CHAPTER – III

THE PROBLEM

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3.1 General Introduction:

According to Koul, (1997), “The first step in the research is the choice of a suitable problem for investigation. Research starts with a felt difficulty. It takes place when there is a problematic situation and a need to solve the problem. In each field of educational research, several problems exist, which may have reference to the pure, applied, or action research. It is essential to identify such problems, solve them and thereby enrich the corpus of knowledge constituting the science of education.

The identification of research problem is a difficult but an important phase of the entire research process. It requires a great deal of patience and logical thinking on the part of the researcher” (Koul, 1997). Sidhu, (1987) stated that after the problem has been selected, it must be definitely formulated and stated, if, it is to serve as a guide in planning the study and interpreting its results.

So, for the purpose of a fruitful creative research work, there must have clear understanding about problem, its need and significance, objectives, hypothesis, scope and delimitation, tools used, statistical techniques, definition of terms, etc. This chapter discusses all these concepts/items under the heading of ‘The Problem’.

3.2 Need and Significance 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). Polio is a communicable disease and our neighbouring country, Pakistan is still harbouring appreciable percentage of Polio virus. Hence, we are in high risk regarding the polio to recur here. Lack of proper knowledge, negative attitude and 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 (20th January, 2014), a polio vaccination team in Pakistan was attacked by a group of people who were opposing polio vaccination (Anonymous, 2014). All these clearly prove the presence of an awfully bad state of knowledge, attitude and belief among the Muslim community people regarding polio. At this state of danger, we 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 there are many instances that the polio virus transmission did re-occur after a gap of measurable time period.

The Malda district in the state of West Bengal, India, is a poor, Muslim dominated backward district. In 2006 the Ministry of Panchayati Raj named Malda one of the country's 250 most backward districts (out of a total of 640, then; 674 now). It is one of the eleven districts in West Bengal currently receiving funds from the Backward Regions Grant Fund Programme (BRGF). According to 2011 census, the literacy rate of this district is 62.71%, less than national average of 74.04 (Anonymous, 2007). By religion, it is Muslim dominated district with 52.05% believers of Islam, 46.97% Hindus and 0.98% Others.

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.

3.3 Objectives of the Study:
The following were assigned as the objectives of the study:

(i) To find out the impact of literacy status on knowledge regarding polio among the Muslim community people of Malda district, West Bengal.
(ii) To find out the impact of literacy status on attitude regarding polio among the Muslim community people of Malda district, West Bengal.
(iii) To find out the impact of literacy status on belief on polio among the Muslim community people of Malda district, West Bengal.
(iv) To find out the interrelationship between knowledge and attitude about polio among different literacy status groups of Muslim community people in Malda district, West Bengal.

3.4 Statement of Hypotheses:
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 working hypotheses were formulated: [The corresponding null hypotheses were also framed]
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.
- \( H_3 \): The knowledge about polio between illiterate and higher educated Muslim community people of Malda district, West Bengal differs significantly.
- \( H_4 \): The knowledge about polio between primary educated and secondary educated Muslim community people of Malda district, West Bengal differs significantly.
- \( H_5 \): The knowledge about polio between primary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.
- \( H_6 \): The knowledge about polio between secondary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

Under these major six hypotheses based on the effect of educational achievements of the respondents on the knowledge on polio, a number of sub-hypotheses were framed; such as below.

From the hypothesis no. \( H_1 \):-

- \( H_{1a} \): The knowledge about polio between rural, BPL, male - illiterate and primary educated Muslim community people of Malda district, West Bengal differs significantly.
- \( H_{1b} \): The knowledge about polio between rural, BPL, female - illiterate and primary educated Muslim community people of Malda district, West Bengal differs significantly.
- \( H_{1c} \): The knowledge about polio between urban, BPL, male - illiterate and primary educated Muslim community people of Malda district, West Bengal differs significantly.
- \( H_{1d} \): The knowledge about polio between urban, BPL, female - illiterate and primary educated Muslim community people of Malda district, West Bengal differs significantly.
- \( H_{1e} \): The knowledge about polio between rural, APL, male - illiterate and primary educated Muslim community people of Malda district, West Bengal differs significantly.
★ **H1f:** The knowledge about polio between rural, APL, female - illiterate and primary educated Muslim community people of Malda district, West Bengal differs significantly.

★ **H1g:** The knowledge about polio between urban, APL, male - illiterate and primary educated Muslim community people of Malda district, West Bengal differs significantly.

