept of false-balancing (Dixon & Clarke, 2012, 2013; Thomas et al., 2017) has been extensively discussed in the public health literature and journalism literature. Previous studies noted that false-balancing of news stories create uncertainty around specific knowledge for example by countering the argument of pro-vaccine medical experts with the false claims of people who oppose vaccination. However, to my knowledge, none of the studies explored journalists' perceptions of false-balancing.

Several participants in my study defended false balancing in their stories in the context of FATA and Pakhtunkhwa and described the act of balancing scientifically valid information with a false and unverified statement of the "anti-vaxxers." They believed that the best they could do to improve the quality of health journalism, especially vaccine reporting, was to present both sides of the issue. For example, when the parents in the Khyber Agency of FATA claimed that their children died of polio vaccine, most of the journalists based their stories on the claims of the parents and did not verify the claims with the scientists or medical experts. However, the journalists who were more experienced and had received training in the coverage of health issues presented both sides of the picture. Ideally, since the initial story was based on false claims of parents, journalists should have never reported the story. However, when some journalists did, others had to report that story under the pressure of the newsroom to compete with the rival organizations.

## **Limitations**

As is the case with most research projects, my study is not without its limitations. I used purposive and snowball sampling techniques for the recruitment of participants. Therefore, the results of this study are limited in generalizability. All the participants of this study had a Master's degree in journalism. The education level is not representative of all the health journalists who work in FATA and Pakhtunkhwa. I relied on qualitative interviews through WhatsApp, Skype, and phone. Other methods such as ethnography can capture the experiences of the journalists in greater depth. My study was based on only the perceptions of journalists about the factors that influence journalists' coverage of health issues, their perceptions of polio vaccination, and the factors that affect their coverage of polio vaccination. However, I did not look at the actual coverage of these journalists to see whether their perceptions were reflected in their actual coverage of health issues like polio vaccination. Another limitation is the lack of female voices in this study. There is only one female health reporter in Peshawar, and in FATA there are none. I contacted the female health reporter, but she did not respond to my emails and phone calls. The participation of the female health reporter would have added to the quality of this study.

## **Future Research**

In this section, I discuss my recommendations for future research based on the current study. First, I recommend doing an ethnographic study to better understand the practices of health journalists in Pakhtunkhwa and FATA—the two marginalized administrative units of Pakistan. An ethnographic study could provide better insight into how the local journalists negotiate different identities.

Secondly, I recommend doing a countrywide study to get an overall picture of health reporting in Pakistan and therefore to contribute to our understanding of how health journalists from major cities differ in their approaches to health reporting by the journalists of Pakhtunkhwa, FATA, and other marginalized areas.

Third, in the context of polio vaccination, this study shows that a majority of journalists had reservations about the polio vaccination and that they were unable to understand the complex information about polio vaccination they receive from the public relations officers working on the polio vaccination initiative. There is a need to examine the news stories produced or written by these journalists to understand to what extent their personal biases and their inability to comprehend complex health information impact their reporting.

Fourth, several respondents in this study noted a communication gap between themselves and the public relations officers. The respondents pointed out that the public relations officers did not produce the press releases in easy-to-understand language. There is a need to understand the other side of the story too. Future research can focus on the official version of public relations officers.

Fifth, several participants in this study noted how the government of Pakistan and its international partners failed in framing polio vaccination as a community problem and the information provided by the government of Pakistan and its international partners did not address the questions raised by the communities. Besides news content, there is a need for a content analysis of promotional materials such as brochures, posters, and advertisements used in polio vaccination campaigns by UNICEF and government of

Pakistan in order to explore how that promotional material frames polio vaccination and to what extent that material addresses the community's concerns.

Sixth, since the participants identified gaps in the strategy of the involvement of religious scholars in the polio vaccination campaigns, I would like to carry out a Community Based Participatory Research Project with religious leaders in Peshawar district, where the highest number of refusals have been recorded in 2017. The resistance to polio vaccination is higher among the scholars and followers of the Deobandi school of thought. These schools of thought are then further divided into different interest groups depending on the seminary from which these scholars got their education. Therefore, in the context of polio vaccination it is pertinent to investigate the relationship between different religious scholars in the context of polio vaccination.

**APPENDIX A**  
Interview guide  
**Section1-General Questions**

1. Age, sex, marital status, organization (print, electronic), salary, number of children, education, training in journalism (experience), language of the media outlet the respondent work for.
2. Are you satisfied with the health reporting in Pakistan? Why or why not? Explain.
3. Do you think health journalists are trained enough to cover science and health stories? Why or why not? Explain.
4. Are you covering health beat by choice or has the beat been assigned to you by your organization?
5. What makes a health story important for you?
6. What does the term “journalistic professionalism” mean to you?
7. Why, in your experience, do health journalists in Pakistan rely on official sources and press releases for health stories?

**Section 2: Questions for journalists related to Polio and Vaccination**

8. How do you look at polio as a disease?
9. What are your perceptions of the polio vaccination?
10. What are your sources of information about health, especially about polio and vaccination?
11. How would you evaluate the efforts of the government of Pakistan and international organizations to eradicate contagious diseases from the world, especially the polio eradication efforts?
12. What are your opinions about resistance to polio vaccination among Pakhtun communities?

13. How, in your opinion, can the government and its international partners reduce resistance to polio and vaccination in Pakistan?
14. How do you look at polio as a disease and the vaccine used to counter the disease?
15. Do you think you are trained enough to write stories about polio?
16. What barriers do you encounter as journalists when you write stories about health issues, especially polio?
17. What are the important factors that influence your reporting on polio and vaccination?
18. How do you initiate or pitch a story to your editor about polio or vaccine?
19. To what extent do organizational routines influence your reporting?
20. How do you choose your sources for a polio or health related story?
21. To what extent do press releases issued by government or non-governmental organizations influence your reporting on polio or health related issues?
22. To what extent do official or non-official sources contribute to your reporting?
23. How do you think journalists can improve polio related stories?
24. To your knowledge, what causes polio? To your knowledge, is polio curable?
25. Why do you think international organizations invest in polio vaccination campaigns?



