

CAUSES AND CONSEQUENCES OF TUBERCULOSIS: A SOCIOLOGICAL STUDY BASED ON MEDICAL OFFICER OF HEALTH OFFICE, KATTANKUDY, SRI LANKA

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ABSTRACT

Tuberculosis is found to be a public health problem in Sri Lanka and has a serious impact over the people. The causes of tuberculosis and their effects vary from community to community. The Annual Report of MOH office, Kattankudy indicates the increase number of cases on tuberculosis cases from 2011 to 2019. Although, the government is carrying out various projects in collaboration with the various health related authorities, the blowout of the disease cannot be eradicated from its grassroots level. In this regard, this study was conducted to identify the causes and effects of tuberculosis in Kattankudy Divisional Secretariat division of Batticaloa district. Purposive sample method is used for the study and the sample size is 30. Interviews (12) and focused group discussion (04) were carried out to collect the primary data of the study. The Annual Report of MOH office, Kattankudy from 2011-2019, books and research papers were used as a secondary resource. Population density, intake of the hotel-prepared foods, influence of drug addicts, concealment diseases, improper disposal and lack of drainage system were identified as the causes behind the tuberculosis disease in the study area. Social exclusion, low educational attainment, economic crisis, disruption of normal life and changes in social and family structure were identified as the negative effects of the tuberculosis. The study also pointed out some preventive measures to address this issue.

KEYWORDS: Epidemic, Disease, population density, drug addiction, social exclusion

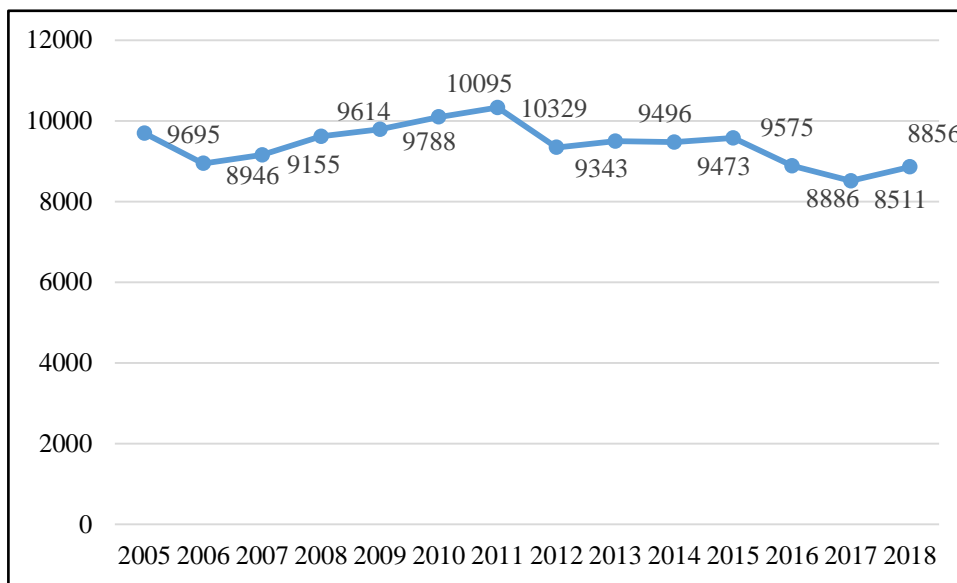
1. INTRODUCTION

Diseases can be classified as communicable, non-communicable and hereditary diseases and many more. Diseases disrupt the condition of the human body and life. Tuberculosis is called as 'Phthisis' in the language of Greek. Scientist Robert Koch identified that the Mycobacterium Tuberculosis Bacteria is the reason for this disease on 1882. The World Health Organization declared the tuberculosis to be a "global emergency" in 1960. March 24 is celebrated as the World Tuberculosis (TB) Day to make the public aware about the consequences of the disease. This day was declared because of the discovery of the bacterium that causes tuberculosis by the Dr Robert Koch in 1882. Approximately, 02 million people die of tuberculosis each year. Accordingly, in India-27%, China-09%, Indonesia-08%, Phillipines-6%, Pakistan-06%, Nigeria-04%, Bangladesh-04% and South Africa have experienced 03% of the tuberculosis (National Programme for Tuberculosis Control a Chest Disease, 2011).

1.5 million people were died because of the tuberculosis and 10 million people were influenced by tuberculosis in 2018. Among them, 5.7 million were men, 3.2 million were women and 1.1 million people were children. Abolishing the tuberculosis disease is one of the Sustainable development goals brought by the United Nations.

