PREVALENCE OF TUBERCULOSIS WITH REFERENCE TO FEMALE OF BIRATNAGAR SUB METROPOLITAN CITY, MORANG NEPAL

By

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This thesis entilted **"Prevalance of tuberculosis with reference to Female in Biratnagar Sub-metropolitan city"** Biratnagar Morang carried out by **Mr. Shebak Bajgai** in partial fulfillment of requirements for the master's Degree in Education (Health Education) has been approved.

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ABSTRACT

Tuberculosis kills more than one million women per year, and it is estimated that 646 million women and girls are already infected with tuberculosis globally. This study is related to the prevalence of tuberculosis of female in Biratnagar sub-metropolitan city. Among the respondents 89% of female TB cases were found married and the percentage of the unmarried respondents was only 11%. Among all the respondents 89% patients might have transmitted the disease to their spouses and children and 11% of the patients have transmitted to their family members.

Seventy percent of female TB cases were literate and 3% were SLC passed though 19% of female TB cases were illiterate. Being dependent on husbands and in-laws, women feared refusal by husbands, other family members and society by contrast, economic burden was the main concern of men throughout the health care-seeking process and treatment period. There are only 7% of the respondents had enough income by their own to maintain the food for more that six month in a year apart from that they had to manage their hand to mouth problem by doing daily ways labour work around. Majority of TB cases 25% were from Janjati groups of people. The second most majority of TB cases 24% were from the Brahmin / Chhetri and third most major group of cases 22% were from other castes like Muslim, Sah, Koiri etc. Similarly, Dalit covers 19% of total attendance of the patients. The minor representation was from the Newar group of the people who attended only 10% of total cases.

The majority of the TB cases registered for treatment are under the age group of 15 to 54.Among all respondents majority 65% of the female TB cases replied the cause to TB is due to germs but there are 20.83% of respondents who do not know the actual cause of disease. However, 6.94% of respondents replied that the cause of TB is due to food and few numbers i.e. 4.17% of respondents replied that they got the disease due to curse of god and 2.78% of respondents said that they have got the disease as a result of previous life. By analysing this data it is seen that 35% of the respondents have no any awareness about the cause of tuberculosis.48.61% of the total respondents replied that TB is transmitted from TB patient to the healthy person and

30.56% of the respondents replied that TB is transmitted through the air. This shows that the awareness level of the people on TB is good because 79% has got right knowledge of TB transmission

Among the total respondents 58.33% of the TB suspects seek the treatment at the health institutions where the TB diagnosis and treatment service is available at free of cost. This is one of the positive sign of awareness for the TB control and prevention. However 15.28% respondents seek the treatment from the local healers and 5.56% of the respondents seek treatment from the unqualified local medical practitioners. Majority of the TB suspects were helped by their families for the TB diagnosis and treatment. In response to the helping behaviour from family regarding decision making for TB treatment and care, 48.61% of the decisions were made by the family members among all respondents. The study shows that 30.56% of the decision for the diagnosis and treatment were made by the patient which was the good sing of empowerment of the female TB patients. Some of the TB suspects were depended on neighbour (11.11%) and society members (9.72%) who helped them to make decision for treatment and care. Majority of the TB cases were behaved fairly by the health workers for diagnosis and treatment, however, some of the cases were not satisfied with the behaviour of the health workers

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Shebak Bajgai

Biratnagar, Morang

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ABBREVIATION

AIDS	=	Acquired Immune-Deficiency Syndrome
ARTI	=	Annual Risk of TB Infection
CBR	=	Community Based Rehabilitation Centre
DK	=	Don’t Know
DOTS	=	Directly Observed Treatment Short-course
DPHO	=	District Public Health Office
FCHV	=	Female Community Health Volunteer
FGD	=	Focus Group Discussion
GO	=	Government Organisation
HIV	=	Human Immune-deficiency Virus
INGO	=	International Non Governmental Organisation
IUATLD	=	International Union Against TB and Lung Diseases
KAP	=	Knowledge, Attitude and Practice
MDG	=	Millennium development Goals
NATA	=	Nepal Anti-Tuberculosis Association
NGO	=	Non Governmental Organisation
NTC	=	National Tuberculosis Centre
NTP	=	National Tuberculosis Programme
PHC	=	Primary Health Care Centre
SLC	=	School Leaving Certificate
TB	=	Tuberculosis
UNAIDS	=	United Nations Program on HIV/AIDS
VCT	=	Voluntary Counselling for HIV Testing
VDC	=	Village Development Committee
WHO	=	World Health Organization

CHAPTER – I

INTRODUCTION

1.1 Background of the study

The origin of Tuberculosis is as old as the origin of human being in this universe but the real cause of this disease is determined in the late nineteenth century (Introduction to TB, SANDOZ: page 1). In 1882 Robert Koch first described the tubercle bacillus which is the cause of the disease, Tuberculosis.

WHO constitution states that "The enjoyment of highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, and political belief, economic or social condition." It is well recognised that there are differences in the factors of determining health and burden of ill-health for women and men even after the fifty years of adopting the WHO constitution. Socially, women and men have their different gender roles and responsibilities in the different social context. There are also differences in the opportunities and resources available to women and men and ability to make decision and exercise their human rights, including those related to protecting health and seeking care in case of ill health.

WHO reported that more women die each year of TB than of all maternal mortality causes combined. Every year, 3,25,000, children are forced to leave school because their parents have tuberculosis, and 105,000, women lose their status as mothers and wives because of the social dishonor. In some areas of Nepal, women face special problems to access for care of tuberculosis diagnosis and treatment because of social stigma and unequal behaviour of service providers (WHO report 2006:).

Socially, women and men have their different gender roles and responsibilities in the different social context. There are also differences in the opportunities and resources available to women and men and ability to make decision and exercise their human rights, including those related to protecting health and seeking care in case of ill health. Unequal gender relation and opportunity affects the vital social and economic variable which resulted into inequitable pattern of seeking health care and utilisation health

information as well as care and service for the remedy. In the long run these differences turn into the impact on the outcome of health indicators as well as in the development of societies.

Tuberculosis is an infectious disease caused by bacteria called “Mycobacterium Tuberculosis” which cannot be seen through the naked eye but it can be seen through the microscope. TB is an infection, often of long duration. It affects every organ system in the body predominantly in the lungs. Though it can affect any part of our body, TB is spread through the air. If someone with TB of the lungs or throat coughs or sneezes, people nearby who breathe in the bacteria gets infected. Some people who breathe in the bacteria may not have symptoms and may not be transmitted to other people. This is called latent TB infection. If the body can't stop the bacteria from growing, people develop TB. Prolong coughing, weight loss, blood in sputum, Fever in the evening are the main symptoms of the TB.

Facts about tuberculosis and women

1. TB is the single biggest infectious killer of women.
2. Over 900 million women —mainly between the ages of 15 and 44 are infected with TB world-wide, one million will die and 2.5 million will get sick this year from the disease.
3. TB is the single biggest killer of young women.
4. TB accounts for 9 percent of deaths among women between the ages 15 and 44, compared with war, which accounts for 4 percent, HIV 3 percent and heart disease 3 percent.
5. Women of reproductive age are more susceptible to sickness once infected with TB than are men of the same age.
6. Women in this age group are also at greater risk from HIV infection.
7. In parts of Africa, young women with TB outnumber young men with TB.
8. TB kills more women than any single cause of maternal mortality.
9. In some parts of the world, women's movements are leading the efforts to control TB.

*Sources: http://www.iuatld.or. 21/*06/2011

Both male and female have equal risk of getting infection of tubercle bacilli but globally the reported incidence shows that the number of male TB cases is higher. The reported females over male TB cases are from the poor countries. Although seventy percent of excess of male over female TB cases are reported globally each year, the reasons for this difference are unclear. Generally, women in poor counties confront more barriers than men in accessing health care service. Yet, research is lacking to explain the impact of gender inequalities in access to care on reported sex ratio for TB.

Therefore this research will dig out the causes for inequalities for the access to diagnosis and treatment care for Tuberculosis. The finding of the research will help the society to take action for the early diagnosis and prompt treatment which will help to establish a TB free world in the future. It will also help the planners and implementers of TB services to think in an equitable manner without any discrimination.