## References

- Abdelmutti, N., & Hoffman-Goetz, L. (2009). Risk messages about HPV, cervical cancer, and the HPV vaccine Gardasil: a content analysis of Canadian and US national newspaper articles. *Women & health, 49*(5), 422-440.
- Abid, N., Islam, O., Bosan, A., Iqbal, T., Darwish, A., & Bile, K. (2010). Pakistan's fight against poliomyelitis: introducing innovative strategies to address challenges and attain the goal of eradication. *Eastern Mediterranean Health Journal, 16*, S5.
- Abimbola, S., Malik, A. U., & Mansoor, G. F. (2013). The final push for polio eradication: addressing the challenge of violence in Afghanistan, Pakistan, and Nigeria. *PLoS Med, 10*(10), e1001529.
- Adoghe, A. (2011). *Linking policy with technology: role of mobile communications technology in polio eradication initiative in Northern Nigeria*: Royal tropical institute (KIT).
- Afzal, O., & Rai, M. A. (2009). Battling polio in Pakistan: Breaking new ground. *Vaccine, 27*(40), 5431.
- Ahmad, K. (2007). Pakistan struggles to eradicate polio. *Lancet Infectious Diseases, 7*(4), 247.
- Ahmed, Q. A., Nishtar, S., & Memish, Z. A. (2013). Poliomyelitis in Pakistan: time for the Muslim world to step in. *The Lancet, 381*(9877), 1521-1523.
- Ajzen, I., & Fishbein, M. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*: Reading, MA: Addison-Wesley.

- Akhtar, N., & Pratt, C. B. (2017). Pakistani Government–News Media Relationships: How relevant are Western journalistic values? *Journalism Studies*, *18*(1), 65-85.
- Albrecht, R. M., Bigwood Jr, D. E., Levy, W. C., Quinlivan, J. J., Rogers, E. F., & Westman, E. R. (1963). Oral poliovirus vaccination program in central New York State, 1961. *Public health reports*, *78*(5), 403.
- Amend, E., & Secko, D. M. (2012). In the face of critique a metasyntesis of the experiences of journalists covering health and science. *Science Communication*, *34*(2), 241-282.
- Anderson, N., Wilson, N., Moon, T., Kanem, N., Diop, A., & Gbodossou, E. (2015). Redefining immunization: Not just a shot in the arm. *Global Health Communication*, *1*(1), 1-9.
- Ansari, M. A., Khan, Z., Mehnaz, S., Shah, M. S., Abedi, A. J., & Ahmad, A. (2014). Role of social mobilization in tackling the resistance to polio eradication program in underserved communities of Aligarh, India. *South East Asia Journal of Public Health*, *3*(2), 23-29.
- Apps, J. (2013). *Limping through Life: A Farm Boy's Polio Memoir*. Canada: Wisconsin Historical Society Press.
- Avery, E. J., Lariscy, R. W., & Sohn, Y. (2009). Public information officers' and journalists' perceived barriers to providing quality health information. *Health communication*, *24*(4), 327-336.
- Ayres, A. (2003). The politics of language policy in Pakistan. *Fighting words: Language policy and ethnic relations in Asia*, 51-80.

- Berkowitz, D. (1987). TV news sources and news channels: A study in agenda building. *Journalism and Mass Communication Quarterly*, 64(3), 508.
- Berkowitz, D. (1989). Information Subsidy and Agenda-Building in Local Television News.
- Bhootrani, M. L., & Tahir, S. M. (2012). Polio Free Pakistan: Reality or Dream. *JLUMHS*, 11(03), 122.
- Blume, S. (2006). Anti-vaccination movements and their interpretations. *Social science & medicine*, 62(3), 628-642.
- Bodemer, N., Müller, S. M., Okan, Y., Garcia-Retamero, R., & Neumeier-Gromen, A. (2012). Do the media provide transparent health information? A cross-cultural comparison of public information about the HPV vaccine. *Vaccine*, 30(25), 3747-3756.
- Bookchin, D., & Schumacher, J. (2000). The Virus and the Vaccine. *The Atlantic*, 285, 68-80.
- BureauofStatistics. (2015). *FATA Development Indicators Household Survey 2013-14 (FDIHS)*. Peshawar: FATA Secrateriat Retrieved from [http://www.pcnafata.gov.pk/images/pcnadc/Publications/FATA\\_Development\\_Indicators\\_Household\\_Survey\\_web.pdf](http://www.pcnafata.gov.pk/images/pcnadc/Publications/FATA_Development_Indicators_Household_Survey_web.pdf).
- Calloway, C., Jorgensen, C. M., Saraiya, M., & Tsui, J. (2006). A content analysis of news coverage of the HPV vaccine by US newspapers, January 2002-June 2005. *Journal of women's health*, 15(7), 803-809.
- Carter, R. (1965). *Breakthrough: The Saga of Jonas Salk*: Trident Press.