Tuberculosis has been identified as a major public health problem in Sri Lanka. According to the official records, 9695 people were infected with tuberculosis in 2005 and this numbers have increased as 9788 patients in 2010, 10095 patients in 2011 and 10329 in 2012. According to the 2017 census, 8886 tuberculosis patients were identified and 8856 patients were identified and treated in 2018.

Figure: 01: Details of the Tuberculosis patients recorded from 2015 to 2018



Source: WHO SEARO, 2019

According to the Sri Lankan Chest Disease Programme, 14 000 tuberculosis patients were detected in Sri Lanka. Among them, 10 000 tuberculosis are getting treatment and 4000 patients are hiding without getting treatment (National Programme for Tuberculosis Control a Chest Disease, 2011).

Though, there are numerous measures and projects have been carried out by government and non-government organizations to control the prevalence of tuberculosis in every part of Sri Lanka, the incidence of tuberculosis is increasing year by year in the study area. In this regard, this study was conducted to identify the causes and consequences of tuberculosis in Kattankudy of Batticaloa district.

2. METHODOLOGY

The study was conducted in the Kattankudy Divisional Secretariat Division of Batticaloa district, Sri Lanka. Kattankudy is a town area near the city of Batticaloa which is dominated by Muslims (98%). Kattankudy is said to be the most densely populated city in Sri Lanka with nearly 50,000 residents (Calculated at 6,276 inhabitants per square kilometre in 2012). People of this area are engaged in business, industries and fisheries. The boundaries of the Kattankudy Divisional Secretariat Division are Manmunai North divisional secretariat in north, Bay of Bengal in East, Manmunai Pattu Divisional Secretariat in south and Batticaloa lagoon in the West (Resource Profile and Statistical Report of Kattankudy Divisional Secretariat, 2017).

Purposive sample method was used for this study and the sample size is 30. Both primary and secondary data collection methods were used to collect data for the study. Interview (12) and focused group discussion (04) were used to collect primary data. Records and reports of the Kattankudy Divisional Secretariat Division, research articles and reliable web sources were used as the secondary data for this study. The secondary data were collected through the Annual Report of the MOH office from 2011-2019, books which about the disease of tuberculosis and research papers. Interpretative data analysis method is used for this study. The analysed data were summarized and presented in texts and figures.

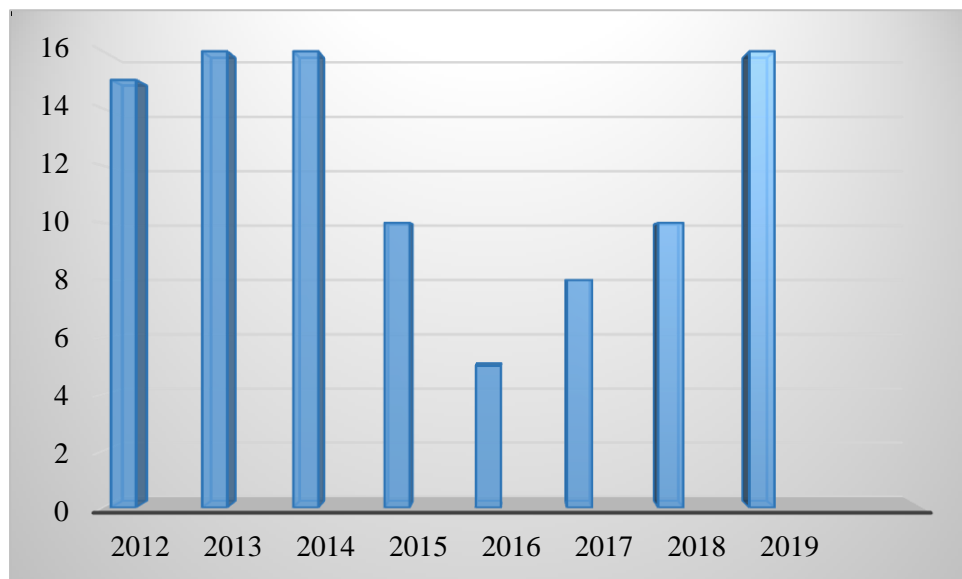
3. RESULTS AND DISCUSSION

3.1 Profile of Tuberculosis in Kattankudy

There are more than 17 types of infectious diseases in the Kattankudy area. Among those, dengue and tuberculosis are increasing and severely affecting the lives of the people and their direct environment (Annual

Reports of the Office of the Medical Officer of the Health, Kattankudy, 2019). The following figure 02 emphasises the details of the tuberculosis patients in Kattankudy from 2012 to 2019.