1.2 Statement of the Problem

One third (2 billion) of the world's current population has been infected by TB, and new infections occur at a rate of one per second (http://www.who.int). Not everyone infected develops the full-blown disease; a symptomatic, latent infection is most common. However, one in ten latent infections will progress to active disease, which, if left untreated, kills more than half of its victims. In 2006, mortality and morbidity statistics included 14.6 million chronic active cases, 8.9 million new cases, and 1.6 million deaths, mostly in developing countries. In addition, a rising number of people in the developed world are contracting tuberculosis because their immune systems are compromised by immunosuppressive drugs, substance abuse, or HIV/AIDS. Tuberculosis is the world's greatest infectious killer of women of reproductive age and the leading cause of death among people with HIV/AIDS (http://www.stoptb.org).

As one of Nepal’s worst health problems, tuberculosis (TB) kills between 5,000-7,000 Nepalese every year, according to Ministry of Health and Population.

The participation of the women TB cases is less in comparison of men. It is obvious that TB programme would not be successful unless and until the equal participation of

the both sexes in the TB control programme especially for the treatment and care of the disease at the source. By the analysis of above statement the problems regarding the tuberculosis can be pointed out as like, the participation of the female TB cases is less for the treatment and care of the disease in comparison of the male cases. Awareness level of the community people if is low for the treatment management of the TB disease at the source. Malpractice for TB treatment and care still exists in the community however there is availability of effective treatment available in free of cost. Social discrimination between men and women hinder the treatment of women TB cases. Study area was Biratnagar sub-metropolitan city. I have select the biratnagar sub Metropolitan city because mix caste of the population were there and it is less than national data.

1.3 Objectives

The main objective of this study is to make the community especially women empowered to seek the equitable treatment and care for TB. Furthermore, on the basis of the problem statement the following specific objectives were set in order to find out the answers of the emerging research questions.

a) To find out the level of female participation.
b) To find out the socio-economic/cultural practice.
c) To find out the accessibility of the health service providers.
d) To find out the barriers of health seeking behavior of female.

1.4 Significance of Study

Broadly, gender is “what it means to be male or female, and how that defines a person’s opportunities, roles responsibilities and relationship”. Since the concept of gender distinct from sex, was developed during 1970s, extensive literature has accumulated on gender in health and development.

Tuberculosis affects the health of the women as well as her dignity and social status. People still believe that tuberculosis is incurable though it is a curable disease. The stigma attached to tuberculosis leads to isolation, abandonment and divorce of women. Hence, tuberculosis is not only the health problem of a women but it is also a

social problem which affects the daily life of a women to exist in the family and society with their respect, power and dignity. It is hoped that study can find out the real facts and figures regarding women and tuberculosis which will help the society as well as to the patients to realize the facts and it will lead to establish a good practice of this modern societies regarding health seeking behaviour. This study identified the myth of the disease and dig out the malpractice related to the women and tuberculosis. This study supports to empower the women with tuberculosis to seek the diagnosis and treatment care and to break the barriers of the social stigma. This study able to break the chain of TB transmission by helping the women to seek the health care by empowering them.

1.5 Delimitations of the Study

It is obvious that each research and study has their own limitation because the world is wide and the subjects of the studies are unlimited and broader in this universe. A single study could not cover every aspects of the topic. In this context, this study has its own limitation as per the topic selected and its coverage area for study. It should be honest to describe the limitation of the study so that the reader could understand and relate the findings of the study meaningfully. The study was limited only with the female TB cases that were registered in the health institutions of Biratnagar sun-metropolitan city of Morang. The cases were within the economically productive age group (14 to 49 years) and socially active for development. Only female TB cases will be interviewed for the purpose of data collection. The sample size of this study was covered all registered female TB cases within the period of last one year.

Diagnosis and treatment for TB service is available in all the health institution, some private nursing home and in some NGO / INGOs clinics. The study was carried out with the help of health workers, who were working in the health institutions. Besides these, the women TB cases and their family members and the people from their societies were the main respondents of this study. For the purpose collecting family members and community people's perspective one Focus Group Discussion (FGD) was conducted. .

For effective and efficient study or survey of any location, a fixed rules, regulation

and criteria should be formed, which is known as limitation of the study. By the help of the limitation, real fact data can be emerged. The limitations the researches are as follows:

a) This study was carried out among tuberculosis infected women of Biratnagar sub metropolitan city.
b) This study was limited on the main causes and curative measures TB women of Biratnagar sub metropolitan city.
c) Only 15percent of cured women TB cases with in last one year was considered as sample to verify the compliance of the women TB cases.
d) One to two members of the family of the women TB patient was considered for Interview and five society member of community around the identified TB cases considered as focus group discussion.
e) The respondent was 72 female which may be TB cases or TB cured
f) The research is in descriptive method.

1.7 Definition of the Important Terms

Some terminologies are used in this thesis to describe the study process and findings.

a. Community

Community can be defined as a collection or a group of person in society, Interaction in a geographical area sharing a common social and cultural life.

b. Community health

It is defined as including all the personal health and environment services in any human community irrespective of which such survey was public or private ones.

c. Community organization

It has defined as the process of bringing about and maintaining a progressively more effective adjustment between social welfare resources and social welfare need within a geographical area or functional field.

d. Sex

Sex is an easily inevitable characteristics and it has dichotomous nature.

e. Environment sanitation

It means the control of all those factors in man's surroundings which cause or may cause divers affect kitchen. Environmental sanitation has been defined as the control of all these factors in man's physical environment which exercise or may

exercise a deleterious effect n his physical development, health and survival.

f. Tuberculosis

Infectious bacterial disease marked by tubercles, esp. in the lung.

g. Family planning

An export committees (1971) of the WHO defined family planning as a way of thinking and living that is adopted voluntarily up on the basis of knowledge attitude and responsible decision by individuals and copies in order to promote the health and welfare of the family group and thus contribute effectively to the social development of a country.

h. Malnutrition

It is defined as a diseased state resulting from prolonged intake of a diet deficiency primary of protein and energy foods and secondarily of other essential food element such as minerals and other vitamins.

I. MCH

It reflects to preventive primitive, curative health of mother and child.

J. Questionnaire

It is list of questions which is used in the survey in order to collect data in survey location.

k. Communicable Disease:

Disease which can transfer one person to another

l. Health service

Service provided by health person/Institutions

CHAPTER - II

REVIEW OF THE RELATED LITERATURE

Past is the baseline of the future. This chapter deals with the studies carried out in the past by the various researchers. The past literatures are the integral part of this study like others. The literatures of the research guided direction of this study. This chapter deals with the global scenario of health seeking behaviour and study related to health seeking behaviour of women TB cases in Nepal. For this purpose as many as books, research papers and publications were studied and websites were browsed to review the literatures.

Although the issue is emerging all over the world, a very few researches have been done on the topic of "Female and Tuberculosis" so far globally as well as in Nepal. The volume of the issue is enormous in the developing world but the attention towards the resolution of the problem has not been paid by the concerned sectors. This is why the enough materials for the literature review and study are not available though the World Health Organization has started to address, disseminate and advocate this issue in order to sensitise the problem. WHO has published various articles, reports and research reports, text books and booklets of some studies, brochures and pamphlets which are reviewed for the purpose of this study. Apart from the WHO publications, text books of the different authors, research and study reports of different writers and case study reports on gender perspective and health have been reviewed to gather the knowledge and information for this study.

Tuberculosis is a fatal disease if it keeps untreated. Being a fatal disease, tuberculosis is concerned with social issues as well as public health problem. Female mortality due to TB is more than that for all causes of maternal mortality combined,

The scenario of the problem of Nepal regarding gender, poverty and tuberculosis is similar to India. Majority of the poor women TB case do not seek the treatment in early stage of the disease which resulted in the severe and advanced stage and difficult

to treat completely. This is due to poverty and its consequences which do not favour the women TB cases for their health seeking in comparison of male.