- Charmaz, K. (2000). Grounded Theory: Objectivist and Constructivist Methods. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 509-535). Thousand Oaks, Ca: Sage.
- Charmaz, K. (2006). Constructing grounded theory: A practical guide through qualitative research. *Sage Publications Ltd, London*.
- Charmaz, K. (2014). *Constructing grounded theory*: Sage.
- Chaturvedi, S. (2014). World witnesses a tumultuous year while India reports an eventful decade in the long story of polio eradication. *Indian journal of community medicine: official publication of Indian Association of Preventive & Social Medicine*, 39(2), 63.
- Chaturvedi, S., Dasgupta, R., Adhish, V., Ganguly, K. K., Rai, S., Sushant, L., & Arora, N. K. (2009). Deconstructing social resistance to pulse polio campaign in two North Indian districts.
- Clarke, C. E. (2008). A question of balance the autism-vaccine controversy in the British and American Elite Press. *Science Communication*, 30(1), 77-107.
- Closser, S. (2010). *Chasing polio in Pakistan: why the world's largest public health initiative may fail*: Vanderbilt University Press.
- Closser, S., Cox, K., Parris, T. M., Landis, R. M., Justice, J., Gopinath, R., . . . Dukku, A. M. (2014). The impact of polio eradication on routine immunization and primary health care: a mixed-methods study. *Journal of infectious diseases*, jit232.
- Closser, S., & Jooma, R. (2013). why we must provide better support for Pakistan's female frontline health workers. *PLoS Med*, 10(10), e1001528.

- Closser, S., Jooma, R., Varley, E., Qayyum, N., Rodrigues, S., Sarwar, A., & Omidian, P. (2015a). Polio Eradication and Health Systems in Karachi: Vaccine Refusals in Context. *Global Health Communication, 1*(1), 1-9.
- Closser, S., Rosenthal, A., Maes, K., Justice, J., Cox, K., Omidian, P. A., . . . Nyirazinyoye, L. (2015b). The global context of vaccine refusal: Insights from a systematic comparative ethnography of the global polio eradication initiative. *Medical anthropology quarterly*.
- Coates, E. A., Waisbord, S., Awale, J., Solomon, R., & Dey, R. (2013). Successful polio eradication in Uttar Pradesh, India: the pivotal contribution of the Social Mobilization Network, an NGO/UNICEF collaboration. *Global Health: Science and Practice, 1*(1), 68-83.
- Cohen, J. (2000). Vaccine theory of AIDS origins disputed at Royal Society. *Science, 289*(5486), 1850-1851.
- Corbett, J. B., & Mori, M. (1999). Medicine, media, and celebrities: News coverage of breast cancer, 1960–1995. *Journalism & Mass Communication Quarterly, 76*(2), 229-249.
- Dasgupta, R., Chaturvedi, S., Adhish, S., Ganguly, K. K., Rai, S., Sushant, L., & Arora, N. (2008). Social determinants and polioendgame': A qualitative study in high risk districts of India. *Indian pediatrics, 45*(5), 357.
- Dawson, L. (2004). The Salk Polio Vaccine Trial of 1954: risks, randomization and public involvement in research. *Clinical Trials, 1*(1), 122-130.

- Day, D. D. (1965). Enlisting community support of a polio vaccine program. *Public health reports, 80*(8), 737.
- de Quadros, C. A., Andrus, J. K., Olive, J.-M., de Macedo, C. G., & Henderson, D. A. (1992). Polio eradication from the Western Hemisphere. *Annual review of public health, 13*(1), 239-252.
- Deuze, M. (2005). What is journalism? Professional identity and ideology of journalists reconsidered. *Journalism, 6*(4), 442-464.
- Dickinson, R., & Memon, B. (2012). Press clubs, the journalistic field and the practice of journalism in Pakistan. *Journalism Studies, 13*(4), 616-632.
- Dixon, B. (2002). Triple vaccine fears mask media efforts at balance. *Current Biology, 12*(5), R151-R152.
- Dixon, G., & Clarke, C. (2012). The effect of falsely balanced reporting of the autism–vaccine controversy on vaccine safety perceptions and behavioral intentions. *Health education research, cys110*.
- Dixon, G. N., & Clarke, C. E. (2013). Heightening uncertainty around certain science media coverage, false balance, and the autism-vaccine controversy. *Science Communication, 35*(3), 358-382.
- Dunwoody, S., & Shields, S. (1984). Accounting for Patterns of Topic Selection in Statehouse Reporting.
- Elliott, D. (2009). Essential shared values and 21st century journalism. *The handbook of mass media ethics, 36*.

- Entman, R. M. (1991). Symposium framing US coverage of international news: Contrasts in narratives of the KAL and Iran air incidents. *Journal of communication, 41*(4), 6-27.
- Entman, R. M. (1993). Framing: Toward clarification of a fractured paradigm. *Journal of communication, 43*(4), 51-58.
- Entwistle, V. A., & Watt, I. S. (1999). Judging journalism: how should the quality of news reporting about clinical interventions be assessed and improved? *Quality in health care: QHC, 8*(3), 172.
- Farooq, U. (2016, December 22). Expired vaccines? Child dies, eight others fall ill after vaccination, News. *The Express Tribune*, p. 40. Retrieved from <https://tribune.com.pk/story/1271356/expired-vaccines-child-dies-eight-others-fall-ill-vaccination/>
- Finer, D., Tomson, G., & Björkman, N.-M. (1997). Ally, advocate, analyst, agenda-setter? Positions and perceptions of Swedish medical journalists. *Patient education and counseling, 30*(1), 71-81.
- Fishbein, M. (1979). A theory of reasoned action: some applications and implications.
- Forsyth, R., Morrell, B., Lipworth, W., Kerridge, I., Jordens, C. F., & Chapman, S. (2012). Health Journalists' perceptions of their professional roles and responsibilities for ensuring the veracity of reports of health research. *Journal of Mass Media Ethics, 27*(2), 130-141.