★ **H1h:** The knowledge about polio between urban, APL, female - illiterate and primary educated Muslim community people of Malda district, West Bengal differs significantly.

From the hypothesis no. H2 :-

★ **H2a:** The knowledge about polio between rural, BPL, male - illiterate and secondary educated Muslim community people of Malda district, West Bengal differs significantly.

★ **H2b:** The knowledge about polio between rural, BPL, female - illiterate and secondary educated Muslim community people of Malda district, West Bengal differs significantly.

★ **H2c:** The knowledge about polio between urban, BPL, male - illiterate and secondary educated Muslim community people of Malda district, West Bengal differs significantly.

★ **H2d:** The knowledge about polio between urban, BPL, female - illiterate and secondary educated Muslim community people of Malda district, West Bengal differs significantly.

★ **H2e:** The knowledge about polio between rural, APL, male - illiterate and secondary educated Muslim community people of Malda district, West Bengal differs significantly.

★ **H2f:** The knowledge about polio between rural, APL, female - illiterate and secondary educated Muslim community people of Malda district, West Bengal differs significantly.

★ **H2g:** The knowledge about polio between urban, APL, male - illiterate and secondary educated Muslim community people of Malda district, West Bengal differs significantly.

★ **H2h:** The knowledge about polio between urban, APL, female - illiterate and secondary educated Muslim community people of Malda district, West Bengal differs significantly.
From the hypothesis no. $H_3$ :-

- $H_{3a}$: The knowledge about polio between rural, BPL, male - illiterate and higher educated Muslim community people of Malda district, West Bengal differs significantly.
- $H_{3b}$: The knowledge about polio between rural, BPL, female - illiterate and higher educated Muslim community people of Malda district, West Bengal differs significantly.
- $H_{3c}$: The knowledge about polio between urban, BPL, male - illiterate and higher educated Muslim community people of Malda district, West Bengal differs significantly.
- $H_{3d}$: The knowledge about polio between urban, BPL, female - illiterate and higher educated Muslim community people of Malda district, West Bengal differs significantly.
- $H_{3e}$: The knowledge about polio between rural, APL, male - illiterate and higher educated Muslim community people of Malda district, West Bengal differs significantly.
- $H_{3f}$: The knowledge about polio between rural, APL, female - illiterate and higher educated Muslim community people of Malda district, West Bengal differs significantly.
- $H_{3g}$: The knowledge about polio between urban, APL, male - illiterate and higher educated Muslim community people of Malda district, West Bengal differs significantly.
- $H_{3h}$: The knowledge about polio between urban, APL, female - illiterate and higher educated Muslim community people of Malda district, West Bengal differs significantly.

From the hypothesis no. $H_4$ :-

- $H_{4a}$: The knowledge about polio between rural, BPL, male – primary educated and secondary educated Muslim community people of Malda district, West Bengal differs significantly.
- $H_{4b}$: The knowledge about polio between rural, BPL, female – primary educated and secondary educated Muslim community people of Malda district, West Bengal differs significantly.
★ H₄c: The knowledge about polio between urban, BPL, male – primary educated and secondary educated Muslim community people of Malda district, West Bengal differs significantly.

★ H₄d: The knowledge about polio between urban, BPL, female – primary educated and secondary educated Muslim community people of Malda district, West Bengal differs significantly.

★ H₄e: The knowledge about polio between rural, APL, male – primary educated and secondary educated Muslim community people of Malda district, West Bengal differs significantly.

★ H₄f: The knowledge about polio between rural, APL, female – primary educated and secondary educated Muslim community people of Malda district, West Bengal differs significantly.

★ H₄g: The knowledge about polio between urban, APL, male – primary educated and secondary educated Muslim community people of Malda district, West Bengal differs significantly.

★ H₄h: The knowledge about polio between urban, APL, female – primary educated and secondary educated Muslim community people of Malda district, West Bengal differs significantly.

