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A STUDY ON THE EFFECTIVENESS OF A COMMUNITY BASED OBSERVATION OF DIRECTLY OBSERVED TREATMENT (DOT)

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Abstract *Tuberculosis (TB) is an infectious disease usually caused by Mycobacterium tuberculosis (MTB) bacteria tuberculosis generally affects the lungs, but can also affect other part of the body. Awareness of Directly Observed Treatment (DOT) for Tuberculosis,The analysis of study 45 patients with Tuberculosis aged more than 25 years was carried out Village-Kanchanpur,, Block & Teh.-Baikunthpur,, District - Korea, State - Chhattisgarh for a period of 3 months from (1st October 2018 to 30th December 2018)*
The score of patients there was significant difference score according to sex, socioeconomic status, occupation, statistically significant difference in quality of life score was not seen with respect to age, locality, religion, marital status, type of family, educational status, occupation, alcohol intake, smoking, diet.Our study finding how that community Directly Observed Treatment (DOT) was more effective than other treatment in terms of tuberculosis patients. The treated by Directly Observed treatment (DOT) have excellent cure rates with lesser default rates.

Keywords *Tuberculosis, DOT, CBO*

INTRODUCTION

According to the World Health Organization (WHO), one–third of the world's population is currently infected with the tuberculosis bacillus (WHO Fact sheet No. 104 Revised March 2007). World Health Organization estimates that 9.27 million new cases of tuberculosis occurred in 2007 (139/100,000 population) compared with 9.24 million new cases (140/100,000 population) in 2006 (WHO/HTM/TB/2006.362). Of these 9.27 million new cases, 44% or 4.1 million (61/100,000 population) were smear-positive cases. India, China, Indonesia Nigeria and South Africa rank first to fifth in terms of the total number of incident cases. The report further states that of the 15 countries with the highest estimated tuberculosis incidence rates remains the most common opportunistic infection and leading cause of death in people living with Human Immunodeficiency Virus (HIV) in low and middle income countries (Joint United Nations Program on HIV/AIDS (UNAIDS). In 2007, approximately 14 million people were co-infected with TB and HIV1 worldwide and 70% of these people live in Africa. In some African countries, up to 75% of TB patients are co-infected with HIV and affected by the Acquired Immune Deficiency Syndrome (AIDS).

According to the World Health Organization, the global estimated number of HIV and tuberculosis or infected cases and deaths are now substantially higher than in previous years, HIV-related immune suppression involves much more than treatment with antiretroviral therapy as people living with HIV/AIDS are at an increased risk of a broad range of debilitating and life-threatening conditions. As a result of the synergistic relationship between HIV and tuberculosis, all people living with HIV/AIDS should be screened for active tuberculosis. After excluding active tuberculosis, it is recommended that treatment of latent tuberculosis infection with a 6 to 9 months course of preventive therapy should be considered for all people living with HIV/AIDS.

Tuberculosis (TB) is an infectious disease usually caused by *Mycobacterium tuberculosis* (MTB) bacteria tuberculosis generally affects the lungs, but can also affect other parts of the body. Most infections do not have symptoms, in which case it is known as latent

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tuberculosis. About 10% of latent infections progress to active disease which, if left untreated, kills about half of those infected. The classic symptoms of active TB are a chronic cough with blood-containing sputum, fever, night sweats, and weight loss. It was historically called "consumption" due to the weight loss. Infection of other organs can cause a wide range of symptoms. Tuberculosis is spread through the air when people who have active TB in their lungs cough, spit, speak, or sneeze. People with latent TB do not spread the disease.

Presently, one-quarter of the world's population is thought to be infected with TB. New infections occur in about 1% of the population each year. In 2016, there were more than 10 million cases of active TB which resulted in 1.3 million deaths. This makes it the number one cause of death from an infectious disease. More than 95% of deaths occurred in developing countries and more than 50% in India, China, Indonesia and Pakistan.

