

CHAPTER IV

DATA EXERCISE

Testing the Instrument to the Parents of Public School Children in Phahurat, Bangkok.

4.1 Introduction

Lead pollutant specially affects to the children by impairing learning ability through permanent damage of central nervous system. The exposure to lead can be affected by some independent variables, i.e., socio-economic status, living condition, parent's occupation and behaviour of the children. Here, I am planning a study to determine lead exposure level among public school children of Kathmandu valley.

To measure the independent variables, some required information is needed to collect. So to collect these information, a set of questionnaire (Appendix A) is required to practice in the field. Developed instrument is not tested yet and I never done such type of data collection and data analysis. Therefore, data exercise in Thailand will enable a better research in Kathmandu.

The objective of this data exercise is to test the instrument, learn the obstacles of field activities and flaws of the questionnaire and modify as required and to practice data analysis.

4.2. Methodology

4.2.1. Sampling

For data exercise purpose here in Thailand, I had needed to apply convenient sampling. I need to find out that area where people could speak Hindi or Nepali and

must have similar culture with Nepali. Because of time constraint I had to find out the area within Bangkok where my criterias also meets.

I had developed a set of questionnaire about knowledge, attitude and practice of parents of public school children about lead pollutant, physical facilities and their socio-economic status. I had collected these information by structured questionnaire survey.

I had selected Phahurat area and Indian community because of easiness of language to implement the instrument to them. It was a purposive sampling. All the persons arrived in my working place, who could speak Hindi or Nepali and residing in that area were included in my sample. I had applied convenient sampling because the collected data are used only to practice data analysis.

For data exercise purpose I had developed 20 questionnaire and it was implemented to respondents. The objective of questionnaire was to know the knowledge, attitude and practice of lead pollutant, their socio-economic status and physical facilities.

4.2.2. Data Collection Procedure: Structured Questionnaire Survey

Prior to data collection each subjects were explained about the purpose of questionnaire survey and consent were taken with interviewees. I assured them that the answers received from them would not be allowed to be exposed and will not be used against them at any costs. To determine the knowledge, attitude and practice of

parents about lead pollutant, their socio-economic status and physical facilities structured questionnaire survey was performed. The respondents were among Hindi or Nepali speaker, residing in Phahurat and arrived in my living (working) place. For the collection of required data, 20 questions were developed. I had surveyed on the basis of structured questionnaire on 30th November. A total of 30 households were included in this survey.

4.3. Results

From the questionnaire survey, I found all of the people are worry about air pollution. They pointed motor vehicles, industries and over population as a source of air pollution. Nobody know the name of air pollutants but they all know that any pollutants are harmful to health. They all have some idea that the motor-vehicle emitted air pollution increases the respiratory diseases and reduces the longevity of life. Nobody have the knowledge of specific health effects of specific pollutants. The details of findings of data exercise is attached in Appendix E. The main findings of socio-economic status and supplied physical facilities are as follows:

Table 4.1 Findings of socio-economic variables.

Study Variables	Details	Findings
Age group of respondent	Age group No. of Respondent	Range: 21-35
	21-25 -----8	27 %
	26-30 -----10	33 %
	31-35 ----- 12	40 %
Family size	Family member No. of Respondent	Range: 1-6
	1-2 -----10	33 %
	3-4 ----- 13	43 %
	5-6 ----- 7	24 %

Occupation	Business - 16 Service = 14	53 % 47 %
Education	Primary - 14 Secondary -10 Higher - 6	47 % 33 % 20 %
Monthly income	Average Income -16,783 baht Income group Respondent 3,500-20,000 baht = 22 20,001-40,000 baht = 4 40,001-60,000 baht = 4	Range: 3,500 - 60,000 baht
Monthly expenditure	AverageExpenditure - 13,267 baht	Range: 2,000-35,000 baht
Means of Transport	Pvt. motorcycle - 3 Public bus - 27	10 % 90 %
Telephone	Private - 20 Public - 10	67 % 33 %

All respondents agreed that air pollution is harmful to human health. Out of 30 respondents 26 pointed the cause of air pollution is motor vehicles and only 6 respondents pointed to over population.

In the questionnaire survey, 22 respondents indicated that children are more vulnerable. 5 and 3 respondents replied pregnant woman and old man respectively. Nobody had known about the particular health effects of particular pollutant. Nobody could reply the prevention method from the lead exposure to their children.

4.4. Discussion

From this data collection method, I found people of that area was in worry from the motor-vehicle emitted air pollution. People were unknown about the specific health effects of specific pollutants. At the time of data collection, my colleagues and I participated together in the interviews.

4.4.1 Ethical Issues

In order to complete the questionnaire, the interviewer must to ask many individual details that may be sensitive and private, i.e., income, expenditure, living style and personal habit. In this data collection activities, unethical procedures, violation of people's right and dignity will be avoided. At the time of interview with subjects, interviewer will assure them about confidentiality and interpretation of information taken from.

4.4.2 Limitations

In my real research I have to take out blood from the public school children as a dependent variable of lead exposure which is also more sensitive than the questionnaire survey. Unable to take out and measure blood lead is a major limitation in my data exercise activities.

The target population for the study of exposed and non exposed group must be homogeneous. For the data exercise purpose, here, I applied the questionnaire as a convenience sampling but in real research I have proposed to follow multi-stage sampling for sample. After completion of data exercise, I have modified questionnaire which I would implement in my real research area.

Any research work requires a real based data to interpret and intervene to the problem. These collected data could not represent as the problem of proposed study area. So this questionnaire survey would be only a learning process (exercise) for

research work. Because of the time and resource constraint, the data collection work in real study area has not been possible, but what I learned from the data exercise would be more useful to perform the data collection work in Nepal.

Different pollutants have different health effects and it depends on nature of agent. In Bangkok, motor vehicles did not use leaded fuel, so the lead pollutant may not be more serious than others. Various pollutants have different health effects. In Phahurat, Thailand also, the Indian community have been feeling the problem of air pollution created by motor vehicles. According to survey, most of them were expresses the irritation of motor vehicle related smoke. In comparison with the Kathmandu valley of Nepal, here in Bangkok, the number of motor vehicles are very high but because of the condition of road, regular maintenance of vehicle, use of unleaded fuel and it's opened flattered geography, the pollution level may not be as high as in Kathmandu.

From the questionnaire survey and field observation I found almost all of the houses were linked with the busy road where pollution level might be high. Because of closely structured houses there was not sufficient ventilation in their living places. Most of the public school children are reach to school by public buses. On an average about 8 hours per day, most of the children remains out of their house. So I thought, they are more vulnerable to the motor-vehicle emitted air pollution.

4.4.3 Lesson Learned from Data Exercise

From the data exercise done here in Thailand is only a learning process. I became aware of the necessity of some modifications in questionnaire. On the first and second visits we just tried to be familiar with the local people so they cooperate with us the next day. For actual data collection, personal familiarity is essential. I felt the questions should be as short as possible and more specific. The question, possibility of homogeneity answer should not be in the questionnaire. The researcher/data collector should visit the respondent's place at their leisure time, so they could answer all the enquiries.

Data collector should introduce himself at first and clarify the objective of questionnaire survey or discussion. Before asked the structured question, the data collector must engage the respondents on the subject by informal conversation. A real and successful data collector should have to be a participant as other respondents.