- Friedman, D. B., Tanner, A., & Rose, I. D. (2014). Health journalists' perceptions of their communities and implications for the delivery of health information in the news. *Journal of community health, 39*(2), 378-385.
- Gamson, W. A. (1989). News as framing comments on Graber. *The American Behavioral Scientist (1986-1994), 33*(2), 157.
- Gamson, W. A., & Modigliani, A. (1989). Media discourse and public opinion on nuclear power: A constructionist approach. *American journal of sociology, 1*-37.
- Gandy, O. H. (1982). *Beyond agenda setting: Information subsidies and public policy*: Ablex Publishing Corporation.
- Ghanem, S. (1997). Filling in the tapestry: The second level of agenda setting. *Communication and democracy: Exploring the intellectual frontiers in agenda-setting theory, 3*-14.
- Ghanta, C. S. (2012). Coverage of Health Information in Electronic Media-a Study. *Researchers World, 3*(2), 95.
- Ghinai, I., Willott, C., Dadari, I., & Larson, H. J. (2013). Listening to the rumours: What the northern Nigeria polio vaccine boycott can tell us ten years on. *Global public health, 8*(10), 1138-1150.
- Gitlin, T. (1980). *The whole world is watching: Mass media in the making & unmaking of the new left*: Univ of California Press.
- GPEI. (2016a). History of polio. Retrieved from <http://www.polioeradication.org/Polioandprevention/Historyofpolio.aspx>



- GPEI. (2016b, October 26, 2016). Polio this week as of 25 October 2016. Retrieved from <http://polioeradication.org/polio-today/polio-now/this-week/>
- Habel, M. A., Liddon, N., & Stryker, J. E. (2009). The HPV vaccine: a content analysis of online news stories. *Journal of women's health, 18*(3), 401-407.
- Hartz, J., & Chappell, R. (1997). *Worlds apart: How the distance between science and journalism threatens America's future*: First Amendment Center.
- Hilton, S., Hunt, K., Langan, M., Bedford, H., & Petticrew, M. (2010). Newsprint media representations of the introduction of the HPV vaccination programme for cervical cancer prevention in the UK (2005–2008). *Social science & medicine, 70*(6), 942-950.
- Hilyard, K. M., Quinn, S. C., Kim, K. H., Musa, D., & Freimuth, V. S. (2013). Determinants of parental acceptance of the H1N1 vaccine. *Health Education & Behavior, 1090198113515244*.
- Hinnant, A., & Len-Ríos, M. E. (2009). Tacit understandings of health literacy: interview and survey research with health journalists. *Science Communication*.
- Hinnant, A., Len-Ríos, M. E., & Young, R. (2013). Journalistic use of exemplars to humanize health news. *Journalism Studies, 14*(4), 539-554.
- Hinnant, A., Oh, H. J., Caburnay, C. A., & Kreuter, M. W. (2011). What makes African American health disparities newsworthy? An experiment among journalists about story framing. *Health education research, 26*(6), 937-947.
- Horstmann, D. M. (1985). The poliomyelitis story: a scientific hegira. *The Yale journal of biology and medicine, 58*(2), 79.

- Hussain, R. S., McGarvey, S. T., Shahab, T., & Fruzzetti, L. M. (2012). Fatigue and fear with shifting polio eradication strategies in India: a study of social resistance to vaccination. *PLoS One*, 7(9), e46274.
- infoasaid. (2012). *Pakistan Media and Telecoms Landscape Guide*. Retrieved from Islamabad: <https://internews.org/research-publications/pakistan-media-and-telecoms-landscape-guide>
- Jan, F. (2015). Representing the Self and the Other: Discourse of the Pakistan-based Militant Organizations.
- Jan, F., & Shah, S. F. A. (2014). Media framing of polio and vaccination campaigns in Pakistan. *PUTAJ*, 21(1), 15.
- Jegede, A. S. (2007). What led to the Nigerian boycott of the polio vaccination campaign? *PLoS Med*, 4(3), e73.
- John, T. J., & Vashishtha, V. M. (2012). Polio vaccination in Pakistan. *The Lancet*, 380(9854), 1645.
- Joseph, N., Subba, S., Nelliyanil, M., Kotian, S., & Haridath, A. (2011). A study of the knowledge and attitude towards pulse polio immunization in semi urban areas of South India. *The Australasian medical journal*, 4(2), 81.
- Kaufmann, J. R., & Feldbaum, H. (2009). Diplomacy and the polio immunization boycott in Northern Nigeria. *Health Affairs*, 28(4), 1091-1101.
- Kazi, A., Murtaza, A., Khoja, S., Zaidi, A., & Ali, S. (2014). Monitoring polio supplementary immunization activities using an automated short text messaging system in Karachi, Pakistan. *Bulletin of the World Health Organization*, 92(3), 220-225.

- Kelly, B. J., Leader, A. E., Mittermaier, D. J., Hornik, R. C., & Cappella, J. N. (2009). The HPV vaccine and the media: How has the topic been covered and what are the effects on knowledge about the virus and cervical cancer? *Patient education and counseling, 77*(2), 308-313.
- Kennedy, A., LaVail, K., Nowak, G., Basket, M., & Landry, S. (2011). Confidence about vaccines in the United States: understanding parents' perceptions. *Health Affairs, 30*(6), 1151-1159.
- Khan, A. (2011). *New media and journalism in Pakistan* Berlin: LAMBERT Academic publishing.
- Khan, T., & Qazi, J. (2013). Hurdles to the global antipolio campaign in Pakistan: an outline of the current status and future prospects to achieve a polio free world. *Journal of epidemiology and community health, 67*(8), 696-702.
- Khan, T. M., & Chiau, L. M. (2015). Polio vaccination in Pakistan: by force or by volition? *The Lancet, 386*(10005), 1733.
- Khowaja, A. R., Khan, S. A., Nizam, N., Omer, S. B., & Zaidi, A. (2012). Parental perceptions surrounding polio and self-reported non-participation in polio supplementary immunization activities in Karachi, Pakistan: a mixed methods study. *Bulletin of the World Health Organization, 90*(11), 822-830.
- Klaidman, S. (1991). Health in the headlines: The stories behind the stories.
- Larson, H. J., & Bhutta, Z. A. (2013). Security, Insecurity, and Health Workers: The Case of Polio. *JAMA internal medicine, 173*(15), 1393-1394.

