CHAPTER ONE

INTRODUCTION

1.1 Background

Health is a state of complete physical, mental and social well being. Everyone recognizes the truth of this statement but health care is often forgotten. So a person becomes unhealthy as she/he ignores his\her, own unhygienic behavior and becomes ill. Among various types of diseases, tuberculosis is one of the most important diseases for man.

A famous proverb "health is wealth" helps to understand the importance of the health. WHO defines health as a state of physical, mental and social well being and not merely the absence of disease or infirmity. In Nepal health is one of the problematic issues with GNP per capita of US $ 311 and 30.8% of population live below the poverty line reflects the poverty of Nepal. (UNDP, 2006)

Tuberculosis (TB) is a communicable disease and one of the most important infectious disease of the world, one that has made its impact felt through the ages. A familiarity with the history of this disease and with its sociological, economic and medical importance alerts one as the study of few other diseases can to the mighty burden that illness lays on humankind. (Macgill, 2003)

Tuberculosis has been a major cause of suffering and death since time immemorial. Thought to be one of the oldest human diseases, the history of tuberculosis is at least as old as the mankind. Over the years, not only the medical implication but also the social and economic impact of tuberculosis has been enormous.

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Before the Industrial Revolution, tuberculosis may sometimes have been regarded as vampirism. When one member of a family died from it, the other members that were infected would lose their health slowly. People believed that this was caused by the original victim draining the life from the other family members. Furthermore, people who had TB exhibited symptoms similar to what people considered to be vampire traits. People with TB often have symptoms such as red, swollen eyes (which also creates a sensitivity to bright light), pale skin, extremely low body heat, a weak heart and coughing blood, suggesting the idea that the only way for the afflicted to replenish this loss of blood was by sucking blood. Another folk belief attributed it to being forced, nightly, to attend fairy revels, so that the victim wasted away owing to lack of rest; this belief was most common when a strong connection was seen between the fairies and the dead. Similarly, but less commonly, it was attributed to the victims being "hagridden"—being transformed into horses by witches (hags) to travel to their nightly meetings, again resulting in a lack of rest.

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TB persists as global public health problem with a serious magnitude requiring urgent attention. Current global efforts to control TB have three distinct but overlapping dimensions: humanitarian, public health and economic. Alleviating the illness, suffering and death of individuals caused by TB is the major humanitarian concern and calls for a patient-centered approach to TB control. (WHO, 2002)

TB is communicable disease caused by mycobacterium tuberculosis. The source of infection is a person with tuberculosis of the lung who is coughing transmission occurs by airborne spread of infectious droplets. The sign and symptoms of the tuberculosis are cough more than two weeks, weight loss, fever, chest pain, haemoptysis, breathlessness etc. Over 90% of patient with sputum smear-positive PTB develop a cough soon after disease onset. However cough is not specific to PTB. Cough is Common in smoker and patient with acute upper or lower respiratory tract infection.

There are two types of tuberculosis, pulmonary tuberculosis and extra pulmonary tuberculosis. Common forms of extra pulmonary tuberculosis include the following: lymphadenopathy, pleural effusion, pericardial disease, milliary disease, meningitis etc. In this case patient usually present with

constitutional features (fever, night sweats, weight loss) and local features related to the site of disease. (NTC, 1998)

TB is major health problem in the world, is the most common cause of the death due to single infectious agent in adults and accounts for over a quarter of avoidable deaths worldwide. TB kills more youth then any other infectious disease and kills women than all the combined causes of maternal mortality. It has also been estimated that someone in the world is newly infected with tuberculosis every second nearly one percent of the world population is infected with tuberculosis every year and overall one third of the population is infected with mycobacterium tuberculosis (Sharma and Mohan 2001).

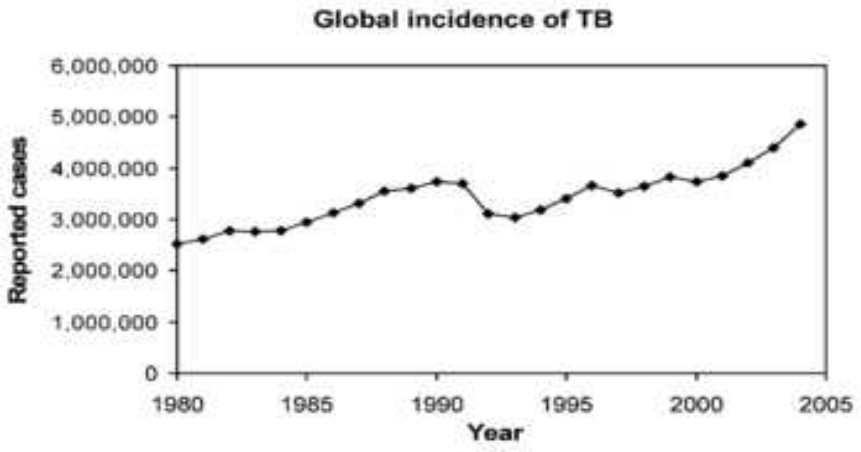

Figure no 2.1

Source: (http.//.Tuberculosis - Wikipedia, the free encyclopedia.htm)

According to the World Health Organization (WHO), nearly 2 billion people—one third of the world's population—have been exposed to the tuberculosis pathogen. Annually, 8 million people become ill with tuberculosis, and 2 million people die from the disease worldwide. In 2004, around 14.6 million people had active TB disease with 9 million new cases. The annual incidence rate varies from 356 per 100,000 in Africa to 41 per 100,000 in the Americas. Tuberculosis is the world's greatest infectious killer of women of reproductive age and the leading cause of death among people with HIV/AIDS.

The rise in HIV infections and the neglect of TB control programs have enabled a resurgence of tuberculosis. The emergence of drug-resistant strains has also contributed to this new epidemic with, from 2000 to 2004,

20percent of TB cases being resistant to standard treatments and 2% resistant to second-line drugs. The rate at which new TB cases occur varies widely, even in neighboring countries, apparently because of differences in health care systems.(htpp:\\Tuberculosis - Wikipedia, the free encyclopedia.htm)

Nepal is not exception to this global health problem. In Nepal over 80,000 people have tuberculosis. Every year about 50,000 people develop tuberculosis. Nearly half of them have infectious sputum positive tuberculosis. It is estimated that about 10,000 people die from **TB** every year. Tuberculosis is the commonest cause of death in adults aged 15 to 49 in Nepal (NTC, 1998).

1.2 Statement of the problem

There is long term of history epidemic infection disease in the world in which the epidemic of tuberculosis is most important. It is described as the first epidemiological transition (Harper, 2004). TB has existed for thousand of years and that has for centuries struck million of men, women and children all over the world. TB is a global emergency. Nearly two million people die every year from this disease. TB spells wreck and ruin not only to individuals and families, but also to societies and nations, seriously affecting work productivity, family cohesiveness and greatly weakening national incomes. The current TB epidemic is global disaster on an unprecedented scale (WHO, 2003). TB respect no boundaries; it can affect any person, although the most vulnerable are those who are in extended and closed indoor contact with a case of active TB. The poor are especially at high risk, living within adverse health conditions in congested, ill-ventilated homes. Those who work in unprotected environments and in occupations that expose them to increased risk of TB are also more vulnerable (WHO 2003).

TB is now poised to explode into an even more formidable challenge due to the parallel epidemic of HIV\ AIDS. Another problem that merits serious attention is the appurtenance of multi drug resistance TB (MDR TB). MDR TB develops when the bacilli that cause TB become resistance to some of the essential drugs used to fight it (WHO 2003).

TB is generally found to affect developing countries more than developed countries but now-a-days it has been found in the developed countries because of HIV\AIDS. In the context of developing countries like Nepal, TB is one of the main problems. Because of lack of awareness of TB, it has spread rapidly and people have died in their early ages. Religion, cast, tribe, culture, or the degree of education may influence people's ideas like people believe that TB is due to evil spirit, sin of previous birth and other superstitious beliefs. As a result people are persuaded by local healers and treated by them. This has been very harmful not only for the patients but also for the entire society and the nation.

World health organization has declared as a global emergency and main stress has been given to improve case finding and cure rate. Ninety five percent of tuberculosis patients are the inhabitant of developing countries so these countries are main sufferers of burden of tuberculosis. Tuberculosis is leading cause of adult death in Nepal. It kills thousands of people in a year but most of the death is preventable. Therefore, tuberculosis is growing problem in Nepal and case detection rate is largely limited by pre existing socio economic condition of the people in the country. It is important to understand the social and cultural determinants of patient's behavior in tuberculosis. A large number of patients with tuberculosis are inclined to hide that they are suffering from tuberculosis. Hence social stigma as well as awareness level, people status, interrelation of society's members, cultural aspects and community participation plays an important role in the acceptance of disease and adherence to its treatment. The main factors to spread the disease seem to be ignorance of socio economic and socio cultural determinants of society. Only epidemiological and clinical aspect of treatment will not be enough to deal with disease. The problem should be viewed in socio economic and socio cultural aspect as well. So far, we lack information on perception/attitude and awareness level of the patients towards tuberculosis. This study is carried out to find attitude and awareness level and practice towards certain aspects of tuberculosis. It has focused in searching the social and cultural factors associated with tuberculosis as well as knowledge, attitude and practice about the tuberculosis. It is directed in finding the awareness of following question.

1. Are any socio economic variables related with tuberculosis?
2. Do patients have adequate knowledge on TB?
3. What is the perception of patients toward TB?
4. What is the perception of society toward TB and its Patient?
5. How is the care seeking practice among the TB patients?

1.3 Objective of the study

The general objective of the study is to understand the problems of Tuberculosis disease in our society and to find knowledge, attitude and practice on tuberculosis among new tuberculosis patients of DHO Dots kaski, Pokhara. Moreover the specific objectives are as follows.

1) To study the socio, economic condition of tuberculosis patients.
2) To assess care seeking behavior of tuberculosis patients.
3) To analyze the knowledge, attitude and practice on TB of the tuberculosis patients.

1.4 Significance of the study

This study is expected to have some academic as well as practical importance. The main purpose of the study is for the researcher to fulfill the academic requirement of master degree. It would be useful for researchers, hospitals and students to increase knowledge of tuberculosis disease. It was expected that this study would be able to explore knowledge, attitude and practice of people about the tuberculosis disease and its social or cultural factors. This study may provide guidelines to government, non-government and development agencies for future improvement in problems related to TB.

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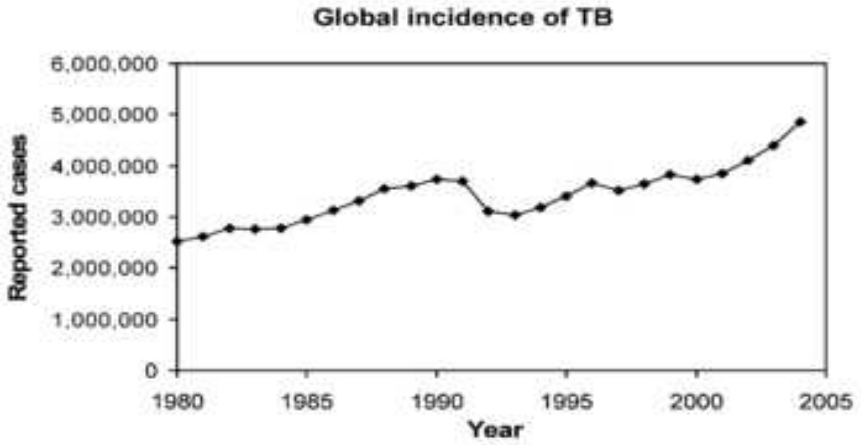

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1.5 Limitation of the study

Basically, it is the academic study. It has been undertaken with in the boundaries of limited time, budgets and other resources. It is the study of tuberculosis and patient about their knowledge, attitude and practice of tuberculosis among the DOTS patients in Pokhara. Thus, the findings and conclusion drawn from this study may not be widely generalized exactly in the same manner for other cases and in other places. Obviously, it will help to understand similar cases while considering the differences of contexts.

1.6 Conceptual Framework

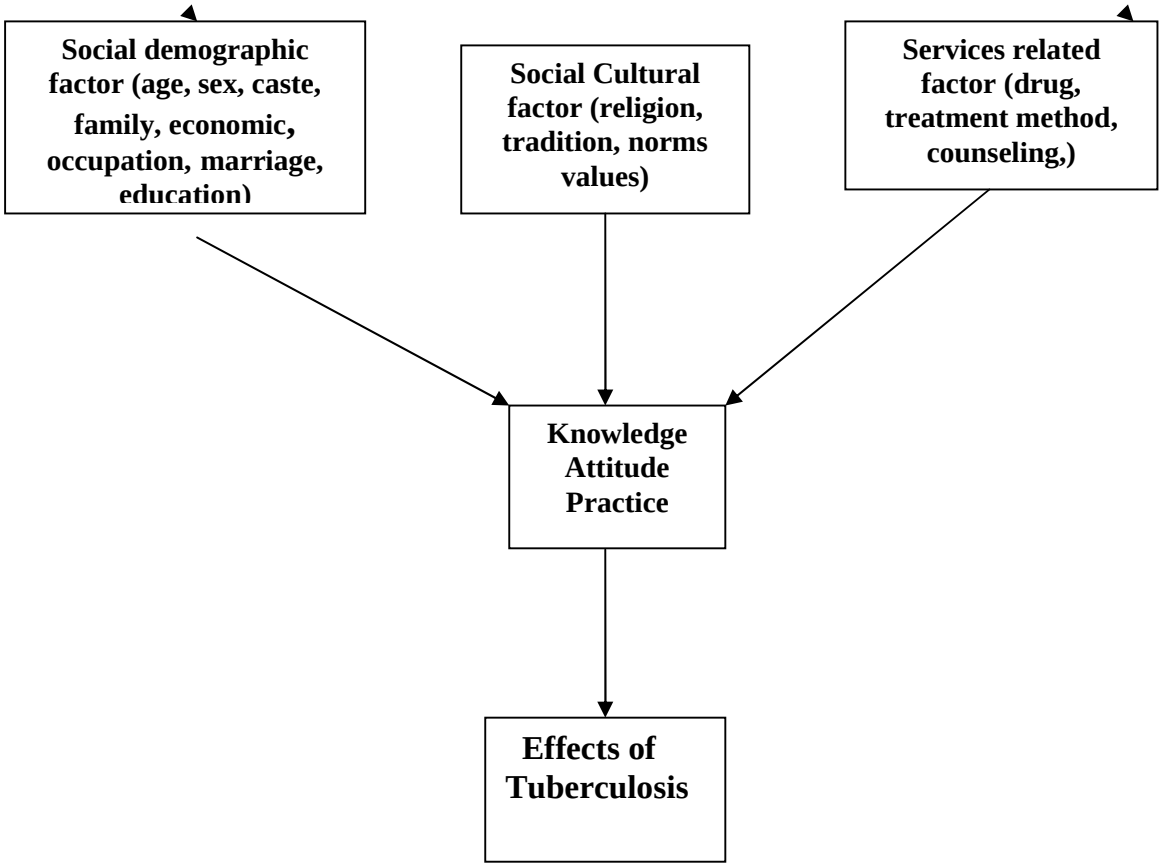

Figure no 3.1

TB is highly communicable disease. It is necessary to know knowledge, attitude and practice about tuberculosis of the people either tuberculosis patient or ordinary people. TB is the major health problem because of lack of awareness about TB, it spreads rapidly and people die in early age. Religion, cast, cultures, degree of education, economic condition, age, sex, occupation etc may influence people ideas and practice.

This study has focused in searching about the socio culture, socio demographic and service related factors on tuberculosis.

CHAPTER TWO

LITERATURE REVIEW

2.1 Theoretical overview

a) Medical sociology

Medical sociology is the study of individual and group behaviors with respect to health and illness. Thus "medical" is a bit simplistic, as the focus is not only on medical professionals or their behaviors, but also focuses on human behavioral responses to health and illness(http.//en.wikipedia).

Medical sociology is concerned with individual and group responses aimed at assessing well-being, maintaining health, acting upon real or perceived illness, interacting with health care systems, and maximizing health in the face of physiologic or functional derangement. It also analyzes the impact of the psychological conditions resulting from our environment on our health.Talcott Parsons is often considered the father of Medical Sociology because of his description of the 'Sick Role'. This describes the difference between the role of a sick person as opposed to the 'Social Role' of a healthy person. He defines the sick role as defining the motivation of the patient. Curiously enough, Parsons makes no mention of the role of the doctor or other medical institutions. The sick role comprises 4 aspects: exemption from normal social role responsibilities, the privilege of not being held responsible for being sick, the desire to get better, and the obligation to find proper help and follow that advice(http.//en.wikipedia).

Medical sociology is an area of the study that focuses on the social aspect of the causes and effects of health and illness within society. In doing so, medical sociologists attempt to explain the complex relationships between social characteristics and the development, treatment and curing of illness; they also analyze the organization of health (Frank, 2003).

Medical sociology is the study of the social facets of health and illness. It applies sociological principles to the study of topics such as the organization of health professionals, socio-cultural responses to illness, the nature of the patient-practitioner relationship and virtually every other health-related

subject. Sociologist Robert Straus 1957 suggested that medical sociology could be divided into two subcategories representing two different approaches to studying similar phenomena. The first he called the sociology of medicine. This category comprises the application of the basic sociological theories and principles to the study of medical issues. The second category is the sociology in medicine, which includes those who work in medical environments attempting to use sociologist principles to help solve medical or patient care problems and represents an applied research approach (Frank, 2003).

(b) Concept of health and illness

Health is the functional and/or metabolic efficiency of an organism, at any moment in time, at both the cellular and global levels. In any organism, health is the ability to efficiently respond to challenges (stressors) and effectively restore and sustain a "state of balance," known as homeostasis. Sickness is merely the absence of health. All organisms, from the simplest to the most complex, reside on a spectrum between 100% health and 0% health(http://books concept+of+health).

One widely accepted definition of health is that of the World Health Organization (WHO). It states that "health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO, 1946). In more recent years, this statement has been modified to include the ability to lead a "socially and economically productive life." The WHO definition is not without criticism, as some argue that health cannot be defined as a state at all, but must be seen as a process of continuous adjustment to the changing demands of living and of the changing meanings we give to life. The WHO definition is therefore considered by many as an idealistic goal rather than a realistic proposition(http://books concept+of+health).

The LaLonde report suggested that there are four general determinants of health which he called "human biology", "environment", "lifestyle", and "healthcare organization" Thus, health is maintained through the science and practice of medicine, but can also be improved by individual effort. Physical fitness, weight loss, healthy eating, stress management training and stopping

smoking and other substance abuse are examples of steps to improve one's health. Workplace programs are recognized by an increasingly large number of companies for their value in improving health and well-being of their employees, and increasing morale, loyalty and productivity at work. A company may provide a gym with exercise equipment, start smoking cessation programs, provide nutrition, weight or stress management training. Other programs may include health risk assessments, health screenings and body mass index monitoring(http://books concept+of+health).

An increasing measure of the health of populations is height, which is strongly regulated by nutrition and health care, among other standard of living and quality of life matters. The study of human growth, its regulators and its implications is known as auxology(http://books concept+of+health).

Wellness is a term sometimes used to describe the psychological state of being healthy, but is most often used in the field of alternative medicine to describe one's state of being(http://books concept+of+health).

Illness is a disvalued process that impairs the functioning or appearance of a human person and may ultimately lead to death. the definination of health given by the WHO includes social as well as physical and mental well-being. This reflects a concern with the person as a member of human groups-an entity certainly not limited to the body of that person.The components of individual(e.g., blood, soul, spirit, shadow, name, etc.) are defined differently from one culture to the next. the death of the organism, however is a biological constant which is taken into account conceptually in all cultures, and customs prescribed how the disposition of the corpse is to be arranged(Polgar,1965).

The most important aspect in this discussion of illness of the central role played by culture. It is important to see culture from post-mordernist perspective due to all socities have more than one culture within their borders. however, the culture in which you live, is not the only influence on your life. It is one of a number of individual factors, educational factors and socia-economic factors(Gibbon,1999).

Concept of health and illness, are social constructions which relate to their specific time and locality. they have a historical discourse and are thus set in a certain period(Gibbon,1999).

2.2 History of tuberculosis in Nepal

Tuberculosis is one of the major health problems in Nepal. About 45% of the total population is infected with tuberculosis, out of which 60% are the productive ages (NTC, 2002). The Rana prime Minster Chandra Samsher established a Sanatorium with 50 beds at Tokha in Kathmandu in 1934 AD. With the hard efforts of Dr. K. R. joshi, the central chest clinic started functioning in 1951 at Mahabauddha, Kathmandu. Simultaneously from the community side, Nepal Anti-tuberculosis Association was established in 1953 as NGO providing chest clinic services. In the same year, a Shining hospital in Pokhara started treating tuberculosis patients by international Nepal fellowship. In 1960, Sheer memorial Hospital at Banepa started anti tuberculosis activities (Bam, 2003). National tuberculosis programme was launched in 1962. In 1965, a tuberculosis control project established. HMG, WHO and UNICEF jointly started BCG vaccination in Kathmandu valley under the tuberculosis control pilot project in 1968. In 1969, the Shanta Bhavan opened the tuberculosis clinic at patan. First, the integration of health services was started in Bara and kaski district under the name of integrated community Health project in 1973. In the same year, INF started treatment of tuberculosis and Leprosy at Gorahi, Dang of mid western region. In 1975, tuberculosis control project expanded its activities to active case finding programme through sputum microscopy. The first National tuberculosis control seminar was held in Katmandu in 1978, second in Biratnagar in 1980 and third in pokhara in 1981. Based on the seminars, a tuberculosis coordinating committee was constituted to advise the Ministry of Health (MoH) for the formulation of the national tuberculosis programme. In 1986, German Nepal tuberculosis project started OPD services in kalimati under NATA. The short course intermittent chemotherapy started along with the culture and sensitivity tests (Bam, 2003). With the help of Japanese government, the HMG Nepal constructed national tuberculosis center in 1989. After the establishment of NTC, both the chest clinic and tuberculosis project merged into one organization under the name of NTC to strengthen the national tuberculosis control programme. The technical support in the areas of implementation of DOTS, planning, monitoring, programming, training, supervision, logistic,

laboratory services, health information education, communication and research activities were made by the NTC (Bam, 2002b).

2.3 Tuberculosis as a social disease

Tuberculosis is a social disease as it affects the socio –economic condition of the individual and society. The social factors include the non-medical factors such as quality of life, poor housing and over crowding, population explosion, and smoking, drinking, under nutrition, lack of education, large families, early marriage and lack of awareness. All these factors contribute to the occurrence and spread of tuberculosis (park, 1994).

The social and economic consequences of tuberculosis for individual and for society as a whole are huge in terms of human suffering, economic loss and decreased productivity (WHO, 1997).

The risk of tuberculosis varies according to the nature of the work and occupation. Risk of tuberculosis is highest in heavy drinkers, those living with someone who had a history of tuberculosis, cleaners and drivers (Rosenman and Hall, 1999).