Figure 02: Details of Tuberculosis Patients in Kattankudy



Source: Annual Reports of the Office of the Medical Officer of the Health, Kattankudy, 2019

This research analysed the data from 2012 to 2019. However, no cases were reported in the year 2011. 15 patients were identified in 2012. Constantly, they had received the treatment. There were no tuberculosis deaths in the year 2012. At that time, precautions against tuberculosis and counselling for the family members of the patient were given by the Public Health Inspector (PHI) of the particular area. The identification of tuberculosis patients in the year 2012 had become a massive challenge in the research area.

According to 2013 report, 16 patients were registered of having tuberculosis. Data shows that one of the patients was died due to the lack of proper maintenance and continuous medication. The PHI reported that the person who died because of the tuberculosis was already suffering from diabetes. 16 new patients were identified and this induced the fear among the public in 2014 and 10 patients were identified and one of them was died in 2015.

The PHI reported that the degree of tuberculosis patients in Kattankudy could be controlled with the various involvement and intensive measures of MOH office. Anyhow, the detection of less than 10 patients in 2016 and 2017 was considered as a success for the MOH office with the help of people. So, the officers positively believe that tuberculosis could be eradicated from Kattankudy soon.

According to the 2018 report, 10 patients were newly identified. This number reached a staggering stage with 16 patients in 2019. It may have reached the challenging trend seen in the year of 2013 and 2014. According to 2019 report, tuberculosis caused one death because of the improper care. Anyhow, the MOH office said that the number will likely to increase in the future.

3.2 Causes of tuberculosis:

The study identified the causes of tuberculosis in Kattankudy Divisional Secretariat division. The Factors such as intimacy of people, consumption of food prepared in hotel, influence of drugs, concealment of disease, improper sanitation and lack of drainage have been identified as key factors for the disease. It is discussed one by one as follows.

A. Population density

According to the resource profile and statistical report of Kattankudy Divisional Secretariat, (2017), Kattankudy is one of the most densely populated cities in Sri Lanka with nearly 50,000 residents which were calculated at 6,276 inhabitants per square kilometre in 2012 and now the population has increased further. As the study area is located in high populated surroundings, the close communication among the people is an inevitable process in their day to day life. Normally, a tuberculosis person who is unaware that he or she has the dangerous disease is more likely to spread the disease to others. The PHI of the study area emphasised that as the tuberculosis is an infectious disease, it is imperative that the tuberculosis patient should stop interaction with others. But isolating the tuberculosis patient from the interaction with others is impossible and impractical in the study area. This congested life style and high population density have induced the chances of spreading the tuberculosis disease among the people and it has become difficult to control fully.

B. The Food Culture

The food culture plays another significant role in causing the problem of spreading the disease. It is the custom of the people in the study area that they do not cook at home in the special days, especially on Fridays. Many people buy and eat foods in hotels with the thoughts of having delicious and different food from the restaurants. Most of the men in Kattankudy work outside of their residences and having food at hotels. If a person who cooks food in a hotel has an infection, it is more likely to spread the disease to others. The PHI elaborated that hotel staffs are required to obtain a medical certificate once a year in order to identify whether the patient has the infection of tuberculosis or not.

C. Continuous smoking and Drug addiction

The continuous smoking and the drug addiction was found to be another cause for the tuberculosis among the people here. The hospital reports and records pointed out that majority of the people who are infected by the tuberculosis are chain smokers and have the habits of drug addiction. And they also have been suffering from diabetics, cholesterol and kidney disease. Drug addicts have been increasing in the study area and the identified male tuberculosis patients are chain smokers since from their early adulthood. Therefore, these people have high chances to get influenced to tuberculosis and have low immune system of fighting against this disease.

D. Concealment of the disease

The tuberculosis patients are mostly excluded from the society because of its severe impacts and infectious problems. Therefore, people who have symptoms of tuberculosis try to hide the disease without taking proper treatment. The contact of the tuberculosis patients with others may lead to the transmission of the disease. The general physician of the Kattankudy hospital mentioned that the tuberculosis patient feels the severe pain in stomach and he would start to vomit where the disease become severe. Then the relatives and friends will identify the case and admit the relevant patient forcefully in the hospital. This is what happening in the most of the cases in the study area where the relatives compel the patient to seek medical treatment. This concealment of the disease is also a major reason for the increase in the number of tuberculosis patients here, the contact with the patients would cause more patients of the same disease.

