ABSTRACT

“IMPACT OF EDUCATIONAL STATUS ON KNOWLEDGE AND ATTITUDE REGARDING POLIO AMONG THE MUSLIM COMMUNITY OF MALDA DISTRICT, WEST BENGAL”

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1. Introduction:

Polio or poliomyelitis disease is caused by a RNA virus known as polio virus. It is an infectious disease, usually spreads through mouth. Facially contaminated food, water, flies, contaminated swimming pool, etc., act as media to spread this disease. There are three types of polio virus; exposure to one type develops immunity to that type of virus only. The person still remains susceptible to be infected by other types of virus. Fortunately enough, not all exposure to the virus cause serious effect or disease. About 95% of the exposures do not cause the disease or any symptom. Although, the virus can attack anybody at any age, but results shows that in more than 50% of cases the victims are children in the age group of three to five years. In small percentage of cases (about 4%) the exposure causes symptoms, such as flue like fever (abortive flue), non-paralytic aseptic meningitis, etc. The virus infection affects the human elementary tract and in very small percentage (less than one per cent) of cases it infects the central nervous system, causing varying degrees of paralysis and sometimes death.

The symptoms do not appear immediately after the exposure to the polio virus. It takes an ‘incubation period’ of three to thirty five days, for the symptoms to appear. In this period, the person can spread the disease. There is no successful treatment to polio disease. Prior vaccination is the only option to tackle this disease. It is to be mentioned that vaccination never protects a person from being infected with this virus. The benefit is, the vaccinated person, if infected, will not develop the disease, but he/she will have the potential to infect others.

Six serious but preventable (through vaccination) child diseases are – Tuberculosis, Diphtheria, Pertussis, Tetanus, Poliomyelitis and Measles. The polio virus gained worldwide attention in 1955 with the announcement of first polio vaccine by Dr. Jonas Salk.

India has had a large number of polio cases. In 1999, there were 1126 reported cases of polio and 88% of those cases were confined to just 4 states (Uttar Pradesh, Bihar, Delhi and West Bengal) (Thaker, 2000).

Even in 2011, the most dangerous and most infectious polio virus (P-3 type) was found in a child, in Panchla village of Howrah district, West Bengal. In the same village, one polio case was also reported in 2008 (Anonymous, 2011b & Anonymous, 2011c). This prompted the State Govt. to take fresh polio immunization drive in five districts including Kolkata.
Other four districts are – Howrah, Hooghly, North 24 pgs., and South 24 pgs (Anonymous, 2011 c). In 2009, a total of eight polio cases were reported in West Bengal; out of which seven cases were from Murshidabad district and one from Birbhum (Anonymous, 2011 b).

At present, three countries in the world – namely Pakistan, Afghanistan and Nigeria are mainly harbouring the polio viruses. India’s name was also there till WHO declared it polio free last year. These are either Muslim majority countries or have large number of Muslim population. In our country and also in our state mainly the Muslim dominated states or the districts respectively having majority percentages of Muslim population recorded the largest number of polio cases. Whereas, results show that in Pakistan polio cases are declining faster and our neighbouring Bangladesh, another Muslim majority country has achieved the status of polio free country in 2006. This clearly indicates that religion is not in any way the hindrance towards Pulse Polio Immunization (PPI). Pakistan’s Health Policy Forum President opined that ‘the major reason behind the presence of polio in the country is not shortage of funds and other resources but poor governance and health system’ (Wasif, 2011).

Suspicion and misconceptions are there among the people about the polio vaccine (Anonymous, 2011 b). This is further being intensified by some unwanted happenings. One such thing occurred when a six year-old baby died in Gosaintolla village of Malda district after being administered polio drop in March, 2010 (Anonymous, 2010).

According to a report in The Telegraph, (Anonymous, 2011 a) around 1,200 children in Kaliachak-I block of Malda district have not been vaccinated against polio, though 10 camps were held to eradicate the disease. What is of more concern is that Kaliachak is adjacent to Murshidabad district where seven polio cases had been detected in the past. The families belonging to Muslim community believe that immunisation drops will lead to infertility.