The incidence of tuberculosis varies according to ethnic origin and socio-economic status and sex of people within a community; the major factors are overcrowding, standard of living and health care (Topely and Wilson, 1990). Tuberculosis was formally considered as a disease of the crowded, economically deprived and urban neighborhoods. However, it is now as much, if not more, a problem in the rural areas as in the cities. Tuberculosis was found mostly in young, married and people of lower socio-economic class. According to the study, patients have enough knowledge about the disease to recognize the symptoms and take action when they get the symptoms. However, inability to adhere to and complete the entire course of treatment is due social, economic and health service related problems (Juvekar et.al.1995).

2.4 Reviews of the previous study

C. John et al (1992) in Clinical tuberculosis, described about how person resists infection? Many things affect the way our bodies fight the

tuberculosis bacillus. These depend on age, sex, nutrition, toxic factor like tobacco smoking, alcohol intake etc, other disease like HIV infection, diabetes, leprosy etc, poverty, race etc.

National tuberculosis center has published A CLINICAL MANUAL FOR THE NEPAL 1998, in which tuberculosis is a bacterial disease caused by mycobacterium bacilli and TB is a communicable disease whose transmission occurs by airborne of infectious droplets. M. Tuberculosis infects a third of the world's population. Worldwide in 1995 there were about 9 million new cases of TB with 3 million deaths.

In Nepal over 80 thousand people have Tuberculosis. Every year about 50 thousand people develop tuberculosis. It is estimated that about 10 thousand people die from Tuberculosis every year that is nearly 200 deaths every week. Tuberculosis is commonest cause of death in adult aged 15 – 49 in Nepal.

Similarly Dots at the work place 2003, published by WHO regional office the south east Asia New Delhi in which the article Tuberculosis; the relentless spread of defiant disease wrote that TB spells wreck and ruin not only to individuals and families but also to societies and nation seriously affecting work productivity, family cohesive and greatly weakening national incomes. TB respects no boundaries; it can affect any person, although the most vulnerable are those who are in extended and closed indoor contact with the case of active TB. The poor are especially at a high risk, living within adverse health conditions in congested, ill ventilated homes. Those who work in unprotected environments and in occupations that expose them to increased risk of TB are also more vulnerable.

In 1923, pathologists Allen Krause made this observation: "More or less poverty in a communicable will mean more or less tuberculosis, so will more or less crowding and improper housing, more or less unhygienic occupations and industry. This statement remains as true today as it was seventy five years ago". (Farmer, 1999)

Mary Desain and Pratus Banta has published book "The sociological thought in the context of Nepal" 2004, in which the article "Globalization: TB and its control of tuberculosis in Nepal", written by Ian Harper mentioned that tuberculosis is a bacterial communicable disease .This particular disease has

existed since the writing of history started gets communicated from one person to another, when the infected coughs. The global spread of communicable diseases has a long history. In this history TB has a more significant spread among other communicable diseases. The spread of TB in Europe and Asia could be before 1500 years ago along with the discovery of 'the new world' (America) which has been entitled as the first Epidemiological transition (Barrett et al. 1998). According to Barrett et al there was a decrease in communicable diseases during the second Epidemiological transition. However there was an increase in the chronic diseases like cancer, diabetes, asthma etc in the industrial countries. Nevertheless this particular second Epidemiological transition isn't clearly seen outside the industrial countries. According to Barrett et al during the third Epidemiological transition period new communicable diseases as well as so called old and vanished communicable diseases were once again seen.

Tuberculosis is leading single infectious cause of female deaths in the world. Tuberculosis kills more women each year than all causes of maternal mortality combined, tuberculosis also deserves a place on the women's health agenda. Women in their productive ages have a higher risk of developing active tuberculosis than men of same age. It is estimated that the approximately six million women sick with tuberculosis at any given time, at least one third die because they are not diagnosed or received proper treatment. There are a number of reasons for this neglect, but money, time and transportation present the most significant barriers. Women often find it more difficult to access the health care services, because transport, time and cost are greater for women when viewed in light of their dual responsibilities at work and at home. In addition, some women have limited access to money, living in households where men control the purse strings and women are viewed as little more than property. Some women try to ignore their tuberculosis symptoms because they fear rejection or stigmatization from friends and family. Others simply lack basic information about disease and their bodies. (WHO, 1996)

Tuberculosis undermines economies in a number of ways. When breadwinners are too sick with tuberculosis and fail to work, they and their families become ruined. Additionally, family members most often have to take

care of the sick person. Therefore, family loses other income opportunities. In all of these ways, tuberculosis can reduce self-sustaining family to beggar or welfare recipients. A person who is sick with tuberculosis often stops earning money, which they would have spent and fed back into the economy (WHO. 1996).

The belief that tuberculosis was hereditary was dealt a near-lethal has blow by Robert Koch's discovery of the tubercle bacillus in 1882. "One has been accustomed until now to regard tuberculosis as the outcome of social misery" Koch wrote," and to hope by relief of distress to diminish the disease. but in the future struggle against this dreadful plague of the human race one will no longer have to contend with an indefinite some thing, but with an actual parasite."

Paradoxically, perhaps, but fortuitously, the idea of tuberculosis as " the outcome if social misery" was not undermined by the discovery of its etiology. In the latter part of the century, persistent poverty and rising inequality were increasingly believed to contribute to differential mortality.

2.5 Why TB is still a problem?

There are four main reasons. First, TB controls programmed have been poorly organized. Many patient starts treatment but never finish it. These people still have TB, and can continue to infect other people. Worse still, their strains of TB develop resistance to the drugs used to treat TB. Multi drug resistant is serious problem in poor TB control programmes.

The second reason for the rise in TB is the global HIV epidemic. HIV and TB go hand in hand. When HIV increases, so does TB. The reason is that HIV attacks the immune system. A person who has both HIV and TB infection has risk of developing TB of about 10% every year – compared with 10% per life time for someone infected with but not HIV. This means that countries where HIV is common have also seen a massive increase in the number of people with TB.

Thirdly, the number of cases continues to rise because populations are still growing. And even if we could break the chain of transmission right now, people would develop TB for many more years to come because they were

infected in the past. About half of the people who get active TB disease following infection do so within a couple of years, but there are some who develop the disease much later 10, 20, 30, even 50 years or more.

Finally, poverty, overcrowding and poor nutrition combine to create conditions that favour the spread of TB. People living in urban, slum, prisoners and refugees are particularly affected. But it's not just poor – anyone can get TB, and it's very common disease (http//.Diseases - T - American Lung Association site.htm).

2.6 Who gets TB?

Anyone can get TB. However, some groups are at higher risk to get active TB disease. The groups that are at high risk include:

- People with HIV infection (the AIDS virus)
- People in close contact with those known to be infectious with TB
- People with medical conditions that make the body less able to protect itself from disease (for example: diabetes, the dust disease silicosis, or people undergoing treatment with drugs that can suppress the immune system, such as long-term use of corticosteroids)
- Foreign-born people from countries with high TB rates
- People who work in or are residents of long-term care facilities (nursing homes, prisons, some hospitals)
- Health care workers and others such as prison guards
- People who are malnourished
- Alcoholics, IV drug users and people who are homeless

(http//.Diseases - T - American Lung Association site.htm)

2.7 How does TB disease develop?

There are two possible ways a person can become sick with TB disease: The first applies to a person who may have been infected with TB for

years and has been perfectly healthy. The time may come when this person suffers a change in health. The cause of this change may be due to a variety of reasons such as another disease like AIDS or diabetes, drug or alcohol abuse, lack of access to health care and homelessness. Whatever the cause may be, when the body's ability to protect itself is compromised, TB infection can become active TB disease. In this way, a person may become sick with TB disease months or even years after they first breathed in the TB germs.

The other way TB disease develops happens much more quickly. Sometimes when a person first breathes in the TB germs the body is unable to protect itself against the disease. The germs then develop into active TB disease within weeks. (http//.Diseases - T - American Lung Association site.htm)

CHAPTER THREE

RESEARCH METHOD

3.1 Research design

The objective of this proposed study is to explore about knowledge, attitude and practice of the tuberculosis in which the tuberculosis patients have participated for the study proposed. So the nature of the study such that it demands both exploratory as well as descriptive research design.

Yet, the main cause of the tuberculosis disease is clinical (Mycobacterium bacilli) but the social and cultural causes have been explored from this study. So in this study tuberculosis patients have been taken.

3.2 Study area

The study area of this study was conducted in DHO DOTS center, Kaski, where TB patients came to treat TB disease and patients were taking medicine under DOTS for that disease.

The DHO DOTS center, Kaski is situated at pokhara-12, Ramghat along with Regional Tuberculosis center Pokhara.

3.3 Census/ Universe

The universe of the study have been taken the patients of tuberculosis who were taking medicine daily from the DHO DOTS center, Kaski till the end of 16th July 2007 A.D. (Asadh 2064).

There were 101 TB patients who were new patients, taking medicine daily at DHO DOTS center, kaski. Among them, 93 patients were taken from the universe and has been used purposive sampling in this study. Five of the total patients had been admitted because of their serious condition and three had remained absent for almost two weeks. That’s why these eight people couldn’t be interviewed.

3.4 Nature and sources of data

As per requirement of the study both primary and secondary data was used in the study. Primary data was collected during field study with the help of interviews and secondary data was taken from documents and related literatures.

3.5 Primary data collection techniques

On the basis of the research objectives questions and types of the data required following techniques have been adapted to collect primary data.

a) Interview

Direct interview has been designed to collect information for the study. Direct interview has been implemented to get related information. This method has been applied for TB patients only. An interview schedule has been prepared which has consisted of structured questions.

b) Observation

Observation is one of the most used and appreciated techniques of primary and qualitative data. It gives data such as sign and symptoms, behaviors of patients, their physical and mental appearance, allopathic medical practices in the study area including other cultural practices relevant to tuberculosis disease. However I have done my field work with short duration (approximately two month) of time but I had observed tuberculosis patients for 3 years when I was working in the Western Regional Tuberculosis Hospital as a paramedical staff (since 2002-2005). During the period of field survey when I reached in TB hospital to interview with patients, they fell uncomfortable and some sufferers expected some economical assistance from me but I was unable to provide them any economical support expect mental support, When I told them my objectives of this research and also told them that my study might have positive consequence as for treatment in future. Aftermath they were positive to me and supported me and I succeeded to do this study and also collect some important and secondary data from them.

c) Pre-testing

To ensure that the tools where properly designed, they were pre-tested in the area with the no. sampled private hospital (M. T. H. Pokhara). After pre-testing necessary changes were made and interview schedule was finalized for administrator to tuberculosis patients.

3.6 Data presentation and analysis

Data, which were collected, has been analyzed both qualitatively as well as quantitatively. Computer Spss programme has been used to process and analyze the data. Likewise tabulation and graphic presentation has been also made to present data.

The non-quantifiable qualitative data has been managed manually and analyzed descriptively. Moreover, figures and diagrams have been used to present and analyze the data.

CHAPTER FOUR

DEMOGRAPHIC AND SOCIO-ECONOMIC BACKGROUND

The main objective of this chapter is to explore the Socio-Economic status of Tuberculosis patients. In this study age, sex, marital status, caste/ethnicity, educational status, occupation, income, family background etc of TB patients have been analyzed which has focused the relation between tuberculosis and Socio-Economic status. These socio-economic factors directly related to human health for example if man has low income he does not take balance food or nutrient food and does not have immunity power to fight disease and become ill. Therefore socio-economic status of patient is most important in the study.

4.1. Age and sex of Respondents

Tuberculosis is a communicable disease which can affect people from any age group or gender. The table below describes the age and gender composition of the respondent

Table No. 4.1: Respondents by Age group and Sex

Age of the respondents	Gender of the respondents		Total
	Men	Women	
16-20	18 (28.1%)	8 (27.6%)	26 (28.0%)
21-25	10 (15.6%)	8 (27.6%)	18 (19.4%)
26-30	5 (7.8%)	6 (20.7%)	11 (11.8%)
31-35	4 (6.3%)	1 (3.4%)	5 (5.4%)
36-40	5 (7.8%)	1 (*3.4%)	6 (6.5%)
41-45	2 (3.1%)	1 (3.4%)	3 (3.2%)
46-50	5 (7.8%)	2 (6.9%)	7 (7.5%)
51-55	6 (9.4%)	1 (3.4%)	7 (7.5%)
56-60	7	1	8

	(10.9%)	(3.4%)	(8.6%)
61-65	2 (3.1%)	0 (.0%)	2 (2.2%)
Total	**64 (100.0%)**	**29 (100.0%)**	**93 (100.0%)**

Figures in parenthesis are percentage based on gender

Source: Field survey 2007

The table 4.1.: shows the fact both male and female aged 16-65 ages have been affected by tuberculosis. But the majority of the affected group which is 28% was from 16-20 years age. The second highest 19.4% of the total patient were from 21-25 yrs old. The table also lists the least percent i.e. 2.2% of total patient who were suffering from TB and were from 61-65 yrs age. Similarly while comparing the ratio between male and female, the male patient percent exceeded the female percent. The male percent was 69.8% and the female percent was 31.18%.

The table explains majority people from age group 16 to 20 were found to be suffering from TB and similarly males were found to be suffering from TB than females since male are more exposed to the outer environment and more men found to have the habit of smoking and drinking when compared with women in Nepal. It does not mean TB is more likely to affect younger people but TB can affect any age, sex, cast etc.

4.2: Marital status of the Respondents

Marriage is one of the universal social institutions. It is established by human society to control and regulate the sex life in man. It is closely connected with the institution of family. Marriage is the institution of society which can have very different implications in different culture. Its purposes function and forms may differ from society to society, but it is present everywhere as an institution**.**

Table No. 4.2: Martial status of the Respondents

Marital status	Number	Percentage
Married	60	64.5
Unmarried	32	34.4
Widows	1	1.1
Total	**93**	**100.0**

Source: Field Survey 2007

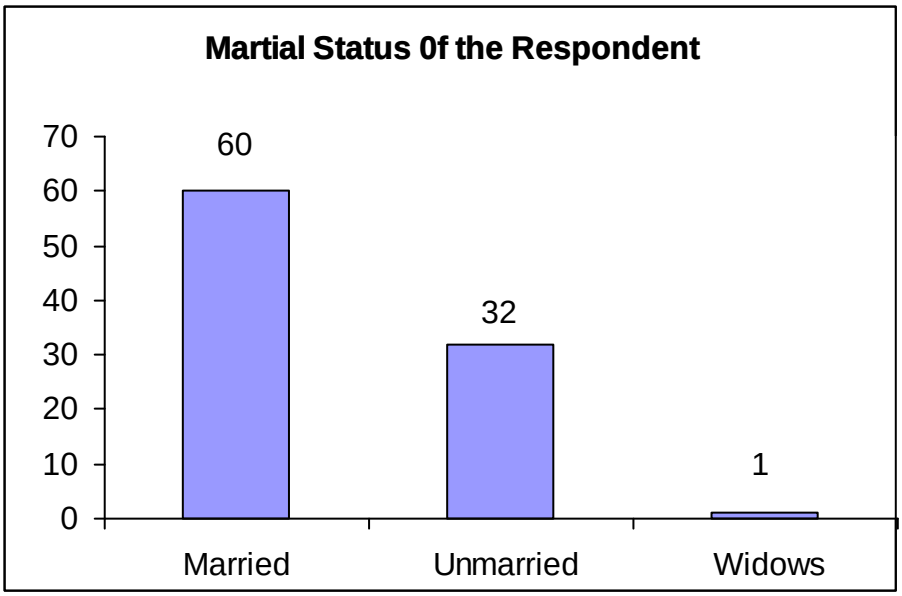

Figure no 4.1

The above presented table 4.2 shows the marital status of tuberculosis patients. In this table out of the total respondent 64.5% outstood as married 34.4% as unmarried and rest 1.1% as widow.

In this table, although more married people were found to be suffering from TB than unmarried people, TB is not more likely to affect particularly like married, unmarried. It can affect any marital status of human.

4.1.2 Cast / ethnicity of respondents

Caste is extreme form of social class organization in which the position of individuals in the status hierarchy is determined by descent and birth. Caste refers to a hierarchical system or social control with each sub group assigned with a ranked status depending on its origin and religion strictness. In Nepal

there are four castes based on Varna system (Brahmin, Chettri, ethnic group and Dalits). During field work various group of patients came for treatment.

Table No. 4.3: Caste/Ethnic composition

Caste/Ethnicity	**Gender of the respondents**		**Total**
	Men	**Women**	
Brahmin	10 (15.6%)	2 (6.9%)	12 (12.9%)
Chhetri	13 (20.3%)	8 (27.6%)	21 (22.6%)
Ethnic group	32 (50.0%)	15 (51.7%)	47 (50.5%)
Dalits	6 (9.4%)	3 (10.3%)	9 (9.7%)
Other(Miya,chaudhari etc)	3 (4.7%)	1 (3.4%)	4 (4.3%)
Total	**64 (100.0%)**	**29 (100.0%)**	**93 (100.0%)**

Figures in parenthesis are percentage based on gender

Source: Field survey 2007

The data shows that most of the cast/ethnic groups were found to be suffering from TB. The table 4.3 shows that the highest 50.5% of the TB patient were from Ethnic group. The second highest 22.6% were from chhetri. Similarly 12.9%, 9.7% and 4.3% of the total TB patient were from Brahmin, Dalits and other group of cast/ethnicity respectively.

In this study, not only one particular caste is found to be suffering from TB. Among the different caste/ethnicity, the majority of TB patients were from ethnic group.

4.4: Religion composition of the Respondents

The religion is the macro institution of society. It is the belief of spiritual being. It holds or runs the whole society and teaches us what to do or what not to do in the society. Religion is the major concern of men. It is one of the earliest and deepest interests of human beings. Religion is universal, permanent, pervasive and perennial interests of man. (Rao, 2002)

Table No. 4.4: Religion composition

Religion	Number	Percentage
Hindu	61	65.6
Buddha	28	30.1
Christian	4	4.3
Total	**93**	**100.0**

Source: Field Survey 2007

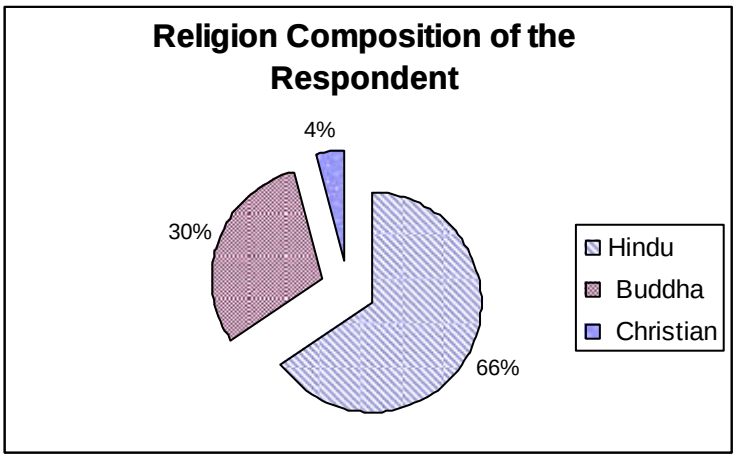

Figure no 5.1

Source: Field Survey 2007

The table 4.4 also shows that 65.6% were Hindus, which is the highest percent of total respondent. In the same way 30.1% and 4.3% were Buddhist and Christians respectively. This data also indicates that the higher percent of people suffering from TB are Hindus. This is also due to large number of Hindus group in the study area.

4.5: Educational status of respondents

Education is a pre-requisite for the development of human. It is vitally important for overall development of society. It is the one of the basic activities of people in all human societies. Education as a social institution has a great social importance especially in the modern, complex industrialized societies. It is one of the most important factors for human health. In this connection, relationship between education and TB has been examined.

Table No. 4.5: Educational Status of Respondents

Educational Status	Gender of the respondents		Total
	Men	**Women**	
Illiterate	8 12.5%	3 10.3%	11 11.8%
Literate	4 6.3%	2 6.9%	6 6.5%
Primary level	12 18.8%	5 17.2%	17 18.3%
Lower secondary level	5 7.8%	6 20.7%	11 11.8%
Secondary level	14 21.9%	6 20.7%	20 21.5%
Higher level	21 32.8%	7 24.1%	28 30.1%
Total	**64 100.0%**	**29 100.0%**	**93 100.0%**

Figures in parenthesis are percentage based on gender

Source: Field survey 2007

The table 4.5, the highest 30.1% of the total TB patient had completed higher level of education. The second highest 21.5% had completed secondary level of education. In the same way 18.3% and 11.8% of the total respondent had completed primary and lower secondary level of education respectively. Similarly 11.8% and 6.5% of the total TB patient were illiterate and literate respectively.

This data indicates that higher percent of people who had completed higher level of education were found to be suffering from TB because they were found to be well aware of their health and they came for check up as soon as they thought that it was high time for them to approach a medical institution. The data also shows that education is not just a factor to be healthy although it provides knowledge and plays vital role for human health. Education is not only one factor, there are also various factor plays vital role to be healthy.

4.6 Occupation of the respondents

Occupation is used mostly to refer to specialized and established kind of work. It refers to some kind of work with which an individual becomes

completely engaged. It denotes the habitual employment, profession, craft or trade of an individual. It takes up much of his time and attention. In modern connotations it means an intrument of livelihood. It is usually associated with one or the other kind of organization; agriculture, industry, governmental organization etc**.** (Rao, 2002)

Nepal is an agricultural country. More than 75% of the total population of Nepal has been embracing this particular occupation as their only and solely main source of income. With the change of time Nepalese people have started preferring other occupation rather than agriculture only.