The living pattern of the people of Nepal is heterogeneous from the plain (Terai) region to the hills and mountain area. It is also heterogeneous in terms of ecology, geography, biodiversity, ethnicity, caste, language and culture. Nepal is a landlocked country sharing the boarders with India and China. It consists of 75 districts divided in to five development regions namely Eastern, Central, Western, Mid-Western, and Far- western. The northern belt covers the Himalayas and mountains from the east to west, bordering China. The density of the population is scanty in this region in comparison with the plain area. To their south lies a long east-west stretch of the hilly region where the density of the population scattered in the mountain area. The southern part of the country is flatten into the plain area which is called Terai where there are full of fertile lands having tropical and sub-tropical plain areas open bordering with India in east, south and west side of the country. The density of the population is dense in the terai region because of fertile lands and urban area in this region. Most of the industrial and factory areas are situated in this region.

As the main source of the TB infection is the human being who is suffering from the active TB, the risk of TB infection to the susceptible host (person) is higher in the dense populated area where there is infected and polluted air. This is why the risk of TB infection is higher in the city areas whereas it is lower in the mountains of the country. The survey reported that the estimated Annual Risk of TB Infection (ARTI) of mountain, hills, terai and Kathmandu valley is 1.02, 0.80, 0.82 and 1.31 percent respectively (K. B. Shrestha and et al: national tuberculin survey Nepal, 2006). The national average of ARTI is 1.24%. It was estimated 2.0% in hill areas, 1.8% in terai areas and 4.5% in Kathmandu valley respectively and the national average was 2.1% according to the tuberculin survey conducted in 1996.

Tuberculosis is a fatal disease if it keeps untreated. Being a fatal disease, tuberculosis is concerned with social issues as well as public health problem. Female mortality due to TB is more than that for all causes of maternal mortality combined, (Hudelson P. 1996 Gender differentials in tuberculosis: Tuberc Lung Dis 77: page 391 and 400). Although, overall prevalence of pulmonary tuberculosis is lower in women,

progression from infection to disease is as much as 130% higher in women between the ages of 15 to 44 years. The case fatality rates are 27 to 41% higher in women and girls between 15 to 24 years of age (Hudelson P. 1996 Gender differentials in tuberculosis: Tuberc Lung Dis 77: page 391 and 400). These numbers indicate that though the women may enjoy some kind of protection against TB, this may be offset by biological and sociological vulnerabilities at certain life stages. This may lead to accelerated morbidity and mortality as well as delay in treatment seeking and difference in treatment once they seek the help from the health care providers. Smith summarises the situation; gender of itself is not the cause of mortality and morbidity in TB, but is a powerful indicator of disadvantage, a maker of many factors that influence health and the situation of health service (Fine PEM. 1996, John Wiley & Sons: Chichester: page 256).

Other data that have recently sounded alarm bells highlights TB notification rates in low income countries. In retrospect we can see that, in Europe and America in middle of the twentieth century when overall Annual Risk of Infection (ARI) was high, women between 15 and 35 year of age had higher TB notification rate than men of the same age group. In contrast, in many low income counties today, prevalence in men exceeds that in women after age of 15 years, although overall rates for both sexes combined are similar to those in Europe and America in the mid 1900s. These findings suggest the possibility that causes of tuberculosis among women are being under reported in developing regions18 (K. B. Shrestha and et al: national tuberculin survey Nepal, 2006). The likelihood of under reporting among women in low-income counties was further highlighted by study comparing active and passive case-finding in which women with tuberculosis were under-notifies to public health authorities when relying on passive case finding (Cassels A and et al 1982, Tuberculosis case finding in Easter Nepal, Tubercle 63 (3): page 175 and 185).

CHAPTER - III

RESEARCH METHODOLGY

This study follows descriptive research design which attempts to study the topic. Research Design, Sources of Data, Sampling Procedure, Technique of Data Collection; and data Processing, Analysis and Interpretation.

3.1 Research Design

The research has been designed to carry out on the basis of descriptive type of research method to identify the situation of tuberculosis in Nepal with reference to female regarding the decision making of the family for treatment, socio-economic/cultural factors and harmful practice of the community, education status of the patients, access to health facilities and information as well as the behaviour and practice of health service providers towards the TB patients.

3.2 population of the study

This study was conducted on all females infected and cured from TB in Biratnagar Sub-Metropolitan city which can be shown in the followings .

DOTS centres and Sub-centres of Biratnagar

1. Biratnagar sub- metropolitan ward number- 2 (Ward Office)
2. Upbhokta Sanrakchhan Manch ward number-4
3. Balbhadra Sewa Samitee Biratnagar sub- metropolitan ward number -7
4. District Karagar Morang Biratnagar sub- metropolitan ward number-11
5. Biratnagar sub- metropolitan ward number- 13 (Ward Office)
6. Biratnagar sub- metropolitan ward number- 16 (Ward Office)
7. Rani Primary Health Care Centre ward number- 19
8. UPCA (Under Privileged Children's Association) Nepal Biratnagar sub- metropolitan ward No.- 19
9. Biratnagar sub- metropolitan ward number- 22 (Ward Office)
10. NATA (Nepal Anti-TB Association) Morang, Biratnagar. ward number- 10

Treatment centers	Total no of TB cases	Study population	Sample population	Percent
	Total TB	All the TB infected		

10 DOTS centers	infected- 424 Male – 280 Female – 144	female of Biratnagar Sub Metropolitan city	72 infected women	50%

Sources: NATA (Nepal Anti-TB Association) Morang, Biratnagar

3.3 Sources of Data

3.3.1 Primary Data

Primary data were collected by taking interview with 72 female TB cases who were the primary respondent of this study. Apart from this the primary data was collected by conducting Focus Group Discussion (FGD) with the community members, health worker of the TB cases.

3.3.2 Secondary Data

Secondary data was collected from various publication of the National Tuberculosis Programme Nepal (NTP), annual report of the Eastern Regional Health Service Directorate Dhankuta, annual report of Nepal Anti- Tuberculosis Association Biratnagar, DOTS centre, NATA and other related organization's reports, published articles, books and abstract of the TB related journals.

3.4 Sample Size and Procedure

There are 10 treatment centres under the main diagnostic and treatment centre, NATA Morang based in Biranagar sub-metropolitan city. These all centres have been providing service to the tuberculosis patients. All the treatment centres were taken as the research units for data collection and all the female TB patients were taken as respondents by applying simple random sampling method, Lottery method. In total 72 respondents were interviewed to collect the information.

3.5 Construction of Tools

The following tools and techniques were used to collect the data from the field.

Observation: The researcher were observed the real setting of health service delivery system and patient response in their family and society as well as in the health institutions.

Interview: The researcher was taken interview with the patients, health service providers and societies in the research areas. In-depth interview and focus group discussion method will be applied to collect the information.

Questionnaire: Structured questionnaire were used to collect the information.

FGD: Structured questionnaire were used to collect the information.

3.6 Validation of the Tools

Tools which were prepared for the research propose were much important than other aspect so it should make valid. Necessary revisions will develop and modify as per feedback. Thus, the tool has been finalized as per feedback from the pretest as well as Supervisor. A trail test has been done on 10 women having same characteristics of Biratnagar, wada No- 4, 5, and 19 .

3.7 Methods of Data Analysis and Interpretation

After preparing the research tool, the researcher visited the targeted location by authorized letter provided by the Department of the HE. After getting permission, the researcher visited door to door to the targeted location to fill the questionnaire schedule for the data analyzing purpose. The researcher visited place of different wada's for secondary sources of data and brought the reliable data for research. The entire completed questionnaires were edited for accuracy and completeness. Data analysis were done applying computer through SPSS. The outputs of the data were interpreted statistically with the help of the mean and percentage. The output of the data is shown in table, figure, Chart and presented according to the college format.

CHAPTER - FOUR

ANALYSIS AND INTERPRETATION OF DATA

The study area of this research was Morang district which is situated in the Eastern Development Region (EDR) of Nepal. Morang is a district on the southern Tarai of Eastern Nepal.