From the hypothesis no. H₅ :-

★ H₅a: The knowledge about polio between rural, BPL, male – primary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

★ H₅b: The knowledge about polio between rural, BPL, female – primary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

★ H₅c: The knowledge about polio between urban, BPL, male – primary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

★ H₅d: The knowledge about polio between urban, BPL, female – primary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

★ H₅e: The knowledge about polio between rural, APL, male – primary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

★ H₅f: The knowledge about polio between rural, APL, female – primary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

★ H₅g: The knowledge about polio between urban, APL, male – primary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

★ H₅h: The knowledge about polio between urban, APL, female – primary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.
★ $H_{5f}$: The knowledge about polio between rural, APL, female – primary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{5g}$: The knowledge about polio between urban, APL, male – primary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{5h}$: The knowledge about polio between urban, APL, female – primary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

From the hypothesis no. $H_6$ :-

★ $H_{6a}$: The knowledge about polio between rural, BPL, male – secondary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{6b}$: The knowledge about polio between rural, BPL, female – secondary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{6c}$: The knowledge about polio between urban, BPL, male – secondary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{6d}$: The knowledge about polio between urban, BPL, female – secondary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{6e}$: The knowledge about polio between rural, APL, male – secondary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{6f}$: The knowledge about polio between rural, APL, female – secondary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{6g}$: The knowledge about polio between urban, APL, male – secondary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{6h}$: The knowledge about polio between urban, APL, female – secondary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.
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.

Under these major six hypotheses based on the effect of educational achievements of the respondents on the attitude on polio, a number of sub-hypotheses were framed; which are shown below:

From the hypothesis no. H7 :-

- ⭐ **H7a**: The attitude towards polio between rural, BPL, male - illiterate and primary educated Muslim community people of Malda district, West Bengal differs significantly.
- ⭐ **H7b**: The attitude towards polio between rural, BPL, female - illiterate and primary educated Muslim community people of Malda district, West Bengal differs significantly.
- ⭐ **H7c**: The attitude towards polio between urban, BPL, male - illiterate and primary educated Muslim community people of Malda district, West Bengal differs significantly.
- ⭐ **H7d**: The attitude towards polio between urban, BPL, female - illiterate and primary educated Muslim community people of Malda district, West Bengal differs significantly.
- ⭐ **H7e**: The attitude towards polio between rural, APL, male - illiterate and primary educated Muslim community people of Malda district, West Bengal differs significantly.
- ⭐ **H7f**: The attitude towards polio between rural, APL, male - illiterate and primary educated Muslim community people of Malda district, West Bengal differs significantly.
★ $H_{7f}$: The attitude towards polio between rural, APL, female - illiterate and primary educated Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{7g}$: The attitude towards polio between urban, APL, male - illiterate and primary educated Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{7h}$: The attitude towards polio between urban, APL, female - illiterate and primary educated Muslim community people of Malda district, West Bengal differs significantly.

From the hypothesis no. $H_8$ :-

★ $H_{8a}$: The attitude towards polio between rural, BPL, male - illiterate and secondary educated Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{8b}$: The attitude towards polio between rural, BPL, female - illiterate and secondary educated Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{8c}$: The attitude towards polio between urban, BPL, male - illiterate and secondary educated Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{8d}$: The attitude towards polio between urban, BPL, female - illiterate and secondary educated Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{8e}$: The attitude towards polio between rural, APL, male - illiterate and secondary educated Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{8f}$: The attitude towards polio between rural, APL, female - illiterate and secondary educated Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{8g}$: The attitude towards polio between urban, APL, male - illiterate and secondary educated Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{8h}$: The attitude towards polio between urban, APL, female - illiterate and secondary educated Muslim community people of Malda district, West Bengal differs significantly.
From the hypothesis no. $H_9$ :-

- $H_{9a}$: The attitude towards polio between rural, BPL, male - illiterate and higher educated Muslim community people of Malda district, West Bengal differs significantly.
- $H_{9b}$: The attitude towards polio between rural, BPL, female - illiterate and higher educated Muslim community people of Malda district, West Bengal differs significantly.
- $H_{9c}$: The attitude towards polio between urban, BPL, male - illiterate and higher educated Muslim community people of Malda district, West Bengal differs significantly.
- $H_{9d}$: The attitude towards polio between urban, BPL, female - illiterate and higher educated Muslim community people of Malda district, West Bengal differs significantly.
- $H_{9e}$: The attitude towards polio between rural, APL, male - illiterate and higher educated Muslim community people of Malda district, West Bengal differs significantly.
- $H_{9f}$: The attitude towards polio between rural, APL, female - illiterate and higher educated Muslim community people of Malda district, West Bengal differs significantly.
- $H_{9g}$: The attitude towards polio between urban, APL, male - illiterate and higher educated Muslim community people of Malda district, West Bengal differs significantly.
- $H_{9h}$: The attitude towards polio between urban, APL, female - illiterate and higher educated Muslim community people of Malda district, West Bengal differs significantly.