In 1988, when the WHO launched the global campaign to eradicate polio, the virus was paralyzing 1,000 children around the world every day, nearly half of them in India. Inspired by the success of the smallpox eradication campaign a decade before, the organization aimed to eliminate polio by 2000. Until 1995, India recorded between 50,000 and 150,000 cases of polio each year. In 2009, 14 years into India’s campaign to eradicate polio, 741 Indian children still contracted the incurable disease, more than anywhere else in the world, and morale was sagging. In 2010, that number had fallen to 42. In 2011, it fell to just a single
case, a 2-year-old girl who fell ill in Jan. 13. ‘We needed this kind of success to keep morale up.’- expressed a Health Ministry Official

But in 2014, the wheel of success seems to be receding when the WHO, alarmed by the spread of polio to several fragile countries, declared a global health emergency on 5th May. The polio viruses from Pakistan, Syria and Cameroon have recently spread — to Afghanistan, Iraq and Equatorial Guinea, respectively. The WHO has declared red alert on polio in total ten countries; four other countries are Ethiopia, Israel, Nigeria and Somalia. In Afghanistan polio returned after 12 years when Sakhina, a 3-year-old girl from Kabul, has contracted the incurable disease. (McNeil, 2014 and Anonymous, 2014 b)

Table 1: Year wise polio cases recorded in India vis-à-vis in West Bengal (Anonymous, n.d., b)

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Polio cases reported in India</th>
<th>No. of Polio cases reported in West Bengal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>2274</td>
<td>31</td>
</tr>
<tr>
<td>1998</td>
<td>1934</td>
<td>26</td>
</tr>
<tr>
<td>1999</td>
<td>1126</td>
<td>22</td>
</tr>
<tr>
<td>2000</td>
<td>265</td>
<td>8</td>
</tr>
<tr>
<td>2001</td>
<td>268</td>
<td>1</td>
</tr>
<tr>
<td>2002</td>
<td>1600</td>
<td>49</td>
</tr>
<tr>
<td>2003</td>
<td>225</td>
<td>28</td>
</tr>
<tr>
<td>2004</td>
<td>134</td>
<td>2</td>
</tr>
<tr>
<td>2005</td>
<td>66</td>
<td>Not reported</td>
</tr>
<tr>
<td>2006</td>
<td>676</td>
<td>1</td>
</tr>
<tr>
<td>2007</td>
<td>874</td>
<td>1</td>
</tr>
<tr>
<td>2008</td>
<td>559</td>
<td>2</td>
</tr>
<tr>
<td>2009</td>
<td>741</td>
<td>Not reported</td>
</tr>
<tr>
<td>2010</td>
<td>42</td>
<td>8</td>
</tr>
<tr>
<td>2011</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2012</td>
<td>Not reported</td>
<td>Not reported</td>
</tr>
<tr>
<td>2013</td>
<td>Not reported</td>
<td>Not reported</td>
</tr>
<tr>
<td>2014 (Till Now)</td>
<td>Not reported</td>
<td>Not reported</td>
</tr>
</tbody>
</table>

2. Review of Related Literature:

Although, we are carrying out Pulse Polio Immunization (PPI) programme since 1995 – 96; in 1998, 68% of global polio cases were found in India (Bhagat, 1999). This is an
alarming situation! Whereas, our report from National Institute of Health and Family Welfare claims that the PPI programmes cover 85% of eligible population (Bhagat, 1999).

Unisa (2006), observed that in our country vaccination against these diseases started in 1985 – 86 with the objectives to cover at least 85% of the children by 1990, but failed to meet the target. The report of the Human Development Unit of the World Bank (2007) disclosed that in India 4 to 8% of population (40 – 90 million) are disabled! This reflects the gravity of polio threat in our country.