Morang district, a part of Kosi zone, is one of the seventy-five districts of Nepal, a landlocked country of South Asia. It is surrounded by Jhapa in eastern side, Dhankuta, Panchtar and Ilam in northern side, Sunsari in western side and India in southern side. The district, with Biratnagar as its district headquarters, covers an area of 1,855 km^2 and has a population (2001) of 843,220 (http://www. un.org.np). Biratnagar which is an industrial sub-metropolitan city of Nepal is the district head quarter of Morang district.

General Description of the Study Group

The data of this study was collected from the TB patients who attended in the NATA clinic for their health seeking and treatment. The sample population of this study was taken from the female TB cases although the total male and female cases were analysed for the comparative study of male and female ratio. The data was collected from all age groups of the patients who attended in the clinic for their treatment and investigation of tuberculosis.

Biratnagar sub-metropolitan city is a dense populated city which contains 166674 populations. As the annual risk of TB infection rate of the terai area is 2.2%, therefore, the total estimated case of TB in the municipality area is 367. However, the number of actual case detected is 424. Out of them the male covers 66 percent whereas female covers only 34percent of the total detected TB case.

This chapter deals with the statistical analysis and interpretation of the socio-economic/cultural status of TB patients, their knowledge, attitude and practices against the disease tuberculosis. The findings of the study have been interpreted in this chapter.

4 Socio- economic and Cultural Status of TB Cases

4.1 Marital Status

Table 1: Marital Status of Female TB patients

SN	Description	Number	Percentage
1.	Married	64	89%
2.	Unmarried	8	11%
3.	Total	72	100%

Source: Field Survey, 2011

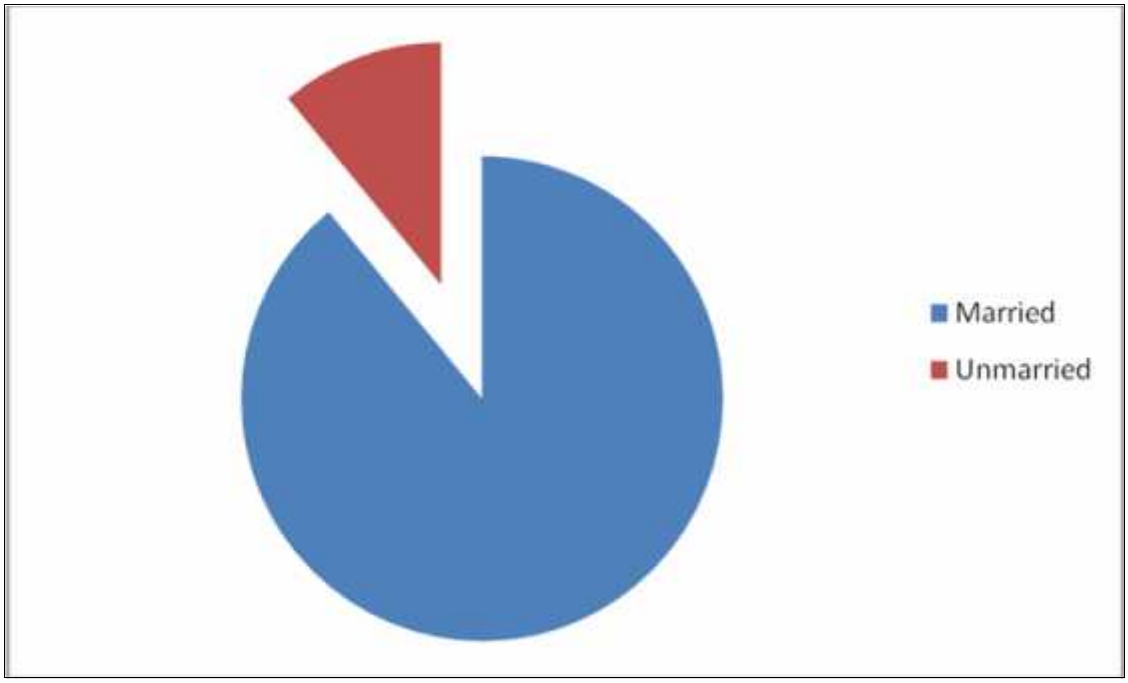


Figure 1 Marital Status of Female TB Patients

Marriage is an important and oldest social institution. It is a creation of mutual obligation. The respondents were asked about their marital status by researcher. They were divided into two groups; married and unmarried.

Among the total respondents 89 percent of female TB cases were found in married 11 percent and the percentage of the unmarried respondents. The majority of the cases have their prime responsibilities to serve their family and children but due to the disease they were unable to serve their families. There was risk of disease transmission to their family members and children as well as their spouses who are in

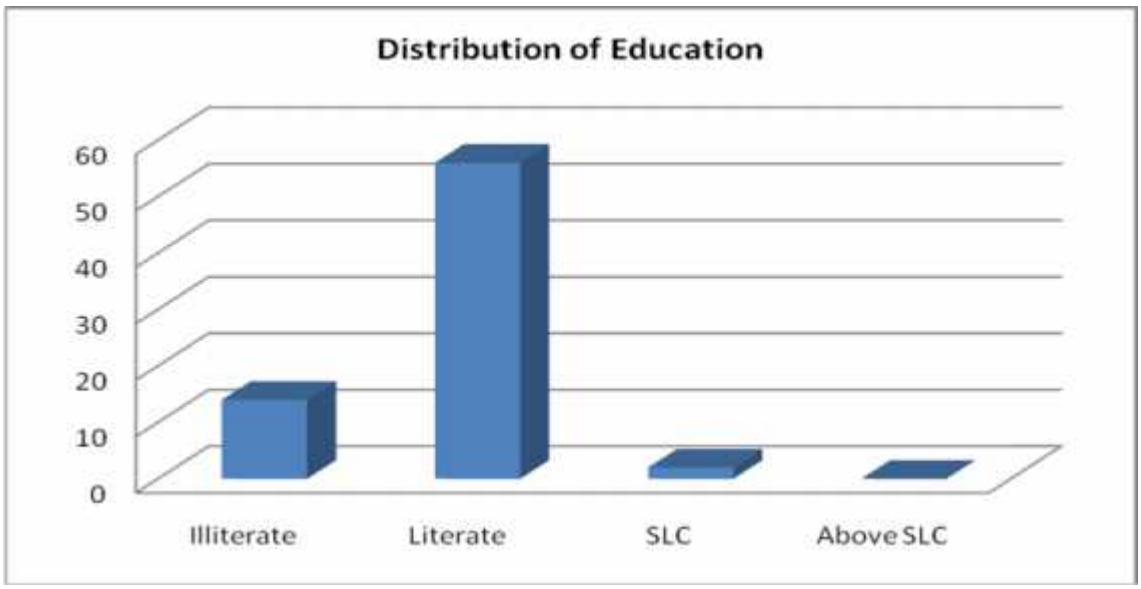
their contacts. Therefore, among all the respondents 89% patients might have transmitted the disease to their spouses and children and 11% of the patients might have transmitted to their family members.

4.2 Education Status

Table 2: Education Status of Female TB Patients

SN	Description	Number of cases	Percentage
1.	Illiterate	14	19%
2.	Literate	56	78%
3.	SLC	2	3%
4.	Above SLC	0	0%
5.	Total	72	100%

Source: Field Survey, 2011



Source: Field Survey, 2011

Education makes the different in the way of thinking of a person. It also makes the difference in doing things in a better way. It empowers the people to be healthy and to exercise a health life. The education plays an important role on awareness against the disease to prevent them in time. Among all the respondents 78% of female TB cases were literate and 3% were SLC passed though 19% of female TB cases were illiterate. The table shows that still there are some group of people who are beyond the light of education and need special action to make them literate to think about their health

themselves. There is correlation between education and awareness level on tuberculosis. Majority of the literate patients heard the awareness message of TB from different media like radio, television and hoarding board. During the focus group discussion the female TB cases expressed that they would have aware on TB if all of them were educated enough.

4.3 Occupational status

Table 3: Occupational Status of Female TB Patients

SN	Description	Number of cases	Percentage
1.	Housewife	40	55.56%
2.	Factory	18	25%
3.	Daily ways	10	13.89%
4.	Office	4	5.55%
5.	Total	72	100%

Source: Field Survey, 2011

Table no 4.3 shows that most of the TB female patient were work as a housewife which is 55.56, 25% of the female TB infected are works in factory. 13.89% of the TB infected were involved in daily ways work and rest of 5.55% involved in office. It shows the poor economical activities in income generation propose.