From the hypothesis no. $H_{10}$ :-

- $H_{10a}$: The attitude towards polio between rural, BPL, male – primary educated and secondary educated Muslim community people of Malda district, West Bengal differs significantly.
- $H_{10b}$: The attitude towards polio between rural, BPL, female – primary educated and secondary educated Muslim community people of Malda district, West Bengal differs significantly.
★ H_{10c}: The attitude towards polio between urban, BPL, male – primary educated and secondary educated Muslim community people of Malda district, West Bengal differs significantly.
★ H_{10d}: The attitude towards polio between urban, BPL, female – primary educated and secondary educated Muslim community people of Malda district, West Bengal differs significantly.
★ H_{10e}: The attitude towards polio between rural, APL, male – primary educated and secondary educated Muslim community people of Malda district, West Bengal differs significantly.
★ H_{10f}: The attitude towards polio between rural, APL, female – primary educated and secondary educated Muslim community people of Malda district, West Bengal differs significantly.
★ H_{10g}: The attitude towards polio between urban, APL, male – primary educated and secondary educated Muslim community people of Malda district, West Bengal differs significantly.
★ H_{10h}: The attitude towards polio between urban, APL, female – primary educated and secondary educated Muslim community people of Malda district, West Bengal differs significantly.

From the hypothesis no. H_{11} :-
★ H_{11a}: The attitude towards polio between rural, BPL, male – primary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.
★ H_{11b}: The attitude towards polio between rural, BPL, female – primary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.
★ H_{11c}: The attitude towards polio between urban, BPL, male – primary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.
★ H_{11d}: The attitude towards polio between urban, BPL, female – primary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.
★ H_{11e}: The attitude towards polio between rural, APL, male – primary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.
★ H₁₁f: The attitude towards polio between rural, APL, female – primary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

★ H₁₁g: The attitude towards polio between urban, APL, male – primary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

★ H₁₁h: The attitude towards polio between urban, APL, female – primary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

From the hypothesis no. H₁₂ :-

★ H₁₂a: The attitude towards polio between rural, BPL, male – secondary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

★ H₁₂b: The attitude towards polio between rural, BPL, female – secondary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

★ H₁₂c: The attitude towards polio between urban, BPL, male – secondary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

★ H₁₂d: The attitude towards polio between urban, BPL, female – secondary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

★ H₁₂e: The attitude towards polio between rural, APL, male – secondary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

★ H₁₂f: The attitude towards polio between rural, APL, female – secondary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

★ H₁₂g: The attitude towards polio between urban, APL, male – secondary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.

★ H₁₂h: The attitude towards polio between urban, APL, female – secondary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.
Hypotheses on knowledge under variation of gender:

- **H_{13}:** The knowledge about polio between male and female Muslim community people of Malda district, West Bengal differs significantly.

Under this hypothesis the following sub-hypotheses were framed; such as –

★ **H_{13a}:** The knowledge about polio between illiterate, rural, BPL - male and female Muslim community people of Malda district, West Bengal differs significantly.
★ **H_{13b}:** The knowledge about polio between primary educated, rural, BPL - male and female Muslim community people of Malda district, West Bengal differs significantly.
★ **H_{13c}:** The knowledge about polio between secondary educated, rural, BPL - male and female Muslim community people of Malda district, West Bengal differs significantly.
★ **H_{13d}:** The knowledge about polio between higher educated, rural, BPL - male and female Muslim community people of Malda district, West Bengal differs significantly.
★ **H_{13e}:** The knowledge about polio between illiterate, urban, BPL - male and female Muslim community people of Malda district, West Bengal differs significantly.
★ **H_{13f}:** The knowledge about polio between primary educated, urban, BPL - male and female Muslim community people of Malda district, West Bengal differs significantly.
★ **H_{13g}:** The knowledge about polio between secondary educated, urban, BPL - male and female Muslim community people of Malda district, West Bengal differs significantly.
★ **H_{13h}:** The knowledge about polio between higher educated, urban, BPL - male and female Muslim community people of Malda district, West Bengal differs significantly.
★ **H_{13i}:** The knowledge about polio between illiterate, rural, APL - male and female Muslim community people of Malda district, West Bengal differs significantly.
★ **H_{13j}:** The knowledge about polio between primary educated, rural, APL - male and female Muslim community people of Malda district, West Bengal differs significantly.
★ **H_{13k}:** The knowledge about polio between secondary educated, rural, APL - male and female Muslim community people of Malda district, West Bengal differs significantly.
★ **H_{13l}:** The knowledge about polio between higher educated, rural, APL - male and female Muslim community people of Malda district, West Bengal differs significantly.
★ **H_{13m}:** The knowledge about polio between illiterate, urban, APL - male and female Muslim community people of Malda district, West Bengal differs significantly.
★ **H_{13n}:** The knowledge about polio between primary educated, urban, APL - male and female Muslim community people of Malda district, West Bengal differs significantly.
★ **H_{13o}:** The knowledge about polio between secondary educated, urban, APL - male and female Muslim community people of Malda district, West Bengal differs significantly.
★ H_{13p}: The knowledge about polio between higher educated, urban, APL - male and female Muslim community people of Malda district, West Bengal differs significantly.