- Larson, H. J., & Ghinai, I. (2011). Lessons from polio eradication. *Nature*, 473(7348), 446-447.
- Larsson, A., Oxman, A. D., Carling, C., & Herrin, J. (2003). Medical messages in the media—barriers and solutions to improving medical journalism. *Health expectations*, 6(4), 323-331.
- Leask, J., Hooker, C., & King, C. (2010). Media coverage of health issues and how to work more effectively with journalists: a qualitative study. *BMC public health*, 10(1), 535.
- Len-Ríos, M. E., Cohen, E., & Caburnay, C. (2010). Readers use black newspapers for health/cancer information. *Newspaper Research Journal*, 31(1), 20-35.
- Len-Ríos, M. E., Hinnant, A., & Park, S.-A. (2009). Understanding how health journalists judge public relations sources: A rules theory approach. *Public Relations Review*, 35(1), 56-65.
- Len-Rios, M. E., Hinnant, A., Park, S.-A., Cameron, G. T., Frisby, C. M., & Lee, Y. (2009). Health news agenda building: Journalists' perceptions of the role of public relations. *Journalism & Mass Communication Quarterly*, 86(2), 315-331.
- Lopez-Escobar, E., Llamas, J. P., & McCombs, M. (1998). Agenda setting and community consensus: First and second level effects. *International Journal of Public Opinion Research*, 10(4), 335-348.
- Mangrio, N. K., Alam, M. M., & Shaikh, B. T. (2008). Is Expanded Programme on Immunization doing enough? Viewpoint of health workers and managers in Sindh, Pakistan. *JPMA. The Journal of the Pakistan Medical Association*, 58(2), 64.

- Maron, B. J. (2008). Medical data, the media, and distortion of the facts in the Internet era. *The American journal of cardiology*, 101(6), 890-891.
- McCauley, M. P., Blake, K. D., Meissner, H., & Viswanath, K. (2012). The social group influences of US health journalists and their impact on the newsmaking process. *Health education research*, cys086.
- McCleneghan, S. (1997). Training and service: the killing fields of small newspapers. *Editor & Publisher*, 130(45), 56.
- McCombs, M. (2005). A look at agenda-setting: Past, present and future. *Journalism Studies*, 6(4), 543-557.
- McCombs, M. E., & Shaw, D. L. (1972). The agenda-setting function of mass media. *Public opinion quarterly*, 36(2), 176-187.
- McIntosh White, J. (2012). The communicative action of journalists and public information officers: Habermas revisited. *Journalism Practice*, 6(4), 563-580.
- McQuail, D. (2010). *McQuail's mass communication theory*: Sage publications.
- Meldrum, M. L. (1999). The historical feud over polio vaccine: how could a killed vaccine contain a natural disease? *Western journal of medicine*, 171(4), 271.
- Mezzera, M., & Sial, S. (2010a). Media and Governance in Pakistan: A controversial yet essential relationship. *Initiative for Peace Building*.
- Mezzera, M., & Sial, S. (2010b). *Media and Governance in Pakistan: A controversial yet essential relationship* Retrieved from Brussels:  
[https://www.clingendael.nl/sites/default/files/20101109\\_CRU\\_publicatie\\_mmezera.pdf](https://www.clingendael.nl/sites/default/files/20101109_CRU_publicatie_mmezera.pdf)

- Mills, J., Bonner, A., & Francis, K. (2006a). Adopting a constructivist approach to grounded theory: Implications for research design. *International journal of nursing practice*, 12(1), 8-13.
- Mills, J., Bonner, A., & Francis, K. (2006b). The development of constructivist grounded theory. *International journal of qualitative methods*, 5(1), 25-35.
- Moyer, A., Greener, S., Beauvais, J., & Salovey, P. (1995). Accuracy of health research reported in the popular press: Breast cancer and mammography. *Health communication*, 7(2), 147-161.
- Musa, A. I. (2015). Polio Immunization Social Norms in Kano State, Nigeria: Implications for Designing Polio Immunization Information and Communication Programs for Routine Immunization Services. *Global Health Communication*, 1(1), 21-31.
- Mushtaq, A., Mehmood, S., Rehman, M. A. U., Younas, A., Rehman, M. S. U., Malik, M. F., & Hyder, M. Z. (2015). Polio in Pakistan: Social constraints and travel implications. *Travel medicine and infectious disease*, 13(5), 360-366.
- Mushtaq, M. U., Shahid, U., Majrooh, M. A., Shad, M. A., Siddiqui, A. M., & Akram, J. (2010). From their own perspective-constraints in the Polio Eradication Initiative: perceptions of health workers and managers in a district of Pakistan's Punjab province. *BMC international health and human rights*, 10(1), 1.
- Naeem, M., Adil, M., Abbas, S. H., Khan, A., Khan, M. U., & Naz, S. M. (2011). Coverage and causes of non immunization in national immunization days for polio; A consumer and provider perspective study in Peshawar. *Journal of Postgraduate Medical Institute (Peshawar-Pakistan)*, 26(1).