AIM & OBJECTIVE

Awareness of Directly Observed Treatment (DOT) for Tuberculosis

REVIEW OF LITERATURE

Tuberculosis

Tuberculosis (TB) is caused by bacteria (*Mycobacterium tuberculosis*) that most often affect the lungs. Tuberculosis is curable and preventable. Tuberculosis (TB) is an infectious disease usually caused by bacteria tuberculosis generally affects the lungs, but can also affect other parts of the body. Most infections do not have symptoms, in which case it is known as latent tuberculosis. About 10% of latent infections progress to active disease which, if left untreated, kills about half of those infected. The classic symptoms of active TB are a chronic cough with blood-containing sputum, fever, night sweats, and weight loss. It was historically called "consumption" due to the weight loss. Infection of other organs can cause a wide range of symptoms. Tuberculosis is spread through the air when people who have active TB in their lungs cough, spit, speak, or sneeze. People with latent TB do not spread the disease. Active infection occurs more often in people with HIV/AIDS and in those who smoke.

History of Tuberculosis

Tuberculosis has been present in humans since antiquity. The earliest unambiguous detection of *M. tuberculosis* involves evidence of the disease in the remains of bison in Wyoming dated to around 17,000 years ago, the Industrial Revolution, folklore often associated tuberculosis with vampires. When one member of a family died from it, the other infected members would lose their health slowly. People believed this was caused by the original person with TB draining the life from the other family members.

Although the pulmonary form associated with tubercles was established as a pathology by Richard Morton in 1689, due to the variety of its symptoms, TB was not identified as a single disease until the 1820s.

Robert Koch discovered the tuberculosis bacillus. The bacillus causing tuberculosis, *M. tuberculosis*, was identified and described on 24 March 1882 by Robert Koch. He received the Nobel Prize in physiology or medicine in 1905 for this discovery. Koch did not believe the bovine (cattle) and human tuberculosis diseases were similar, which delayed the recognition of infected milk as a source of infection. Later, the risk of transmission from this source was dramatically reduced by the invention of the pasteurization process. Koch announced a glycerine extract of the tubercle bacilli as a "remedy" for tuberculosis in 1890, calling it "tuberculin". While it was not effective, it was later successfully adapted as a screening test for the presence of pre-symptomatic tuberculosis. The World Tuberculosis Day is marked on 24 March each year, the anniversary of Koch's original scientific announcement.

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Albert Calmette and Camille Guérin achieved the first genuine success in immunization against tuberculosis in 1906, using attenuated bovine-strain tuberculosis. It was called bacille Calmette–Guérin (BCG). The BCG vaccine was first used on humans in 1921 in France, but received widespread acceptance in the US, Great Britain, and Germany only after World War II.
In 1815, one in four deaths in England was due to "consumption". By 1918, one in six deaths in France was still caused by TB. After TB was determined to be contagious, in the 1880s, it was put on a notifiable disease list in Britain, campaigns were started to stop people from spitting in public places, and the infected poor were "encouraged" to enter sanatoria that resembled prisons.

ETIOLOGY

Theperson is infected the bacteria will settle in the air sacs and passages of the lungs and, in most cases, will be contained by the immune system people who are at greater risk for TB infection include the elderly, homeless people, people with substance use problems, individuals who have spent time in a correctional facility,. This is especially true for health care workers who may be exposed to patients with active TB.
The following factors may play a role in promoting active disease in someone who has an inactive TB infection:

1. Diabetes
2. Head or Neck Cancer
3. Illnesses that suppress the immune system, such as HIV or AIDS
4. Kidney Disease
5. Long-term steroid use
6. Malnutrition
7. Medications that suppress the immune system, such as anticancer medications (e.g.-cyclosporine)
8. Pregnancy
9. Radiotherapy

HOW TO TRANSMISSION OF TUBERCULOSIS

TB is spread from person to person through the air. When people with lung TB cough, sneeze or spit, they propel the TB germs into the air. A person needs to inhale only a few of these germs to become infected. About one-third of the world's population has latent TB, which means people have been infected by TB bacteria but are not (yet) ill with disease and can't transmit the disease. People infected with TB bacteria have a lifetime risk of falling ill with TB of 10%. however persons with compromised immune systems, such as people living with HIV, malnutrition or diabetes.

SIGN, SYMPTOMS AND COMPLICATIONS

When a person develops active TB (disease), the symptoms (cough, fever, night sweats, weight loss etc.) may be mild for many months. This can lead to delays in seeking care, and results in transmission of the bacteria to others. People ill with TB can infect up to 10-15 other people through close contact over the course of a year. Without proper treatment up to two thirds of people ill with TB will die. General signs and symptoms include - fever, chills, night sweats, loss of appetite, weight loss, and fatigue. Significant nail clubbing may also occur.
There are no symptoms associated with inactive TB. This means that someone may have acquired the TB bacteria and yet show no signs or symptoms of infection. Symptoms only appear when the TB infection becomes active.
Symptoms develop gradually, and it may take many weeks before you notice that something's wrong and see your doctor. Although the TB bacteria can infect any organ (e.g., kidney, lymph nodes, bones, joints) in the body, the disease commonly occurs in the lungs.