E. Improper drainage system and waste disposal

Improper drainage system in the study area and the improper waste disposal of the public has created numerous health problems in the study area. Not only the tuberculosis but other diseases also spread because of the improper solid waste disposal. The Mayor of the study area M. H. M Asfer highlighted that the majority of the money that have been allocated for the development of the Kattankudy area has been used to the waste disposal of the study area. It is found to be very difficult, even the authority has been using new equipment to dispose the waste generation. Moreover, the high population and the congested lifestyle of the people have become challenges to do the waste disposal properly.

The findings indicate that tuberculosis has been identified as one of the infectious diseases in the area. The spread and impact of the disease is increasing day by day. The cooperation of the public is essential to put an end to this problem in near future.

3.3 Challenges faced by the tuberculosis patients and their family members

The study identified the challenges faced by the tuberculosis patients in the study area. The findings indicate that tuberculosis patients face various challenges due to the harshness of the diseases. It is also identified that not only the patients but their family members also suffer in the post disease situation. The challenges faced by the tuberculosis patients are discussed one by one as follows.

A. Effects on the economy and family structure

The death occurred because of the tuberculosis disease in the years 2013, 2015 and 2019 caused a series of changes in the whole family structure. As well as the tuberculosis patients are also hospitalised and they have become dependents in the family because of their illness. The family is always looked after by the male parent and their financial support is significant to the whole family members. The family financial set up has collapsed when the male family members are afflicted with the disease and the female had to carry the burden of the family chore. The income provided by the male partner has become a question here and it causes severe effects on the family. The family structure is also changed and women and other family members need to look after the family in all possible ways. The following case study reveals the fact.

“I am a widow, my brother had look after the family and provided financial assistance after the death of my husband. However, my fate did not allow that support of my brother too, my brother was identified as the tuberculosis patient last year (2019) and he is under the treatment now. He is a daily wage labourer and currently it is found difficult to perform his daily activities. Hence, I look after the family by working as a house maid and earning some money to run the family.”

Tuberculosis disease has mad the above woman to suffer and affect the family income generation and the structure. The death of the partner and the disease of the brother have created turmoil in the family. 87% of the respondents mentioned that the tuberculosis disease negatively affects the economy of the family and the family structure. The role of the male members has demolished because of the disease and the usual role of the women in the particular family has been changed as the breadwinner for the whole family. The contribution of the tuberculosis patient in the economy has been destructed because of the illness. The government is providing 5000 Sri Lankan rupees per month. However, the money is not enough to cover all the expenses of the family including cost of education, shelter, medication and healthy food for everyone.

B. Social Exclusion

Social exclusion is another challenge faced by the tuberculosis patient and their family members. According to World Health Organization (WHO) (2020), social exclusion is defined as the exclusion of individuals or group of people from engaging fully in community or social life. In this sense, the socially identified tuberculosis patients and their family members face a situation of exclusion or segregation from the community they belong to. During the conversation with a tuberculosis patient, he stated that as follows.

“I find difficulties in communicating with other people in my own community even with the family members as usual, not because of the harshness of the disease. But the members of the community view me as an untouchable patient and maintain a distance from me. My friends are also avoiding me and spending only a few minutes with me and leaving immediately with excuses. This attitude creates inconvenience and uncomfortable situation to me and it has created a kind of inferiority complex within me. Even my close family members are also ignored and not welcomed by everyone here.”

92% of the respondents mentioned that they face similar situation of social exclusion from their own community people like friends, relatives and the known people. The children of the tuberculosis patients are also humiliated by the other children and their relatives. The close family members are ignored because of the fear that they also have infections of the disease. This fear has created the exclusion or the rejection of the family members of the tuberculosis patients. On the other hand, this social exclusion is found as the reason for the tuberculosis patients to hide their disease from others and mingle with the community people normally.

C. Vulnerability and side effects of medicine

Tuberculosis patients take medicine every day. It has become as one of the daily routine activities for them. The time period of taking medicine and seeking profession help differ patient to patient according to their severity. This research has identified that the tuberculosis patients have been taking drugs every day to improve their health condition and reduce the pain of it. The influence of the medication and the impact of the pills have made the patients more vulnerable and it has brought some other effects on the tuberculosis patients here. Sleeplessness, tiredness, stress, exhaustion, anxiety, fear and dullness among the patients are found to be the side effects of the medicine given to the tuberculosis patients. 95% of the respondents emphasised that they really hate the medicine that they needed to take every day and it gives more frustration to them.