Table No 4.6: Occupation of the Respondents

Occupation	**Number**	**Percentage**
Agriculture	18	19.4
Service	20	21.5
Housewife	11	11.8
Trade/Business	7	7.5
Students	22	23.7
Others(Dakarmi,Tailor, Driver etc)	15	16.1
Total	**93**	**100.0**

Source: Field Survey 2007

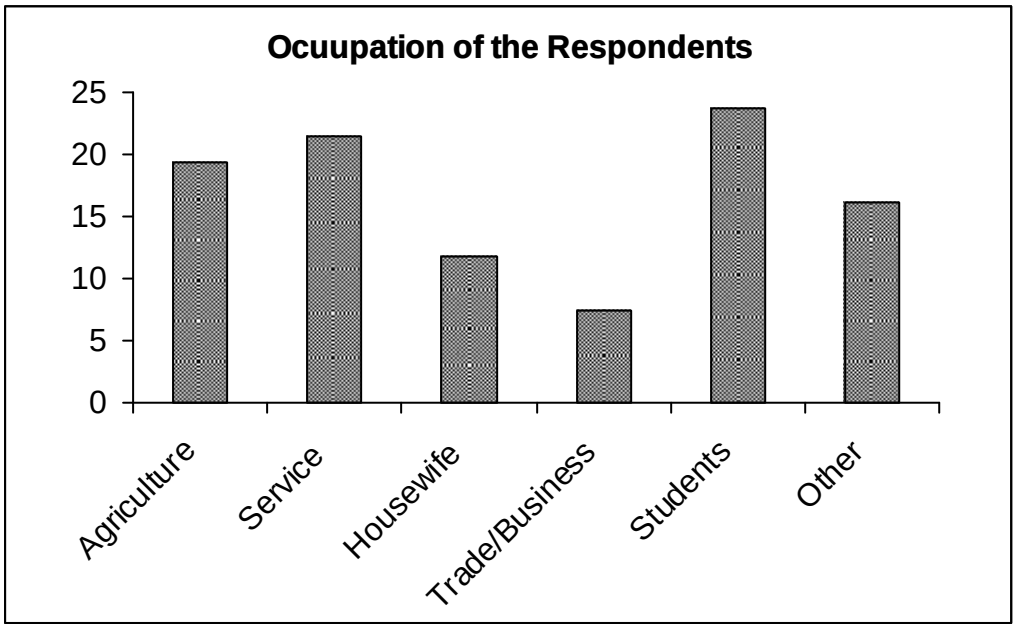

Figure no 6.1

The table 4.6 has shown that the highest 23.7% of the total respondent were students, 21.5% were in service and 19.4% were in

agriculture which is the second and third highest percent respectively. In the same way 16.1%, 11.8% and 7.8% were in other occupation, were housewives and business person respectively.

This data depicts that the majority of students and service men were found to be suffering from TB that means they were more exposed to different environment and crowds than other working groups like agriculture, housewife etc. it also shows that 19.4% farmers have suffered from TB since they were poor and poverty and TB are deeply interrelated. This table also indicates student and job holder more aware than poor farmer about TB.

4.7 Annual income of Respondent

Man is not only a social animal; he is also economic being. He is incessantly engaged in what are known as economic pursuits or activities. This economic activity is so multifaceted, varied and complex that they constitute what is known as economy. (Rao, 2002)

The annual income of the total respondents aged between 16-65 yrs was known after calculating their monthly income but few of the respondent's annual income was known after calculating working days in average.

Table No 4.7: Annual income of Respondents

Income	**Number**	**Percentage**
Less than 25000	12	12.9
25000-50000	11	11.8
More than 50000	21	22.6
Earn nothing	48	51.6
Don't know	1	1.1
Total	**93**	**100.0**

Source: Field Survey 2007

The table 4.7 shows that the most 51.6% of the total respondents earned nothing. In the same way 22.6%, 12.9% and 11.8% of the total respondents earned more than 50,000, less than 25,000 and 25,000-50,000 respectively. This means that almost the respondents are poor. Because of poverty they cannot afford dietary food. As result their immunity is weak so they easily get attacked by disease. TB which is an opportunistic disease that generally affects people with weak immunity. That's why we can say that TB and poverty are deeply interrelated.

4.8: Land Ownership of Respondents (his/her family)

According to the table most of the respondents have their own land. The presented table 4.1.9 shows the distribution of land of the total respondents. The majority 93.5% of the total respondents have own land whereas 6.5% of the total respondents don't have their own land.

Table No 4.8: Ownership of land of Respondents

Ownership of Land	Number	Percentage
Yes	87	93.5
No	6	6.5
Total	**93**	**100.0**

Source: Field Survey 2007

4.9 Family

Family is one of the fundamental units of every society. It is one of the most important institutions of the society which defines individual's roles, positions and authorities. It is the micro institution of the society. It is the group defined by sex, relationship sufficiently precise and enduring to provide for procreation and up bringing of the children. It is also known as biological social unit composed of husband, wife and children.

Table No 4.9: Family size of Respondents

Family member	Number	Percentage
1-2	6	6.45
3-4	37	39.78
5-6	44	47.31
7-9	6	6.45
Total	**93**	**100.0**

Source: Field Survey 2007

Above presented table 4.9 shows the highest 47.31 of the total respondents have five to six members in their family. Similarly the second highest 39.78 of the total respondents have three to four members in their family. In the same way the rest 6.45 and 6.45 of total respondent have one to two and seven to nine members in their family respectively. The table shows size of family does not have direct association to TB.

4.10 Annual income of Respondent's family

Economy plays a vital role in different aspects of a human. For example Education, health, success etc. That means every person's status of health directly depends on his/her family members' sources of income.

Table No 4.1.9: Annual income of Respondent's family

Income	Number	Percentage
Less than 25000	13	14.0
25000-50000	13	14.0
More than 50000	35	37.6
Don't know	32	34.4
Total	**93**	**100.0**

Source: Field Survey 2007

The table 4.10: shows the majority 37.6% of the respondents' family's annual income is more than 50,000. The next highest 34.4% of the total respondents don't know their family's annual income. Similarly the rest 14% and 14% of the total respondents' family's annual income is less than 25,000 and from 25,000 to 50,000 respectively. It can be said that virtually all of the respondent's family income was lower through there are some variation among them. It indicates poverty has some association with TB.

CHAPTER FIVE

KNOWLEDGE AND ATTITUDE ON TB

This chapter has focused on the exploration of Knowledge/Attitude on TB of Tuberculosis patients. The knowledge/Attitude is tested on different aspects i.e. knowledge on TB before suffering from TB, cause of TB, Sign and symptoms, ways of transmission, prevention, method of treatment, duration of medication, vulnerability, stigma/discrimination of TB. If the patients have knowledge on TB, it helps to prevent and control to spread Tuberculosis; It helps to treat in early phase of disease; to control failure of treatment; to control chance of relapse; to avoid the negative attitude towards TB like; TB is not curable, TB is fatal disease etc.

5.1. Knowledge on TB before suffering from TB.

The table shows the whether the patients had any idea about TB or not before they knew they had TB.

Table No. 5.1.: Knowledge on TB before suffering from TB

Knowledge	Number	Percentage
Yes	77	82.8
No	16	17.2
Total	**93**	**100.0**

Source: Field Survey 2007

According to the table 5.1., 82.8% had some idea about TB whereas 17.2% of the total respondents had no idea about TB.

This data indicate that the majority of patients were more or less conceptual or aware about TB. But other doesn't have any knowledge on it.

5.2 Local name of TB

The title states the different name in the different local areas by which TB is recognized. It also states what people give local name themselves or how do people recognize about any kind of disease traditionally or in modern

name. So, it helps to make easy to know sign\symptoms, to diagnose and to treat the disease.

Table No. 5.2: Local name of TB

Name	Number	Percentage
Khapate	7	7.5
Sukenas	1	1.1
TB	72	77.4
Don't know	13	14.0
Total	93	100.0

Source: Field Survey 2007

According to the table 5.2, 77.4% of the total respondents call TB as TB. Similarly 14% of total respondents didn't know what TB is called whereas 7.5% and 1.1% of total respondents call TB as Khapate and Sukenas. The data indicates that almost people recognize Tuberculosis as TB in modern name.

5.3 Cause of TB

Every disease is mostly caused either by bacteria, virus or fungi. So, TB is also caused by bacteria called mycobacterium bacilli/mycobacterium tuberculosis. These organisms are known as tubercle bacilli or acid fast bacilli. Patients who are talking medicine of TB should know the cause of TB to aware the ordinary people who help prevent and control the tuberculosis disease. (NTC, 1998)

Table No 5.3: Causes of TB

Cause	Number	Percentage
Bacteria	8	8.6
Drinking and Smoking	43	46.2
Don't know	41	44.1
Others(water,dust,Stool)	7	7.5

Percentage based on multiple responses of 93 cases

Source: Field Survey 2007

According to the table 5.3, the highest 46.2% of the total respondents argued that alcohol/cigarettes are the causes behind TB whereas 8.6% believed that bacteria are the main cause behind TB. Similarly 44.1% and 7.5% of the total respondents didn't know the reasons behind TB and gave other answers.

This data indicates that majority of the patients thought habit of smoking and drinking are the main causes of TB which shows that the people still does not know what the real cause of TB is.

5.4 Signs and symptoms of TB

When a person suffers from TB the following signs/symptoms appear in him/her like cough, chest pain, fever, weight loss etc. It is essential to have knowledge of the patient about the sign and symptoms of TB because at least they give proper information to the ordinary people, which help to aware about TB and emphasis to prevent and control of the TB.

Table No 5.4: Signs/symptoms of TB

Signs/symptoms	Frequency of cases	Percent
Coughing	80	86.0
Loss of appetite	47	50.5
Fever	68	73.1
Weight loss	52	55.9
Chest pain	40	43.0
Don't know	6	6.5
Others(Headache,vomiting,heamotysis,etc)	45	48.4

Percentage based on multiple responses of 93 cases

Source: Field Survey 2007

According to the table 5.4, the highest 86% of the total respondents told cough is the signs/symptom of TB. The next 73.1% of the total respondents told fever is the sign/symptom of TB. Similarly 55.9%, 50.5% and 43% told weight loss, loss of appetite and chest pain are the signs/symptoms. The next 48.4% of the total respondents told other signs/symptoms while 6.5% answered didn't know. The data indicates that almost all the respondents have knowledge of sign and symptoms of TB.

5.5 Transmission of TB

TB is a communicable disease. It gets transmitted through respiration (by droplets while sneezing and coughing).The source of infection is person which TB of the lung is coughing. (NTC, 1998).

Table No 5.5: Reason behind transmission of TB

Reason	Number	Percentage
Eating rice together	7	7.5
TB patient coughing	38	40.9
Hand shake	6	6.5
Don't know	38	40.9
Others(tong kiss, sexual intercourse etc)	12.9	12.9

Percentage based on multiple responses of 93 cases

Source: Field Survey 2007

Table 5.5 shows, 40.9% of the total respondents believed that TB transmits when TB patient coughs. The next 40.9% of total respondents didn't know how TB gets transmitted. The next 7.5% and 6.5% of the total respondents believed that TB transmits by eating rice together and shaking hands respectively. The rest 12.9% gave other reasons as to how TB gets transmitted. The data indicates that the majority of respondent didn't know how TB gets transmitted.

5.6 Diagnosis of TB

It is very necessary to find out which organ of our body is affected by TB for the complete diagnosis of TB. There are two types of TB. They are pulmonary and extra-pulmonary TB. For the diagnosis of the pulmonary TB sputum must be checked and chest x-ray is optional because if a bacterium of TB is not seen in the sputum, chest x-ray could be another better way of diagnosis. In the other hand for the diagnosis of extra pulmonary TB that part/organ which is affected by TB must be properly examined by using different technologies. Sputum checking is also highly recommended in case of extra pulmonary TB. (NTC, 1998)

Table No 5.6: Diagnostic methods of TB

Methods	Frequency of cases	Percent
Blood test	14	15.1
Cough test	91	97.8
X-ray	78	83.9
Don't know	2	2.2
Others(stool test, urine test etc)	11	11.8

Percentage based on multiple responses of 93 cases

Source: Field Survey 2007

In the table 5.6 virtually all (97.8%) respondents answered sputum checking for the diagnosis of TB. The next 83.9% and 15.1% of the total respondents answered chest x-ray and blood examination for the diagnosis of TB. In the same way 11.8% gave other answers whereas 2.2% didn't know how TB is diagnosed.

This data indicate that the majority of respondent reported that sputum test and chest X-ray were main two diagnostic methods of TB, which shows that people knows that how to examine and find TB.

5.7 Curability of TB

TB is curable. Patient must be taken medicine for eight month to cure tuberculosis. Due to lack of knowledge and awareness many people don't know TB is curable or not.

Table No. 5.1.6: Curability of TB

Curability	Number	Percentage
Yes	93	100.0

Source: Field Survey 2007

According to the table 5.7, all (100%) respondents thought that TB is curable.

5.8 Methods of treatment

This table lists the different answers when TB patients were asked how TB is cured. There are various types of methods of treatment present in our society. This study has to help to know whether the respondent think either tradition healing, herbal healing or allopathic medication to cure TB.

Table No. 5.8: Methods of Treatment

Types of treatment	Number	Percentage
Traditional healer.	5	5.4
Herbal medicines	1	1.1
Allopathic Medicines	87	93.5
Total	**93**	**100.0**

Source: Field Survey 2007

According to the above table 5.8, 93.5% of the total respondents believed that TB can be cured by taking allopathic medicine whereas 5.4%

and 1.1% of total respondents argued that TB is cured by approaching traditional healer and taking herbal medicine respectively. The latter part of the result is consistent with these findings in which 5.4% and 1.1% of total respondents didn't feel that they were getting recovered in spite of taking medicine under DOTS.

5.9 Duration for medication of TB

It is compulsory to take medicine for eight whole months if a person suffers from TB: If TB is pulmonary, but if the TB is extra-pulmonary, then a patient has to take medicine for at least eight months or more if the doctor prescribes because extra-pulmonary TB can be cured even after eight months of medication.

Table No. 5.9: Duration for medication of TB

Time	Number	Percentage
Eight months	91	97.8
Don't know	1	1.1
Other(more than 8 month	1	1.1
Total	**93**	**100.0**

Source: Field Survey 2007

According to above table 5.9, 97.8% of total respondents knew that the medicine has to be taken for whole eight months whereas 1.1% and 1.1% of the total respondents didn't know and gave other answers respectively. This data indicates almost patients are aware about the duration of medication of TB disease.

5.10 Prevention of TB

From the public health point of view, the best way to prevent is to provide effective treatment to the infectious TB cases. TB a patient must be treated as soon as TB is diagnosed because with start of medication, the bacteria of TB starts getting destroyed/deactivated within two months. The other means of prevention are BCG immunization, covering mouth with hanky/mask, while coughing/ sneezing, disposing sputum/sneezing properly etc.

Table No 5.10: Preventions of TB

Ways of prevention	Frequency of cases	Percent
Care when coughing s	35	37.6
Treatment of TB patients fast	1	1.1
Don't know	55	59.1
Others	13	14.0

*Percentage based on multiple responses of 93 cases

Source: Field Survey 2007

According to the table 5.10 59.1% of the respondents didn't know how to prevent TB whereas 37.6% of the TB patients told making the TB patients cover their mouth while coughing/ sneezing. The next 14% gave other ways to prevent TB and 1.1% of the total respondents believed early diagnosis and early treatment of TB are the way to prevent TB.

5.11 Information to the family about sickness (TB)

In the context of our society TB has generally been accepted as a fatal disease since ancient time because of lack of knowledge/awareness about diseases. Person who is affected by TB, he is hated by his/her family, peer, society also. People have negative attitude toward the TB affected person, they don't like to near of TB patient and isolated from the family and society.

Table No. 5.11: Information to the family about TB

Information	Number	Percentage
Yes	91	97.8
No	2	2.2
Total	93	100.0

Source: Field Survey 2007

According to the table 5.11, 97.8% of the respondents had informed their family about their illness but 2.2% of total respondents had remained silent about their illness. It indicates TB has been accepted as normal diseases and stigmatization toward patient is almost absent in the study area.

5.12 Reason behind not informing family about sickness (TB)

2.2% respondent who said that they did not inform their families, they explained, they thought that their family would become tensed and worried which is shown in the below table

Table No 5.12: Reason behind not informing about TB to the family

Reason	Number	Percentage
Not Applicable	91	97.84%
Family will become sad/tension	2	2.16%
Total	93	100%

Source: Field Survey 2007

5.13 Information to friends/neighbors about sickness (TB)

TB is locally termed as Khapate, Sukenas etc. in our different part of different communities. As TB is considered as a fatal disease, TB patients tend to conceal their state of health because humiliation, hatred and discrimination towards TB patients are still in practice in some parts of our community.

Table No. 5.13: Information to friends/neighbors about TB

Information	Number	Percentage
Yes	90	96.8
No	3	3.2
Total	**93**	**100.0**

Source: Field Survey 2007

According to table 5.13, the majority of the respondents which is 96.8% had informed their friends/neighbors whereas 3.2% of the total respondents hadn't informed their friends/ neighbors of their state of health. These days, TB is not considered fatal disease since modern allopathic medicine are sufficient enough to cure TB, Even in Nepal recent reports have been shown that more than 85% of TB patients have been cured and people more or less aware that TB is communicable as well as curable too. Because of this more and more people share their status of health with their friends/neighbors.

5.14 Reason behind not informing friends/neighbors about sickness

Respondents who said that they did not inform their neighbors/friends, 66.7% explained that they didn't inform because they thought it was not necessary while another one reported s/he didn't because of fear.

Table No. 5.14: Reason behind not informing to friends/neighbors

Reason	Number	Percentage
It is not necessary	2	66.7
Other(fear of relation breaking)	1	33.3
Total	**3**	**100.0**

Source: Field Survey 2007

5.15 Risk of infection

TB is a communicable disease. Anyone can suffer from TB because TB bacteria (Mycobacterium bacilli) is found everywhere in air. An individual's risk of infection depends on exposure to droplet nuclei and susceptibility to infection. The risk of infection of a susceptible individual is therefore high with close, prolonged, indoor exposure to a person with TB.

Table No. 5.15: Risk of infection

Chance of risk	Number	Percentage
Yes	58	62.4
No	10	10.8
Don't know	25	26.9
Total	93	100.0

Source: Field Survey 2007

According to the table 62.4% of total respondents believed that anyone can suffer from TB whereas 10.8% of total respondents didn't believe that anyone can suffer from TB. But 26.9% of the total respondents didn't know whether anyone can suffer from TB or not.

This data indicates that majority of the patients believed people from any race; age; group, sex; class; religion and region can get TB.

5.16 Reason of risk of infection

When questioned the above mentioned 10.8% of the respondents who suffers from TB, the following result was obtained.

Table No. 5.16: Reason of risk of infection

Reason	Number	Percentage
Habit of drinking and smoking	7	70.0
Frequent contact with patients	1	10.0
Other	2	20.0
Total	**10**	**100.0**

Source: Field Survey 2007

According to the table, 70% out of 10 respondents believed that TB occurs in those people who smoke and drink. The next 20% and 10% of the respondents gave other reasons and believed that TB occurs in those people who come in contact of TB patients frequently respectively.

CHAPTER SIX

CARE SEEKING PRACTICE

This chapter has explored the different aspects of care seeking Practice like sign and symptoms, first place of treatment, time period of illness, duration taken for first treatment, place of first treatment, reason behind approaching and not approaching TB hospital etc of the TB patients during very initial phase of their sickness.

6.1. Time Period of illness

When a person become sick, he doesn't go for medication, if he goes, he doesn't go to an appropriate place, he doesn't go in time because of various reason: like socio-economic problem, lack of knowledge, transportation etc

The following table 6.1.1 shows how long the patient had been sick until the day of interview.

Table 6.1.: Time period of illness (in month)

Period(in month)	Number	Percentage
1-3	27	29.0
4-6	38	40.9
7-9	19	20.4
10-12	9	9.7
Total	**93**	**100.0**

Source: Field Survey 2007

In this table the highest 40.9% had been sick from 4-6 months. Similarly the second highest 29%, the third 20.4% and 9.7% of the total respondents had been sick from 1-3 months, 7-9 and 10-12 months respectively.

This data indicates that people don't go for medication in time and even if they go, they don't go to an appropriate place in the appropriate time because of various reasons like their social, economic condition etc which I found during my field work after asking the reason behind coming late for treatment.

6.2: Signs and symptoms of illness

When people get sick, signs and symptoms appear. There are various signs and symptoms of various diseases like fever, headache, cough, vomiting etc. In the case of tuberculosis fever, loss of weight, loss of appetite and chest-pain etc are the signs and symptoms.

Table No 6.2: Signs and Symptoms

Signs and symptoms	Frequency of cases	Percent
Coughing	80	86.0*
Fever	69	74.2
Chest pain	49	52.7
Weight loss	43	46.2
Blood in cough	19	20.4
Others(headache,bodyache,vomiting, etc)	*39*	41.9

*Percentage based on multiple responses of 93 cases

Source: Field Survey 2007

According to the table 6.2, 86% of total respondents reported that cough was their signs/symptoms. In the same way 74.2% of the total respondents reported that fever was their signs/symptoms. Similarly, 52.7%, 46.2%, 41.9% and 20.4% of the total respondents reported that chest pain, weight loss, other signs/symptoms and blood in cough were their signs/symptoms respectively.

According to this data cough and fever are the most common signs and symptoms seen on the patients which are the main signs and symptoms of tuberculosis.

6.3 Duration taken for first treatment

This study shows that the duration taken by the respondent to approach place of treatment when they found and felt that they had fallen sick.

Table 6.3: Duration taken for first treatment (in days)

Duration	Number	Percentage
1-10	43	46.2
11-20	25	26.9
21-30	14	15.1
31-90	7	7.5

91-240	4	4.3
Total	**93**	**100.0**

Source: Field Survey 2007

The table 6.3 explains that 46.2% of the total respondents went for treatment within 10 days of their sickness which is the highest percent of the respondents. Similarly the second highest 26.9% of the total respondents visited for treatment from 11th to 20th day of their sickness. In the same way 15.1%, 7.5% and 4.3% of respondents visited for treatment from 21st to 30th, 31st – 90th and 91st-240th day of their sickness respectively.

So majority of people went for the first treatment within the first 20 days which indicates that most of these people are seeking care earliest the possible.

6.4 Place of first treatment

In examining care seeking practice, it is also important to know the, the very first place for the treatment visited by the tuberculosis patients after they felt that they have been sick.

Table No 6.4: Place of first treatment

Place of treatment	Number	Percentage
Traditional healer	3	3.2
Health post/ health worker	2	2.2
Private clinic	32	34.4
Hospital/Nursing home	39	41.9
Herbal/ayurbedic clinic/hospital	1	1.1
TB hospital	16	17.2
Total	**93**	**100.0**

Source: Field Survey 2007

This table 6.4 showed the highest 41.9% of the respondents visited hospital/nursing home. Similarly the second highest 34.4% of the total respondents visited private clinic. In the same way 17.2%, 3.2%, 2.2% and 1.1% of the total respondents visited TB hospital, traditional healer, health post/ health worker and Ayurbedic clinic/ hospital respectively.

This data shows the majority of patients approaching to Nursing homes/hospitals and private clinics as their first place of treatment which indicates that people have started to trust allopathic medicines.

6.5 Advisor for first place of treatment except TB hospital

This table shows whether the TB patients go for treatment by themselves or are advised by somebody else.

Table No 6.5: Advisor for first place of treatment

Advisor	Number	Percentage
Own self	50	64.9
Neighbors	3	3.9
Friends	3	3.9
Relatives	17	22.1
Others(Teacher, Health worker)	4	5.2
Total	77	100.0

Source: Field Survey 2007

In this table, 64.9% the highest percent of the total respondent went for treatment by themselves. In the same way 22.1% the second highest were advised by their relatives to go for treatment. Similarly 5.2%, 3.9% and 3.9% of the total respondents were advised by others, neighbors and friends respectively.

This data indicates that most of patients went for first place of treatment on their own or not advised by anyone to go there.

6.6 Status of recovery at first place of treatment except TB hospital

It is important to know whether the patients were getting well or not after they had approached their very first place for treatment.