The risk of vaccine associated paralytic poliomyelitis (VAPP) has been evaluated and is reported to be 1 case per 4 million doses administered. The risk of VAPP for any individual is greatest with the first dose (1 case per 2 million doses) and decreases with subsequent doses (1 case per 12 million doses) (Thaker, 2000).

Roy (2002) observed that the post-9/11 fear and hatred of anything American, even medicines, has provoked resistance against polio immunization among a section of mostly poor and illiterate Muslims in West Bengal. Villagers feared that the polio drops were made by the Americans to make their children infertile. This sort of misinformation and distrust has created a mental block against immunization in Murshidabad, Malda and parts of South 24-Parganas districts of West Bengal.

The Times of India (Anonymous, 2003) reported that two new cases of polio have been recorded in Kolkata in the past two months. The disease in all parts of the state was a worrying trend, although, earlier it was thought to be concentrated in Murshidabad, Malda and Birbhum. Though, these three districts still constitute more than 70 per cent of the cases. Thirty cases have been reported from Murshidabad, five from Birbhum and one from Malda. All the cases except two are reported from the minority community is also a cause of concern for the health department. "Polio has been eradicated from Bangladesh but there, Muslims are not minorities. Here, they feel that immunisation programmes are some kind of an attack on their community," the health official said.

The virus remains active in three endemic countries including Afghanistan, Pakistan and Nigeria. We were also polio endemic till last year. According to Wilson (2010) these countries accounted for 85% of all new polio cases worldwide. In India, 733 children with polio were reported in 2009 alone (Joseph, 2011).
Various research findings suggest various reasons behind the failure of PPI to achieve desired outcomes. Such as, Kabir (2006) reported that in Nigeria, 12.6 – 32.2% people believe that administering more than four doses of polio vaccine is harmful to a child. Few also believe that the vaccine may cause infertility, paralysis, abscess, and infections like HIV/AIDS. In India, there were 265 wild polio cases in the year 2000 whereas in 2007 it raised to 873 (Obregon, 2009). Whereas, in Pakistan, the same type of polio cases reported in the same years were 199 and 32 respectively (Kishor, 2003). In addition, some reports suggest that poverty is the main hindrance here (Unisa, 2006). So, the inequality and poverty resulting from bad / biased governance creates resistance to PPI. According to Sulagna Sengupta (2011(a)), residents of Howrah, Murshidabad, Malda and North Dinajpur districts of West Bengal boycotted the pulse polio programme in protest against lack of basic amenities, like electricity, road, etc. To react on the protests by the people on polio vaccine, a health official Mr. Ghorai said, (Anonymous, 2003). "They hardly see us round the year. Suddenly, we reach them with the pulse polio campaign. People have even refused the polio drops protesting against bad roads or water supply." Ignorance and the associated misconceptions about the disease also play a negative role in curbing polio virus. Very recently, in Unsanir Gorfa area, in West Bengal an Health Worker of was physically harassed by the parent of a child who was given polio vaccine (Anonymous, 2011(b)). The parents wrongly feared that their child fall ill due to the vaccine.

On the other hand only 10.9% participants in India knew the correct method of transmission of polio (Joseph, 2011) and 31% mother quit immunization after missing one dose (Nighat, 2010). Even though the number of cases is low in West Bengal, the on-going transmission of the disease suggests that children are being missed. Combined with the rising number of refusals, West Bengal presents a significant communication challenge (UNICEF. 2009).

Chaudhury (2011) reported that the life-threatening disease of poliomyelitis has crippled a child in Howrah on making Bengal the only state in the country to be affected with the polio virus. Howrah and Murshidabad are the two high-risk districts in the state. There were seven cases of polio reported from Murshidabad last year and one in 2006. Besides, instances of infection were also reported from Malda and North Dinajpur. Nearly 222 gram panchayats have been identified in Bengal with a huge migrant population. Most of these gram panchayats and municipal wards are in North Dinajpur, Malda, Birbhum, Howrah,
Murshidabad and North and South 24 Parganas. Lack of regular hand-washing, absence of breast-feeding and diarrhoea make children prone to the virus.