D. Disruption of Children's Education

Disruption of the children's education is found as a challenge face by the tuberculosis patients' family. The failure in the financial support of the male partner who falls in tuberculosis has negatively impact on the

financial condition of the family. The children have become the victims of this agenda and they are dropped out from the school. The poor financial circumstances made them to prevent from getting education properly. The poverty cycle would continue to the next generation here without proper education. 65% of the respondents mentioned that they stopped their children to go for tuition class where they do not have any extra money to invest in the education. Some parents mentioned that they asked their elder sons and daughters to remain at home because of the money.

E. Formation of child labour

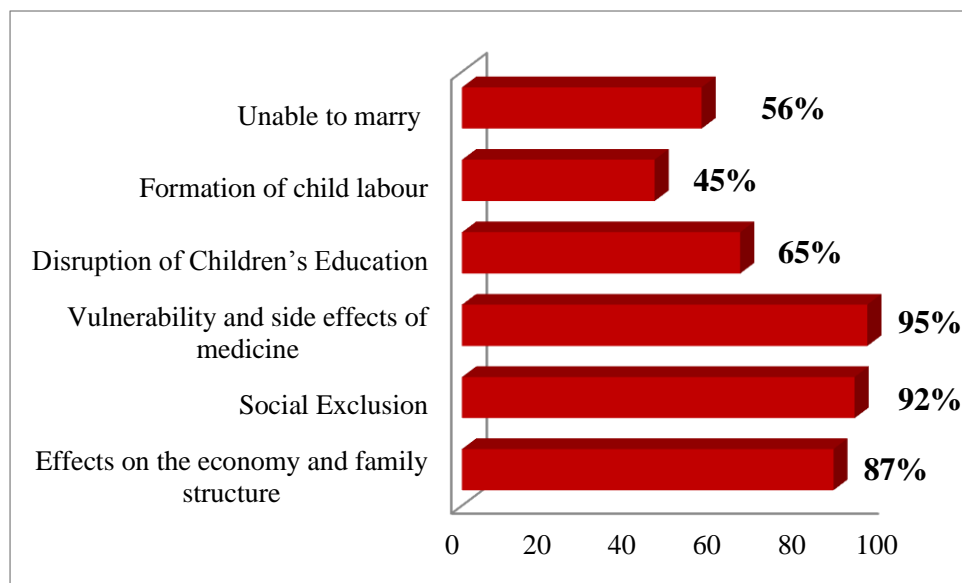
The poor financial condition of the family of tuberculosis patients has pushed the children of the same family to go for labour works. School drop outs are mainly occurred because of this situation of poor income of the family. Children who drop out from the school education go for work to earn some money that could help the family to run. Some of the children go for part-time work after their schools such as labour work at the retail shops, selling cashew nuts at the beach, hotels, carpentry, and they even go for fishing too. The female children engage in sewing at the home, packing foods and stitch buttons. In this regard, 45% of the respondents highlighted that their children are supporting them in numerous ways and they go for daily wage labour works.

F. Unable to marry

The young tuberculosis patients are facing another challenge in their marriage matter. The parents of the bride do not wish to give their daughters to the tuberculosis patients. They have the fear of saving the life of their daughters from the spreading of the disease. The dependent situations, poor economy, unable to go for work and routine medication have made the unmarried tuberculosis patients to find difficulties to marry a girl. 56% of the respondents highlighted that they face this challenge and still there are people in the same situation.

The following figure 03 portrays the challenges faced by the tuberculosis patients and the family members.

Figure 03: Challenges faced by tubercles patients and their family members



Source: Field data, 2020

4. CONCLUSION

Tuberculosis is found to be one of the dangerous diseases that affect the people's health and well-being. Controlling the disease has become an expensive process for the Sri Lankan government. Population density and close interaction among the people are the main reasons for the high prevalence of tuberculosis in the study area. The prevalence of tuberculosis has created different challenges to the patients, family members, community and government. Population density, intake of the hotel-prepared foods, influence of drug addicts, concealment diseases, improper disposal and lack of drainage system were identified as the causes for the tuberculosis in the study area. Social exclusion, low educational attainment, economic crisis, disruption of normal life and changes in social and family structure were identified as the negative effects of the tuberculosis.

In the light of the findings, the study recommended the following preventive measures that could control the tuberculosis in the research area. Abandoning the habit of spitting out in the public places, improving the individuals and public health, creating a clean and pure environment without garbage and pollution, making awareness among the people, following nutritious food habits, breathing unpolluted air, covering the mouth and nose while sneezing, going for regular check-up and getting proper treatment that those who have the symptoms of tuberculosis, changing the attitude and mentality of the people, giving cooperation to the plans and regulations of the government and injecting BCG vaccine to the children are some recommendations to reduce the negative consequences of tuberculosis among the people.

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