Table No. 6.6: Status of recovery at first place of treatment

Recovery status	Number	Percentage
Yes	22	28.6
No	55	71.4
Total	**77**	**100.0**

Source: Field Survey 2007

According to this table 6.6, 28.6% of the respondents had felt that they had recovered whereas 71.4% of the respondents felt that they hadn't recovered. Among 71.4%, some patients used herbal medicine, some were treated by traditional healers and although some patient treated in private clinic/nursing home and health post would be wrong diagnosis, which are the possible causes of not recovery.

6.7 Reason behind approaching TB hospital

A person goes to different places of treatment after he/she gets sick for treatment. Some of the TB patients directly came to the TB hospital for treatment whereas the rest of the respondents came to the TB hospital at last after visiting different other health institutions in spite of their process of recovery. They are led by different factors as indicated by the table below.

Table No 6.7: Reason behind approaching TB hospital

Reason	Frequency of cases	Percent
Get free medicines	19	86.4*
Regular checkup	11	50.0
Proper advice	4	18.2
Others(Short distance, Don't know)	3	13.6

Percentage based on multiple responses of 22 cases

Source: Field Survey 2007

According to the table 6.7, 86.4% of the respondents came to the TB hospital to get free medicines. The next 50% of the respondents came to the TB hospital for proper and regular check up whereas the next 18.2% and 13.6% of the respondents came for proper advice and for other reasons even though they already were in the process of recovery.

The data indicates that majority of the respondent went to TB hospital to get free medicine. It also indicates their economic status.

6.8 Reason behind not approaching TB hospital initially

It is also import to know why people don't go to the TB hospital for treatment in the very beginning. There are various reasons like socio-economic, education, transportation, religion which affects to stop to go TB hospital.

Table No. 6.8: Reason behind not approaching TB hospital initially.

Reasons	Number	Percentage
I don't know about this hospital	33	42.9
I don't doubt	43	55.8
Other(Far distance)	1	1.3
Total	**77**	**100.0**

Source: Field Survey 2007

According to the table 6.8, 55.8% of the respondents didn't doubt that they had TB. Similarly 42.9% of the respondents were found to have no idea about this TB hospital and 1.3% of the respondents gave other reasons.

The data indicates that the majority of the respondent didn't doubt that they had TB because the very initial sign and symptoms didn't make them realize that they were suffering from TB. Similarly some respondent didn't know about TB hospital because the people are not generally aware about the presence of TB hospital and they approach the other places in case of sickness.

6.9 Advisor to recommend TB hospital

This table illustrates the different types/sources of people who suggested them to approach TB hospital.

Table No. 6.9: Advisor to recommend TB hospital

Advisor	**Number**	**Percentage**
Own self	10	10.8
Relatives	10	10.8
Neighbors	8	8.6
Health worker	10	10.8
Hospital/Nursing home	43	46.2
Other(Teacher, Pujari)	12	12.9
Total	**93**	**100.0**

Source: Field Survey 2007

According to the table 6.9, the majority 46.2% of the respondents were advised by hospitals/nursing homes. Similarly the next 12.9% of the respondents were advised by other sources. In the same way 10.8% and 10.8% of the respondents were advised by their relatives and health workers respectively. The other 10.8% of the respondents came by themselves whereas 8.6% were advised by their neighbor

CHAPTER SEVEN

PERSONAL CARE PRACTICE OF TB PATIENT

The target of this chapter is to clarify the different ways/behavior of TB patients as how to use medicine and how to take precaution, the habit of drinking and smoking, timely checking of sputum, involvement in difficult task, consumption of dietary food etc by the TB patients during the time of medication. In this period if patient doesn't use medicine regularly, it results the failure of treatment, relapse and patient may die. So he must be taken medicine regularly, if the patient doesn't aware while coughing and sneezing, it creates chance of transmission of TB, if the patient don't quit the habit of drinking and smoking, it is very less chance to recovery. Similarly patient has to check sputum timely to know whether recovering or not. Patient should not do hard work during the medication because patient become weak and feel tired while he is sick and he has also to take medicine for very long time.

7.1. Regular use of medicine

TB is one of that disease for which medicine must be taken daily for eight months under DOTS. If medicine is not taken regularly it results the failure of treatment, relapse and patient may die.

Table No 7.1.: Regular use of medicine

Regular use	Number	Percentage
Yes	93	100.0

Source: Field Survey 2007

According to the table 7.1, 100% of the total respondents were found to be taking medicine daily till the day of interview.

This data indicates that every patient knows TB won't be recovered if medicine is not taken regularly for whole eight months under DOTS.

7.2 Precautions during sneezing/ coughing

TB is a communicable disease. It easily gets transmitted from one person to another through respiration. So patient needs to be aware all time while coughing and sneezing. That's why they must adopt precautions either by covering their mouths with hanky/wearing mask or in any other way. This creates a least chance of communication/transmission of TB.

Table No. 7.2: Precautions during sneezing/coughing

Precautions	Number	Percentage
Yes	78	83.9
No	15	16.1
Total	**93**	**100.0**

Source: Field Survey 2007

According to the table 7.2 83.9% of total respondents were found to be adopting means of precautions while rest of 16.1% were not found to be adopting means of precautions.

This data shows that majority of the patients knew that TB is communicable and gets communicated through respiration when a patient coughs or sneezes so they adopted precaution during sneezing and coughing.

7.3 Ways of precautions while coughing/sneezing

There are various types of ways of precaution while coughing and sneezing like hanky, mask etc which patient should adopt.

Table No. 7.3: Ways of precautions

Ways	Number	Percentage
Using hand only	2	2.5
Using both hanky /rumal and mask	31	39.74.
Using mask only	6	7.69
Using hanky /rumal only	39	50
Total	**78**	**100.0**

Source: Field Survey 2007

According to the table 7.3, 50% of the total precautions adopting respondents were found to be using hanky, 39.74% of the precautions adopting respondents were found to be using both hanky and mask. And

7.69% and 2.5% of the precautions adopting respondents were found to be using only mask and only hands respectively.

7.4 Reason behind not taking precautions while coughing and sneezing

Table No. 7.4: Reason behind not taking Precautions

Reasons	Number	Percentage
I have not hanky	1	6.66.
No coughing	12	80
Other(covering mouth by hand)	2	13.33
Total	**15**	**100.0**

Source: Field Survey 2007

According to the table 7.4, 80% of the total non precautions adopting respondents told that they had no cough whereas 13.33% and 6.6% of total non precautions adopting respondents didn't give any answer and didn't had hanky respectively.

7.5 Habit of drinking alcohol

TB is always caused by bacteria but not because of smoking and drinking. In fact smoking and drinking deficient the immunity power of human which helps the diseases to easily attack. That's why smoking and drinking is always injurious to health whether the doer is always sick or not.

Table No. 7.5: Habit of drinking

Habit	Number	Percentage
Never drink	54	58.1
Drink before but not now	38	40.9
Always drink	1	1.1
Total	**93**	**100.0**

Source: Field Survey 2007

According to the table 7.5, 58.1% of the total respondents told that they had never drunk. The next 40.9% and 1.1% of the total respondents told that they used to drink but not now and they always drank respectively till the day of interview. The data indicates that majority of respondents didn't use alcohol.

7.6 Habit of smoking

Table No. 7.6: Habit of smoking

Habit	Number	Percentage
Never smoke	54	58.1
Smoke sometimes	2	2.2
smoke before but not now	37	39.8
Total	**93**	**100.0**

Source: Field Survey 2007

The table 7.6, 58.1% of the total respondents told that they had never smoked. The next 39.8% and 2.2% of the total respondents told that they used to smoke but had quit and smoked sometimes respectively.

These above data shows that smoking and drinking are not directly associated with tuberculosis.

7.7 Timely checking of sputum

After a TB patient starts taking medicine daily under DOTS, he has to check his sputum in 2 months, 5 months and at the end 8 months with the beginning of medication under DOTS. This helps to know whether the patient is recovering or not.

Table No. 7.7: Timely sputum check-up

Status	Number	Percentage
Yes	93	100.0

Source: Field survey 2007

The table 7.7, depicts that all (100%) of the respondents were found to be checking their sputum regularly.

7.8 Involvement in difficult task after medication

People mostly are weak and feel tired while they are sick. That's why they actually need proper rest and shouldn't work hard.

In case of TB patients, they feel comparatively more tired and sick as they have to take medicine for a very long time. Hence TB patients need appropriate rest and shouldn't do any difficult task.

Table No. 7.8: Involvement in difficult task

Involvement	Number	Percentage
Yes	**18**	**19.4**
No	**75**	**80.6**
Total	**93**	**100.0**

Source: Field Survey 2007

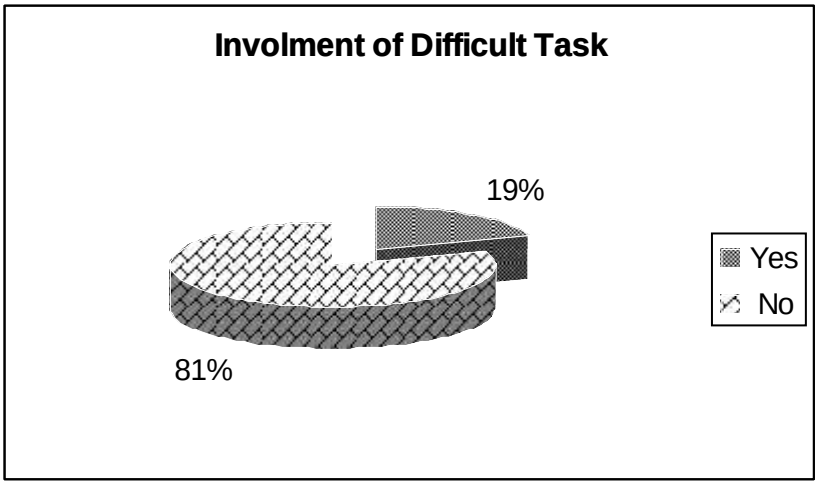

Figure no 7.1

According to the table 7.8, 80.6% of the total respondents haven't been doing any difficult task whereas 19.4% of the respondents were found to be doing difficult task.

7.9 Consumption of dietary food after starting medication

It's always wise to take dietary food or balanced diet especially during sickness. One feels weak because of deficiency of nutrients like vitamin, protein, calcium etc. So it's highly recommended that one must take proper amount of nutrients during period of sickness.

In the case of TB patients it is a must that he/she should take nutrients properly as they have to take medicine for eight months.

Table No. 7.9: Consumption of dietary food

Consumption	Number	Percentage
Yes	84	90.3
No	9	9.7
Total	**93**	**100.0**

Source: Field Survey, 2007

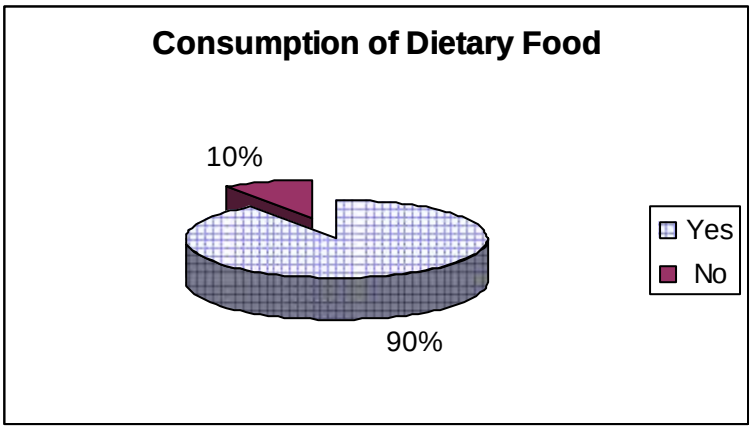

Figure no 8.1

According to the table 7.9, 90.3% of the total respondents were found to be taking dietary food whereas the rest 9.7% were found not to taking dietary food.

7.10. Reason behind not taking dietary food

Table No. 7.1.9: Reason behind not consuming dietary food

Reason	Number	Percentage
Lack of money	9	100.0
Total	**9**	**100.0**

Source: Field Survey 2007

All of the respondents who reported that they did not take nutrient food; all (100%) were found not to be taking dietary food because of lack of money. It indicates poor economic status affect the treatment of disease.

7.11 List of dietary food

In this study, the data shows respondents take the dietary food whatever they able to take because they know they should take dietary food during the medication of TB.

Table No 7.11: List of Dietary Food

Names/types	Frequency of cases	Percent
Meat	75	89.3
Fish	42	50.0

Fruits	74	88.1
Pulses (Gedagudi)	9	10.7
Milk	9	10.7
Leafs (sag)	9	10.7
Ghee	2	2.4
Eggs	48	57.1

*Percentage based on multiple responses of 84 cases

Source: Field Survey 2007

According to the table 7.11, 89.3% of the 84 respondents took meat as dietary food. The next 88.1%, 57.1% and 50% out of 84 respondents took fruits, eggs and fish as their dietary food. Similarly 10.7%, 10.7 and 10.7% of the 84 respondents took pulses, milk and green vegetables as their dietary food.

CHAPTER EIGHT

SUMMARY, CONCLUSION AND RECOMMENDATION

8.1 Summary of findings

8.1.1 Demographic and Socio-Economic condition of respondents

- Tuberculosis is a communicable disease which can affect people from any age, gender, status cast\ethnicity etc. In this study, the majority of respondents were from young people (16-20) and more male were found to be suffering from TB then female. Similarly, the majority of the patients were married and from different cast\ethnicity; the highest 47% of the responds were from ethnic group.
- Although there is no link between tuberculosis and the religion, the highest percent (65.6%) of respondents were from Hindu group.
- The data shows the higher percent (30.1%) of respondents completed higher level of education and the majority of students (23.7%) were found to be suffering from TB among the occupation of the respondents.
- .In terms of economic status, most 51.6% of the respondents earned nothing and they are mostly the student but most (93.5%) of the respondents have their own land.

8.1.2 Knowledge and Attitude on TB

- In terms of knowledge on TB, the data indicates that respondents were more or less familiar about TB before suffering from TB. Significant majorities (82.8%) of the respondents reported that they have knowledge on TB before suffering from TB but the knowledge was not comprehensive.

- In this study the data shows that most (46.2%) of the respondents believed that alcohol\cigarettes are the causes behind TB. It shows their knowledge on cause of TB is not comprehensive.
- When person suffers from TB he gets sign and symptom like fever, cough, loss of weight, chest pain etc. In the study the data shows that the majority of the respondents knew that cough and fever are the sign and symptom of the tuberculosis.
- In this study 40.9% of the respondents believed that TB transmits when TB patient's coughs and rest 40.9% of the total respondents did not know how TB gets transmitted.
- Majority of the respondents answered that sputum checking is the diagnosis of TB.
- TB is one of that diseases for which medicine must be taken daily for eight months under DOTS, but some people still believed TB is incurable and fatal disease. In this study all (100%) respondents believed that TB is curable and most (93.5%) respondents believed that TB can be cured by taking allopathic medicine and also most (97.8%) of the respondents' were aware about duration of medication for treatment of TB.
- For the prevention of TB, patient must be treated as soon as TB is diagnosed. In the study, the highest 59% of the respondent did not know how to prevent Tuberculosis.
- Most (97.8%) of the respondent had informed their family\ friends\ neighbor about their disease.
- TB is communicable disease. Anyone can suffer from TB. In the study the majority (62.4%) of the respondent believed that anyone can suffer from TB.

8.1.3 Care Seeking Practice

- When people gets sick from TB; fever, cough, loss of weight, loss of appetite etc the sign and symptoms appear. In this study, data shows that cough (86.0%) and fever (74.2%) is the most common symptoms seen on the respondents.

- People have to go to treat as soon as possible after getting sick. Majority (46.2%) of respondent went for the first treatment within the first 10 days and the majority (41.9%) of the respondent of the approached to nursing homes, hospitals and private clinic as their first place of treatment.
- People go for treatment by themselves or advise by somebody else after they felt that they have been sick. In the study the majority (64.9%) of respondents went for first place of treatment by themselves and the majority (71.4%) of respondents felt that they had not been recovering at the first place of treatment.

8.1.4 Personal Care of Practice of TB Patient

- Generally TB is one of the diseases for which medicine must be taken daily for 8 months. In this study cent percent (100%) of the respondents where found to be taking medicine daily.
- TB is communicable disease. It easily gets transmitted from one person to another through respiration. So patients need to be aware all time while coughing and sneezing. In this study the data shows that majority (83%) of respondents were found to be adopting precautions in which 50% of the total precaution adopting respondents were found to be using hanky whereas 80% answer that they had no cough, so they did not adopt means of precaution.
- In fact smoking and drinking deficient the immunity power of human which helps the disease to easily attack and less chance to recover during the medication of TB. The data shows that the majority (58.9%) of the respondents did not have the habit of drinking and smoking.
- The data shows that 100% of the respondents were found to be checking their sputum regularly and majority (80.6%) of the total respondents haven’t been doing hard work and were found to be taking dietary food whatever they were able to take.

8.2 Conclusion

The study is based on tuberculosis patient of DHO DOTS center kaski. This study has focused on knowledge, attitude, behavior, care seeking practice and associated socio-economic variable regarding TB.

Tuberculosis is communicable disease which can affect people from any age, gender, status, cast, ethnicity etc. In this study, the particular age from 16-20 were found to be suffering from tuberculosis. It doesn't necessarily mean that TB is more likely to affect younger people. Similarly male were found to be suffering from TB than female. It is mainly due to men are more exposed to the outer environment and more male were likely to have habit of smoking and drinking than female.

Although more married people were found to be suffering from TB than unmarried people. Evidences are not clear that TB is more likely to affect particularly married people. In this study, the respondents were from many of the caste and ethnic groups but among them most were from ethnic group, Janjati. One of the explanations is that these groups use more alcohol and many of the poor people don't take dietary food. But abundance of Janjati people in the study area is also a factor for large number. Similarly most Hindus were found to be suffering from TB. There were fewer people from other religion suffering from TB like Buddhists, Christians, and Muslims. Most people who had completed higher level of education were found to be suffering from TB. Interestingly, there were significant number of respondents whose occupation was student. But it doesn't mean that education doesn't have relationship with TB. They were found in majority also because they were aware of their health and came for check up as soon as they thought it was high time for them to approach a medical institution but education cannot be only one factor to be healthy. There are also various factors playing vital role to be healthy. One is economic status. In this study, most of the respondents with no reliable source of income were suffering from TB and it means that most of the respondents were poor who couldn't afford dietary food. As a result, their immunity was weak and easily got attacked by disease like TB.

This study also focused on exploration about knowledge/attitude on TB of the TB patients. In this study, most people recognized Tuberculosis as TB in modern name before to get counseling and to start medication as TB patients. It means that people had some knowledge about TB before starting medication. But most people didn't know the causes and transmission of the TB. they thought the habit of drinking and smoking are the main cause of TB because of the reason that may be either they forgot or didn't get proper counseling given by health worker before starting medication. But most people were to be found knowledge of sign and symptoms and diagnosis method of TB. In this study, the entire patient knew that TB is curable, and most people were found to be that TB was cured by taking allopathic medicine and the time needed for medication for treatment of TB. Most people were found to be that they informed their family and neighbor about TB without hesitation which is positive. Though knowledge and practice on TB was not comprehensive and ideal, it is encouraging fact that many of the indicators about knowledge and practice are positive which also indicates that people are getting more aware on TB.

This study has explored the different aspects of care seeking practice. Many people didn't go for medication in time and even they went they didn't go to appropriate place to check up. Socio-economic factors like awareness, income, education etc has some effect on it. Most people went to treat within 20 days means people were eager to go for treatment as soon as possible but they couldn't go because of economic, social and other problem. Most people were to be found to go hospitals and nursing home to treat at first because people started to trust in allopathic medicine and they had been cured whenever they went to those places as a sick. Most People were found to be to go TB hospital to get free medicine which indicates their economic status.

This study has also tried to examine the different ways/behavior of personal care on TB patient during the time of medication. Most of all people reported to take medicine regularly. Most patient were found to be adopting means of precautions, they didn't use alcohol land smoke even who took the alcohol and smoke avoided during the medication. Because they have been well known by counseling that TB didn't get cured if they took medicine irregularly, TB would spreads if they didn't adopt means of precautions. They

were also familiar that smoking and alcohol are injurious to health. Similarly people were found to be checking sputum. Most of the people were not to be found doing hard work and they were found to be taking dietary food whatever they had. It shows that patients were well aware about their health.

In sum, the study shows though some variations exist in terms of socio-economic status, TB victims have low socio-economic status. It indicates Tuberculosis and poverty are somehow interrelated likewise; men are more likely to get TB than female due to varied risk behaviors and situations. Most patients know sign and symptoms, diagnosis, how to cure, duration of treatment of TB etc which shows that they have already known a little about tuberculosis and they have also been counseled about TB at the TB hospital. But knowledge is not as comprehensive as required. Most of the respondents reported that they informed their family and friend about their illness which indicates stigma related has been changing. The study also shows trust on allopathic medicine system has developed and traditional way like consulting faith-healer is almost absent in the case of TB. They go to the hospital, nursing home, and private clinic. The practice of the patient is satisfactory during the medication which also indicates chances of success in control of TB.

8.3 Recommendation

- Information should be incorporated in school curriculum because many of the persons were students and didn't have comprehensive knowledge on TB.
- Counseling in the DOTS needs to be strengthened because many people didn't know the immediate cause of disease e.g. bacteria and the therefore knowledge was not as comprehensive as required.
- Publicity and awareness about the TB and its treatment center need to be recommended because many of the patients are not coming to TB treatment centre directly, which shows waste of time and money along with increased complexity of the disease for the patients.
- An integrated approach of TB control is needed which should address socio-economic factors associated with TB.