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Symptoms include

1. Cough
2. Weight Loss
3. Fatigue
4. Fever
5. Night sweats
6. Chills
7. Chest pain
8. Shortness of breath
9. Loss of appetite

The occurrence of additional symptoms depends on where the disease has spread beyond the chest and lungs. For example, if TB spreads to the lymph nodes, it can cause swollen glands at the sides of the neck or under the arms. When TB spreads to the bones and joints, it can cause pain and swelling of the knee or hip. Genitourinary TB can cause pain in the flank with frequent urination, pain or discomfort during urination, and blood in the urine.

Tuberculosis may infect any part of the body, but most commonly occurs in the lungs (known as pulmonary tuberculosis). Extra-pulmonary TB occurs when tuberculosis develops outside of the lungs, although extra-pulmonary TB may co-exist with pulmonary TB.

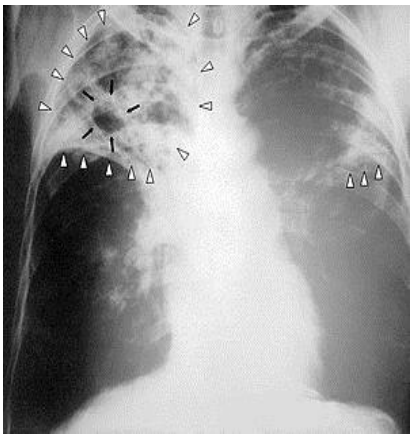
DIAGNOSIS

A tuberculin skin test allows a doctor to check your immune response to the TB bacteria. It is a test that is used for detecting infection with the TB bacteria. It is given to people who have been exposed to patients with active, contagious TB or to those in whom reactivation of TB is suspected.

Skin testing involves an injection in the forearm. 2 or 3 days later, a physician will "read" the test. If it's positive, indicated by a hard and swollen region at the site of injection, this means that your body's been infected by the TB bacteria. It does not necessarily mean that you have active TB – the TB may be inactive.

Chest X-Rays can also be performed, and sputum samples can be analyzed in the lab. In these cases, the results are used to rule out or confirm active TB. Your doctor may also suggest other tests to confirm a diagnosis or to check for TB in other parts of your body.

CHEST X-RAYS



Chest X-Ray of a person with advanced tuberculosis:

TREATMENT AND PREVENTION

Antibiotics are used to treat TB, since it's a bacterial infection. You may be hospitalized or told to avoid contact with other people until tests show that you're not contagious.

For TB lung infections, 3 or 4 antibiotics are combined for the first 2 months of therapy. 2 of these are then taken for another 4 to 7 months, depending on the number and type of antibiotics used as well as the sensitivity pattern of the TB bacteria that were cultured from the individual. Some people may need to take antibiotics for up to 12 months.

The antibiotics most commonly used include **Isoniazid, Rifampin, Pyrazinamide,** and **Ethambutol**. Most people will take medications every day for the first 2 months, then a few times a week for the remaining treatment. It's important to take your medication as instructed by your doctor, and for the full course of the treatment. This helps to ward off types of TB bacteria that are

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antibiotic-resistant, which take longer and are more difficult to treat.

If a particular type of TB infection is resistant to regular antibiotic treatment (a condition known as multidrug resistant TB or MDRTB), a combination of different medications must be taken for 18 to 24 months. Once symptoms clear up, a doctor may re-test your sputum to see if the TB bacteria are still present.

If you have a TB infection in other parts of your body (e.g.-bones or joints), you may require treatment for more than one year, If you are taking Isoniazid, you doctor may suggest that you take 50 mg of Pyridoxine (Vitamin B6) daily to prevent a side effect called peripheral neuropathy.

To prevent spreading TB, it's important to get treatment quickly and to follow it through to completion. This can stop transmission of the bacteria and the appearance of antibiotic-resistant strains.

A vaccine is available to limit the spread of bacteria after TB infection. The vaccine is generally used in countries or communities where the risk of TB infection is greater than 1% each year. It is used in newborns in these communities to prevent TB and its complications in the first few years of life. In Canada, there's controversy over the use of this vaccine because it doesn't prevent the initial infection.