4.4 Economic status

Table 4: Food available by their own income source

SN	Description	Number of cases	Percentage
6.	Less than three month	10	14%
7.	3 to 6 month	35	49%
8.	6-12 month	22	31%
9.	All the year round	5	7%
10.	Total	72	100%

Source: Field Survey, 2011

Being dependent on husbands and in-laws, TB patient women feared of refusal by husbands, other family members and society. By contrast, economic burden was the main concern of men throughout the health care-seeking process and treatment period. In the beginning of the disease many patients consult private doctors and other local unqualified medical practitioners therefore, they described how the costs of TB treatment exceeded their income and how treatment costs, although drugs are available free of charge in the health institutions. This kind of practice remained a major concern and sometimes led to non-compliance with treatment. The only alternative for poor people was at times to practice self-medication or to borrow money. The economic burden was greater when the husband got the disease compared to the wife, as he usually generated the major part of the family's income. Poverty acted as a barrier to both adequate health care-seeking and to compliance with the full course of treatment. One explanation to why men were more sensitive to economic difficulties than women could be that most men are in the position of being the head of the family, the main decision maker and the one who has the ultimate responsibility for the family's economic well-being. Another explanation could be that the economic burden of the family increases more if the husband becomes ill than if the wife becomes ill as the husband in most cases generates the major part of the family's income. When TB treatment is described as 'free-of-charge', costs of the individual patient and his/her family are often neglected. The costs of treatment sometimes far exceeded the income and resources of the family and they were forced to borrow money to cover expenses during the treatment period. The borrowed loans took years time to pay back even after the patient get cure. The field survey of this study showed that there are only 7% of the respondents had enough income by their own to maintain the food for more that six month in a year. Apart from that they had to manage their hand to mouth problem by doing daily ways labour work around.

Case Finding Status of Women TB Patients

4.4.1 Ethnicity

Table 4: Ethnicity

SN	Description	Number of cases	Percentage
1	Brahman/Chhetri	17	24%
2	Newar	7	10%
3	Janjati	18	25%
4	Dalit	14	19%
5	Others	16	22%
	Total	72	100%

Source: Field survey 2011

Caste is described by the Oxford English Dictionary as both, "Each of the hereditary classes of Hindu society, distinguished by relative degrees of ritual, purity or pollution and of social status," and "Any exclusive social class". Caste is a social phenomenon which is determined by his/her birth and heritage. It determines the social status, dynamics, and role of an individual. The table below described the caste status of TB cases who attended the health institution for their treatment.

As shown in the above table majority of TB cases 25% were from Janjati groups of people. The second most majority of TB cases 24% were from the Brahmin / Chhetri and third most major group of cases 22% were from other castes like Muslim, Sah, Koiri etc. Similarly, Dalit covers 19% of total attendance of the patients. The minor representation was from the Newar group of the people who attended only 10% of total cases.

4.4.2 Age Distribution of Female TB Cases

Table 5: Age Distribution of Female TB cases

Age group in year	Number of cases	Percentage
0-14	8	11%
15-24	16	22%
25-34	17	24%
35-44	11	15%
45-54	9	13%
55-64	7	10%
65+	4	6%
All age	72	100%

Source: Field survey 2011

Age factor is one of the vital determinants of the human being. Different group of age has different significance in the life of the people. The economic status of the people depends upon the economically active age groups of the people. Similarly, age factor is important for the determination of a social roles, responsibilities and status which helps to recognise their socio-economical and cultural status in the societies.

The above table shows that the majority of the TB cases registered for treatment are under the age group of 15 to 54. These groups of people are socio-economically active in the society. They are responsible for the earning for their family and they are also accountable to support for the development of the country. Unfortunately, the disease disabled the person to earn money for their family and to support for the development of the nation.

4.5 Knowledge, Attitude and Practice of Female TB Cases

4.5.1 Knowledge on TB

Table 6: Knowledge on cause of TB

SN	Description	Number of TB cases	Percentage
1.	Germs	47	65.28%
2.	Food	5	6.94%
3.	Course of god	3	4.17%
4.	Result of previous life	2	2.78%
5.	Don't Know (DK)	15	20.83%
	Total	72	100.00%

Source: Field Survey, 2011

Among all respondents majority 65% of the female TB cases replied the cause to TB is due to germs but there are 20.83% of respondents who do not know the actual cause of disease. However, 6.94% of respondents replied that the cause of TB is due to food and few numbers i.e. 4.17% of respondents replied that they got the disease due to curse of god and 2.78% of respondents said that they have got the disease as a result of previous life. By analysing this data it is seen that 35% of the respondents have no any knowledge about the cause of tuberculosis.

Table 7: Knowledge on transmission of TB

SN	Description	Number of TB cases	Percentage
1.	TB patient to healthy person	35	48.61%
2.	Dirty food and drinks	7	9.72%
3.	Air	22	30.56%
4.	Don't Know (DK)	8	11.11%
	Total	72	100.00%

Source: Field Survey 2011

The above table shows that 48.61% of the total respondents replied that TB is transmitted from TB patient to the healthy person and 30.56% of the respondents replied that TB is transmitted through the air. This shows that the awareness level of

the people on TB is good because 79% has got right knowledge of TB transmission. However, the table also shows that some people are still lacking of knowledge on TB transmission. Out of the total respondents, 15% of the people did not reply the correct answer of the TB transmission.

4.5.2 Practice to seek the treatment of TB

Table 8: Practices of TB Patients

SN	Description	Number of TB cases	Percentage
1.	Local healers	11	15.28%
2.	Health institutions	42	58.33%
3.	Private doctors	15	20.83%
4.	Others	4	5.56%
	Total	72	100.00%

Source: Field Survey 2011

After getting the suspected sign and symptoms of Tuberculosis majorities of the cases seek the treatment and care. Among the total respondents 58.33% of the TB suspects seek the treatment at the health institutions where the TB diagnosis and treatment service is available at free of cost. This is one of the positive sign of awareness for the TB control and prevention. However 15.28% respondents seek the treatment from the local healers and 5.56% of the respondents seek treatment from the unqualified local medical practitioners. These two groups of the TB suspects need to be aware on TB awareness message and availability of TB treatment and care service. Due to lack of right information they lost their resources as well as health at the beginning of the disease which could be treated in the early stage. This was also associated with the stigma related to TB in the societies. Apart from these 20.83% of the respondents seek the TB treatment from the private doctors in the beginning. Although they did good attempt to seek their health, they lost some of their resources which were not supposed to be lost because all the treatment and care service related to TB is available in free of cost at the government health institutions.

4.5.3 Behaviour of Family

The role of family is always crucial and important for the treatment and care of the TB patient. Family as a universal social institution plays an important role for the development of the human society and its existence.

Table 9: Behaviour of Family

SN	Description	Number of TB cases	Percentage
1.	Self decided for treatment	22	30.56%
2.	Family member decided for treatment	35	48.61%
3.	Neighbour helped to decide for treatment	8	11.11%
4.	Society helped to decide for treatment	7	9.72%
	Total	72	100.00%

Source: Field Survey, 2011

Majority of the TB suspects were helped by their families for the TB diagnosis and treatment. In response to the helping behaviour from family regarding decision making for TB treatment and care, 48.61% of the decisions were made by the family members among all respondents. The study shows that 30.56% of the decision for the diagnosis and treatment were made by the patient which was the good sing of empowerment of the female TB patients. Some of the TB suspects were depended on neighbour (11.11%) and society members (9.72%) who helped them to make decision for treatment and care.

4.5.4 Behaviour of the Health Workers

Majority of the TB cases were behaved fairly by the health workers for diagnosis and treatment, however, some of the cases were not satisfied with the behaviour of the health workers. This was due to the time management of the health workers for the daily directly observed treatment short-course because they have to attend daily for first two months (Intensive phase) to take the drugs under the supervision of the health workers. This is due to comply of national policy for TB treatment and care

which is in the favour of the patients. This process ensures the treatment compliance in order to achieve the high quality of treatment success rate.