Sengupta (2011) reported that the health officials visited districts like Howrah, Murshidabad, Malda, and North Dinajpur and found that in some Blocks there has been an increase in the number of polio cases.

The above findings suggest that even Intensive Pulse Polio Immunization (IPPI) programme was in run for more than one decade, it failed to achieve polio-free India till today. Different factors including people’s poor knowledge and understanding of the disease to the negative attitude developed mainly due to unequal developments seems to be the reasons behind this failure. Almost all these cases are concerning the Muslim Community people. In our state there is an appreciable percentage of Muslim population (27% approx.). The fight against polio will be successful only when proper knowledge is provided and right attitude is inculcated among these people. This is the function of Health Education. Before doing that there arises the need to study the knowledge and attitude of the people belonging to Muslim Community towards polio.

This research work will try to find out the impact of literacy status on knowledge and attitude towards polio of the Muslim community people. It is expected that the findings will be very much helpful in effectively shaping or rearranging / planning various programmes directed towards the eradication of polio from our country as well as from the world.

3. Statement of the problem:
The present study will attempt to find out the impact of literacy status on knowledge and attitude towards polio among the people belonging to Muslim community of Malda district in the State of West Bengal. Therefore, the problem under study is titled as – “Impact of educational status on knowledge and attitude regarding polio among the Muslim community of Malda district, West Bengal.”

4. Need of the Study:
Three countries in the world – Pakistan, Afghanistan and Nigeria are still polio endemic, i.e., the polio virus is found to be consistently present in these countries. The polio thrives mainly among the poor, Muslim population. In all the polio endemic countries of today - are interestingly Muslim majority countries. Our country’s name was also there in the list of
polio endemic countries just before 26 February, 2012, when WHO took the name of India out of this list (Anonymous, 2012). It is to be noted that in our country there is appreciable percentage of Muslims here and there are many instances that the polio virus transmission did re-occur after a gap of measurable time period. Moreover, our neighbouring country, Pakistan is still harbouring appreciable percentage of polio cases. Hence, we are at high risk regarding the polio to recur here. Lack of proper knowledge, harbouring negative attitude and non-favourable belief about the disease is so dangerous that a Policeman had to loss his life there in anti-polio team attack (Anonymous, 2013 a). Few months back, *The Statesman* reported that many Pakistani women take risk of death every day to vaccinate their children against polio (Anonymous, 2013 b). Very recently, a polio vaccination team in Pakistan was attacked by a group of people who were opposed to polio vaccination (Anonymous, 2014 a). Moreover, very recently Jayanta Basu reported in Anandabazar Patrika (Basu, 2014) that it was found in many countries which were declared as polio-free state but polio returned there even after a long time interval of a couple of years! This was due to non-maintenance of continuous vaccination effort in those countries, which was a result of self-complacent human nature. According to this report, polio returned in China after a long period of 17 years. Bangladesh, which was declared polio free, but the disease reappeared there in 2006, after a gap of 5 years! (UNICEF, 2008). World Health Organisation at the end of April this year, issued a stark warning that the world is about to enter a so called ‘post antibiotic’ era where minor infections could once again be fatal. It says antimicrobial resistance – although not new – has now reached dangerous levels and that the public at large around the world is now at risk of succumbing to diseases like sepsis, diarrhoea and pneumonia because the antibiotics used to treat these diseases are increasingly failing to work. The report says if we are relying solely on vaccination to fight the dreaded polio, we are putting all the eggs in one basket! (Anonymous, 2014 c).

All these clearly prove the presence of an awfully bad state of knowledge, attitude and belief regarding polio, among the masses in general but the Muslim community people in particular. At this state of danger, one can’t turn a deaf ear to the problem, particularly when it is a communicable disease. Hence, our West Bengal Government’s Ministry for the Welfare of Women and Children in collaboration with UNICEF has identified eight areas in Howrah District as high risk for polio infection (Iqbal, 2013).