- Nasir, S.-G., Aliyu, G., Ya'u, I., Gadanya, M., Mohammad, M., Zubair, M., & El-Kamary, S. S. (2014). From intense rejection to advocacy: How Muslim clerics were engaged in a polio eradication initiative in Northern Nigeria. *PLoS Med*, *11*(8), e1001687.
- Nasiru, S.-G., Aliyu, G. G., Gasasira, A., Aliyu, M. H., Zubair, M., Mandawari, S. U., . . . El-Kamary, S. S. (2013). Breaking community barriers to polio vaccination in Northern Nigeria: the impact of a grass roots mobilization campaign (Majigi). *Pathogens and global health*.
- National Emergency Operation Center, W. H. O., United Nations Children's Fund. (2016, September 2016). End Polio Pakistan. Retrieved from <http://www.endpolio.com.pk/>
- Neuman, W. R., Just, M. R., & Crigler, A. N. (1992). *Common knowledge: News and the construction of political meaning*: University of Chicago Press.
- Niazi, Z. (1986). *Press in chains*: South Asia Books.
- Niazi, Z. (2005). *Fettered Freedom*: Pakistan Study Centre, University of Karachi.
- Niazi, Z., & Mustafa, Z. (2010). *The press in chains* (2nd revised and updated ed.): Karachi: Oxford University Press.
- Obregón, R., Chitnis, K., Morry, C., Feek, W., Bates, J., Galway, M., & Ogden, E. (2009). Achieving polio eradication: a review of health communication evidence and lessons learned in India and Pakistan. *Bulletin of the World Health Organization*, *87*(8), 624-630.

- Obregón, R., & Waisbord, S. (2010). The complexity of social mobilization in health communication: top-down and bottom-up experiences in polio eradication. *Journal of health Communication, 15*(S1), 25-47.
- Odusanya, O. O., Alufohai, E. F., Meurice, F. P., & Ahonkhai, V. I. (2008). Determinants of vaccination coverage in rural Nigeria. *BMC public health, 8*(1), 1.
- Olufowote, J. O. (2011). Local resistance to the global eradication of polio: newspaper coverage of the 2003–2004 vaccination stoppage in Northern Nigeria. *Health communication, 26*(8), 743-753.
- Omer, S. B., Orenstein, W. A., & Koplan, J. P. (2013). Go big and go fast—vaccine refusal and disease eradication. *New England Journal of Medicine, 368*(15), 1374-1376.
- Oshinsky, D. M. (2005). *Polio: an American story*: Oxford University Press.
- Owais, A., Hanif, B., Siddiqui, A. R., Agha, A., & Zaidi, A. K. (2011). Does improving maternal knowledge of vaccines impact infant immunization rates? A community-based randomized-controlled trial in Karachi, Pakistan. *BMC public health, 11*(1), 1.
- Pakistan, G. o. (2015). *National Emergency Action Plan For Polio Eradication 2015-16*. Islamabad: National Task Force for Polio Eradication Retrieved from [http://www.polioeradication.org/Portals/0/Document/InfectedCountries/Pakistan/2015-16\\_NEAP\\_Pakistan.pdf](http://www.polioeradication.org/Portals/0/Document/InfectedCountries/Pakistan/2015-16_NEAP_Pakistan.pdf).
- Pan, Z., & Kosicki, G. M. (2001). Framing as a strategic action in public deliberation. *Framing public life: Perspectives on media and our understanding of the social world, 35-65*.



- Paul, J. R. (1971). A history of poliomyelitis. *A history of poliomyelitis*.
- Pintak, L. (2014). Islam, identity and professional values: A study of journalists in three Muslim-majority regions. *Journalism, 15*(4), 482-503.
- Pintak, L., & Nazir, S. J. (2013). Pakistani journalism: at the crossroads of Muslim identity, national priorities and journalistic culture. *Media, Culture & Society, 35*(5), 640-665.
- Poland, G. A., & Jacobson, R. M. (2001). Understanding those who do not understand: a brief review of the anti-vaccine movement. *Vaccine, 19*(17), 2440-2445.
- Privitera, G. J. (2013). *Research methods for the behavioral sciences*: Sage Publications.
- Quintero Johnson, J., Sionean, C., & Scott, A. M. (2011). Exploring the presentation of news information about the HPV vaccine: a content analysis of a representative sample of US newspaper articles. *Health communication, 26*(6), 491-501.
- Rahman, T. (1996). *Language and politics in Pakistan*: Oxford University Press, USA.
- Reichler, M., Aslanian, R., Lodhi, Z., Latif, I., Khan, M. A., Chaudhry, R., . . . Barzgar, M. (1997). Evaluation of oral poliovirus vaccine delivery during the 1994 national immunization days in Pakistan. *Journal of infectious diseases, 175*(Supplement 1), S205-S209.
- Renne, E. (2006). Perspectives on polio and immunization in Northern Nigeria. *Social science & medicine, 63*(7), 1857-1869.
- Renne, E. P. (2014). Parallel dilemmas: polio transmission and political violence in northern Nigeria. *Africa, 84*(03), 466-486.