- **Hypotheses on attitude under variation of gender:**

  ➢ H_{14}: The attitude towards polio between male and female Muslim community people of Malda district, West Bengal differs significantly.

  Under this hypothesis the following sub-hypotheses were framed; such as –

  ★ H_{14a}: The attitude towards polio between illiterate, rural, BPL - male and female Muslim community people of Malda district, West Bengal differs significantly.
  ★ H_{14b}: The attitude towards polio between primary educated, rural, BPL - male and female Muslim community people of Malda district, West Bengal differs significantly.
  ★ H_{14c}: The attitude towards polio between secondary educated, rural, BPL - male and female Muslim community people of Malda district, West Bengal differs significantly.
  ★ H_{14d}: The attitude towards polio between higher educated, rural, BPL - male and female Muslim community people of Malda district, West Bengal differs significantly.
  ★ H_{14e}: The attitude towards polio between illiterate, urban, BPL - male and female Muslim community people of Malda district, West Bengal differs significantly.
  ★ H_{14f}: The attitude towards polio between primary educated, urban, BPL - male and female Muslim community people of Malda district, West Bengal differs significantly.
  ★ H_{14g}: The attitude towards polio between secondary educated, urban, BPL - male and female Muslim community people of Malda district, West Bengal differs significantly.
  ★ H_{14h}: The attitude towards polio between higher educated, urban, BPL - male and female Muslim community people of Malda district, West Bengal differs significantly.
  ★ H_{14i}: The attitude towards polio between illiterate, rural, APL - male and female Muslim community people of Malda district, West Bengal differs significantly.
  ★ H_{14j}: The attitude towards polio between primary educated, rural, APL - male and female Muslim community people of Malda district, West Bengal differs significantly.
  ★ H_{14k}: The attitude towards polio between secondary educated, rural, APL - male and female Muslim community people of Malda district, West Bengal differs significantly.
  ★ H_{14l}: The attitude towards polio between higher educated, rural, APL - male and female Muslim community people of Malda district, West Bengal differs significantly.
  ★ H_{14m}: The attitude towards polio between illiterate, urban, APL - male and female Muslim community people of Malda district, West Bengal differs significantly.
★ $H_{14a}$: The attitude towards polio between primary educated, urban, APL - male and female Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{14b}$: The attitude towards polio between secondary educated, urban, APL - male and female Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{14c}$: The attitude towards polio between higher educated, urban, APL - male and female Muslim community people of Malda district, West Bengal differs significantly.

- **Hypotheses on knowledge under variation of location:**

  ➢ $H_{15}$: The knowledge about polio between rural and urban Muslim community people of Malda district, West Bengal differs significantly.

  Under this hypothesis the following sub-hypotheses were framed; such as –

  ★ $H_{15a}$: The knowledge about polio between illiterate, BPL, male - rural and urban Muslim community people of Malda district, West Bengal differs significantly.

  ★ $H_{15b}$: The knowledge about polio between primary educated, BPL, male - rural and urban Muslim community people of Malda district, West Bengal differs significantly.

  ★ $H_{15c}$: The knowledge about polio between secondary educated, BPL, male - rural and urban Muslim community people of Malda district, West Bengal differs significantly.

  ★ $H_{15d}$: The knowledge about polio between higher educated, BPL, male - rural and urban Muslim community people of Malda district, West Bengal differs significantly.

  ★ $H_{15e}$: The knowledge about polio between illiterate, BPL, female - rural and urban Muslim community people of Malda district, West Bengal differs significantly.