4.6 Focus Group Discussion (FGD)

Topics for discussion: Tuberculosis

Date: 20011/06/28

Target group: 14 Female TB patients

Place: Nepal Anti-Tuberculosis Association (NATA), Biratnagar.

The FGD was conducted with rapport building of the group with the informed consent so that the participants put their opinion without any hesitation and fear. The dissuasion was based on the following questions which are stated below.

1. What do you know about tuberculosis?

Tuberculosis is a communicable disease which is transmitted through air via respiration process. If there is one infected person in the family then there is chance of transmission to all other family members. According to Niru Sharma, (a patient) tuberculosis is a kind of communicable disease which is transmitted through air by a kind of germ.

2. How does this disease transmit?

The germs of the disease can be transmitted to the to a healthy person when a TB patient come his/her close and sneeze, cough and spit haphazardly. Generally air is the main medium of this disease transmission. According to Shanti Thapa, her close friend was suffering from the TB, so she claims that she has got the disease transmitted by her friend.

3. Who gets TB?

Generally, there is chance of TB transmission to physically weak person who is infected by other diseases. In our communities the female are more vulnerable to catch the disease because they are physically weak. The weak people who are in contact of TB patients are more susceptible to get the TB disease.

4. How can be TB diagnosed and treated?

Sputum test is the faithful method for TB identification and diagnosis although X-ray might be necessary some time. Sputum can be checked easily in the village level as well as free of cost. Sunita Shrestha accepted the disease when she was proved that there is TB germ in her three sputa. Now she has been testing her sputum three times during the course of treatment in order to know the status of her treatment effectiveness. She kept her opinion that sputum test is the faithful method of TB diagnosis; therefore, every suspected case of TB should have checked their sputum. She said that the treatment of TB is as per the suggestion of the health workers. She said that according to doctor's advice the total course of treatment is for eight months. Among them two months treatment is under the observation of the trained health workers at health institution and remaining six months of treatment should be taken in her home by collecting the drugs periodically. She said that all these service including drugs and sputum examination are available free of cost in the health institution.

5. How to prevent and care of TB?

Prompt treatment and wearing of mask is the way of prevention of tuberculosis. So far we knew is to take BCG vaccination for the children to prevent from TB. The patient should go to for treatment after getting disease immediately.

6. What are the perspectives of people on TB?

In our opinion, the perspective of the people and communities is weak regarding TB disease. Their perspective towards TB patient is negative. They never respect the TB patient because they are always in fear that disease will transmit though it become non infectious after getting treatment.

7. What are the perspectives of the family and communities on TB?

In the family, the perspective of the family member is alright because they help to carry the patient for treatment thinking that it might be transmitted to the other family members if it remains untreated said Urmila Dahal, a TB patient. Similarly, the perspectives of other family members of all other patients were found good because they have been supporting the patients for treatment and other management. But the perspective of the neighbors and communities has found bit difference. They have their prerequisite that tuberculosis is a communicable disease and contagious to

others. Some other groups of people have shown normal behaviour when the patients have been getting healing of disease.

8. What are the difficulties that you have faced after getting TB?

No any specific problem has been facing even though as being a TB patient there is always in mind that my/our disease will transmit to other family members including our own kids, therefore, we do could not become open with kids due to afraid of disease transmission. And at the same time we are facing the problem of inability to do work due to our physical weakness. We are feeling that whole family is sick due to sick of one person. The disease added the problem of economy in the family to manage the daily requirements. We have to pay daily extra money for the transportation to collect the daily drugs from health institution. We are also facing the problem of more expenditure than that of our basic income. Other things are normal although they always keep in their mind that some body will say something negative about their disease said Pampha Kafle.

9. Role of Family and societies to help to cure the patient.

Ganga Tamang expressed her opinion that she has been getting positive help and respect from he family members. She said that family members assure about her treatment that she will be cured. The family members bring her drugs, help to take regular drugs and maintain the regular compliance of treatment. According to Kalpana Khanal, there is optimum help from her family members. The group expressed their opinion that encouragement to the patient to take regular and right treatment, help in domestic work, help in drug collection and to collect advice from the health workers etc should be supported by the family members and communities. These activities will help to complete the treatment of tuberculosis in an easy way and it will also help for healing of the disease mentally.

10. Behaviour of the health workers.

So far we have got satisfactory behavior of health workers. They asked us about our healing process of disease and progress of treatment. Their behaviour has found good. They encourage us to take regular drugs. These are the satisfactory behaviour we have got from the health workers.

11. Message of the group to others.

We were afraid and anxious about TB disease but this is a curable. Regular treatment cures the disease quickly, but if it remains untreated in the home then it may finish the life. It affects not only the life of TB patients but damage the life of neighbour and family members too. Therefore, let us go for treatment as soon as the sign and symptoms appear. Now there are female community health volunteers in each and every wards of village development committee. She will support us to identify the disease. Tuberculosis has not happen due to any curse of god and goddess. We would like to give his message to those who are living in their home without treatment should go for treatment soon.

CHAPTER - FIVE

SUMMARY, FINDINGS, CONCLUSION AND RECOMANDATION

5.1 Summary

This study was based on the field survey in which the primary data were collected from the women TB cases and health institutions of Biratnagar sub-metropolitan city of Morang district. The main objective of this study was to find out the level of female participation in the treatment of Tuberculosis, causes and consequences of low female TB case detection in the communities, socio-economic/cultural practice and harmful behaviours as well as acceptability of tuberculosis in the community and its consequences on Gender and Tuberculosis, accessibility of the health facility and behaviour of the health service providers for TB treatment and barriers of health seeking behaviour of female TB cases. The study was carried out during the period of three months by applying purposive sampling method of research design. The study was descriptive and analytical which was based on the findings of survey. Both quantitative and qualitative information were collected through observation, structured questionnaire, and structured and semi-structured interview with the target people. Specific case study, focus group discussions were also introduced for data collection. Sample of 72 women TB cases were taken for the purpose of the study. The findings of all the data were presented descriptively and analytically.

The importance of a female on current policies regarding disease prevention and treatment is slowly being recognised. What has been introduced and presented in this chapter is the growing evidence of the strong influence of gender on the possibilities of getting a successful diagnosis, treatment and cure of tuberculosis. So far this aspect has not been fully acknowledged within programmes, targeting fight against TB. Given the available information, policy and programme managers need to identify gender sensitive recommendations to improve the current TB control policies and programme.

Given the relatively recent progress within the research area, there is still a great need of future research activities. Population based epidemiological studies are needed to find the "true" prevalence and incidence of TB and clinical progression and treatment characteristics of TB among men and women. Further, a limited scientific knowledge exists on the influence of sex on the immunology and genetic aspects of TB. This is an area that may be of importance for future development of more effective diagnostic methods of TB as well as for an increased understanding of the sex-specific differences in TB epidemiology and clinical presentations. The qualitative studies here presented have been carried out in Biratnagar sub-metropolitan city of Morang district. Through this study there has an extent contribution to the existing knowledge in the social beliefs and consequences of TB in this area. Similar studies need to be conducted in different cultural settings in order to contextualise effectively national and global TB programme recommendations. Evidence from different cultural settings has been compiled regarding health seeking behaviour among TB suspects and the utilisation of private and public health sectors among men and women.

2.5 Findings

This study is related to the prevalence of tuberculosis of female in Biratnagar sub-metropolitan city. After data collection and tabulated and analysing the data followings findings are observed.

(1) Among the respondents 89% of female TB cases were found married and the percentage of the unmarried respondents was only 11%.

(2) Among all the respondents 89% patients might have transmitted the disease to their spouses and children and 11% of the patients have transmitted to their family members.

(3) Among all the respondents 78% of female TB cases were literate and 3% were SLC passed though 19% of female TB cases were illiterate

(4) Being dependent on husbands and in-laws, women feared refusal by husbands, other family members and society. By contrast, economic burden was the main concern of men throughout the health care-seeking process and treatment period.

(5) The field survey of this study showed that there are only 7% of the respondents had enough income by their own to maintain the food for more that six month in a

year. Apart from that they had to manage their hand to mouth problem by doing daily ways labour work around.