If a positive skin test is detected and other tests have confirmed that active TB is not present, your doctor may choose to prescribe a medication that prevents a TB infection from progressing to the active disease. The antibiotic most commonly used is Isoniazid, which is usually taken daily for 9 months. Other medications that may be used include Rifampin or a combination of Isoniazid and Rifampin.

DIRECTLY OBSERVED TREATMENT (DOTS)

The policy of directly observed treatment (DOT) has been adopted by India's Revised National Tuberculosis Control Programme (RNTCP). Community DOT was introduced in India after a number of studies were conducted on its feasibility and acceptability. A DOT provider is an individual who is accessible, acceptable to the individual and to the community, and accountable to the health system, but not a family member, who supervises and supports the tuberculosis (TB) patient. The RNTCP recommends the decentralization of DOT for effective supervision and provision of customized treatment near the patient's residence through the use of community DOT providers. Many TB patients prefer to undergo DOT in an institutional setting (peripheral health institutions [PHIs] or designated microscopy centers [DMCs]). However, these facilities are not always convenient and accessible for the patient, and the majority of these facilities have high workloads, resulting in suboptimal patient supervision and support.

Directly Observed Treatment, short-course (**DOTS**, also known as **TB-DOTS**) is the name given to the tuberculosis (TB) control strategy recommended by the World Health Organization. According to World Health Organization "The most cost-effective way to stop the spread of TB in communities with a high incidence is by curing it. The best curative method for TB is known as DOTS."

DOTS have five main components:

- Government commitment (including political will at all levels, and establishment of a centralized and prioritized system of TB monitoring, recording and training)
- Case detection by sputum smears microscopy.
- Standardized treatment regimen directly of six to nine months observed by a healthcare worker or community health worker for at least the first two months.
- Drug supply
- A standardized recording and reporting system that allows assessment of treatment results

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DIRECTLY OBSERVED TREATMENT DOTS

The standard of care for tuberculosis The World Health Organization declared TB as a global emergency in 1993 and recommended DOTS (Directly Observed Treatment-Short-course) as a standard of care for its management in all countries. In 2006, WHO launched the STOP TB strategy with the objectives of achieving universal access to high-quality care for all people with TB, reducing the human suffering and socioeconomic burden associated with TB, protecting vulnerable populations from TB, TB/HIV and multidrug-resistant TB, supporting development of new tools and enable their timely and effective use and lastly protecting and promoting human rights in TB prevention, care and control. The targets for this STOP TB strategy were (1) To halt and begin to reverse the incidence of TB by 2015 (2) By 2015: reduce prevalence and deaths due to TB by 50% compared with a baseline of 1990 (3) By 2050: eliminate TB as a public health problem. The Stop 3 TB Strategy was incorporated in the second phase of RNTCP in India in 2006.

Evidence-base for DOTS

India has a long and distinguished tradition of research in the field of tuberculosis. Pioneering studies from India have demonstrated the efficacy of domiciliary treatment , the necessity of direct observation of treatment , the feasibility of case 4 5 detection by sputum smear microscopy in primary health care institutions and the 6 effectiveness of intermittent short-course chemotherapy .

DOTS implementation in India

India's DOTS programme, the second largest in the world, is called the Revised National Tuberculosis Control Programme (RNTCP). In 1993, DOTS pilots were started in selected districts of India. The success of these pilots led to the decision to scale-up the programme to the national level in 1997, which was financially supported by a soft loan from the World Bank. National technical and operational guidelines for RNTCP were prepared based on global scientific literature. Further, it was envisaged that information generated in the programme would provide an evidence-base for further improving programme practices and policies.

REVISED NATIONAL TUBERCULOSIS CONTROL PROGRAM (RNTCP)

Revised National Tuberculosis Control Program (**RNTCP**) is the state-run tuberculosis (TB) control initiative of the Government of India. As per the National Strategic Plan 2012–17, the program has a vision of achieving a "TB free India", and aims to achieve Universal Access to TB control services. The program provides, various free of cost, quality tuberculosis diagnosis and treatment services across the country through the government health system. It seeks to employ the WHO recommended tuberculosis control strategy, DOTS(Directly Observed Treatment, Short Course), to the Indian scenario.