  ★ $H_{15f}$: The knowledge about polio between primary educated, BPL, female - rural and urban Muslim community people of Malda district, West Bengal differs significantly.

  ★ $H_{15g}$: The knowledge about polio between secondary educated, BPL, female - rural and urban Muslim community people of Malda district, West Bengal differs significantly.

  ★ $H_{15h}$: The knowledge about polio between higher educated, BPL, female - rural and urban Muslim community people of Malda district, West Bengal differs significantly.

  ★ $H_{15i}$: The knowledge about polio between illiterate, APL, male - rural and urban Muslim community people of Malda district, West Bengal differs significantly.

  ★ $H_{15j}$: The knowledge about polio between primary educated, APL, male - rural and urban Muslim community people of Malda district, West Bengal differs significantly.

  ★ $H_{15k}$: The knowledge about polio between secondary educated, APL, male - rural and urban Muslim community people of Malda district, West Bengal differs significantly.
★ $H_{15}$: The knowledge about polio between higher educated, APL, male - rural and urban Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{15m}$: The knowledge about polio between illiterate, APL, female - rural and urban Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{15n}$: The knowledge about polio between primary educated, APL, female - rural and urban Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{15o}$: The knowledge about polio between secondary educated, APL, female - rural and urban Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{15p}$: The knowledge about polio between higher educated, APL, female - rural and urban Muslim community people of Malda district, West Bengal differs significantly.

- **Hypotheses 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.

Under this hypothesis the following sub-hypotheses were framed; such as –

★ $H_{16a}$: The attitude towards polio between illiterate, BPL, male - rural and urban Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{16b}$: The attitude towards polio between primary educated, BPL, male - rural and urban Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{16c}$: The attitude towards polio between secondary educated, BPL, male - rural and urban Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{16d}$: The attitude towards polio between higher educated, BPL, male - rural and urban Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{16e}$: The attitude towards polio between illiterate, BPL, female - rural and urban Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{16f}$: The attitude towards polio between primary educated, BPL, female - rural and urban Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{16g}$: The attitude towards polio between secondary educated, BPL, female - rural and urban Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{16h}$: The attitude towards polio between higher educated, BPL, female - rural and urban Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{16i}$: The attitude towards polio between illiterate, APL, male - rural and urban Muslim community people of Malda district, West Bengal differs significantly.
★ H₁₆j: The attitude towards polio between primary educated, APL, male - rural and urban Muslim community people of Malda district, West Bengal differs significantly.
★ H₁₆k: The attitude towards polio between secondary educated, APL, male - rural and urban Muslim community people of Malda district, West Bengal differs significantly.
★ H₁₆l: The attitude towards polio between higher educated, APL, male - rural and urban Muslim community people of Malda district, West Bengal differs significantly.
★ H₁₆m: The attitude towards polio between illiterate, APL, female - rural and urban Muslim community people of Malda district, West Bengal differs significantly.
★ H₁₆n: The attitude towards polio between primary educated, APL, female - rural and urban Muslim community people of Malda district, West Bengal differs significantly.
★ H₁₆o: The attitude towards polio between secondary educated, APL, female - rural and urban Muslim community people of Malda district, West Bengal differs significantly.
★ H₁₆p: The attitude towards polio between higher educated, APL, female - rural and urban Muslim community people of Malda district, West Bengal differs significantly.

• Hypotheses on knowledge under variation of economic status:

➢ H₁₇: The knowledge towards polio between BPL and APL Muslim community people of Malda district, West Bengal differs significantly.

Under this hypothesis the following sub-hypotheses were framed; such as –
★ H₁₇a: The knowledge about polio between illiterate, rural, male - BPL and APL Muslim community people of Malda district, West Bengal differs significantly.
★ H₁₇b: The knowledge about polio between primary educated, rural, male - BPL and APL Muslim community people of Malda district, West Bengal differs significantly.
★ H₁₇c: The knowledge about polio between secondary educated, rural, male - BPL and APL Muslim community people of Malda district, West Bengal differs significantly.
★ H₁₇d: The knowledge about polio between higher educated, rural, male - BPL and APL Muslim community people of Malda district, West Bengal differs significantly.
★ H₁₇e: The knowledge about polio between illiterate, rural, female - BPL and APL Muslim community people of Malda district, West Bengal differs significantly.
★ H₁₇f: The knowledge about polio between primary educated, rural, female - BPL and APL Muslim community people of Malda district, West Bengal differs significantly.
★ H₁₇g: The knowledge about polio between secondary educated, rural, female - BPL and APL Muslim community people of Malda district, West Bengal differs significantly.
• Hypotheses on attitude under variation of economic status:

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

Under this hypothesis the following sub-hypotheses were framed; such as –

★ H_{18a}: The attitude towards polio between BPL and APL – illiterate, rural, male Muslim community people of Malda district, West Bengal differs significantly.