- Reporter, S. (2015, December 28, 2015). Tribal people reliant on militant or foreign radio for news, News. *The Express Tribune*, pp. 1-16. Retrieved from <http://tribune.com.pk/story/1017278/on-the-fm-tribespeople-reliant-on-militant-or-foreign-radio-for-news/>
- Riaz, H., & Rehman, A. (2013). Polio vaccination workers gunned down in Pakistan. *The Lancet Infectious Diseases*, 13(2), 120.
- Ricchiardi, S. (2012). *Challenges for Independent News Media in Pakistan*. Retrieved from Washington DC: <https://www.ciaonet.org/attachments/21059/uploads>
- Rogers, N. (1989). Dirt, flies, and immigrants: explaining the epidemiology of poliomyelitis, 1900–1916. *Journal of the history of medicine and allied sciences*, 44(4), 486-505.
- Rogers, N. (1992). *Dirt and disease: polio before FDR*: Rutgers University Press.
- Rosenstock, I. M., Derryberry, M., & Carriger, B. K. (1959). Why people fail to seek poliomyelitis vaccination. *Public health reports*, 74(2), 98.
- Sadat, R., & Naser, A. M. (2015). Association of Volunteer Communication Mobilizers' Polio-Related Knowledge and Job-Related Characteristics With Health Message Delivery Performance in Kano District of Nigeria. *Global Health Communication*, 1(1), 48-57.
- Sallot, L. M., & Johnson, E. A. (2006a). Investigating relationships between journalists and public relations practitioners: Working together to set, frame and build the public agenda, 1991–2004. *Public Relations Review*, 32(2), 151-159.

- Sallot, L. M., & Johnson, E. A. (2006b). To contact... or not?: investigating journalists' assessments of public relations subsidies and contact preferences. *Public Relations Review*, 32(1), 83-86.
- Sass, E. J., Gottfried, G., & Sorem, A. (1996). *Polio's legacy: An oral history*: University Press of Amer.
- Scheufele, D. A. (1999). Framing as a theory of media effects. *Journal of communication*, 49(1), 103-122.
- Schudson, M. (2001). The objectivity norm in American journalism. *Journalism*, 2(2), 149-170.
- Schwitzer, G. (2008). How do US journalists cover treatments, tests, products, and procedures? An evaluation of 500 stories. *PLoS Med*, 5(5), e95.
- Shah, M., Khan, M. K., Shakeel, S., Mahmood, F., Sher, Z., Sarwar, M. B., & Sumrin, A. (2011). Resistance of polio to its eradication in Pakistan. *Virology journal*, 8(1), 1.
- Sheikh, A., Iqbal, B., Ehtamam, A., Rahim, M., Shaikh, H. A., Usmani, H. A., . . . Wahab, T. A. (2013). Reasons for non-vaccination in pediatric patients visiting tertiary care centers in a polio-prone country. *Archives of Public Health*, 71(1), 1.
- Shoemaker, P., & Reese, S. D. (2011). *Mediating the message*: Routledge New York.
- Shoemaker Pamela, J., & Reese Stephen, D. (1996). *Mediating the message. Theories of influences on mass media content* 2nd ed: Longman.
- Shoemaker, P. J., Eichholz, M., Kim, E., & Wrigley, B. (2001). Individual and routine forces in gatekeeping. *Journalism & Mass Communication Quarterly*, 78(2), 233-246.

- Shoemaker, P. J., & Reese, S. D. (2013). *Mediating the message in the 21st century: A media sociology perspective*: Routledge.
- Shuchman, M., & Wilkes, M. S. (1997). Medical scientists and health news reporting: a case of miscommunication. *Annals of Internal Medicine*, 126(12), 976-982.
- Siddiqi, K. (2016a, September 4, 2016). The challenge ahead, Opinion. *The Express Tribune*, p. 16. Retrieved from <http://tribune.com.pk/story/1175971/the-challenge-ahead/>
- Siddiqi, K. (2016b, September 4, 2016). The challenges ahead, Opinion. *Express Tribune*. Retrieved from <http://tribune.com.pk/story/1175971/the-challenge-ahead/>
- Singh, M. S., & Bharadwaj, A. (2000). Communicating immunisation: the mass media strategies. *Economic and Political Weekly*, 667-675.
- Singhal, A. (2013). Adaptive micro and macro communication strategies to eradicate polio from India: Social mobilization, opinion leadership, and interpersonal influence at unprecedented scale. *International journal of communication and social reseach*, 1(1), 1-14.
- Sood, S., Klassen, A., Cronin, C., Massey, P., & Shefner-Rogers, C. (2015). Looking Back and Planning Ahead: Examining Global Best Practices in Communication for Inactivated Polio Vaccination Introduction in Rwanda. *Global Health Communication*, 1(1), 10-20.
- Tanner, A. H. (2004). Agenda building, source selection, and health news at local television stations A nationwide survey of local television health reporters. *Science Communication*, 25(4), 350-363.

- Tanur, J. M. (1990). News & Numbers: A Guide to Reporting Statistical Claims and Controversies in Health and Related Fields. *Journal of the American Statistical Association*, 85(410), 591-593.
- Taylor, S., & Shimp, L. (2010). Using data to guide action in polio health communications: experience from the Polio Eradication Initiative (PEI). *Journal of health Communication*, 15(S1), 48-65.
- Thomas, R. J., Tandoc Jr, E. C., & Hinnant, A. (2017). False Balance in Public Health Reporting? Michele Bachmann, the HPV Vaccine, and “Mental Retardation”. *Health communication*, 32(2), 152-160.
- Tuchman, G. (1978). Making news: A study in the construction of reality.
- UNICEF. (2000). *Communication Handbook for Polio Eradication and Routine EPI*. Retrieved from New York: <http://www.unicef.org/cbsc/files/polio.pdf>
- UNICEF. (2004). *BUILDING TRUST IN IMMUNIZATION Partnering with Religious Leaders and Groups*. Retrieved from New York: [http://www.unicef.org/publications/files/building\\_trust\\_immunization.pdf](http://www.unicef.org/publications/files/building_trust_immunization.pdf)
- UNICEF. (2012, September 12, 2012). A Women-to-Women Communication Strategy for Polio Eradication. Retrieved from [http://www.unicef.org/cbsc/index\\_55830.html](http://www.unicef.org/cbsc/index_55830.html)
- UNICEF. (2016). *Polio Communication Global Guide: A how-to manual for the art and science of maximizing immunization rates through communication*. Global Polio Eradication Initiative.

