CHAPTER – VI

SUMMARY AND CONCLUSION

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6.1 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. Considering these above aspects, the research work in this thesis was undertaken with clear understanding about the problem, its need and significance, objectives, hypothesis, scope and delimitation, tools used, statistical techniques required, definition of terms, etc.

6.2 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 b).

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.

6.3 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.
6.4 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.
  - \( H_3 \): 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.

- Main Hypotheses on attitude under variation of educational status:
  - \( H_7 \): The attitude towards polio between illiterate and primary educated Muslim community people of Malda district, West Bengal differs significantly.
  - \( H_8 \): The attitude towards polio between illiterate and secondary educated Muslim community people of Malda district, West Bengal differs significantly.
  - \( H_9 \): The attitude towards polio between illiterate and higher educated Muslim community people of Malda district, West Bengal differs significantly.
  - \( H_{10} \): The attitude towards polio between primary educated and secondary educated Muslim community people of Malda district, West Bengal differs significantly.
  - \( H_{11} \): The attitude towards polio between primary educated and higher educated Muslim community people of Malda district, West Bengal differs significantly.
  - \( H_{12} \): 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:
  ➢ \( H_{13} \): 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:
  ➢ \( H_{14} \): 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:
  ➢ \( H_{15} \): 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.

6.5 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.

6.6 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. 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.

6.7 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.

6.8 Presentation and Analysis of Data

Based on several criteria focused 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.
6.9 **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.

**$H_4$:** 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.

**$H_5$:** 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.

**$H_6$:** 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.

**$H_7$:** 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.

**$H_8$:** 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.

**$H_9$:** 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.

**$H_{10}$:** 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.
$H_{11}$: 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.

$H_{12}$: 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.

$H_{13}$: 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.

$H_{14}$: 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 in polio of Muslim community population on polio it was found that there was positive but low correlation between them.
6.10 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_7 to H_{12} (except H_{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_{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_{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 access-able to all, even to the rural population. The result was obtained through the analysis of the hypothesis no. of H₁₅.

- In case of attitude towards polio, similar observation was obtained through the analysis of the hypothesis no. H₁₆. 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 H₁₇ and H₁₈ 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.

6.10 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>Literacy Status</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.

(vii) 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.

6.11 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.
Anonymous (a), (11 Apr 2013), Pak cop killed in anti-polio team attack, *The Statesman*, Kolkata, p.8
Anonymous (b), (May – June, 2014), Polio Returns to Iraq, Experts warns vaccination alone not enough to beat the disease, *Middle East Health*, Hurst Publishing FZE, Creative City Fujairah.
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