The prevailing concept says that polio grows mainly in the fertile ground of backwardness, illiteracy and blind belief. In our country there is appreciable percentage of poor Muslims
here and the above instances out of many clearly demonstrates that the polio virus transmission did re-occur even after a long gap of time period.

The Malda district in the state of West Bengal, India is a poor, Muslim dominated (52.05%), backward district. According to 2011 census, the literacy rate of this district is 62.71 %, less than national average of 74.04. (Census 2011).

In this context, the researcher felt the need to have a comprehensive, elaborate scientific analysis regarding the impact of literacy status on knowledge, attitude and belief system of the Muslim community people in Malda district, West Bengal. This thesis presents the result of the study.

5. Objectives of the Study:
The following were the objectives of the study:

i) To find out the impact of educational status on knowledge about polio among the Muslim community people of Malda district in the State of West Bengal.

ii) To find out the impact of educational status on attitude towards polio among the Muslim community people of Malda district in the State of West Bengal.

iv) To find out the impact of educational status on belief regarding polio among the Muslim community people of Malda district in the State of West Bengal.

v) To find out the interrelationship between knowledge and attitude regarding polio among different educational status groups of Muslim community people in Malda district.

6. Hypothesis:
On the basis of related literature review, opinion of the - polio expert personnel, Sociologists, Physicians, Religious leaders, Educationists, and also of investigator’s personal experiences, the following main working hypotheses were formulated and tested for the study: [In all cases the corresponding null hypotheses were also framed and subsequently tested for their statistical significances through F-ratio and t-test.]

• Main hypotheses on knowledge under variation of educational status:

  ➢ $H_1$: The knowledge about polio between illiterate and primary educated Muslim community people of Malda district, West Bengal differs significantly.

  ➢ $H_2$: The knowledge about polio between illiterate and secondary educated Muslim community people of Malda district, West Bengal differs significantly.
- **H₃**: The knowledge about polio between illiterate and higher educated Muslim community people of Malda district, West Bengal differs significantly.
- **H₄**: The knowledge about polio between primary educated and secondary educated Muslim community people of Malda district, West Bengal differs significantly.
- **H₅**: The knowledge about polio between primary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.
- **H₆**: The knowledge about polio between secondary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

- **Main hypotheses on attitude under variation of educational status:**
  - **H₇**: The attitude towards polio between illiterate and primary educated Muslim community people of Malda district, West Bengal differs significantly.
  - **H₈**: The attitude towards polio between illiterate and secondary educated Muslim community people of Malda district, West Bengal differs significantly.
  - **H₉**: The attitude towards polio between illiterate and higher educated Muslim community people of Malda district, West Bengal differs significantly.
  - **H₁₀**: The attitude towards polio between primary educated and secondary educated Muslim community people of Malda district, West Bengal differs significantly.
  - **H₁₁**: The attitude towards polio between primary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.
  - **H₁₂**: The attitude towards polio between secondary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

- **Main hypothesis on knowledge under variation of gender:**
  - **H₁₃**: The knowledge about polio between male and female Muslim community people of Malda district, West Bengal differs significantly.

- **Main hypothesis on attitude under variation of gender:**
  - **H₁₄**: The attitude towards polio between male and female Muslim community people of Malda district, West Bengal differs significantly.

- **Main hypothesis on knowledge under variation of location:**
  - **H₁₅**: The knowledge about polio between rural and urban Muslim community people of Malda district, West Bengal differs significantly.
Main hypothesis on attitude under variation of location:

- \( H_{16} \): The attitude towards polio between rural and urban Muslim community people of Malda district, West Bengal differs significantly.

Main hypothesis on knowledge under variation of economic status:

- \( H_{17} \): The knowledge towards polio between BPL and APL Muslim community people of Malda district, West Bengal differs significantly.

