

CHAPTER VII

CONCLUSION AND RECOMMENDATIONS

7.1 Introduction

This chapter covers the conclusions and recommendations of this study. Both conclusions and recommendations are presented for each independent variable. The most important conclusions or recommendations are presented first followed by the relatively less important.

7.2 Conclusions

The 18 factors listed as part of the 6 independent variables (burden, physical availability, financial affordability, acceptability, geographical accessibility and civil conflict), which have been defined as the indicators of access to and utilization, were analyzed to answer the objectives number one to six. FGD indicated that the all the factors are different between non-conflict area (NCA) and conflict area (CA). The prevalence study carried out in NCA and CA demonstrated that the burden of diseases in CA is higher than NCA.

An analysis of FGD suggested that the burden of disease is higher in CA than NCA. The reasons were the internal displacement of the population from the hilly conflict affected districts to CA and poor physical availability. All the factors are found to be different between NCA and CA and related with access to and utilization of TB

services. FGD suggested that the patients in CA are facing more problems in accessing and utilizing TB services.

The univariate analysis showed that in NCA the knowledge about TB service, availability microscopy in HF, knowledge about TB drugs, separate examination room and HF in walking distance were statically associated with access to TB services (P-value.007,<.001,<.001, .010 and .012). The dogmatic behavior and access found to be statistically associated in both NCA and CA (P-value.011, and <.001). In CA the satisfaction of patients, female staffs in HF, closures and killings were identified to be statically associated with access (P-value .004, .016, .046 and .023). In NCA, the knowledge about TB service, separate examination room, and female staffs in HF were statically associated with utilization (.012, .011, and.016). In CA satisfaction of patients, dogmatic behavior of health workers and killings are statistically associated (.043,.036 and .047) with utilization.

The analysis demonstrated that the following factors were found to be statistically significant different between CA and NCA. First, Burden; stop cough (Statistically significantly different for both male and female between NCA and CA). Second is physical availability; knowledge about TB service (Statistically significant different for female between NCA and CA), knowledge about TB drugs (Statistically significant different for male between NCA and CA), and separate examination room (Statistically significant different for male between NCA and CA). Third is financial affordability; no statistical significant difference found.

Fourth independent variable is acceptability; first visit for diagnosis (Statistically significant different for both male and female between NCA and CA), satisfaction about services (Statistically significant different for both male and female between NCA and CA), female staffs in HF (Statistically significant different for male between NCA and CA), and dogmatic behavior of health workers (Statistically significant different for male between NCA and CA). Fifth independent variable is geographical accessibility; health facilities in walking distance (Statistically significant different for both male and female between NCA and CA), and time to go health facilities (Statistically significant different for both male and female between NCA and CA). Sixth is civil conflict; mass campaigns (Statistically significant different for both male and female between NCA and CA), curfews (Statistically significant different for both male and female between NCA and CA), closures (Statistically significant different for both male and female between NCA and CA), casualties (Statistically significant different for both male and female between NCA and CA), and killings (Statistically significant different for both male and female between NCA and CA). During the study the importance of socio-demographic factors was realized, that finding that the gender and TB is an important factor.

The multivariate analysis demonstrated that knowledge about TB drugs, and dogmatic behaviors of health workers are statistically associated (P-value .008, and .004) with access to TB services between CA and NCA. In addition to that, the model showed that satisfaction with the services, health facility within walking distance and killings happened in the patients family and community are statistically associated (P-value .039, .024 and .004) with utilization of TB services.

Due to the scanty database in study areas and literature on this issue, study cannot come up with data that can really establish the causation. An extensive study with larger samples, wider time span and multidisciplinary team in the research has been identified as being crucial to establish the more valid reference for policy makers. This study is strong enough to explore the factors related to access to and utilization of TB services in the areas with and with out civil conflict in Nepal. It will be the best reference for planners in conflict areas, researchers, and health institutions. Since the study was able to explore novel ideas in public health, students will be benefited from the findings of this study. Following are the major conclusion drawn from both the qualitative and the quantitative analysis.

7.2.1 Socio-Demographic Factors

The focus group discussion indicated that the case detection rate in males was higher than females. However, FGD strongly explored that the females are more compliant than males. Univariate analysis demonstrated that females are more compliant than males in both study areas (70.4 percent males and 74.4 percent females from CA and 89.6 percent males and 94.6 percent females in NCA takes drugs every day). It shows that patients in NCA are more compliant than CA.

7.2.2 Burden

The prevalence of the TB has been found to be increasing in CA. Due to the time and resource limitation of this study the mortality rate in CA could not obtained. FGD indicated that the higher level of conflict caused higher internal migration from the hilly district to Dang, which caused a higher burden of disease.

7.2.3 Physical Availability

FGD indicated that the availability of the services in NCA is better than CA. It has been explored that due to insecurity of health staff, lack of supervision from district health facilities and abduction of the patients as well as health workers the availability of services was impeded in CA. The availability of microscopes and DOTS expansion has been found to be poorer in CA. Logistic regression model demonstrated that knowledge on TB drugs is statistically associated (P-value .008).