(6) Majority of TB cases 25% were from Janjati groups of people. The second most majority of TB cases 24% were from the Brahmin / Chhetri and third most major group of cases 22% were from other castes like Muslim, Sah, Koiri etc. Similarly, Dalit covers 19% of total attendance of the patients. The minor representation was from the Newar group of the people who attended only 10% of total cases.

(7) The majority of the TB cases registered for treatment are under the age group of 15 to 54.

(8) Among all respondents majority 65% of the female TB cases replied the cause to TB is due to germs but there are 20.83% of respondents who do not know the actual cause of disease.

(9) 6.94% of respondents replied that the cause of TB is due to food and few numbers i.e. 4.17% of respondents replied that they got the disease due to curse of god and 2.78% of respondents said that they have got the disease as a result of previous life. By analysing this data it is seen that 35% of the respondents have no any awareness about the cause of tuberculosis.

(10) 48.61% of the total respondents replied that TB is transmitted from TB patient to the healthy person and 30.56% of the respondents replied that TB is transmitted through the air. This shows that the awareness level of the people on TB is good because 79% has got right knowledge of TB transmission

(11) Among the total respondents 58.33% of the TB suspects seek the treatment at the health institutions where the TB diagnosis and treatment service is available at free of cost. This is one of the positive sign of awareness for the TB control and prevention.

(12) 15.28% respondents seek the treatment from the local healers and 5.56% of the respondents seek treatment from the unqualified local medical practitioners.

(13) Majority of the TB suspects were helped by their families for the TB diagnosis and treatment. In response to the helping behaviour from family regarding decision making for TB treatment and care, 48.61% of the decisions were made by the family members among all respondents.

(14) 30.56% of the decision for the diagnosis and treatment were made by the patient which was the good sing of empowerment of the female TB patients. Some of the TB suspects were depended on neighbour (11.11%) and society members (9.72%) who helped them to make decision for treatment and care.

(15) Majority of the TB cases were behaved fairly by the health workers for diagnosis and treatment, however, some of the cases were not satisfied with the behaviour of the health workers

Based on the findings of study there is an urgent need to increase the awareness, regarding the existing knowledge on impact of gender and TB as well as of further explorations within the research area because of existing stigmatised societies.

5.2 Conclusion

The importance of a gender perspective on current policies regarding disease prevention and treatment is slowly being recognised. What has been introduced and presented in this study is the growing evidence of the strong influence of gender on the possibilities of getting a successful diagnosis, treatment and cure of tuberculosis. So far this aspect has not been fully acknowledged by the concerned authorities within programmes targeting fight against TB. As there is an equal risk of TB infection to male and female, policy and programme managers need to identify gender sensitive recommendations to improve the current TB control policies and programme.

Due to unequal treatment of TB cases on the basis of gender, there will be negative consequences in the campaign of TB control in order to make a TB free world. Therefore, women's health is often in need of advocates to bring it up to equality with men's regarding the gender and tuberculosis. For these reasons, government's health institutions as well as the societies have to do much more for the sensitisation of the societies on gender and health. One of the positive aspects which has initiated by the WHO is devoted to gender and health and also has a special role as an advocate for women's health.

Given the relatively current progress of gender perspective in the TB control within the research area, there is still a great need of future research activities to sensitise the policy makers as well as the community people for their equal participation and benefit for TB care. Population based epidemiological studies are needed to find the "true" prevalence and incidence of TB and clinical progression and treatment characteristics of TB among men and women. Similarly, sociological studies are necessary to generalise the social perspectives on female and tuberculosis because the findings of this study presented that there is low participation of the female TB cases in the treatment and prevention of Tuberculosis which will hinder to achieve the millennium development goal (MDG) to make a TB free society and the World by 2050. Furthermore, similar studies need to be conducted in different cultural settings in order to contextualise effectively global TB programme recommendations. Evidence from different cultural settings is also needed regarding health seeking behaviour among TB suspects and the utilisation of private and public health sectors among men and women.

Despite early health care seeking, women have a longer period of delay before diagnosis and treatment of TB. The studies showed that, gender wise, there is great delay between onset of first symptom of TB and contact with the health workers for diagnosis and treatment. Women had a longer delay because 30% of the women often sought care from the private doctors, local healers and other less qualified professional to seek the health care rather than going government health institutions.

5.3 Recommendation

This study had dig out some of the facts and figures of female and tuberculosis. Which affect the human society for TB care. There is variation in health seeking behaviour of the female TB cases and health care provider’s response which resulted in barriers in accessing the health care. This is why their problems are focussed not only by gender but also by age and social class in order to better understand the groups that face the most barriers for health seeking. The TB elimination campaign has been hindered as a result of these human errors. Therefore, based on the findings of the study and experiences gained during the study, the following recommendations have been made for the betterment and accessing women TB cases for health care

service. In order to make the TB care service equitable for female there is need of equal responsibilities and more efforts from all the sectors such as government health system, civil societies, societies, families and all other individuals. These recommendations will help the people of different level who are interested and involved in the field of TB control such as family members, community / societies, health care providers, government policy makers and other stakeholders.

5.3.1 For Family Members

TB is a curable disease but due to fear of social isolation there is strong feeling of denial of disease in women, resulting in a variety of reactions and delay. They had denied suspicion of TB and avoided diagnosis and confirmation of the disease because they had feared that the family members would avoid them when they would diagnose as TB. Fear of enacted stigma was the main concern of women at suspicion of TB, in health care-seeking and in compliance with treatment. Therefore, following recommendations have been make in order to eliminate the stigma and misperception regarding TB disease.

1. All members of the family have equal roles and responsibilities to control the TB disease as it is a curable disease.
2. The family members should help the victims of TB disease for diagnosis, care and treatment.
3. The family members should support and take care of the patients physically and psychologically which helps the patients heal the disease.
4. All the members of the family should take universal precaution to prevent from the transmission of the disease.
5. The family member should take a lead to investigate the TB if some body in the family members is suspicious.
6. The family member should be involved in the TB awareness campaign in order to reduce the stigma.

5.3.2 For Community / Society

In male dominated societies like ours, women often have a lower social position and poorer access to economic resources, education, and information than men. These gender differences influence both health risks among women and care-seeking behaviour. The household income and large expenditures are often controlled by husbands and other male members of the family. The husband is seen as the head of the family. Although economic resources are available in the household, important expenditures are often dictated by male heads of household. Therefore, following recommendations have been done for the community / society in order to eliminate TB from the societies.

1. Increase the access resources and property to the women should be done so that the women can be self reliance.
2. The women should be empowered to make their own decision for their health seeking which will reduced the unnecessary delay for TB care and treatment.
3. The malpractice regarding TB care and treatment should be forgiven and utilisation of the governmental health institutions should be increased.
4. The community / society should advocate on the TB awareness to establish a TB free society.
5. The community people should help the TB suspects to investigate the disease and treat it.
6. Every members of the society should be mobilised through the different campaigns against the TB.

5.3.3. For Health Care Providers

Several male health workers described a non-functioning communication between male health workers and female patients. Poor communication seemed to exist between male health workers and female patients. The clear communication is essential to identify and address the real health needs of the women TB cases. It should be open, transparent and well-informed communication between the TB care providers and the patients and their families. However, neither health workers nor patients seemed to be conscious of the benefits of such a relationship. Therefore, following recommendations have been done for the health care providers.

1. Health care providers are the primary people who have knowledge of TB; hence, they should create awareness against TB to educate the patients, people and societies.
2. The health care providers should treat the male and female TB cases equally without any discrimination on the basis of gender and race.
3. The health care providers should reduce the unnecessary delay for diagnosis of TB suspects to make the service faithful and efficient.
4. The health care providers should develop special access to the women TB suspects as they are oppressed in the family and societies.

5.3.4 For the Government

TB patients had difficulties in imagining a health care system containing such a policy and strategy component of TB control. Most interviewees did not seem to be familiar to their role of TB control and even influencing their own treatment when in contact with the health care system. However, it appeared easier for men compared to women to be and remain in control of their own treatment process because of their higher status in the family and their possibility to better control their own situation. The findings of the research felt that there should be special attention to be taken for the women for equitable participation in TB control programme. Therefore, following recommendation have been made for the government to create an environment for equitable access and participation of women in TB control.