Main hypothesis on attitude under variation of economic status:

- \( H_{18} \): The attitude towards polio disease between BPL and APL Muslim community people of Malda district, West Bengal differs significantly.

Hypothesis on belief:

- \( H_{19} \): The belief on polio among the Muslim community people of Malda district, West Bengal is directly influenced by their educational achievements.

7. Sample

This study was performed by collecting data from 1140 samples comprising of independent variables, viz. educational status, gender, locational variation and economic status. The educational status variable was further sub-divided into four categories. These were – illiterate, primary educated (i.e., Class I - VIII), secondary educated (i.e., Class IX - XII) and higher educated (i.e., more than class XII). 300 number samples were collected from each - illiterate, primary educated and secondary educated category and 240 number samples were collected from higher educated category. In the case of gender variable, 50% (i.e., 570 No.) male and the rest female samples were taken for this study. Regarding the location variation independent variable, 50% (i.e., 570 No.) were rural and 50% urban samples were selected for this study. Considering the different economic condition of the vast Muslim population, 564 no. samples were chosen from BPL category and 576 no. from APL category. Purposive sampling method was followed for choosing the above samples.

8. Tools

Three tools were used in this study. These are – (i) Scale for measuring knowledge about polio among Muslim community, (ii) Scale for measuring attitude towards polio among Muslim community, and (iii) Scale for measuring belief about polio among Muslim community.
community. The tools were prepared and standardized by applying on 120 samples from the selected study area as mentioned above. The tools are three point Likert type questionnaire, where favourable statements are assigned numerical marking in the order 3, 2, 1 and the unfavourable statements are assigned numerical marking in the reverse order, i.e., 1, 2, 3. There are instruction sheet, identification sheet and scoring sheet for all the three tools.

9. Administration of questionnaire and collection of data

The knowledge, attitude and belief tools were constructed and standardized and then administered on 1140 samples in rural and urban areas of Malda District. The data were collected in order to enable the investigator to properly analyse the results of all the activities as per the set design and procedure of this study. After collecting the responses on the knowledge scale, – attitude scale and belief scale were introduced one after another in this sequence.

10. Presentation and Analysis of Data

Based on several criteria focussed on this thesis, the raw data so collected was subjected to various treatments, including the statistical one. This led to the proper decision making in view of the aims and objectives of this research work. The hypotheses were tested by F-ratio, ‘t-test’ and ‘ANOVA’ (Analysis of Variance) as per the requirement. To find-out the significant results corresponding to the hypotheses and the objectives of the study, the data were presented as intelligible and interpretable form.

11.1 Interpretation of Data (Result)

The hypothesis testing data (result) so obtained were interpreted rationally and reasonably (presented in Ch.V). Interpretation of the main hypotheses at 0.01 level, are illustrated below:

**H$_1$:** The knowledge about polio between illiterate and primary educated Muslim community people of Malda district, West Bengal differs significantly – was accepted. The corresponding null hypothesis was rejected.

**H$_2$:** The knowledge about polio between illiterate and secondary educated Muslim community people of Malda district, West Bengal differs significantly – was accepted. The corresponding null hypothesis was rejected.

**H$_3$:** The knowledge about polio between illiterate and higher educated Muslim community people of Malda district, West Bengal differs significantly – was accepted. The corresponding null hypothesis was rejected.
H₄: The knowledge about polio between primary educated and secondary educated Muslim community people of Malda district, West Bengal differs significantly – was rejected. The corresponding null hypothesis was accepted.

H₅: The knowledge about polio between primary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly – was accepted. The corresponding null hypothesis was rejected.

H₆: The knowledge about polio between secondary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly – was accepted. The corresponding null hypothesis was rejected.

H₇: The attitude towards polio between illiterate and primary educated Muslim community people of Malda district, West Bengal differs significantly – was accepted. The corresponding null hypothesis was rejected.

H₈: The attitude towards polio between illiterate and secondary educated Muslim community people of Malda district, West Bengal differs significantly – was accepted. The corresponding null hypothesis was rejected.