7.2.4 Financial Affordability

FGD indicates that the patients in CA are facing more problems of affordability than NCA. FGD explored that economic opportunities are greatly reduced in CA. However, univariate analysis showed that there is no difference in affordability between NCA and CA.

7.2.5 Acceptability

FGD indicated that the more patients visit the traditional healers in CA than in NCA. More patients in NCA are satisfied with TB services than CA. Logistic regression model showed that dogmatic behavior of health workers is statistically associated (P-value .0004) with access to TB services. Like wise satisfaction of patients to services statistically associated (P-value .039) with utilization of TB services.

7.2.6 Geographical Accessibility

FGD identified that people in CA needed more time to go health facility than patients in NCA. It has also been identified that due to the long distance and crossing

the rivers and jungles patients in CA facing challenges to access to and utilization of TB services. Univariate analysis also showed that patients from CA need to walk more than NCA. The logistic regression model showed that availability of health facilities in walking distance is statistically associated (P-value .024) with utilization of TB services.

7.2.7 Civil Conflict

FGD revealed that conflict seriously affected the availability of the services, financial condition of the patients and put hurdles in travel to health facilities. FGD also identified that the mass-campaigns organized by the Maoists forced not to go to health facilities for both health workers and patients. The closure, curfew, casualties, and killings were affecting both health workers and patients to go to the health facilities. Univariate analysis demonstrated that mass-campaigns, curfews, closures, casualties and killings were found to be statistically significant different between CA and NCA. The logistic regression model demonstrated that killing to the patients' families or communities is statistically associated (P-value .004) with the utilization of TB services.

7.3 Recommendation

The study is strong enough to explore the factors related to access to and utilization of TB services in the areas with and without civil conflict in Nepal. It will be the best available reference for planners in conflict areas, researchers, and health institutions. Since the study was able to explore the novel ideas on public health field the students will be beneficial from the findings of this study. A copy of dissertation

with a set of recommendations will be provided to NTC, Nepal. A plan and list of recommendations will be provided to each district. Following are the major recommendations drawn from both qualitative and quantitative analysis.

7.3.1 Socio-Demographic Factors

1. Train the front line health worker on the relationship between gender and TB.
2. Introduce a reporting system, which can come up with male and female numbers specially in case finding, and treatment outcome record.
3. Create community awareness by using local means and languages.

7.3.2 Burden

1. Keep the record properly and calculate the incidence and prevalence rates in each district.
2. Create the awareness on the causes and consequences of TB among the total population.
3. Conduct a study than can determine the TB mortality rate in civil conflict.

7.3.3 Physical Availability

1. Expand the DOTS Centers in at Sub-Health Post level.
2. Ensure the quality of microscopy by having one focal unit in one district.
3. Ensure the fulfillment of the health staff's posts in both NCA and CA.
4. Create the awareness on DOTS, and TB drugs among the total population.
5. Ensure the regular supervision from district level of DOTS Centers and Sub-Center in conflict areas.

6. Reform the DOTS committee in CA by having participation of members of civil societies. Re-activate the DOTS committee in NCA.
7. Clarify and publicize the role of DOTS worker in conflict settings.
8. Implement the plan as the pilot plan developed by this study through district to peripheral health institutions.

7.3.4 Financial Affordability

1. Advertise to the wider range of population that the TB is highly curable and that free of cost diagnosis and treatment is available.
2. Promote the awareness of the employers of the nature of TB disease and to ensure their support of their staffs with TB

7.3.5 Acceptability

1. Promote the good behavior of health workers towards patients at DOTS Treatment Centers and Sub-Centers.
2. Promote the satisfaction of patients by providing health education and friendly services.
3. Train the traditional healers from all caste and ethnic groups.

7.3.6 Geographical Accessibility

1. Establish the DOTS Sub-Centers in each Sub-Health Post.
2. Conduct a scientific research on the possibilities of introducing family based DOTS monitored by nearest health facilities.

7.3.7 Civil Conflict

1. Establish a health desk in conflict-affected districts to deal with the immediate health needs and local contradictions.
2. Promote the humanitarian role of health workers in conflict situation.
3. Make the necessary negotiations with HMG/N armed forces and Maoist to introduce that the health facilities are an armed free zone.
4. Promote the patients participation in TB control by forming TB patients association.
5. Plan the TB service by having good community participation.
6. Introduce a practical and prompt information delivery system.
7. Introduce the public hearings to implement the DOTS properly.
8. Introduce integrated health camps by giving responsibilities to independent national health institutions.
9. Promote the role of WHO in dealing with the health emergencies in highly conflict affected areas.

This study is able in exploring the novel field, the TB and conflict in Nepal. With its limitation the study was not able to cover different conflict areas, where the magnitude of the problems could be different. Thus, a scientific case control study with the wider coverage of the samples (both providers and receivers) and geography with a multidisciplinary team of independent researchers has been recommended to be conducted in Nepal.