1. Government should make a commitment and formulate a policy / strategy for especial attention of women in TB control.
2. The outlets of the TB care should be expanded so that proper economic and geographic access to hospital and TB care services for women will be closure to their homes.
3. Capacity building of the TB victims should be done through the vocational and educational activities so that the people could fight against TB and poverty simultaneously.
4. The media has strong power for behaviour change communication. It is an effective tool for sensitisation of the people against the TB, therefore, appropriate media should be mobilised for TB awareness.

5. The national TB control programme should be gender sensitive so that the female TB suspects will be benefited.
6. The policy for the prohibition of the malpractice against TB care should be prepared and bill should be passed.
7. The research works in the sector of female and tuberculosis should be promoted and conducted.

5.3.5 For Other Stakeholders

TB control is the shared responsibilities of the all sectors including GOs, NGOs and civil societies. Each of these actors can play an important role for the TB control and elimination from the societies. Therefore, following recommendation have been made for the other stakeholders.

1. TB awareness should be created by the other entire stakeholder in the societies.
2. They should advocate in the fur of the women to make them access in the resource and empower for the decision making for their health seeking.
3. They should conduct the research on discrimination of the basis of gender and caste.
4. They should pressurise the government for the adopting the especial policy of women in the TB control.
5. They should coordinate between community and health care providers to promote the TB care for women.

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http://www.iuatld.org

Questionnaire

Questionnaire for interview with TB Patients about Knowledge, Attitude and Practices (KAP)

- Name: …….
- Age: ….…….
- Sex: Male ☐ Female ☐
- Address:
- Occupation:
- Marital status: Married ☐ Unmarried ☐
- Education level: Illiterate ☐ Literate ☐ SLC ☐ Intermediate ☐ Bachelor ☐ Above Bachelor ☐
- Economic status: Annual income (approx.) NRs……. Land…….. Other income…..

Questions	Answer	Remarks
1. What is the cause of TB?	1. Germs 2. Food 3. Curse of god 4. Result of previous life 5. DK	
2. What type of disease is TB?	1. Curable 2. Communicable 3. Non-communicable 4. Fatal 5. DK	
3. What is the mode of transmission of TB?	1. Air 2. Food and drinks 3. Other	
4. What are the sign and symptoms of TB?	1. Prolong coughing 2. Chest pain 3. Blood in sputum	

Questions	Answer	Remarks
	4. Others	
5. Do you seek health care after suspecting TB?	1. Yes 2. No	
6. Where do you seek advice first?	1. Local healers 2. Health institutions 3. Private doctors 4. Others	
7. Is there any TB contact in your family?	1. Husband 2. Son 3. Daughter 4. Others 5. Nobody	
8. How can you prevent TB?	1. By covering of mouth while coughing and sneezing 2. By eating fresh food and drinks 3. Early treatment 4. DK	
9. Who helped you to seek the treatment?	1. Self 2. Family member 3. Neighbour 4. Society members	
10. Did the family member accept the disease?	1. Yes 2. No	
11. Did the health worker discriminate you for diagnosis and treatment?	1. Yes 2. No	
12. Are you satisfied with the behaviour of health worker?	1. Yes 2. No	

Questionnaire for Socio-Economic Status

Questionnaire about Socio-Economic and Cultural Status of Societies of TB Patients

Questions	Answer	Remarks
1. Do you know about tuberculosis?	1. Yes 2. No	
2. What type disease is tuberculosis?	1. Curable 4. Non-curable 2. Communicable 5. Fatal	
3. How does this disease transmit?	1. TB patient to health person 2. Dirty food and drinks 3. Air	
4. What is the cause of this disease?	1. Germs 4. Food 2. Curse of god 3. Result of previous life	
5. What are the sign and symptoms of tuberculosis?	1. Prolong coughing 2. Chest pain 3. Others	
6. How can we prevent from this disease?	1. Covering mouth and nose while coughing and sneezing 2. Early diagnosis and complete treatment 3. Eating good food	
7. Is there treatment available?	1. Yes 2. No	
8. From where treatment can get?	1. Health institution 2. Private clinics 3. Local healers	
9. In your opinion should the patient segregate from the family?	1. Yes 2. No	
10. How long do you have enough food from your own income source?	1. Less than 3 month. 2. 3 to 6 month 3. 6 to 12 month 4. All the year round	

Questionnaire for KAP of Family of TB Patients

Questionnaire on Knowledge, Attitude and Practices of Family members of TB Cases

- Name: …….
- Age: ……
- Sex: Male ☐ Female ☐
- Address:
- Occupation:
- Education level: Illiterate ☐ Literate ☐ SLC ☐ Above SLC ☐

Questions	Answer	Remarks
11. What is the cause of TB?	1. Germs 2. Food 3. Curse of god 4. Result of previous life 5. DK	
12. What type of disease is TB?	1. Curable 2. Communicable 3. Non-communicable 4. Fatal 5. DK	
13. What is the mode of transmission of TB?	1. Air 2. Food and drinks 3. Other 4. DK	
14. What are the sign and symptoms of TB?	1. Prolong coughing 2. Chest pain 3. Blood in sputum 4. Others	
15. Did you help the patient for diagnosis and treatment?	1. Yes 2. No	

Questions	Answer	Remarks
16. How can you prevent TB?	1. By covering of mouth while coughing and sneezing 2. By eating fresh food and drinks 3. Early treatment	
17. Who decided to take the patient for diagnosis and treatment?	1. Head of family 2. Other members 3. Patient self	

Questionnaire for Health Workers

- Name Age / Sex ……..
- Post Address of health institution

Questions	Answer	Remarks
1. Did you get the training for TB management?	1. Yes 2. No	
2. Is there availability of anti TB drugs in the health institution free of cost?	1. Yes 2. No	
3. Do you observe the treatment of TB patients daily?	1. Yes 2. No	

Appendix-B: Time Schedule

S. N.	Activities	Involved members	Target date	Date of completion
1.	Topic Selection	Student	24 April 2011	25 April 2011
2.	Final Selection of Topic	Student and department	28 April 2011	28 April 2011
3.	Conformation of supervisor	Lecturer	06 May 2011	15 May 2011
4.	Proposal Writing	Researcher	29 April 2011	22 May 2011
5.	Pre-testing of questionnaire	Researcher and supervisor, Community People	04 May 2011	23 May 2011
6.	Submission of Proposal	Researcher and Supervisor	06 May 2011	28May 2011
7.	Conformation of Research Guide	Teacher	06 May 2011	06 May 2011
8.	Approval of Proposal	Research guide and HOD	06 May 2011	06 May 2011
9.	Collection of Letter from College	Researcher	06 May 2011	06 May 2011
10.	Collection of Data	Researcher and community People	16 May 2011	16 May 2011
11.	Editing, Coding of data	Researcher	22 May 2011	27 May 2011
12	Tabulation	Researcher	28 May 2011	11 June 2011
13	Analysis & Description	Researcher	12 June 2011	29 June 2011
14	Thesis writing	Researcher and Guide	01 July 2011	21 July 2011
15.	Finalized of Thesis	Researcher and Guide	03 August 2011	17 August 2011
16	Thesis Presentation	Researcher and Guide	16 November 2011	16 November 2011

Appendix-C Budget

S. N.	Activities	Approx. Amount (NRs)
1.	Topic Selection	1000/-
2.	Final of Topic	500/-
3.	Proposal Writing	3500/-
4.	Pre-testing of questionnaire	1200/-
5.	Submission of Proposal	500/-
6.	Conformation of Supervisor	500/-
7.	Approval of Proposal	00/-
8.	Collection of Letter from College	00/-
9.	Collection of Data	11,200/-
10	Editing, Coding of data	5000/-
11.	Tabulation	1500/-
12.	Analysis & Description	1500/-
13.	Thesis writing	3000/-
14.	Finalized of Thesis	3500/-
15.	Thesis Presentation	500/-
	Total	35,200/-