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APPENDICES

Appendix I

Department of Sociology/ Anthropology

Prithvi Narayan Campus, Pokhara

Knowledge, Attitude and Practice on Tuberculosis

(A study of Tuberculosis Patients in DHO, DOTS center Kaski)

Interviewer- Sundar Thapa

Interview Schedule

A Demographic File

<table>
<tr><th>S.N.</th><th>Questionnaire</th><th>Answers</th><th>Go to</th></tr>
<tr><td>1</td><td>Age in years</td><td></td><td></td></tr>
<tr><td>2</td><td>Sex</td><td></td><td></td></tr>
<tr><td>3</td><td>Address</td><td></td><td></td></tr>
<tr><td>4</td><td>Caste/ethnicity</td><td>(I) Brahmin (ii) Chettri (iii) Baisa (iv) Sudra
(v) others</td><td></td></tr>
<tr><td>5</td><td>Religion</td><td>(I) Hinduism (ii) Buddhism (iii) Islam (iv)Christianity
(v) others</td><td></td></tr>
<tr><td>6</td><td>Marital status</td><td>(I) Married (ii) unmarried iii)divorced iv) widow v) others</td><td></td></tr>
<tr><td>7</td><td>Educational status</td><td>(I) illiterate (ii) literate (iii) primary (iv) lower secondary (v) secondary (v) higher secondary (vi) others</td><td></td></tr>
<tr><td>8</td><td>Occupation</td><td>(I) agriculture (ii) service (job) (iii) housewife (iv) business (v) student (vi) others</td><td></td></tr>
<tr><td>9</td><td>Do you have land?</td><td>(I) yes (ii) no ⟶</td><td>11</td></tr>
<tr><td>10</td><td>How much land do you have?</td><td>(I) ropani / hall (ii) don’t know
(iii) no answer</td><td></td></tr>
<tr><td>11</td><td>How much do you earn annually?</td><td>(I) less than 25,000 (ii) 25,000-50,000 (iii) more than 50,000 (iv) no income v) don’t know (vi) no answer</td><td></td></tr>
<tr><td>12</td><td>What’s your family’s annual income?</td><td>(I) less than 25,000 (ii) 25,000-50,000 (iii) more than 50.000 (iv) don’t know (v) no answer(vi)no income</td><td></td></tr>
<tr><td>13</td><td>Family size</td><td>……..</td><td></td></tr>
<tr><td>14</td><td colspan="2">Family description
<table>
<tr><th>Kinship</th><th>Age</th><th>Sex</th><th>Education</th><th>Occupation</th></tr>
<tr><td></td><td></td><td></td><td></td><td></td></tr>
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B Care Seeking

S.N.	Questionnaire	Answers	Go to
1	How long have you been sick?		
2	What were the sign/symptoms during your illness?	(I) cough (ii) fever (iii) chest pain (iv) weight loss (v) blood in cough (vi) others	
3	When did you first go for treatment after you felt sick?		
4	Where did you first go for treatment after you felt sick?	(I) dhami/jhakri (ii) health post/health worker (iii) private clinic (iv) hospital/nursing home (v) ayurvedic clinic/hospital (vi) TB hospital (vii) others	9
5	Who suggested that place for you?(first place of treatment)	(I) myself (ii) neighbors (iii) friends (iv) relatives (v) others	
6	Did you get cured at that place?	(I) yes (ii) no	8
7	Why did you come to TB hospital?	(I) to get free medicine (ii) for regular checkup (iii) for appropriate counseling (iv) others	
8	Why didn't you come to this TB hospital or health institution in the very beginning?	(I) didn't know (ii) didn't have money (iii) social disgrace (iv) others (v) no idea(about this hospital)	
9	Who suggested you to come here (TB hospital)?	(I) myself (ii) neighbors (iii) relatives (iv) health workers (v)hospital/nursing home (vi) other	

C Knowledge and Attitude

S.N.	Questionnaire	Answers	Go to
1	Did you have any idea about TB before you knew you had suffered from TB?	(I) yes (ii) no	
2	What do people call TB in your society?	(I) khapte (ii) sukenass (iii) TB (iv) others (v) don't know	
3	What is the cause of TB?	(I) don't know (ii) drinking/smoking (iii) bacteria (iv) other	
4	What are the sign/symptoms of T.B.?	(I) cough (ii) loss of appetite (iii)fever (iv) weight loss (v)chest pain (vi) others	
5	How does TB transmit?	(I) taking rice together (ii) coughing/ sneezing by a TB patient (iii) shaking hands (iv) others (v) don't know	
6	How is TB diagnosed mainly?	(I) blood examination (ii) basis of sign/ symptom (iii) sputum examination (iv) stool/urine examination (v) x-ray [chest] (vi) others (vii) don't know	

7	Is TB curable?	(I) yes (ii) no	11
8	How TB is cured (treated)?	(I) jharphuk (ii) herbal medication (iii) allopathic medication (iv) worshipping gods/goddesses (v) others (vi) don't know	
9	How long does one need to take medicine for TB?	(I) one month (ii) five months (iii) eight months (iv) others (v) don't know	
10	What are the measures to prevent TB? (How is TB prevented?)	(I) making patient cover his/her mouth while coughing/ sneezing (ii)early treatment for patient (iii) others (iv) don't know	
11	Does your family know that you have TB?	(I) yes (ii) no	13
12	Why didn't you inform your family that you are suffering from TB?	(I) not needed (ii) because family would be worried (iii)took TB as normal diseases (v) others	
13	Have you told your friends/ neighbors that you are suffering from TB?	(I) yes (ii) no	15
14	Why haven't you told your friends/neighbors about your illness?	(I) not needed (ii) not prestigious (iii) fear of humiliation (iv) others	
15	Does everyone get TB?	(I) yes (ii) no	Practice
16	Who suffers from TB, then?	(I) people with low socio-economic status (ii) people addicted to smoking and drinking (iii) people frequently contacting patients (iv) others	

D Practice

S.N.	Questionnaire	Answers	Go to
1	Are you taking medicine regularly?	(I) yes (ii) no	3
2	Why are you not taking medicine regularly?		
3	Are you taking precautions while coughing/sneezing	(I) yes (ii) no	5
4	How are taking precautions while coughing/sneezing?		
5	Why are not you taking precautions while coughing/sneezing?		
6	Do you drink alcohol?	(I) never (ii) sometimes (iii) used to before not now [quit] (iv) daily	
7	Do you smoke?	(I) never (ii) sometimes (iii) used to before not now [quit] (iv) daily	
8	Have you been checking sputum regularly?	(I) yes (ii) no	10
9	Why haven't you been checking you sputum regularly?		

10	Have you been doing difficult task after suffering from TB?	(I) yes (ii) no	
11	Are you taking dietary food after starting medication?	(I) yes (ii) no → 13	
12	What dietary food are you taking?		
13	Why aren't you taking dietary food?	(I) lack of money (ii) didn't know (iii) didn't care (iv) others	

Do you want say anything at last?

Thank you

Appendix II

PHOTOGRAPH OF THE STUDY AREA

DHO DOTS CENTER, KASKI ALONG WITH RTC

1.5 Limitation of the study

Basically, it is the academic study. It has been undertaken with in the boundaries of limited time, budgets and other resources. It is the study of tuberculosis and patient about their knowledge, attitude and practice of tuberculosis among the DOTS patients in Pokhara. Thus, the findings and conclusion drawn from this study may not be widely generalized exactly in the same manner for other cases and in other places. Obviously, it will help to understand similar cases while considering the differences of contexts.

1.6 Conceptual Framework

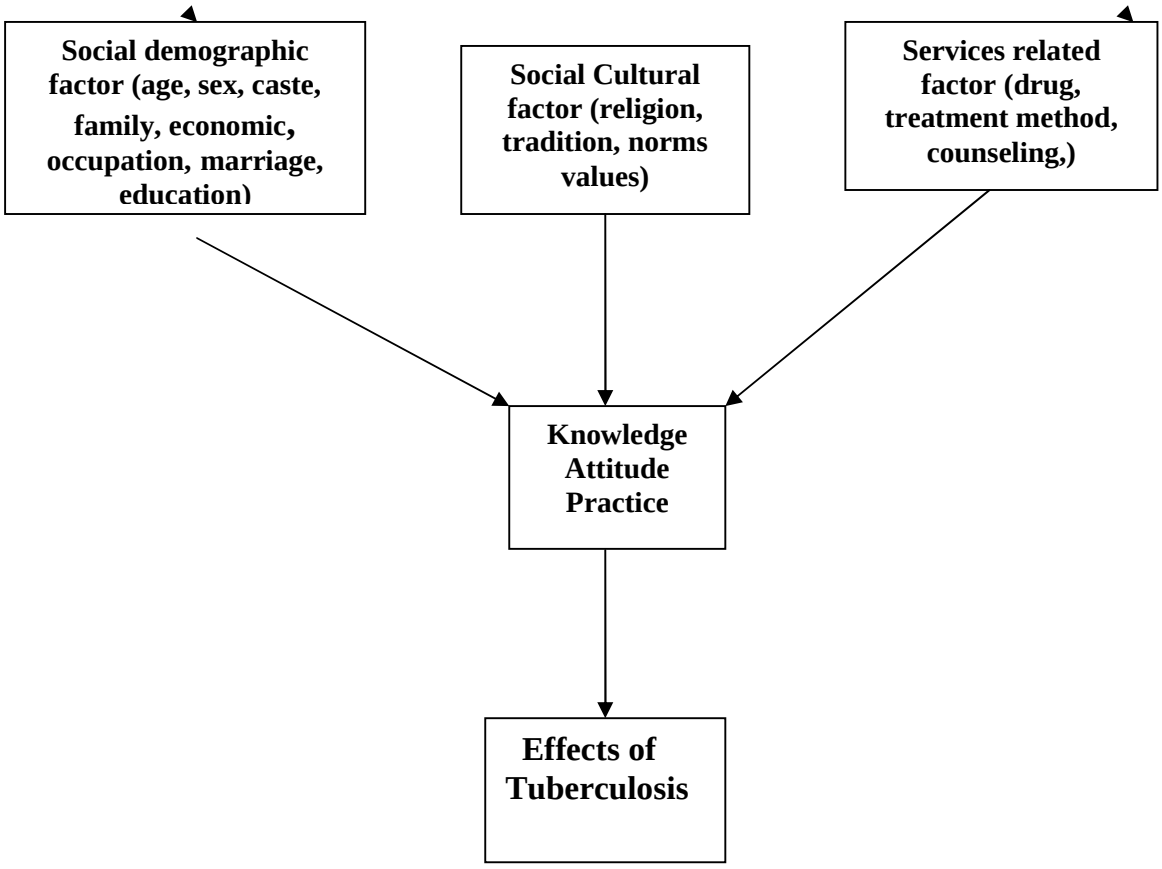

Figure no 3.1

TB is highly communicable disease. It is necessary to know knowledge, attitude and practice about tuberculosis of the people either tuberculosis patient or ordinary people. TB is the major health problem because of lack of awareness about TB, it spreads rapidly and people die in early age. Religion, cast, cultures, degree of education, economic condition, age, sex, occupation etc may influence people ideas and practice.

This study has focused in searching about the socio culture, socio demographic and service related factors on tuberculosis.

CHAPTER TWO

LITERATURE REVIEW

2.1 Theoretical overview

a) Medical sociology

Medical sociology is the study of individual and group behaviors with respect to health and illness. Thus "medical" is a bit simplistic, as the focus is not only on medical professionals or their behaviors, but also focuses on human behavioral responses to health and illness(http.//en.wikipedia).

Medical sociology is concerned with individual and group responses aimed at assessing well-being, maintaining health, acting upon real or perceived illness, interacting with health care systems, and maximizing health in the face of physiologic or functional derangement. It also analyzes the impact of the psychological conditions resulting from our environment on our health.Talcott Parsons is often considered the father of Medical Sociology because of his description of the 'Sick Role'. This describes the difference between the role of a sick person as opposed to the 'Social Role' of a healthy person. He defines the sick role as defining the motivation of the patient. Curiously enough, Parsons makes no mention of the role of the doctor or other medical institutions. The sick role comprises 4 aspects: exemption from normal social role responsibilities, the privilege of not being held responsible for being sick, the desire to get better, and the obligation to find proper help and follow that advice(http.//en.wikipedia).

Medical sociology is an area of the study that focuses on the social aspect of the causes and effects of health and illness within society. In doing so, medical sociologists attempt to explain the complex relationships between social characteristics and the development, treatment and curing of illness; they also analyze the organization of health (Frank, 2003).

Medical sociology is the study of the social facets of health and illness. It applies sociological principles to the study of topics such as the organization of health professionals, socio-cultural responses to illness, the nature of the patient-practitioner relationship and virtually every other health-related

subject. Sociologist Robert Straus 1957 suggested that medical sociology could be divided into two subcategories representing two different approaches to studying similar phenomena. The first he called the sociology of medicine. This category comprises the application of the basic sociological theories and principles to the study of medical issues. The second category is the sociology in medicine, which includes those who work in medical environments attempting to use sociologist principles to help solve medical or patient care problems and represents an applied research approach (Frank, 2003).

(b) Concept of health and illness

Health is the functional and/or metabolic efficiency of an organism, at any moment in time, at both the cellular and global levels. In any organism, health is the ability to efficiently respond to challenges (stressors) and effectively restore and sustain a "state of balance," known as homeostasis. Sickness is merely the absence of health. All organisms, from the simplest to the most complex, reside on a spectrum between 100% health and 0% health(http://books concept+of+health).

One widely accepted definition of health is that of the World Health Organization (WHO). It states that "health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO, 1946). In more recent years, this statement has been modified to include the ability to lead a "socially and economically productive life." The WHO definition is not without criticism, as some argue that health cannot be defined as a state at all, but must be seen as a process of continuous adjustment to the changing demands of living and of the changing meanings we give to life. The WHO definition is therefore considered by many as an idealistic goal rather than a realistic proposition(http://books concept+of+health).

The LaLonde report suggested that there are four general determinants of health which he called "human biology", "environment", "lifestyle", and "healthcare organization" Thus, health is maintained through the science and practice of medicine, but can also be improved by individual effort. Physical fitness, weight loss, healthy eating, stress management training and stopping

smoking and other substance abuse are examples of steps to improve one's health. Workplace programs are recognized by an increasingly large number of companies for their value in improving health and well-being of their employees, and increasing morale, loyalty and productivity at work. A company may provide a gym with exercise equipment, start smoking cessation programs, provide nutrition, weight or stress management training. Other programs may include health risk assessments, health screenings and body mass index monitoring(http://books concept+of+health).

An increasing measure of the health of populations is height, which is strongly regulated by nutrition and health care, among other standard of living and quality of life matters. The study of human growth, its regulators and its implications is known as auxology(http://books concept+of+health).

Wellness is a term sometimes used to describe the psychological state of being healthy, but is most often used in the field of alternative medicine to describe one's state of being(http://books concept+of+health).

Illness is a disvalued process that impairs the functioning or appearance of a human person and may ultimately lead to death. the definination of health given by the WHO includes social as well as physical and mental well-being. This reflects a concern with the person as a member of human groups-an entity certainly not limited to the body of that person.The components of individual(e.g., blood, soul, spirit, shadow, name, etc.) are defined differently from one culture to the next. the death of the organism, however is a biological constant which is taken into account conceptually in all cultures, and customs prescribed how the disposition of the corpse is to be arranged(Polgar,1965).

The most important aspect in this discussion of illness of the central role played by culture. It is important to see culture from post-mordernist perspective due to all socities have more than one culture within their borders. however, the culture in which you live, is not the only influence on your life. It is one of a number of individual factors, educational factors and socia-economic factors(Gibbon,1999).

Concept of health and illness, are social constructions which relate to their specific time and locality. they have a historical discourse and are thus set in a certain period(Gibbon,1999).

2.2 History of tuberculosis in Nepal

Tuberculosis is one of the major health problems in Nepal. About 45% of the total population is infected with tuberculosis, out of which 60% are the productive ages (NTC, 2002). The Rana prime Minster Chandra Samsher established a Sanatorium with 50 beds at Tokha in Kathmandu in 1934 AD. With the hard efforts of Dr. K. R. joshi, the central chest clinic started functioning in 1951 at Mahabauddha, Kathmandu. Simultaneously from the community side, Nepal Anti-tuberculosis Association was established in 1953 as NGO providing chest clinic services. In the same year, a Shining hospital in Pokhara started treating tuberculosis patients by international Nepal fellowship. In 1960, Sheer memorial Hospital at Banepa started anti tuberculosis activities (Bam, 2003). National tuberculosis programme was launched in 1962. In 1965, a tuberculosis control project established. HMG, WHO and UNICEF jointly started BCG vaccination in Kathmandu valley under the tuberculosis control pilot project in 1968. In 1969, the Shanta Bhavan opened the tuberculosis clinic at patan. First, the integration of health services was started in Bara and kaski district under the name of integrated community Health project in 1973. In the same year, INF started treatment of tuberculosis and Leprosy at Gorahi, Dang of mid western region. In 1975, tuberculosis control project expanded its activities to active case finding programme through sputum microscopy. The first National tuberculosis control seminar was held in Katmandu in 1978, second in Biratnagar in 1980 and third in pokhara in 1981. Based on the seminars, a tuberculosis coordinating committee was constituted to advise the Ministry of Health (MoH) for the formulation of the national tuberculosis programme. In 1986, German Nepal tuberculosis project started OPD services in kalimati under NATA. The short course intermittent chemotherapy started along with the culture and sensitivity tests (Bam, 2003). With the help of Japanese government, the HMG Nepal constructed national tuberculosis center in 1989. After the establishment of NTC, both the chest clinic and tuberculosis project merged into one organization under the name of NTC to strengthen the national tuberculosis control programme. The technical support in the areas of implementation of DOTS, planning, monitoring, programming, training, supervision, logistic,

laboratory services, health information education, communication and research activities were made by the NTC (Bam, 2002b).

2.3 Tuberculosis as a social disease

Tuberculosis is a social disease as it affects the socio –economic condition of the individual and society. The social factors include the non-medical factors such as quality of life, poor housing and over crowding, population explosion, and smoking, drinking, under nutrition, lack of education, large families, early marriage and lack of awareness. All these factors contribute to the occurrence and spread of tuberculosis (park, 1994).

The social and economic consequences of tuberculosis for individual and for society as a whole are huge in terms of human suffering, economic loss and decreased productivity (WHO, 1997).

The risk of tuberculosis varies according to the nature of the work and occupation. Risk of tuberculosis is highest in heavy drinkers, those living with someone who had a history of tuberculosis, cleaners and drivers (Rosenman and Hall, 1999).

The incidence of tuberculosis varies according to ethnic origin and socio-economic status and sex of people within a community; the major factors are overcrowding, standard of living and health care (Topely and Wilson, 1990). Tuberculosis was formally considered as a disease of the crowded, economically deprived and urban neighborhoods. However, it is now as much, if not more, a problem in the rural areas as in the cities. Tuberculosis was found mostly in young, married and people of lower socio-economic class. According to the study, patients have enough knowledge about the disease to recognize the symptoms and take action when they get the symptoms. However, inability to adhere to and complete the entire course of treatment is due social, economic and health service related problems (Juvekar et.al.1995).

2.4 Reviews of the previous study

C. John et al (1992) in Clinical tuberculosis, described about how person resists infection? Many things affect the way our bodies fight the

tuberculosis bacillus. These depend on age, sex, nutrition, toxic factor like tobacco smoking, alcohol intake etc, other disease like HIV infection, diabetes, leprosy etc, poverty, race etc.

National tuberculosis center has published A CLINICAL MANUAL FOR THE NEPAL 1998, in which tuberculosis is a bacterial disease caused by mycobacterium bacilli and TB is a communicable disease whose transmission occurs by airborne of infectious droplets. M. Tuberculosis infects a third of the world's population. Worldwide in 1995 there were about 9 million new cases of TB with 3 million deaths.

In Nepal over 80 thousand people have Tuberculosis. Every year about 50 thousand people develop tuberculosis. It is estimated that about 10 thousand people die from Tuberculosis every year that is nearly 200 deaths every week. Tuberculosis is commonest cause of death in adult aged 15 – 49 in Nepal.

Similarly Dots at the work place 2003, published by WHO regional office the south east Asia New Delhi in which the article Tuberculosis; the relentless spread of defiant disease wrote that TB spells wreck and ruin not only to individuals and families but also to societies and nation seriously affecting work productivity, family cohesive and greatly weakening national incomes. TB respects no boundaries; it can affect any person, although the most vulnerable are those who are in extended and closed indoor contact with the case of active TB. The poor are especially at a high risk, living within adverse health conditions in congested, ill ventilated homes. Those who work in unprotected environments and in occupations that expose them to increased risk of TB are also more vulnerable.

In 1923, pathologists Allen Krause made this observation: "More or less poverty in a communicable will mean more or less tuberculosis, so will more or less crowding and improper housing, more or less unhygienic occupations and industry. This statement remains as true today as it was seventy five years ago". (Farmer, 1999)

Mary Desain and Pratus Banta has published book "The sociological thought in the context of Nepal" 2004, in which the article "Globalization: TB and its control of tuberculosis in Nepal", written by Ian Harper mentioned that tuberculosis is a bacterial communicable disease .This particular disease has

existed since the writing of history started gets communicated from one person to another, when the infected coughs. The global spread of communicable diseases has a long history. In this history TB has a more significant spread among other communicable diseases. The spread of TB in Europe and Asia could be before 1500 years ago along with the discovery of 'the new world' (America) which has been entitled as the first Epidemiological transition (Barrett et al. 1998). According to Barrett et al there was a decrease in communicable diseases during the second Epidemiological transition. However there was an increase in the chronic diseases like cancer, diabetes, asthma etc in the industrial countries. Nevertheless this particular second Epidemiological transition isn't clearly seen outside the industrial countries. According to Barrett et al during the third Epidemiological transition period new communicable diseases as well as so called old and vanished communicable diseases were once again seen.

Tuberculosis is leading single infectious cause of female deaths in the world. Tuberculosis kills more women each year than all causes of maternal mortality combined, tuberculosis also deserves a place on the women's health agenda. Women in their productive ages have a higher risk of developing active tuberculosis than men of same age. It is estimated that the approximately six million women sick with tuberculosis at any given time, at least one third die because they are not diagnosed or received proper treatment. There are a number of reasons for this neglect, but money, time and transportation present the most significant barriers. Women often find it more difficult to access the health care services, because transport, time and cost are greater for women when viewed in light of their dual responsibilities at work and at home. In addition, some women have limited access to money, living in households where men control the purse strings and women are viewed as little more than property. Some women try to ignore their tuberculosis symptoms because they fear rejection or stigmatization from friends and family. Others simply lack basic information about disease and their bodies. (WHO, 1996)

Tuberculosis undermines economies in a number of ways. When breadwinners are too sick with tuberculosis and fail to work, they and their families become ruined. Additionally, family members most often have to take

care of the sick person. Therefore, family loses other income opportunities. In all of these ways, tuberculosis can reduce self-sustaining family to beggar or welfare recipients. A person who is sick with tuberculosis often stops earning money, which they would have spent and fed back into the economy (WHO. 1996).

The belief that tuberculosis was hereditary was dealt a near-lethal has blow by Robert Koch's discovery of the tubercle bacillus in 1882. "One has been accustomed until now to regard tuberculosis as the outcome of social misery" Koch wrote," and to hope by relief of distress to diminish the disease. but in the future struggle against this dreadful plague of the human race one will no longer have to contend with an indefinite some thing, but with an actual parasite."

Paradoxically, perhaps, but fortuitously, the idea of tuberculosis as " the outcome if social misery" was not undermined by the discovery of its etiology. In the latter part of the century, persistent poverty and rising inequality were increasingly believed to contribute to differential mortality.

2.5 Why TB is still a problem?

There are four main reasons. First, TB controls programmed have been poorly organized. Many patient starts treatment but never finish it. These people still have TB, and can continue to infect other people. Worse still, their strains of TB develop resistance to the drugs used to treat TB. Multi drug resistant is serious problem in poor TB control programmes.