H₉: The attitude towards polio between illiterate and higher educated Muslim community people of Malda district, West Bengal differs significantly – was accepted. The corresponding null hypothesis was rejected.

H₁₀: The attitude towards polio between primary educated and secondary educated Muslim community people of Malda district, West Bengal differs significantly – was rejected. The corresponding null hypothesis was accepted.

H₁₁: The attitude towards polio between primary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly – was accepted. The corresponding null hypothesis was rejected.

H₁₂: The attitude towards polio between secondary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly – was accepted. The corresponding null hypothesis was rejected.

H₁₃: The knowledge about polio between male and female Muslim community people of Malda district, West Bengal differs significantly – was accepted. The corresponding null hypothesis was rejected.

H₁₄: The attitude towards polio between male and female Muslim community people of Malda district, West Bengal differs significantly – was accepted. The corresponding null hypothesis was rejected.
H_{15}: The knowledge about polio between rural and urban Muslim community people of Malda district, West Bengal differs significantly – was accepted. The corresponding null hypothesis was rejected.

H_{16}: The attitude towards polio between rural and urban Muslim community people of Malda district, West Bengal differs significantly – was accepted. The corresponding null hypothesis was rejected.

H_{17}: The knowledge towards polio between BPL and APL Muslim community people of Malda district, West Bengal differs significantly – was rejected. The corresponding null hypothesis was accepted.

H_{18}: The attitude towards polio between BPL and APL overall Muslim community people of Malda district, West Bengal differs significantly – was rejected. The corresponding null hypothesis was accepted.

H_{19}: The belief on polio among the Muslim community people of Malda district, West Bengal is directly influenced by their educational achievements – was rejected. The corresponding null hypothesis was accepted.

Regarding correlation between knowledge and attitude regarding polio of Muslim community population it was found that there was positive but low correlation between them.

12. Conclusion

Although polio, the deadly disease is seemingly on the verge of curbing from our country, but its nature, history and the recent reports of its recurrence in many countries teach us something else. As it is a communicable disease, it can raise its ugly head at any point of time. Particularly when one of our immediate neighbour country (Pakistan) is a full-fledged land of polio disease. One can’t put full-stop on human movement and migration. So, we need to remain vigilant and not to stop the war against this incurable disease. In this perspective, the findings of this study needs to be taken seriously. Following measures can be taken on finding by finding basis –

- As it was found that knowledge on polio increases with the increase of educational status of the people (Hypothesis no. H_1 to H_6, with the exception of hypothesis no. H_4), so education at all level should be taken as an effective weapon to fight against this disease. Knowledge is the wealth and attitude is its manifestation. Human decisions and actions are guided by his/her attitude towards that particular
subject/matter on/against which action(s) to be taken. It is crystal clear that perfect knowledge about any subject helps to shape proper attitude on it.

- From the analysis results of the hypotheses numbered H\textsubscript{7} to H\textsubscript{12} (except H\textsubscript{10}), a direct dependency of attitude towards polio on the educational status was observed. Hence, in order to check polio, we need to elevate the level of education of the Muslim community people.

- It was also found that the knowledge on polio depends upon the gender of the community. And the females, in general, have higher level of knowledge about the disease than that of their male counterpart. This result suggest the adoption of two strategic measures against polio. In the one hand, to involve/ utilize the female section of the Muslim community in the awareness campaign against polio, and on the other hand, proper educational facilities should be provided to the Muslim women. As it was found that education in general proves effective in inculcating proper knowledge and attitude towards the disease. The endeavour to education will bring much more desirable result in case of the Muslim females, as was observed from the result of analysis of H\textsubscript{13} hypothesis.

- Similar result was obtained in case of attitude towards polio. Here also the female population possess higher score value than that of the male one. This result again suggests to adopt two fold strategies of curbing polio, namely – engaging the female section of the Muslim community as well as efforts to educate them. This result was obtained through the analysis of H\textsubscript{14} hypothesis.