★ H_{18b}: The attitude towards polio between BPL and APL – primary educated, rural, male Muslim community people of Malda district, West Bengal differs significantly.

★ H_{18c}: The attitude towards polio between BPL and APL – secondary educated, rural, male Muslim community people of Malda district, West Bengal differs significantly.

★ H_{18d}: The attitude towards polio between BPL and APL – higher educated, rural, male Muslim community people of Malda district, West Bengal differs significantly.

★ H_{18e}: The attitude towards polio between BPL and APL – illiterate, rural, female Muslim community people of Malda district, West Bengal differs significantly.
★ $H_{18f}$: The attitude towards polio between BPL and APL – primary educated, rural, female Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{18g}$: The attitude towards polio between BPL and APL – secondary educated, rural, female Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{18h}$: The attitude towards polio between BPL and APL – higher educated, rural, female Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{18i}$: The attitude towards polio between BPL and APL – illiterate, urban, male Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{18j}$: The attitude towards polio between BPL and APL – primary educated, urban, male Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{18k}$: The attitude towards polio between BPL and APL – secondary educated, urban, male Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{18l}$: The attitude towards polio between BPL and APL – higher educated, urban, male Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{18m}$: The attitude towards polio between BPL and APL – illiterate, urban, female Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{18n}$: The attitude towards polio between BPL and APL – primary educated, urban, female Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{18o}$: The attitude towards polio between BPL and APL – secondary educated, urban, female Muslim community people of Malda district, West Bengal differs significantly.

★ $H_{18p}$: The attitude towards polio between BPL and APL – higher educated, urban, female 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.

### 3.5 Scope and Delimitation of the Study:

In Malda district, there are 11 police stations, 15 development blocks, 2 municipalities, 146 gram panchayats and 3,701 villages (Anonymous, 2009). According to the 2011 census, Malda district has a population of 3,997,970. The district has a sex ratio of 939 females for every 1000 males, and a literacy rate of 62.71%. By religion, it is Muslim dominated district with 52.05% believers of Islam, 46.97% Hindus and 0.98% Others. In other word, there are 20,80,943 number of Muslims in this district.
Considering the fact that polio still prevails mainly among disadvantaged Muslim population and also considering the fact that Malda is a Muslim majority district, there should have extensive investigation reports regarding the Muslim community people’s knowledge, attitude and belief about polio. But unfortunately, the researcher could not find any such report in the course of his extensive related literature review on this topic! This leaves a big scope for undertaking such investigation, as this researcher has selected here.

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

(i) Out of 15 development Blocks in Malda district, all the 9 Gram Panchayats of one Block – Harischandrapur–II and all the 43 Wards of both the Municipalities - English Bazar (25 Wards) and Old Malda (18 Wards) were selected for this study.

![Sampling flow chart](image)

**Table 3:** Distribution of samples in different independent variables

<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>

63
(ii) The questionnaire was administered on 1250 sample. But, ultimately 1140 samples were taken for the study. The sample distribution was as above.

(iii) There are four educational status groups in the sample under investigation. These are – Illiterate, Primary Educated (Class I - VIII), Secondary Educated (Class IX - XII) and Higher Educated (More than class XII). For each status group 300 samples were selected, except for higher educated group where 240 numbers of samples were selected.

(iv) Regarding gender, out of 1140 sample, 50% (i.e., 570 No.) male and 50% (i.e., 570 No.) female were taken for the study.

(v) Considering the place of dwelling of the population, out of 1140 sample, 50% (i.e., 570 No.) rural and 50% (i.e., 570 No.) urban were chosen for the study.

(vi) Regarding economic status, out of 1140 number of samples, 564 no. were from BPL category and 576 no. were of APL category for this study.

3.6 Definition of the terms used:

- **Polio**: Polio or Poliomyelitis is a communicable disease caused by a virus that lives in throat and intestinal tract. The term derives from the Greek *poliós*, meaning "grey", *myelós*, referring to the "spinal cord", and the suffix *-itis*, which denotes inflammation (Chamberlin and Narins, 2005). The term ‘polio’ is used here with the above meaning.