- UNICEF, H. (2014). *Knowledge, Attitude, and Practices (KAPs) Polls in Nigeria and Pakistan*. Retrieved from <http://www.comminit.com/polio/content/knowledge-attitudes-and-practices-kaps-polls-pakistan-and-nigeria>
- Vamos, C. A., McDermott, R. J., & Daley, E. M. (2008). The HPV vaccine: framing the arguments FOR and AGAINST mandatory vaccination of all middle school girls. *Journal of School Health, 78*(6), 302-309.
- Van Leuven, S., & Deprez, A. (2017). 'To follow or not to follow?': How Belgian health journalists use Twitter to monitor potential sources. *Journal of Applied Journalism & Media Studies, 6*(3), 545-566.
- Vashisht, N., & Puliyeel, J. (2012). Polio programme: let us declare victory and move on. *Indian J Med Ethics, 9*(2), 114-117.
- Viswanath, K., Blake, K. D., Meissner, H. I., Saiontz, N. G., Mull, C., Freeman, C. S., . . . Croyle, R. T. (2008). Occupational practices and the making of health news: A national survey of US health and medical science journalists. *Journal of health Communication, 13*(8), 759-777.
- Voss, M. (2002). Checking the pulse: Midwestern reporters' opinions on their ability to report health care news. *American Journal of Public Health, 92*(7), 1158-1160.
- Wallington, S. F., Blake, K., Taylor-Clark, K., & Viswanath, K. (2010). Antecedents to agenda setting and framing in health news: An examination of priority, angle, source, and resource usage from a national survey of US health reporters and editors. *Journal of health Communication, 15*(1), 76-94.

- Walsh, D. (2007). Polio cases jump in Pakistan as clerics declare vaccination an American plot. *The Guardian*, 15.
- Warigon, C., Mkanda, P., Banda, R., Zakari, F., Damisa, E., Idowu, A., . . . Hammanyero, K. (2016). The Journalists Initiatives on Immunisation Against Polio and Improved Acceptance of the Polio Vaccine in Northern Nigeria 2007–2015. *Journal of infectious diseases*, 213(suppl 3), S86-S90.
- Wasserman, H., & Rao, S. (2008). The glocalization of journalism ethics. *Journalism*, 9(2), 163-181.
- Weaver, D., & Elliott, S. N. (1985). Who sets the agenda for the media? A study of local agenda-building. *Journalism and Mass Communication Quarterly*, 62(1), 87.
- Weaver, D. H. (2004). Journalists: international profiles. In A. S. DeBeer & J. C. Merrill (Eds.), *Global Journalism: Topical Issues and Media Systems*. Boston, MA: Pearson/Allyn and Bacon.
- Weiss, W. M., Rahman, M., Solomon, R., Singh, V., & Ward, D. (2011). Outcomes of polio eradication activities in Uttar Pradesh, India: the Social Mobilization Network (SM Net) and Core Group Polio Project (CGPP). *BMC infectious diseases*, 11(1), 1.
- Westwood, B., & Westwood, G. (1999). Assessment of newspaper reporting of public health and the medical model: a methodological case study. *Health Promotion International*, 14(1), 53-64.
- White, D. M. (1950). The gate keeper: A case study in the selection of news. *Journalism and Mass Communication Quarterly*, 27(4), 383.

- White, J., & Rutherford, T. (2009). Impact of reporter work role identity on news story source selection: Implications for coverage of agricultural crises. *Journal of Applied Communications, 93*(3-4), 15-31.
- White, J. M. (2006). *Source choice in agricultural news coverage: Impacts of reporter specialization and newspaper location, ownership, and circulation*. Texas A&M University.
- White, J. M. (2012). Sabotaging public engagement with science: Missing scientific principles in newspaper stories about the Wakefield MMR-Autism controversy. *Revista Româna de Jurnalism si Comunicare, 7*(3/4), 79.
- White, J. M. (2013). Translating Science, Health and Technology: Reporters as Knowledge Transfer Intermediaries. *Online Journal of Communication and Media Technologies, 3*(2), 227.
- White, J. M., & Rutherford, T. (2012). Impact of newspaper characteristics on reporters' agricultural crisis stories: productivity, story length, and source selection. *Journal of Applied Communications, 96*(3), 88-105.
- White, J. M., & Wingenbach, G. (2013). Potential barriers to mass media coverage of health issues: Differences between public information officers and journalists regarding beliefs central to professional behaviors. *Journal of Public Relations Research, 25*(2), 123-140.
- WHO. (2016). Poliomyelitis. Retrieved from <http://www.who.int/mediacentre/factsheets/fs114/en/>



Willig, C. (2013). *Introducing qualitative research in psychology*: McGraw-Hill Education (UK).

Wilson, A., Bonevski, B., Jones, A., & Henry, D. (2009). Media reporting of health interventions: signs of improvement, but major problems persist. *PLoS One*, *4*(3), e4831.

Wilson, K., Code, C., Dornan, C., Ahmad, N., Hébert, P., & Graham, I. (2004). The reporting of theoretical health risks by the media: Canadian newspaper reporting of potential blood transmission of Creutzfeldt-Jakob disease. *BMC public health*, *4*(1), 1.

Yahya, M. (2006). Polio vaccines: difficult to swallow: the story of a controversy in northern Nigeria.

Yahya, M. (2007). Polio vaccines—“no thank you!” barriers to polio eradication in Northern Nigeria. *African Affairs*, *106*(423), 185-204.

Young, R., Willis, E., Stemmler, J., & Rodgers, S. (2015). Localized health news releases and community newspapers: a method for rural health promotion. *Health promotion practice*, *16*(4), 492-500.