The second reason for the rise in TB is the global HIV epidemic. HIV and TB go hand in hand. When HIV increases, so does TB. The reason is that HIV attacks the immune system. A person who has both HIV and TB infection has risk of developing TB of about 10% every year – compared with 10% per life time for someone infected with but not HIV. This means that countries where HIV is common have also seen a massive increase in the number of people with TB.

Thirdly, the number of cases continues to rise because populations are still growing. And even if we could break the chain of transmission right now, people would develop TB for many more years to come because they were

infected in the past. About half of the people who get active TB disease following infection do so within a couple of years, but there are some who develop the disease much later 10, 20, 30, even 50 years or more.

Finally, poverty, overcrowding and poor nutrition combine to create conditions that favour the spread of TB. People living in urban, slum, prisoners and refugees are particularly affected. But it's not just poor – anyone can get TB, and it's very common disease (http//.Diseases - T - American Lung Association site.htm).

2.6 Who gets TB?

Anyone can get TB. However, some groups are at higher risk to get active TB disease. The groups that are at high risk include:

- People with HIV infection (the AIDS virus)
- People in close contact with those known to be infectious with TB
- People with medical conditions that make the body less able to protect itself from disease (for example: diabetes, the dust disease silicosis, or people undergoing treatment with drugs that can suppress the immune system, such as long-term use of corticosteroids)
- Foreign-born people from countries with high TB rates
- People who work in or are residents of long-term care facilities (nursing homes, prisons, some hospitals)
- Health care workers and others such as prison guards
- People who are malnourished
- Alcoholics, IV drug users and people who are homeless

(http//.Diseases - T - American Lung Association site.htm)

2.7 How does TB disease develop?

There are two possible ways a person can become sick with TB disease: The first applies to a person who may have been infected with TB for

years and has been perfectly healthy. The time may come when this person suffers a change in health. The cause of this change may be due to a variety of reasons such as another disease like AIDS or diabetes, drug or alcohol abuse, lack of access to health care and homelessness. Whatever the cause may be, when the body's ability to protect itself is compromised, TB infection can become active TB disease. In this way, a person may become sick with TB disease months or even years after they first breathed in the TB germs.

The other way TB disease develops happens much more quickly. Sometimes when a person first breathes in the TB germs the body is unable to protect itself against the disease. The germs then develop into active TB disease within weeks. (http//.Diseases - T - American Lung Association site.htm)

CHAPTER THREE

RESEARCH METHOD

3.1 Research design

The objective of this proposed study is to explore about knowledge, attitude and practice of the tuberculosis in which the tuberculosis patients have participated for the study proposed. So the nature of the study such that it demands both exploratory as well as descriptive research design.

Yet, the main cause of the tuberculosis disease is clinical (Mycobacterium bacilli) but the social and cultural causes have been explored from this study. So in this study tuberculosis patients have been taken.

3.2 Study area

The study area of this study was conducted in DHO DOTS center, Kaski, where TB patients came to treat TB disease and patients were taking medicine under DOTS for that disease.

The DHO DOTS center, Kaski is situated at pokhara-12, Ramghat along with Regional Tuberculosis center Pokhara.

3.3 Census/ Universe

The universe of the study have been taken the patients of tuberculosis who were taking medicine daily from the DHO DOTS center, Kaski till the end of 16th July 2007 A.D. (Asadh 2064).

There were 101 TB patients who were new patients, taking medicine daily at DHO DOTS center, kaski. Among them, 93 patients were taken from the universe and has been used purposive sampling in this study. Five of the total patients had been admitted because of their serious condition and three had remained absent for almost two weeks. That’s why these eight people couldn’t be interviewed.

3.4 Nature and sources of data

As per requirement of the study both primary and secondary data was used in the study. Primary data was collected during field study with the help of interviews and secondary data was taken from documents and related literatures.

3.5 Primary data collection techniques

On the basis of the research objectives questions and types of the data required following techniques have been adapted to collect primary data.

a) Interview

Direct interview has been designed to collect information for the study. Direct interview has been implemented to get related information. This method has been applied for TB patients only. An interview schedule has been prepared which has consisted of structured questions.

b) Observation

Observation is one of the most used and appreciated techniques of primary and qualitative data. It gives data such as sign and symptoms, behaviors of patients, their physical and mental appearance, allopathic medical practices in the study area including other cultural practices relevant to tuberculosis disease. However I have done my field work with short duration (approximately two month) of time but I had observed tuberculosis patients for 3 years when I was working in the Western Regional Tuberculosis Hospital as a paramedical staff (since 2002-2005). During the period of field survey when I reached in TB hospital to interview with patients, they fell uncomfortable and some sufferers expected some economical assistance from me but I was unable to provide them any economical support expect mental support, When I told them my objectives of this research and also told them that my study might have positive consequence as for treatment in future. Aftermath they were positive to me and supported me and I succeeded to do this study and also collect some important and secondary data from them.

c) Pre-testing

To ensure that the tools where properly designed, they were pre-tested in the area with the no. sampled private hospital (M. T. H. Pokhara). After pre-testing necessary changes were made and interview schedule was finalized for administrator to tuberculosis patients.

3.6 Data presentation and analysis

Data, which were collected, has been analyzed both qualitatively as well as quantitatively. Computer Spss programme has been used to process and analyze the data. Likewise tabulation and graphic presentation has been also made to present data.

The non-quantifiable qualitative data has been managed manually and analyzed descriptively. Moreover, figures and diagrams have been used to present and analyze the data.

CHAPTER FOUR

DEMOGRAPHIC AND SOCIO-ECONOMIC BACKGROUND

The main objective of this chapter is to explore the Socio-Economic status of Tuberculosis patients. In this study age, sex, marital status, caste/ethnicity, educational status, occupation, income, family background etc of TB patients have been analyzed which has focused the relation between tuberculosis and Socio-Economic status. These socio-economic factors directly related to human health for example if man has low income he does not take balance food or nutrient food and does not have immunity power to fight disease and become ill. Therefore socio-economic status of patient is most important in the study.

4.1. Age and sex of Respondents

Tuberculosis is a communicable disease which can affect people from any age group or gender. The table below describes the age and gender composition of the respondent

Table No. 4.1: Respondents by Age group and Sex

Age of the respondents	Gender of the respondents		Total
	Men	Women	
16-20	18 (28.1%)	8 (27.6%)	26 (28.0%)
21-25	10 (15.6%)	8 (27.6%)	18 (19.4%)
26-30	5 (7.8%)	6 (20.7%)	11 (11.8%)
31-35	4 (6.3%)	1 (3.4%)	5 (5.4%)
36-40	5 (7.8%)	1 (*3.4%)	6 (6.5%)
41-45	2 (3.1%)	1 (3.4%)	3 (3.2%)
46-50	5 (7.8%)	2 (6.9%)	7 (7.5%)
51-55	6 (9.4%)	1 (3.4%)	7 (7.5%)
56-60	7	1	8

	(10.9%)	(3.4%)	(8.6%)
61-65	2 (3.1%)	0 (.0%)	2 (2.2%)
Total	**64 (100.0%)**	**29 (100.0%)**	**93 (100.0%)**

Figures in parenthesis are percentage based on gender

Source: Field survey 2007

The table 4.1.: shows the fact both male and female aged 16-65 ages have been affected by tuberculosis. But the majority of the affected group which is 28% was from 16-20 years age. The second highest 19.4% of the total patient were from 21-25 yrs old. The table also lists the least percent i.e. 2.2% of total patient who were suffering from TB and were from 61-65 yrs age. Similarly while comparing the ratio between male and female, the male patient percent exceeded the female percent. The male percent was 69.8% and the female percent was 31.18%.

The table explains majority people from age group 16 to 20 were found to be suffering from TB and similarly males were found to be suffering from TB than females since male are more exposed to the outer environment and more men found to have the habit of smoking and drinking when compared with women in Nepal. It does not mean TB is more likely to affect younger people but TB can affect any age, sex, cast etc.

4.2: Marital status of the Respondents

Marriage is one of the universal social institutions. It is established by human society to control and regulate the sex life in man. It is closely connected with the institution of family. Marriage is the institution of society which can have very different implications in different culture. Its purposes function and forms may differ from society to society, but it is present everywhere as an institution**.**

Table No. 4.2: Martial status of the Respondents

Marital status	Number	Percentage
Married	60	64.5
Unmarried	32	34.4
Widows	1	1.1
Total	**93**	**100.0**

Source: Field Survey 2007

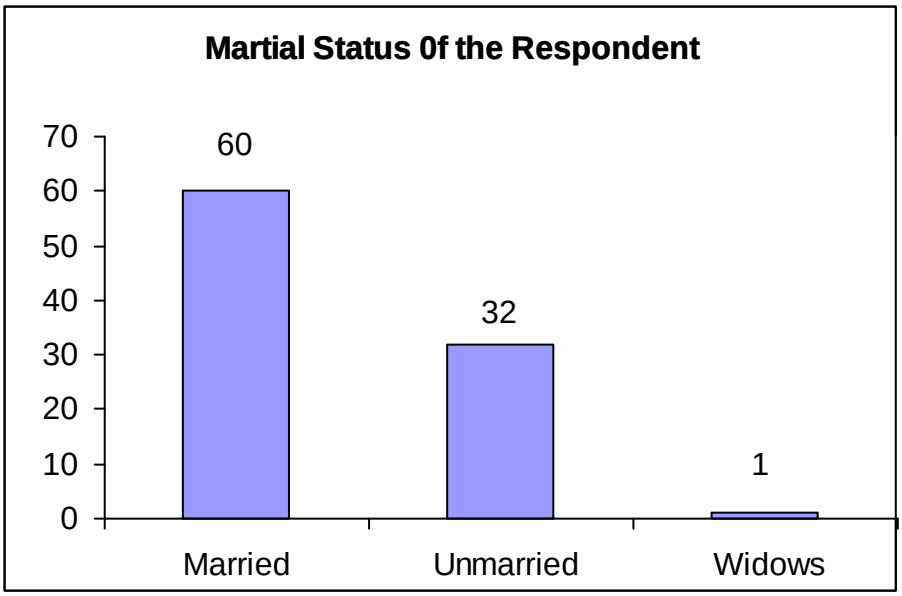

Figure no 4.1

The above presented table 4.2 shows the marital status of tuberculosis patients. In this table out of the total respondent 64.5% outstood as married 34.4% as unmarried and rest 1.1% as widow.

In this table, although more married people were found to be suffering from TB than unmarried people, TB is not more likely to affect particularly like married, unmarried. It can affect any marital status of human.

4.1.2 Cast / ethnicity of respondents

Caste is extreme form of social class organization in which the position of individuals in the status hierarchy is determined by descent and birth. Caste refers to a hierarchical system or social control with each sub group assigned with a ranked status depending on its origin and religion strictness. In Nepal

there are four castes based on Varna system (Brahmin, Chettri, ethnic group and Dalits). During field work various group of patients came for treatment.

Table No. 4.3: Caste/Ethnic composition

Caste/Ethnicity	**Gender of the respondents**		**Total**
	Men	**Women**	
Brahmin	10 (15.6%)	2 (6.9%)	12 (12.9%)
Chhetri	13 (20.3%)	8 (27.6%)	21 (22.6%)
Ethnic group	32 (50.0%)	15 (51.7%)	47 (50.5%)
Dalits	6 (9.4%)	3 (10.3%)	9 (9.7%)
Other(Miya,chaudhari etc)	3 (4.7%)	1 (3.4%)	4 (4.3%)
Total	**64 (100.0%)**	**29 (100.0%)**	**93 (100.0%)**

Figures in parenthesis are percentage based on gender

Source: Field survey 2007

The data shows that most of the cast/ethnic groups were found to be suffering from TB. The table 4.3 shows that the highest 50.5% of the TB patient were from Ethnic group. The second highest 22.6% were from chhetri. Similarly 12.9%, 9.7% and 4.3% of the total TB patient were from Brahmin, Dalits and other group of cast/ethnicity respectively.

In this study, not only one particular caste is found to be suffering from TB. Among the different caste/ethnicity, the majority of TB patients were from ethnic group.

4.4: Religion composition of the Respondents

The religion is the macro institution of society. It is the belief of spiritual being. It holds or runs the whole society and teaches us what to do or what not to do in the society. Religion is the major concern of men. It is one of the earliest and deepest interests of human beings. Religion is universal, permanent, pervasive and perennial interests of man. (Rao, 2002)

Table No. 4.4: Religion composition

Religion	Number	Percentage
Hindu	61	65.6
Buddha	28	30.1
Christian	4	4.3
Total	**93**	**100.0**

Source: Field Survey 2007

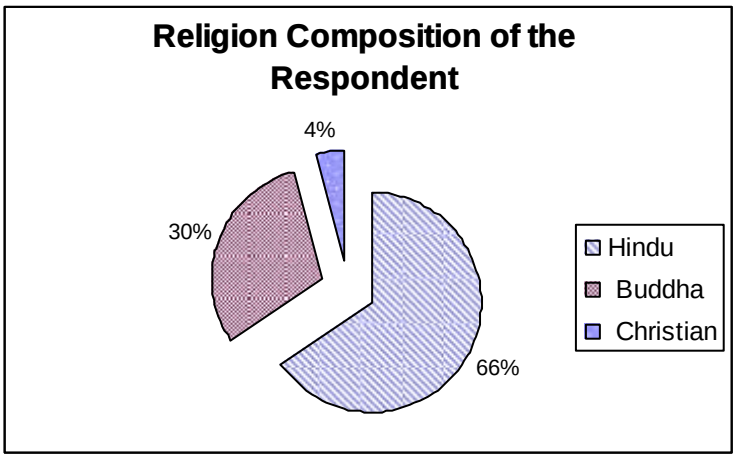

Figure no 5.1

Source: Field Survey 2007

The table 4.4 also shows that 65.6% were Hindus, which is the highest percent of total respondent. In the same way 30.1% and 4.3% were Buddhist and Christians respectively. This data also indicates that the higher percent of people suffering from TB are Hindus. This is also due to large number of Hindus group in the study area.

4.5: Educational status of respondents

Education is a pre-requisite for the development of human. It is vitally important for overall development of society. It is the one of the basic activities of people in all human societies. Education as a social institution has a great social importance especially in the modern, complex industrialized societies. It is one of the most important factors for human health. In this connection, relationship between education and TB has been examined.

Table No. 4.5: Educational Status of Respondents

Educational Status	Gender of the respondents		Total
	Men	**Women**	
Illiterate	8 12.5%	3 10.3%	11 11.8%
Literate	4 6.3%	2 6.9%	6 6.5%
Primary level	12 18.8%	5 17.2%	17 18.3%
Lower secondary level	5 7.8%	6 20.7%	11 11.8%
Secondary level	14 21.9%	6 20.7%	20 21.5%
Higher level	21 32.8%	7 24.1%	28 30.1%
Total	**64 100.0%**	**29 100.0%**	**93 100.0%**

Figures in parenthesis are percentage based on gender

Source: Field survey 2007

The table 4.5, the highest 30.1% of the total TB patient had completed higher level of education. The second highest 21.5% had completed secondary level of education. In the same way 18.3% and 11.8% of the total respondent had completed primary and lower secondary level of education respectively. Similarly 11.8% and 6.5% of the total TB patient were illiterate and literate respectively.

This data indicates that higher percent of people who had completed higher level of education were found to be suffering from TB because they were found to be well aware of their health and they came for check up as soon as they thought that it was high time for them to approach a medical institution. The data also shows that education is not just a factor to be healthy although it provides knowledge and plays vital role for human health. Education is not only one factor, there are also various factor plays vital role to be healthy.

4.6 Occupation of the respondents

Occupation is used mostly to refer to specialized and established kind of work. It refers to some kind of work with which an individual becomes

completely engaged. It denotes the habitual employment, profession, craft or trade of an individual. It takes up much of his time and attention. In modern connotations it means an intrument of livelihood. It is usually associated with one or the other kind of organization; agriculture, industry, governmental organization etc**.** (Rao, 2002)

Nepal is an agricultural country. More than 75% of the total population of Nepal has been embracing this particular occupation as their only and solely main source of income. With the change of time Nepalese people have started preferring other occupation rather than agriculture only.

Table No 4.6: Occupation of the Respondents

Occupation	**Number**	**Percentage**
Agriculture	18	19.4
Service	20	21.5
Housewife	11	11.8
Trade/Business	7	7.5
Students	22	23.7
Others(Dakarmi,Tailor, Driver etc)	15	16.1
Total	**93**	**100.0**

Source: Field Survey 2007

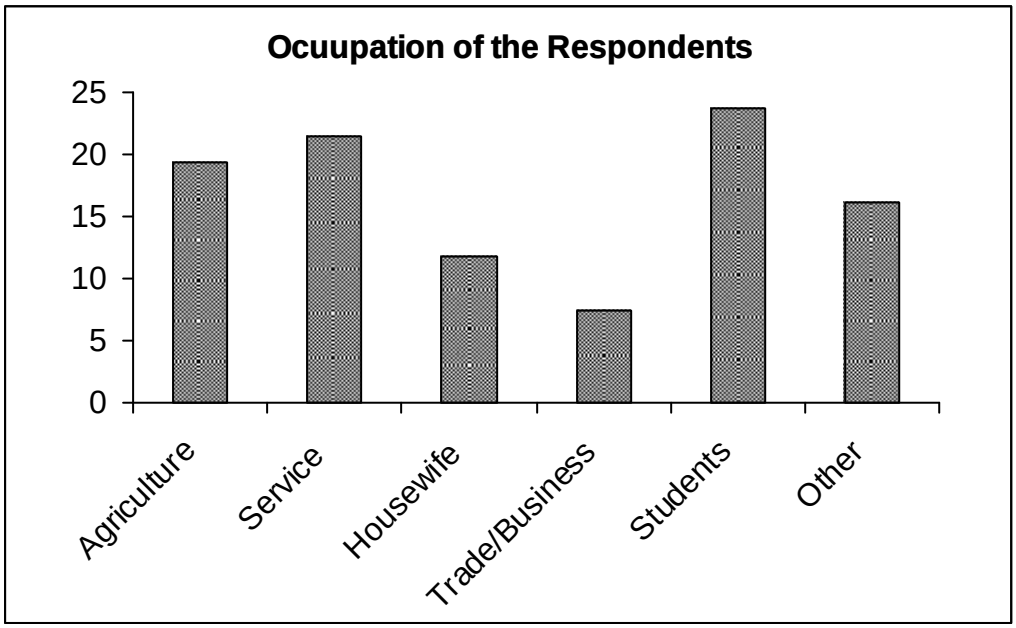

Figure no 6.1

The table 4.6 has shown that the highest 23.7% of the total respondent were students, 21.5% were in service and 19.4% were in

agriculture which is the second and third highest percent respectively. In the same way 16.1%, 11.8% and 7.8% were in other occupation, were housewives and business person respectively.

This data depicts that the majority of students and service men were found to be suffering from TB that means they were more exposed to different environment and crowds than other working groups like agriculture, housewife etc. it also shows that 19.4% farmers have suffered from TB since they were poor and poverty and TB are deeply interrelated. This table also indicates student and job holder more aware than poor farmer about TB.

4.7 Annual income of Respondent

Man is not only a social animal; he is also economic being. He is incessantly engaged in what are known as economic pursuits or activities. This economic activity is so multifaceted, varied and complex that they constitute what is known as economy. (Rao, 2002)

The annual income of the total respondents aged between 16-65 yrs was known after calculating their monthly income but few of the respondent's annual income was known after calculating working days in average.

Table No 4.7: Annual income of Respondents

Income	**Number**	**Percentage**
Less than 25000	12	12.9
25000-50000	11	11.8
More than 50000	21	22.6
Earn nothing	48	51.6
Don't know	1	1.1
Total	**93**	**100.0**

Source: Field Survey 2007

The table 4.7 shows that the most 51.6% of the total respondents earned nothing. In the same way 22.6%, 12.9% and 11.8% of the total respondents earned more than 50,000, less than 25,000 and 25,000-50,000 respectively. This means that almost the respondents are poor. Because of poverty they cannot afford dietary food. As result their immunity is weak so they easily get attacked by disease. TB which is an opportunistic disease that generally affects people with weak immunity. That's why we can say that TB and poverty are deeply interrelated.

4.8: Land Ownership of Respondents (his/her family)

According to the table most of the respondents have their own land. The presented table 4.1.9 shows the distribution of land of the total respondents. The majority 93.5% of the total respondents have own land whereas 6.5% of the total respondents don't have their own land.

Table No 4.8: Ownership of land of Respondents

Ownership of Land	Number	Percentage
Yes	87	93.5
No	6	6.5
Total	**93**	**100.0**

Source: Field Survey 2007

4.9 Family

Family is one of the fundamental units of every society. It is one of the most important institutions of the society which defines individual's roles, positions and authorities. It is the micro institution of the society. It is the group defined by sex, relationship sufficiently precise and enduring to provide for procreation and up bringing of the children. It is also known as biological social unit composed of husband, wife and children.

Table No 4.9: Family size of Respondents

Family member	Number	Percentage
1-2	6	6.45
3-4	37	39.78
5-6	44	47.31
7-9	6	6.45
Total	**93**	**100.0**

Source: Field Survey 2007

Above presented table 4.9 shows the highest 47.31 of the total respondents have five to six members in their family. Similarly the second highest 39.78 of the total respondents have three to four members in their family. In the same way the rest 6.45 and 6.45 of total respondent have one to two and seven to nine members in their family respectively. The table shows size of family does not have direct association to TB.

4.10 Annual income of Respondent's family

Economy plays a vital role in different aspects of a human. For example Education, health, success etc. That means every person's status of health directly depends on his/her family members' sources of income.

Table No 4.1.9: Annual income of Respondent's family

Income	Number	Percentage
Less than 25000	13	14.0
25000-50000	13	14.0
More than 50000	35	37.6
Don't know	32	34.4
Total	**93**	**100.0**

Source: Field Survey 2007

The table 4.10: shows the majority 37.6% of the respondents' family's annual income is more than 50,000. The next highest 34.4% of the total respondents don't know their family's annual income. Similarly the rest 14% and 14% of the total respondents' family's annual income is less than 25,000 and from 25,000 to 50,000 respectively. It can be said that virtually all of the respondent's family income was lower through there are some variation among them. It indicates poverty has some association with TB.

CHAPTER FIVE

KNOWLEDGE AND ATTITUDE ON TB

This chapter has focused on the exploration of Knowledge/Attitude on TB of Tuberculosis patients. The knowledge/Attitude is tested on different aspects i.e. knowledge on TB before suffering from TB, cause of TB, Sign and symptoms, ways of transmission, prevention, method of treatment, duration of medication, vulnerability, stigma/discrimination of TB. If the patients have knowledge on TB, it helps to prevent and control to spread Tuberculosis; It helps to treat in early phase of disease; to control failure of treatment; to control chance of relapse; to avoid the negative attitude towards TB like; TB is not curable, TB is fatal disease etc.

5.1. Knowledge on TB before suffering from TB.

The table shows the whether the patients had any idea about TB or not before they knew they had TB.