- **Knowledge**: According to dictionary meaning, the term ‘knowledge’ means ‘what is known’, information or acquaintance. The term is used here with this meaning.

- **Attitude**: An attitude is an emotionally toned pre-disposition to act in a certain way towards a person, an object, an idea or a situation. The term ‘attitude’ is used here with this meaning.

- **Belief**: The dictionary meaning of ‘belief’ is – ‘Assent to a proposition or affirmation, or the acceptance of a fact, opinion, or assertion as real or true, without immediate personal knowledge; reliance upon word or testimony; partial or full assurance without positive knowledge or absolute certainty; persuasion; conviction; confidence; as, belief of a witness; the belief of our senses.’ The above meaning of the term ‘belief’ is taken here.

- **Rural Area**: Although, there is no clear-cut, unanimous definition of ‘rural areas’, the Researcher has used this term with the meaning as - rural areas or the country or countryside are areas of land that are not urbanized, though when large areas are described, country towns and smaller cities will be included. They have a low population density, and typically much of the land is devoted to agriculture and there may be less air and water pollution than in an
urban area. The degree to which areas of wilderness are included in the term varies; very large wilderness areas are not likely to be described by the term in most contexts.

- **Urban Area:** An urban area is characterized by higher population density and vast human features in comparison to areas surrounding it. Urban areas may be cities, towns or conurbations, but the term is not commonly extended to rural settlements such as villages and hamlets. The term ‘urban areas’ is used here with the above meaning.

- **Educational Status:** The basic term referring to educational status is literacy. Literacy is the ability to make and communicate meaning from and by the use of a variety of socially contextual symbols. Within various levels of developmental ability, a literate person can derive and convey meaning, and use their knowledge to achieve a desired purpose or goal that requires the use of language skills, be they spoken or written. Person devoid of any such ability is termed as ‘illiterate’ one in this research. At slightly higher level and in broader sense, the term literacy is replaced by the word ‘education’. And the position or level of being educated is referred as the ‘educational status’ of the person. According to our great social thinker, Swami Vivekananda, “Education is the manifestation of the perfection already is man.” In other words, education is such a system which facilitates the manifestation or development of the inborn potentialities within human beings. Human child takes birth with some potentialities within, these are - to know, to understand, to apply the knowledge and understandings, to acquire and apply some skills; and to acquire, comprehend and apply some human qualities, - such as love, affection, sympathy, empathy, helpfulness, co-operation, dedication, etc. So, the extent of development of such potentialities within an individual is termed as his/her level of education; in other word – the educational status. The Researcher has used the term ‘educational status’ here with this meaning. In addition to ‘illiterate’ one, other educational status groups – ‘primary educated’, ‘secondary educated’ and ‘higher educated’ were also considered in this research, and their educational status were confirmed by the certificates issued by the appropriate authority, e.g., the Primary Education Board, the Secondary Education Board and the University (s) respectively.

- **B.P.L.:** The World Bank defines poverty as living on less than $1.25 a day, and by that measure, about 42% of India’s population is poor. The UNDP uses $2 a day, and under that criterion, 75.6% of Indians would be poor (Thottam, 2011).
The Government of India has issued a special type of card, known as ‘B.P.L. Card’ to those Indian citizens whose income is equal to or less than a poor individual, as per its calculation. The B.P.L. Card-holders are the B.P.L people or people living Below Poverty Line in this study.

- **A.P.L.:** This means Above Poverty Line and denotes those people whose income is more than a poor individual as mentioned above. The Government of India has also issued cards (A.P.L. Card) to those people belong to Above Poverty Line. In this study, the term ‘A.P.L.’ is used to mean those people who hold ‘Above Poverty Line’ or A.P.L. Card.

- **Muslim:** The word ‘Muslim’ means the followers of the religion of Islam. The term used here to mean the people who claim themselves as the followers of the religion of Islam.

- **Community:** A common definition of community emerged as a group of people with diverse characteristics who are linked by social ties, share common perspectives, and engage in joint action in geographical locations or settings (MacQueen, *et. al.*, 2001, Dec).

In this study, the said social tie is the religious one. People having common religion, Islam and being the followers of the same are termed as ‘Muslim community’ here.
References


Anonymous (a),(11 Apr,2013), Pak cop killed in anti-polio team attack, The Statesman, Kolkata, p.1