- A significant level of difference exists between the knowledge score of the rural and urban population of the Muslim community about polio. As the people living in urbanities possess higher level of knowledge, due to easy access to different types of information, so measures to be taken to make polio related information easily accessible to all, even to the rural population. The result was obtained through the analysis of the hypothesis no. of H\textsubscript{15}.

- In case of attitude towards polio, similar observation was obtained through the analysis of the hypothesis no. H\textsubscript{16}. As the urban population possess better level of attitude towards polio, they should be engaged in awareness campaign and strategy building for the purpose of curbing polio.

- No statistically significant difference on the knowledge and attitude scores between the BPL and APL samples of the Muslim community population on polio was obtained as per the analysis of the hypotheses H\textsubscript{17} and H\textsubscript{18} respectively at 0.01 level.
This suggests that knowledge and attitude on polio do not depend upon the economic condition of the Muslim community; rather it depends, as proved above, upon their educational level, their gender, as well as on their locational variation.

- It was further observed that the Muslim community’s belief on polio does not depend upon their educational status, as revealed by the testing of hypothesis no. H₁₉. So, it is not the level of education that affects belief on polio among the community, but, it is a complex socio-cultural, attitudinal and behavioural aspects of the whole society, particularly that of the dominant community, which determines and shapes a definite type of belief system among the Muslim community.

Hence, in order to eliminate the menace of the fatal contagious disease polio, we must improve our attitudinal and behavioural aspects towards the community, and establish their faith and reliability on the whole society.

13. Delimitation of the Study

In order to complete this study within the stipulated reasonable time frame, the study was delimited in the following terms, as –

(i) Out of 15 development Blocks in Malda district, only 9 Gram Panchayats of Harischandrapur–II development Block and both the Municipalities - English Bazar (total 25 Words) and Old Malda (total 18 Words) were selected for this study.

(ii) The questionnaire was administered on 1140 sample. The sample distribution was as follows:

<table>
<thead>
<tr>
<th>Total number of Sample = 1140</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Literacy Status</strong></td>
</tr>
<tr>
<td>Illiterate = 300</td>
</tr>
<tr>
<td>Primary Educated = 300</td>
</tr>
<tr>
<td>Secondary Educated = 300</td>
</tr>
<tr>
<td>Higher Educated = 240</td>
</tr>
</tbody>
</table>

(iii) Only four educational status groups in the sample under investigation were considered for this investigation. These are – illiterate, primary educated (class I-VIII), secondary educated (class IX - XII) and higher educated (more than class XII). 300, 300, 300 and 240 number of samples from each category respectively were taken for this study.

(iv) There were 570 male and 570 female samples taken for the study.

(v) There were 570 no. rural and 570 no. urban samples selected for this study.

(vi) A total of 564 no. of BPL category and 576 no. of APL category Muslim community
peoples were taken for this study.

(i) Three Bengali version self-made (in consultation with the guide and experts) tools – (I) Questionnaire for measuring the knowledge about polio, (II) Questionnaire for measuring the attitude towards polio & (III) Questionnaire for measuring the belief about polio among Muslim community people, were used by the researcher. These questionnaires also contained ‘Instruction’ sheets and also a general identification sheet for the subjects.

14. Scope for future study

This thesis has revealed the real picture of the impact of educational status on knowledge, attitude and belief towards polio among Muslim community of Malda district, West Bengal. But there remains more scope for future study into the vast domain of the subject. Following are the suggested scopes for future study in this field :-

i. Area of the investigation can be enlarged or be changed to incorporate other Muslim community people living in other geographical areas.

ii. More independent variables, such as – age, marital status, occupation, number of children, etc. of the respondents can be incorporated into the study.

iii. Other socio-economic factors, such as – Govt. Employed, Private Employed, Self-Employed, Business, Agriculture, etc. can be taken into consideration for further study.

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