Table No. 5.1.: Knowledge on TB before suffering from TB

Knowledge	Number	Percentage
Yes	77	82.8
No	16	17.2
Total	**93**	**100.0**

Source: Field Survey 2007

According to the table 5.1., 82.8% had some idea about TB whereas 17.2% of the total respondents had no idea about TB.

This data indicate that the majority of patients were more or less conceptual or aware about TB. But other doesn't have any knowledge on it.

5.2 Local name of TB

The title states the different name in the different local areas by which TB is recognized. It also states what people give local name themselves or how do people recognize about any kind of disease traditionally or in modern

name. So, it helps to make easy to know sign\symptoms, to diagnose and to treat the disease.

Table No. 5.2: Local name of TB

Name	Number	Percentage
Khapate	7	7.5
Sukenas	1	1.1
TB	72	77.4
Don't know	13	14.0
Total	93	100.0

Source: Field Survey 2007

According to the table 5.2, 77.4% of the total respondents call TB as TB. Similarly 14% of total respondents didn't know what TB is called whereas 7.5% and 1.1% of total respondents call TB as Khapate and Sukenas. The data indicates that almost people recognize Tuberculosis as TB in modern name.

5.3 Cause of TB

Every disease is mostly caused either by bacteria, virus or fungi. So, TB is also caused by bacteria called mycobacterium bacilli/mycobacterium tuberculosis. These organisms are known as tubercle bacilli or acid fast bacilli. Patients who are talking medicine of TB should know the cause of TB to aware the ordinary people who help prevent and control the tuberculosis disease. (NTC, 1998)

Table No 5.3: Causes of TB

Cause	Number	Percentage
Bacteria	8	8.6
Drinking and Smoking	43	46.2
Don't know	41	44.1
Others(water,dust,Stool)	7	7.5

Percentage based on multiple responses of 93 cases

Source: Field Survey 2007

According to the table 5.3, the highest 46.2% of the total respondents argued that alcohol/cigarettes are the causes behind TB whereas 8.6% believed that bacteria are the main cause behind TB. Similarly 44.1% and 7.5% of the total respondents didn't know the reasons behind TB and gave other answers.

This data indicates that majority of the patients thought habit of smoking and drinking are the main causes of TB which shows that the people still does not know what the real cause of TB is.

5.4 Signs and symptoms of TB

When a person suffers from TB the following signs/symptoms appear in him/her like cough, chest pain, fever, weight loss etc. It is essential to have knowledge of the patient about the sign and symptoms of TB because at least they give proper information to the ordinary people, which help to aware about TB and emphasis to prevent and control of the TB.

Table No 5.4: Signs/symptoms of TB

Signs/symptoms	Frequency of cases	Percent
Coughing	80	86.0
Loss of appetite	47	50.5
Fever	68	73.1
Weight loss	52	55.9
Chest pain	40	43.0
Don't know	6	6.5
Others(Headache,vomiting,heamotysis,etc)	45	48.4

Percentage based on multiple responses of 93 cases

Source: Field Survey 2007

According to the table 5.4, the highest 86% of the total respondents told cough is the signs/symptom of TB. The next 73.1% of the total respondents told fever is the sign/symptom of TB. Similarly 55.9%, 50.5% and 43% told weight loss, loss of appetite and chest pain are the signs/symptoms. The next 48.4% of the total respondents told other signs/symptoms while 6.5% answered didn't know. The data indicates that almost all the respondents have knowledge of sign and symptoms of TB.

5.5 Transmission of TB

TB is a communicable disease. It gets transmitted through respiration (by droplets while sneezing and coughing).The source of infection is person which TB of the lung is coughing. (NTC, 1998).

Table No 5.5: Reason behind transmission of TB

Reason	Number	Percentage
Eating rice together	7	7.5
TB patient coughing	38	40.9
Hand shake	6	6.5
Don't know	38	40.9
Others(tong kiss, sexual intercourse etc)	12.9	12.9

Percentage based on multiple responses of 93 cases

Source: Field Survey 2007

Table 5.5 shows, 40.9% of the total respondents believed that TB transmits when TB patient coughs. The next 40.9% of total respondents didn't know how TB gets transmitted. The next 7.5% and 6.5% of the total respondents believed that TB transmits by eating rice together and shaking hands respectively. The rest 12.9% gave other reasons as to how TB gets transmitted. The data indicates that the majority of respondent didn't know how TB gets transmitted.

5.6 Diagnosis of TB

It is very necessary to find out which organ of our body is affected by TB for the complete diagnosis of TB. There are two types of TB. They are pulmonary and extra-pulmonary TB. For the diagnosis of the pulmonary TB sputum must be checked and chest x-ray is optional because if a bacterium of TB is not seen in the sputum, chest x-ray could be another better way of diagnosis. In the other hand for the diagnosis of extra pulmonary TB that part/organ which is affected by TB must be properly examined by using different technologies. Sputum checking is also highly recommended in case of extra pulmonary TB. (NTC, 1998)

Table No 5.6: Diagnostic methods of TB

Methods	Frequency of cases	Percent
Blood test	14	15.1
Cough test	91	97.8
X-ray	78	83.9
Don't know	2	2.2
Others(stool test, urine test etc)	11	11.8

Percentage based on multiple responses of 93 cases

Source: Field Survey 2007

In the table 5.6 virtually all (97.8%) respondents answered sputum checking for the diagnosis of TB. The next 83.9% and 15.1% of the total respondents answered chest x-ray and blood examination for the diagnosis of TB. In the same way 11.8% gave other answers whereas 2.2% didn't know how TB is diagnosed.

This data indicate that the majority of respondent reported that sputum test and chest X-ray were main two diagnostic methods of TB, which shows that people knows that how to examine and find TB.

5.7 Curability of TB

TB is curable. Patient must be taken medicine for eight month to cure tuberculosis. Due to lack of knowledge and awareness many people don't know TB is curable or not.

Table No. 5.1.6: Curability of TB

Curability	Number	Percentage
Yes	93	100.0

Source: Field Survey 2007

According to the table 5.7, all (100%) respondents thought that TB is curable.

5.8 Methods of treatment

This table lists the different answers when TB patients were asked how TB is cured. There are various types of methods of treatment present in our society. This study has to help to know whether the respondent think either tradition healing, herbal healing or allopathic medication to cure TB.

Table No. 5.8: Methods of Treatment

Types of treatment	Number	Percentage
Traditional healer.	5	5.4
Herbal medicines	1	1.1
Allopathic Medicines	87	93.5
Total	**93**	**100.0**

Source: Field Survey 2007

According to the above table 5.8, 93.5% of the total respondents believed that TB can be cured by taking allopathic medicine whereas 5.4%

and 1.1% of total respondents argued that TB is cured by approaching traditional healer and taking herbal medicine respectively. The latter part of the result is consistent with these findings in which 5.4% and 1.1% of total respondents didn't feel that they were getting recovered in spite of taking medicine under DOTS.

5.9 Duration for medication of TB

It is compulsory to take medicine for eight whole months if a person suffers from TB: If TB is pulmonary, but if the TB is extra-pulmonary, then a patient has to take medicine for at least eight months or more if the doctor prescribes because extra-pulmonary TB can be cured even after eight months of medication.

Table No. 5.9: Duration for medication of TB

Time	Number	Percentage
Eight months	91	97.8
Don't know	1	1.1
Other(more than 8 month	1	1.1
Total	**93**	**100.0**

Source: Field Survey 2007

According to above table 5.9, 97.8% of total respondents knew that the medicine has to be taken for whole eight months whereas 1.1% and 1.1% of the total respondents didn't know and gave other answers respectively. This data indicates almost patients are aware about the duration of medication of TB disease.

5.10 Prevention of TB

From the public health point of view, the best way to prevent is to provide effective treatment to the infectious TB cases. TB a patient must be treated as soon as TB is diagnosed because with start of medication, the bacteria of TB starts getting destroyed/deactivated within two months. The other means of prevention are BCG immunization, covering mouth with hanky/mask, while coughing/ sneezing, disposing sputum/sneezing properly etc.

Table No 5.10: Preventions of TB

Ways of prevention	Frequency of cases	Percent
Care when coughing s	35	37.6
Treatment of TB patients fast	1	1.1
Don't know	55	59.1
Others	13	14.0

*Percentage based on multiple responses of 93 cases

Source: Field Survey 2007

According to the table 5.10 59.1% of the respondents didn't know how to prevent TB whereas 37.6% of the TB patients told making the TB patients cover their mouth while coughing/ sneezing. The next 14% gave other ways to prevent TB and 1.1% of the total respondents believed early diagnosis and early treatment of TB are the way to prevent TB.

5.11 Information to the family about sickness (TB)

In the context of our society TB has generally been accepted as a fatal disease since ancient time because of lack of knowledge/awareness about diseases. Person who is affected by TB, he is hated by his/her family, peer, society also. People have negative attitude toward the TB affected person, they don't like to near of TB patient and isolated from the family and society.

Table No. 5.11: Information to the family about TB

Information	Number	Percentage
Yes	91	97.8
No	2	2.2
Total	93	100.0

Source: Field Survey 2007

According to the table 5.11, 97.8% of the respondents had informed their family about their illness but 2.2% of total respondents had remained silent about their illness. It indicates TB has been accepted as normal diseases and stigmatization toward patient is almost absent in the study area.

5.12 Reason behind not informing family about sickness (TB)

2.2% respondent who said that they did not inform their families, they explained, they thought that their family would become tensed and worried which is shown in the below table

Table No 5.12: Reason behind not informing about TB to the family

Reason	Number	Percentage
Not Applicable	91	97.84%
Family will become sad/tension	2	2.16%
Total	93	100%

Source: Field Survey 2007

5.13 Information to friends/neighbors about sickness (TB)

TB is locally termed as Khapate, Sukenas etc. in our different part of different communities. As TB is considered as a fatal disease, TB patients tend to conceal their state of health because humiliation, hatred and discrimination towards TB patients are still in practice in some parts of our community.

Table No. 5.13: Information to friends/neighbors about TB

Information	Number	Percentage
Yes	90	96.8
No	3	3.2
Total	**93**	**100.0**

Source: Field Survey 2007

According to table 5.13, the majority of the respondents which is 96.8% had informed their friends/neighbors whereas 3.2% of the total respondents hadn't informed their friends/ neighbors of their state of health. These days, TB is not considered fatal disease since modern allopathic medicine are sufficient enough to cure TB, Even in Nepal recent reports have been shown that more than 85% of TB patients have been cured and people more or less aware that TB is communicable as well as curable too. Because of this more and more people share their status of health with their friends/neighbors.

5.14 Reason behind not informing friends/neighbors about sickness

Respondents who said that they did not inform their neighbors/friends, 66.7% explained that they didn't inform because they thought it was not necessary while another one reported s/he didn't because of fear.

Table No. 5.14: Reason behind not informing to friends/neighbors

Reason	Number	Percentage
It is not necessary	2	66.7
Other(fear of relation breaking)	1	33.3
Total	**3**	**100.0**

Source: Field Survey 2007

5.15 Risk of infection

TB is a communicable disease. Anyone can suffer from TB because TB bacteria (Mycobacterium bacilli) is found everywhere in air. An individual's risk of infection depends on exposure to droplet nuclei and susceptibility to infection. The risk of infection of a susceptible individual is therefore high with close, prolonged, indoor exposure to a person with TB.

Table No. 5.15: Risk of infection

Chance of risk	Number	Percentage
Yes	58	62.4
No	10	10.8
Don't know	25	26.9
Total	93	100.0

Source: Field Survey 2007

According to the table 62.4% of total respondents believed that anyone can suffer from TB whereas 10.8% of total respondents didn't believe that anyone can suffer from TB. But 26.9% of the total respondents didn't know whether anyone can suffer from TB or not.

This data indicates that majority of the patients believed people from any race; age; group, sex; class; religion and region can get TB.

5.16 Reason of risk of infection

When questioned the above mentioned 10.8% of the respondents who suffers from TB, the following result was obtained.

Table No. 5.16: Reason of risk of infection

Reason	Number	Percentage
Habit of drinking and smoking	7	70.0
Frequent contact with patients	1	10.0
Other	2	20.0
Total	**10**	**100.0**

Source: Field Survey 2007

According to the table, 70% out of 10 respondents believed that TB occurs in those people who smoke and drink. The next 20% and 10% of the respondents gave other reasons and believed that TB occurs in those people who come in contact of TB patients frequently respectively.

CHAPTER SIX

CARE SEEKING PRACTICE

This chapter has explored the different aspects of care seeking Practice like sign and symptoms, first place of treatment, time period of illness, duration taken for first treatment, place of first treatment, reason behind approaching and not approaching TB hospital etc of the TB patients during very initial phase of their sickness.

6.1. Time Period of illness

When a person become sick, he doesn't go for medication, if he goes, he doesn't go to an appropriate place, he doesn't go in time because of various reason: like socio-economic problem, lack of knowledge, transportation etc

The following table 6.1.1 shows how long the patient had been sick until the day of interview.

Table 6.1.: Time period of illness (in month)

Period(in month)	Number	Percentage
1-3	27	29.0
4-6	38	40.9
7-9	19	20.4
10-12	9	9.7
Total	**93**	**100.0**

Source: Field Survey 2007

In this table the highest 40.9% had been sick from 4-6 months. Similarly the second highest 29%, the third 20.4% and 9.7% of the total respondents had been sick from 1-3 months, 7-9 and 10-12 months respectively.

This data indicates that people don't go for medication in time and even if they go, they don't go to an appropriate place in the appropriate time because of various reasons like their social, economic condition etc which I found during my field work after asking the reason behind coming late for treatment.

6.2: Signs and symptoms of illness

When people get sick, signs and symptoms appear. There are various signs and symptoms of various diseases like fever, headache, cough, vomiting etc. In the case of tuberculosis fever, loss of weight, loss of appetite and chest-pain etc are the signs and symptoms.

Table No 6.2: Signs and Symptoms

Signs and symptoms	Frequency of cases	Percent
Coughing	80	86.0*
Fever	69	74.2
Chest pain	49	52.7
Weight loss	43	46.2
Blood in cough	19	20.4
Others(headache,bodyache,vomiting, etc)	*39*	41.9

*Percentage based on multiple responses of 93 cases

Source: Field Survey 2007

According to the table 6.2, 86% of total respondents reported that cough was their signs/symptoms. In the same way 74.2% of the total respondents reported that fever was their signs/symptoms. Similarly, 52.7%, 46.2%, 41.9% and 20.4% of the total respondents reported that chest pain, weight loss, other signs/symptoms and blood in cough were their signs/symptoms respectively.

According to this data cough and fever are the most common signs and symptoms seen on the patients which are the main signs and symptoms of tuberculosis.

6.3 Duration taken for first treatment

This study shows that the duration taken by the respondent to approach place of treatment when they found and felt that they had fallen sick.

Table 6.3: Duration taken for first treatment (in days)

Duration	Number	Percentage
1-10	43	46.2
11-20	25	26.9
21-30	14	15.1
31-90	7	7.5

91-240	4	4.3
Total	**93**	**100.0**

Source: Field Survey 2007

The table 6.3 explains that 46.2% of the total respondents went for treatment within 10 days of their sickness which is the highest percent of the respondents. Similarly the second highest 26.9% of the total respondents visited for treatment from 11th to 20th day of their sickness. In the same way 15.1%, 7.5% and 4.3% of respondents visited for treatment from 21st to 30th, 31st – 90th and 91st-240th day of their sickness respectively.

So majority of people went for the first treatment within the first 20 days which indicates that most of these people are seeking care earliest the possible.

6.4 Place of first treatment

In examining care seeking practice, it is also important to know the, the very first place for the treatment visited by the tuberculosis patients after they felt that they have been sick.

Table No 6.4: Place of first treatment

Place of treatment	Number	Percentage
Traditional healer	3	3.2
Health post/ health worker	2	2.2
Private clinic	32	34.4
Hospital/Nursing home	39	41.9
Herbal/ayurbedic clinic/hospital	1	1.1
TB hospital	16	17.2
Total	**93**	**100.0**

Source: Field Survey 2007

This table 6.4 showed the highest 41.9% of the respondents visited hospital/nursing home. Similarly the second highest 34.4% of the total respondents visited private clinic. In the same way 17.2%, 3.2%, 2.2% and 1.1% of the total respondents visited TB hospital, traditional healer, health post/ health worker and Ayurbedic clinic/ hospital respectively.

This data shows the majority of patients approaching to Nursing homes/hospitals and private clinics as their first place of treatment which indicates that people have started to trust allopathic medicines.

6.5 Advisor for first place of treatment except TB hospital

This table shows whether the TB patients go for treatment by themselves or are advised by somebody else.

Table No 6.5: Advisor for first place of treatment

Advisor	Number	Percentage
Own self	50	64.9
Neighbors	3	3.9
Friends	3	3.9
Relatives	17	22.1
Others(Teacher, Health worker)	4	5.2
Total	77	100.0

Source: Field Survey 2007

In this table, 64.9% the highest percent of the total respondent went for treatment by themselves. In the same way 22.1% the second highest were advised by their relatives to go for treatment. Similarly 5.2%, 3.9% and 3.9% of the total respondents were advised by others, neighbors and friends respectively.

This data indicates that most of patients went for first place of treatment on their own or not advised by anyone to go there.

6.6 Status of recovery at first place of treatment except TB hospital

It is important to know whether the patients were getting well or not after they had approached their very first place for treatment.

Table No. 6.6: Status of recovery at first place of treatment

Recovery status	Number	Percentage
Yes	22	28.6
No	55	71.4
Total	**77**	**100.0**

Source: Field Survey 2007

According to this table 6.6, 28.6% of the respondents had felt that they had recovered whereas 71.4% of the respondents felt that they hadn't recovered. Among 71.4%, some patients used herbal medicine, some were treated by traditional healers and although some patient treated in private clinic/nursing home and health post would be wrong diagnosis, which are the possible causes of not recovery.

6.7 Reason behind approaching TB hospital

A person goes to different places of treatment after he/she gets sick for treatment. Some of the TB patients directly came to the TB hospital for treatment whereas the rest of the respondents came to the TB hospital at last after visiting different other health institutions in spite of their process of recovery. They are led by different factors as indicated by the table below.

Table No 6.7: Reason behind approaching TB hospital

Reason	Frequency of cases	Percent
Get free medicines	19	86.4*
Regular checkup	11	50.0
Proper advice	4	18.2
Others(Short distance, Don't know)	3	13.6

Percentage based on multiple responses of 22 cases

Source: Field Survey 2007

According to the table 6.7, 86.4% of the respondents came to the TB hospital to get free medicines. The next 50% of the respondents came to the TB hospital for proper and regular check up whereas the next 18.2% and 13.6% of the respondents came for proper advice and for other reasons even though they already were in the process of recovery.

The data indicates that majority of the respondent went to TB hospital to get free medicine. It also indicates their economic status.

6.8 Reason behind not approaching TB hospital initially

It is also import to know why people don't go to the TB hospital for treatment in the very beginning. There are various reasons like socio-economic, education, transportation, religion which affects to stop to go TB hospital.

Table No. 6.8: Reason behind not approaching TB hospital initially.

Reasons	Number	Percentage
I don't know about this hospital	33	42.9
I don't doubt	43	55.8
Other(Far distance)	1	1.3
Total	**77**	**100.0**

Source: Field Survey 2007

According to the table 6.8, 55.8% of the respondents didn't doubt that they had TB. Similarly 42.9% of the respondents were found to have no idea about this TB hospital and 1.3% of the respondents gave other reasons.

The data indicates that the majority of the respondent didn't doubt that they had TB because the very initial sign and symptoms didn't make them realize that they were suffering from TB. Similarly some respondent didn't know about TB hospital because the people are not generally aware about the presence of TB hospital and they approach the other places in case of sickness.

6.9 Advisor to recommend TB hospital

This table illustrates the different types/sources of people who suggested them to approach TB hospital.

Table No. 6.9: Advisor to recommend TB hospital

Advisor	**Number**	**Percentage**
Own self	10	10.8
Relatives	10	10.8
Neighbors	8	8.6
Health worker	10	10.8
Hospital/Nursing home	43	46.2
Other(Teacher, Pujari)	12	12.9
Total	**93**	**100.0**

Source: Field Survey 2007

According to the table 6.9, the majority 46.2% of the respondents were advised by hospitals/nursing homes. Similarly the next 12.9% of the respondents were advised by other sources. In the same way 10.8% and 10.8% of the respondents were advised by their relatives and health workers respectively. The other 10.8% of the respondents came by themselves whereas 8.6% were advised by their neighbor

CHAPTER SEVEN

PERSONAL CARE PRACTICE OF TB PATIENT

The target of this chapter is to clarify the different ways/behavior of TB patients as how to use medicine and how to take precaution, the habit of drinking and smoking, timely checking of sputum, involvement in difficult task, consumption of dietary food etc by the TB patients during the time of medication. In this period if patient doesn't use medicine regularly, it results the failure of treatment, relapse and patient may die. So he must be taken medicine regularly, if the patient doesn't aware while coughing and sneezing, it creates chance of transmission of TB, if the patient don't quit the habit of drinking and smoking, it is very less chance to recovery. Similarly patient has to check sputum timely to know whether recovering or not. Patient should not do hard work during the medication because patient become weak and feel tired while he is sick and he has also to take medicine for very long time.

7.1. Regular use of medicine

TB is one of that disease for which medicine must be taken daily for eight months under DOTS. If medicine is not taken regularly it results the failure of treatment, relapse and patient may die.

Table No 7.1.: Regular use of medicine

Regular use	Number	Percentage
Yes	93	100.0

Source: Field Survey 2007

According to the table 7.1, 100% of the total respondents were found to be taking medicine daily till the day of interview.

This data indicates that every patient knows TB won't be recovered if medicine is not taken regularly for whole eight months under DOTS.

7.2 Precautions during sneezing/ coughing

TB is a communicable disease. It easily gets transmitted from one person to another through respiration. So patient needs to be aware all time while coughing and sneezing. That's why they must adopt precautions either by covering their mouths with hanky/wearing mask or in any other way. This creates a least chance of communication/transmission of TB.

Table No. 7.2: Precautions during sneezing/coughing

Precautions	Number	Percentage
Yes	78	83.9
No	15	16.1
Total	**93**	**100.0**

Source: Field Survey 2007

According to the table 7.2 83.9% of total respondents were found to be adopting means of precautions while rest of 16.1% were not found to be adopting means of precautions.

This data shows that majority of the patients knew that TB is communicable and gets communicated through respiration when a patient coughs or sneezes so they adopted precaution during sneezing and coughing.

7.3 Ways of precautions while coughing/sneezing

There are various types of ways of precaution while coughing and sneezing like hanky, mask etc which patient should adopt.

Table No. 7.3: Ways of precautions

Ways	Number	Percentage
Using hand only	2	2.5
Using both hanky /rumal and mask	31	39.74.
Using mask only	6	7.69
Using hanky /rumal only	39	50
Total	**78**	**100.0**

Source: Field Survey 2007

According to the table 7.3, 50% of the total precautions adopting respondents were found to be using hanky, 39.74% of the precautions adopting respondents were found to be using both hanky and mask. And

7.69% and 2.5% of the precautions adopting respondents were found to be using only mask and only hands respectively.

7.4 Reason behind not taking precautions while coughing and sneezing

Table No. 7.4: Reason behind not taking Precautions

Reasons	Number	Percentage
I have not hanky	1	6.66.
No coughing	12	80
Other(covering mouth by hand)	2	13.33
Total	**15**	**100.0**

Source: Field Survey 2007

According to the table 7.4, 80% of the total non precautions adopting respondents told that they had no cough whereas 13.33% and 6.6% of total non precautions adopting respondents didn't give any answer and didn't had hanky respectively.

7.5 Habit of drinking alcohol

TB is always caused by bacteria but not because of smoking and drinking. In fact smoking and drinking deficient the immunity power of human which helps the diseases to easily attack. That's why smoking and drinking is always injurious to health whether the doer is always sick or not.

Table No. 7.5: Habit of drinking

Habit	Number	Percentage
Never drink	54	58.1
Drink before but not now	38	40.9
Always drink	1	1.1
Total	**93**	**100.0**

Source: Field Survey 2007

According to the table 7.5, 58.1% of the total respondents told that they had never drunk. The next 40.9% and 1.1% of the total respondents told that they used to drink but not now and they always drank respectively till the day of interview. The data indicates that majority of respondents didn't use alcohol.

7.6 Habit of smoking

Table No. 7.6: Habit of smoking

Habit	Number	Percentage
Never smoke	54	58.1
Smoke sometimes	2	2.2
smoke before but not now	37	39.8
Total	**93**	**100.0**

Source: Field Survey 2007

The table 7.6, 58.1% of the total respondents told that they had never smoked. The next 39.8% and 2.2% of the total respondents told that they used to smoke but had quit and smoked sometimes respectively.

These above data shows that smoking and drinking are not directly associated with tuberculosis.

7.7 Timely checking of sputum

After a TB patient starts taking medicine daily under DOTS, he has to check his sputum in 2 months, 5 months and at the end 8 months with the beginning of medication under DOTS. This helps to know whether the patient is recovering or not.

Table No. 7.7: Timely sputum check-up

Status	Number	Percentage
Yes	93	100.0

Source: Field survey 2007

The table 7.7, depicts that all (100%) of the respondents were found to be checking their sputum regularly.

7.8 Involvement in difficult task after medication

People mostly are weak and feel tired while they are sick. That's why they actually need proper rest and shouldn't work hard.

In case of TB patients, they feel comparatively more tired and sick as they have to take medicine for a very long time. Hence TB patients need appropriate rest and shouldn't do any difficult task.

Table No. 7.8: Involvement in difficult task

Involvement	Number	Percentage
Yes	**18**	**19.4**
No	**75**	**80.6**
Total	**93**	**100.0**

Source: Field Survey 2007

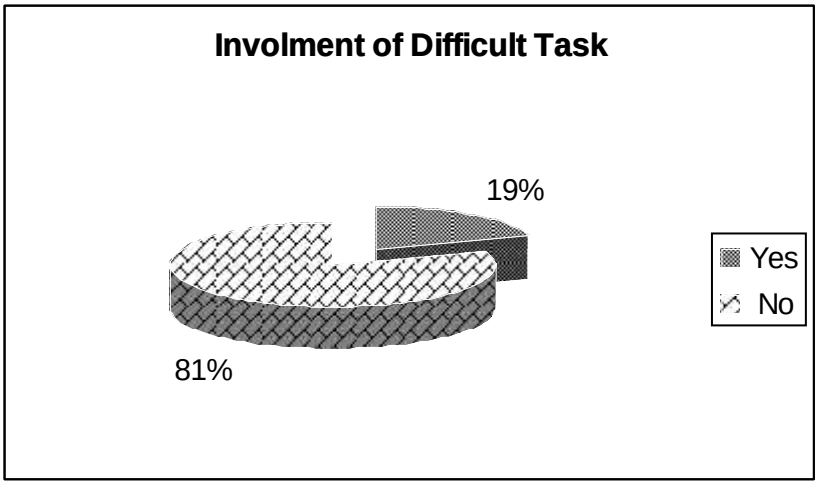

Figure no 7.1

According to the table 7.8, 80.6% of the total respondents haven't been doing any difficult task whereas 19.4% of the respondents were found to be doing difficult task.

7.9 Consumption of dietary food after starting medication

It's always wise to take dietary food or balanced diet especially during sickness. One feels weak because of deficiency of nutrients like vitamin, protein, calcium etc. So it's highly recommended that one must take proper amount of nutrients during period of sickness.

In the case of TB patients it is a must that he/she should take nutrients properly as they have to take medicine for eight months.

Table No. 7.9: Consumption of dietary food

Consumption	Number	Percentage
Yes	84	90.3
No	9	9.7
Total	**93**	**100.0**

Source: Field Survey, 2007

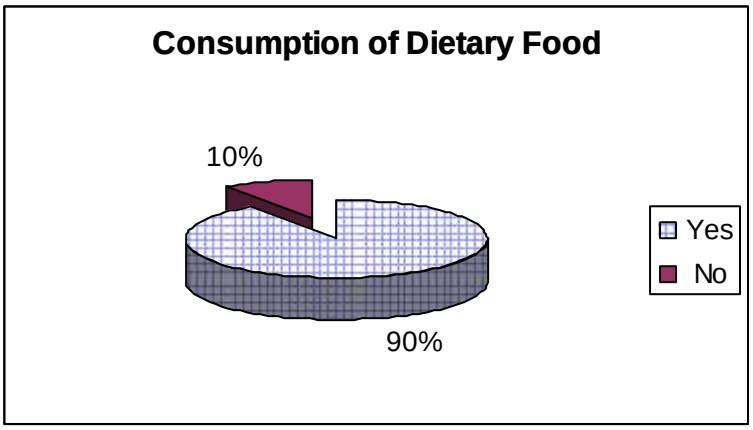

Figure no 8.1

According to the table 7.9, 90.3% of the total respondents were found to be taking dietary food whereas the rest 9.7% were found not to taking dietary food.

7.10. Reason behind not taking dietary food

Table No. 7.1.9: Reason behind not consuming dietary food

Reason	Number	Percentage
Lack of money	9	100.0
Total	**9**	**100.0**

Source: Field Survey 2007

All of the respondents who reported that they did not take nutrient food; all (100%) were found not to be taking dietary food because of lack of money. It indicates poor economic status affect the treatment of disease.

7.11 List of dietary food

In this study, the data shows respondents take the dietary food whatever they able to take because they know they should take dietary food during the medication of TB.

Table No 7.11: List of Dietary Food

Names/types	Frequency of cases	Percent
Meat	75	89.3
Fish	42	50.0

Fruits	74	88.1
Pulses (Gedagudi)	9	10.7
Milk	9	10.7
Leafs (sag)	9	10.7
Ghee	2	2.4
Eggs	48	57.1

*Percentage based on multiple responses of 84 cases

Source: Field Survey 2007

According to the table 7.11, 89.3% of the 84 respondents took meat as dietary food. The next 88.1%, 57.1% and 50% out of 84 respondents took fruits, eggs and fish as their dietary food. Similarly 10.7%, 10.7 and 10.7% of the 84 respondents took pulses, milk and green vegetables as their dietary food.

CHAPTER EIGHT

SUMMARY, CONCLUSION AND RECOMMENDATION

8.1 Summary of findings

8.1.1 Demographic and Socio-Economic condition of respondents

- Tuberculosis is a communicable disease which can affect people from any age, gender, status cast\ethnicity etc. In this study, the majority of respondents were from young people (16-20) and more male were found to be suffering from TB then female. Similarly, the majority of the patients were married and from different cast\ethnicity; the highest 47% of the responds were from ethnic group.
- Although there is no link between tuberculosis and the religion, the highest percent (65.6%) of respondents were from Hindu group.
- The data shows the higher percent (30.1%) of respondents completed higher level of education and the majority of students (23.7%) were found to be suffering from TB among the occupation of the respondents.
- .In terms of economic status, most 51.6% of the respondents earned nothing and they are mostly the student but most (93.5%) of the respondents have their own land.

8.1.2 Knowledge and Attitude on TB

- In terms of knowledge on TB, the data indicates that respondents were more or less familiar about TB before suffering from TB. Significant majorities (82.8%) of the respondents reported that they have knowledge on TB before suffering from TB but the knowledge was not comprehensive.

- In this study the data shows that most (46.2%) of the respondents believed that alcohol\cigarettes are the causes behind TB. It shows their knowledge on cause of TB is not comprehensive.
- When person suffers from TB he gets sign and symptom like fever, cough, loss of weight, chest pain etc. In the study the data shows that the majority of the respondents knew that cough and fever are the sign and symptom of the tuberculosis.
- In this study 40.9% of the respondents believed that TB transmits when TB patient's coughs and rest 40.9% of the total respondents did not know how TB gets transmitted.
- Majority of the respondents answered that sputum checking is the diagnosis of TB.
- TB is one of that diseases for which medicine must be taken daily for eight months under DOTS, but some people still believed TB is incurable and fatal disease. In this study all (100%) respondents believed that TB is curable and most (93.5%) respondents believed that TB can be cured by taking allopathic medicine and also most (97.8%) of the respondents' were aware about duration of medication for treatment of TB.
- For the prevention of TB, patient must be treated as soon as TB is diagnosed. In the study, the highest 59% of the respondent did not know how to prevent Tuberculosis.
- Most (97.8%) of the respondent had informed their family\ friends\ neighbor about their disease.
- TB is communicable disease. Anyone can suffer from TB. In the study the majority (62.4%) of the respondent believed that anyone can suffer from TB.

8.1.3 Care Seeking Practice

- When people gets sick from TB; fever, cough, loss of weight, loss of appetite etc the sign and symptoms appear. In this study, data shows that cough (86.0%) and fever (74.2%) is the most common symptoms seen on the respondents.

- People have to go to treat as soon as possible after getting sick. Majority (46.2%) of respondent went for the first treatment within the first 10 days and the majority (41.9%) of the respondent of the approached to nursing homes, hospitals and private clinic as their first place of treatment.
- People go for treatment by themselves or advise by somebody else after they felt that they have been sick. In the study the majority (64.9%) of respondents went for first place of treatment by themselves and the majority (71.4%) of respondents felt that they had not been recovering at the first place of treatment.

8.1.4 Personal Care of Practice of TB Patient

- Generally TB is one of the diseases for which medicine must be taken daily for 8 months. In this study cent percent (100%) of the respondents where found to be taking medicine daily.
- TB is communicable disease. It easily gets transmitted from one person to another through respiration. So patients need to be aware all time while coughing and sneezing. In this study the data shows that majority (83%) of respondents were found to be adopting precautions in which 50% of the total precaution adopting respondents were found to be using hanky whereas 80% answer that they had no cough, so they did not adopt means of precaution.
- In fact smoking and drinking deficient the immunity power of human which helps the disease to easily attack and less chance to recover during the medication of TB. The data shows that the majority (58.9%) of the respondents did not have the habit of drinking and smoking.
- The data shows that 100% of the respondents were found to be checking their sputum regularly and majority (80.6%) of the total respondents haven’t been doing hard work and were found to be taking dietary food whatever they were able to take.

8.2 Conclusion

The study is based on tuberculosis patient of DHO DOTS center kaski. This study has focused on knowledge, attitude, behavior, care seeking practice and associated socio-economic variable regarding TB.

Tuberculosis is communicable disease which can affect people from any age, gender, status, cast, ethnicity etc. In this study, the particular age from 16-20 were found to be suffering from tuberculosis. It doesn't necessarily mean that TB is more likely to affect younger people. Similarly male were found to be suffering from TB than female. It is mainly due to men are more exposed to the outer environment and more male were likely to have habit of smoking and drinking than female.

Although more married people were found to be suffering from TB than unmarried people. Evidences are not clear that TB is more likely to affect particularly married people. In this study, the respondents were from many of the caste and ethnic groups but among them most were from ethnic group, Janjati. One of the explanations is that these groups use more alcohol and many of the poor people don't take dietary food. But abundance of Janjati people in the study area is also a factor for large number. Similarly most Hindus were found to be suffering from TB. There were fewer people from other religion suffering from TB like Buddhists, Christians, and Muslims. Most people who had completed higher level of education were found to be suffering from TB. Interestingly, there were significant number of respondents whose occupation was student. But it doesn't mean that education doesn't have relationship with TB. They were found in majority also because they were aware of their health and came for check up as soon as they thought it was high time for them to approach a medical institution but education cannot be only one factor to be healthy. There are also various factors playing vital role to be healthy. One is economic status. In this study, most of the respondents with no reliable source of income were suffering from TB and it means that most of the respondents were poor who couldn't afford dietary food. As a result, their immunity was weak and easily got attacked by disease like TB.

This study also focused on exploration about knowledge/attitude on TB of the TB patients. In this study, most people recognized Tuberculosis as TB in modern name before to get counseling and to start medication as TB patients. It means that people had some knowledge about TB before starting medication. But most people didn't know the causes and transmission of the TB. they thought the habit of drinking and smoking are the main cause of TB because of the reason that may be either they forgot or didn't get proper counseling given by health worker before starting medication. But most people were to be found knowledge of sign and symptoms and diagnosis method of TB. In this study, the entire patient knew that TB is curable, and most people were found to be that TB was cured by taking allopathic medicine and the time needed for medication for treatment of TB. Most people were found to be that they informed their family and neighbor about TB without hesitation which is positive. Though knowledge and practice on TB was not comprehensive and ideal, it is encouraging fact that many of the indicators about knowledge and practice are positive which also indicates that people are getting more aware on TB.

This study has explored the different aspects of care seeking practice. Many people didn't go for medication in time and even they went they didn't go to appropriate place to check up. Socio-economic factors like awareness, income, education etc has some effect on it. Most people went to treat within 20 days means people were eager to go for treatment as soon as possible but they couldn't go because of economic, social and other problem. Most people were to be found to go hospitals and nursing home to treat at first because people started to trust in allopathic medicine and they had been cured whenever they went to those places as a sick. Most People were found to be to go TB hospital to get free medicine which indicates their economic status.

This study has also tried to examine the different ways/behavior of personal care on TB patient during the time of medication. Most of all people reported to take medicine regularly. Most patient were found to be adopting means of precautions, they didn't use alcohol land smoke even who took the alcohol and smoke avoided during the medication. Because they have been well known by counseling that TB didn't get cured if they took medicine irregularly, TB would spreads if they didn't adopt means of precautions. They

were also familiar that smoking and alcohol are injurious to health. Similarly people were found to be checking sputum. Most of the people were not to be found doing hard work and they were found to be taking dietary food whatever they had. It shows that patients were well aware about their health.

In sum, the study shows though some variations exist in terms of socio-economic status, TB victims have low socio-economic status. It indicates Tuberculosis and poverty are somehow interrelated likewise; men are more likely to get TB than female due to varied risk behaviors and situations. Most patients know sign and symptoms, diagnosis, how to cure, duration of treatment of TB etc which shows that they have already known a little about tuberculosis and they have also been counseled about TB at the TB hospital. But knowledge is not as comprehensive as required. Most of the respondents reported that they informed their family and friend about their illness which indicates stigma related has been changing. The study also shows trust on allopathic medicine system has developed and traditional way like consulting faith-healer is almost absent in the case of TB. They go to the hospital, nursing home, and private clinic. The practice of the patient is satisfactory during the medication which also indicates chances of success in control of TB.

8.3 Recommendation

- Information should be incorporated in school curriculum because many of the persons were students and didn't have comprehensive knowledge on TB.
- Counseling in the DOTS needs to be strengthened because many people didn't know the immediate cause of disease e.g. bacteria and the therefore knowledge was not as comprehensive as required.
- Publicity and awareness about the TB and its treatment center need to be recommended because many of the patients are not coming to TB treatment centre directly, which shows waste of time and money along with increased complexity of the disease for the patients.
- An integrated approach of TB control is needed which should address socio-economic factors associated with TB.

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APPENDICES

Appendix I

Department of Sociology/ Anthropology

Prithvi Narayan Campus, Pokhara

Knowledge, Attitude and Practice on Tuberculosis

(A study of Tuberculosis Patients in DHO, DOTS center Kaski)

Interviewer- Sundar Thapa

Interview Schedule

A Demographic File

<table>
<tr><th>S.N.</th><th>Questionnaire</th><th>Answers</th><th>Go to</th></tr>
<tr><td>1</td><td>Age in years</td><td></td><td></td></tr>
<tr><td>2</td><td>Sex</td><td></td><td></td></tr>
<tr><td>3</td><td>Address</td><td></td><td></td></tr>
<tr><td>4</td><td>Caste/ethnicity</td><td>(I) Brahmin (ii) Chettri (iii) Baisa (iv) Sudra
(v) others</td><td></td></tr>
<tr><td>5</td><td>Religion</td><td>(I) Hinduism (ii) Buddhism (iii) Islam (iv)Christianity
(v) others</td><td></td></tr>
<tr><td>6</td><td>Marital status</td><td>(I) Married (ii) unmarried iii)divorced iv) widow v) others</td><td></td></tr>
<tr><td>7</td><td>Educational status</td><td>(I) illiterate (ii) literate (iii) primary (iv) lower secondary (v) secondary (v) higher secondary (vi) others</td><td></td></tr>
<tr><td>8</td><td>Occupation</td><td>(I) agriculture (ii) service (job) (iii) housewife (iv) business (v) student (vi) others</td><td></td></tr>
<tr><td>9</td><td>Do you have land?</td><td>(I) yes (ii) no ⟶</td><td>11</td></tr>
<tr><td>10</td><td>How much land do you have?</td><td>(I) ropani / hall (ii) don’t know
(iii) no answer</td><td></td></tr>
<tr><td>11</td><td>How much do you earn annually?</td><td>(I) less than 25,000 (ii) 25,000-50,000 (iii) more than 50,000 (iv) no income v) don’t know (vi) no answer</td><td></td></tr>
<tr><td>12</td><td>What’s your family’s annual income?</td><td>(I) less than 25,000 (ii) 25,000-50,000 (iii) more than 50.000 (iv) don’t know (v) no answer(vi)no income</td><td></td></tr>
<tr><td>13</td><td>Family size</td><td>……..</td><td></td></tr>
<tr><td>14</td><td colspan="2">Family description
<table>
<tr><th>Kinship</th><th>Age</th><th>Sex</th><th>Education</th><th>Occupation</th></tr>
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B Care Seeking

S.N.	Questionnaire	Answers	Go to
1	How long have you been sick?		
2	What were the sign/symptoms during your illness?	(I) cough (ii) fever (iii) chest pain (iv) weight loss (v) blood in cough (vi) others	
3	When did you first go for treatment after you felt sick?		
4	Where did you first go for treatment after you felt sick?	(I) dhami/jhakri (ii) health post/health worker (iii) private clinic (iv) hospital/nursing home (v) ayurvedic clinic/hospital (vi) TB hospital (vii) others	9
5	Who suggested that place for you?(first place of treatment)	(I) myself (ii) neighbors (iii) friends (iv) relatives (v) others	
6	Did you get cured at that place?	(I) yes (ii) no	8
7	Why did you come to TB hospital?	(I) to get free medicine (ii) for regular checkup (iii) for appropriate counseling (iv) others	
8	Why didn't you come to this TB hospital or health institution in the very beginning?	(I) didn't know (ii) didn't have money (iii) social disgrace (iv) others (v) no idea(about this hospital)	
9	Who suggested you to come here (TB hospital)?	(I) myself (ii) neighbors (iii) relatives (iv) health workers (v)hospital/nursing home (vi) other	

C Knowledge and Attitude

S.N.	Questionnaire	Answers	Go to
1	Did you have any idea about TB before you knew you had suffered from TB?	(I) yes (ii) no	
2	What do people call TB in your society?	(I) khapte (ii) sukenass (iii) TB (iv) others (v) don't know	
3	What is the cause of TB?	(I) don't know (ii) drinking/smoking (iii) bacteria (iv) other	
4	What are the sign/symptoms of T.B.?	(I) cough (ii) loss of appetite (iii)fever (iv) weight loss (v)chest pain (vi) others	
5	How does TB transmit?	(I) taking rice together (ii) coughing/ sneezing by a TB patient (iii) shaking hands (iv) others (v) don't know	
6	How is TB diagnosed mainly?	(I) blood examination (ii) basis of sign/ symptom (iii) sputum examination (iv) stool/urine examination (v) x-ray [chest] (vi) others (vii) don't know	

7	Is TB curable?	(I) yes (ii) no	11
8	How TB is cured (treated)?	(I) jharphuk (ii) herbal medication (iii) allopathic medication (iv) worshipping gods/goddesses (v) others (vi) don't know	
9	How long does one need to take medicine for TB?	(I) one month (ii) five months (iii) eight months (iv) others (v) don't know	
10	What are the measures to prevent TB? (How is TB prevented?)	(I) making patient cover his/her mouth while coughing/ sneezing (ii)early treatment for patient (iii) others (iv) don't know	
11	Does your family know that you have TB?	(I) yes (ii) no	13
12	Why didn't you inform your family that you are suffering from TB?	(I) not needed (ii) because family would be worried (iii)took TB as normal diseases (v) others	
13	Have you told your friends/ neighbors that you are suffering from TB?	(I) yes (ii) no	15
14	Why haven't you told your friends/neighbors about your illness?	(I) not needed (ii) not prestigious (iii) fear of humiliation (iv) others	
15	Does everyone get TB?	(I) yes (ii) no	Practice
16	Who suffers from TB, then?	(I) people with low socio-economic status (ii) people addicted to smoking and drinking (iii) people frequently contacting patients (iv) others	

D Practice

S.N.	Questionnaire	Answers	Go to
1	Are you taking medicine regularly?	(I) yes (ii) no	3
2	Why are you not taking medicine regularly?		
3	Are you taking precautions while coughing/sneezing	(I) yes (ii) no	5
4	How are taking precautions while coughing/sneezing?		
5	Why are not you taking precautions while coughing/sneezing?		
6	Do you drink alcohol?	(I) never (ii) sometimes (iii) used to before not now [quit] (iv) daily	
7	Do you smoke?	(I) never (ii) sometimes (iii) used to before not now [quit] (iv) daily	
8	Have you been checking sputum regularly?	(I) yes (ii) no	10
9	Why haven't you been checking you sputum regularly?		

10	Have you been doing difficult task after suffering from TB?	(I) yes (ii) no	
11	Are you taking dietary food after starting medication?	(I) yes (ii) no → 13	
12	What dietary food are you taking?		
13	Why aren't you taking dietary food?	(I) lack of money (ii) didn't know (iii) didn't care (iv) others	

Do you want say anything at last?

Thank you

Appendix II

PHOTOGRAPH OF THE STUDY AREA

DHO DOTS CENTER, KASKI ALONG WITH RTC