The Control of tuberculosis (TB) in India has come a long way since the initiation of the National TB Programme (NTP) in 1962. Despite the establishment of more than 440 District TB Centers, the NTP suffered from several serious drawbacks including managerial weaknesses, inadequate funding, over reliance on chest radiographs, lack of standardized treatment regimens, low rates of treatment completion, and lack of systematic information on treatment outcomes. The cure rate was dismally low-only 30% of all patients were diagnosed whom of only 30% were treated successfully. This prompted the Government of India, in collaboration with the World Health Organization (WHO) to evolve a revised strategy for the control of tuberculosis in India. The Revised National TB Control Programme (RNTCP), an application of the WHO recommended Directly Observed Treatment, Short Course (DOTS) strategy was launched in 1992 with the objective of detecting at least 70% of new sputum positive TB patients and curing at least 85% of such patients.

The basic principles of RNTCP are:

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1. Political commitment for ensuring adequate funds, staff and other key inputs.
2. Establishment of diagnosis primarily by microscopic examination of specimens obtained from patients presenting to health care facilities.
3. Regular and uninterrupted supply of anti-TB drugs in the form of a patient-specific box that contains the medicines for the entire course of treatment so that no patient is subjected to interruption of treatment for lack of medicines.
4. Direct observation of every dose of treatment in the intensive phase and of at least the first dose in the continuation phase of treatment.
5. Systematic monitoring, supervision and cohort analysis-one Senior Treatment Laboratory Supervisor (STLS) is responsible for organization of uninterrupted treatment and one Senior Tuberculosis Laboratory Supervisor for ensuring quality laboratory service for every 5,00,000 population.

MATERIALS AND METHODOLOGY

Material and methods will be discussed under following headings.-

1. Sampling Area
2. Type of Study
3. Study Period
4. Study Population
5. Sampling methods
6. Method of Collection of Data
7. Statistical Analysis
8. Study Variables

SAMPLING AREA

Village – Kanchanpur,
Block & Teh. – Baikunthpur,
District - Korea

TYPE OF STUDY

Community based Observational study.

STUDY PERIOD

The total duration of research conduction is **Three Months (1st October 2018 to 30th December 2018)**

STUDY POPULATION

All Tuberculosis Patients who were registered at the Primary Health Centre (PHC), *Kanchanpur, during the above mentioned study period.* Approximately, Male – 426 & Female – 399, Total = 825

SAMPLING METHODS

Inclusion Criteria

1) Tuberculosis patients aged 25 years and above.
2) Duration of TB more than 2 months. (Time since diagnosis and initiation of treatment)

Exclusion criteria:

1) Patients with severely ill and not able to communicate. Who didn't participation in the study.

The total sample size is **45 peoples.**

METHOD OF COLLECTION OF DATA

Prior informed written consent in the local language was taken from all the patients included in the study. For those who were illiterates, the consent was read out and explained to them in their language and consent was obtained by taking their signature in the consent form.

The study tool consisted of following sections:-

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1. **Socio-Demographic Profile** - this section consists of socio demographic characteristics and the included variables that were were age, sex, religion, education, locality, occupation, side of lesion, types of cases, marital status, types of family, blood pressure, alcoholism, smoking, diet and socio economic status scale.

RELIGION	NUMBER	PERCENTAGE
Hindu	41	91.2
Muslim	04	8.8
Total	45	100.0

2. The facets were originally subsumed within one of four domains but factor analysis of the indicated Similar results were found during the extraction of data for the currently scored in four Domains:-
   - ❖ 1- Physical health,
   - ❖ 2- Psychological,
   - ❖ 3- Social relations,
   - ❖ 4- Environment,

STATISTICAL ANALYSIS

Mean and standard deviation of the QOL scores are calculated for each of the socio-demographic variable and compared by Suitable statistical test like **t-test/ANOVA** are applied. Finally, the minimum, maximum and mean score are calculated as on overall domain score for the each four domain i.e. physical domain, psychological domain, social relationship domain and environment domain.

STUDY VARIABLES

I. ***Age:***

We have arbitrarily classified age into <25 years, 25 to 65 years and more than 66 years.

II. ***Sex:***

We have classified into Male and Female

III. ***Educational Status***

- ***No Education:*** *The person who cannot read and write with understanding in any language.*
- ***Schooling:*** *The person who can read in any school level.*

IV. **Type of Family:**

- **Nuclear Family**
- **Joint Family**
- **Three Generation Family**

OBSERVATION & RESULTS

SOCIO-DEMOGRAPHIC PROFILE OF STUDY SUBJECTS

Table – 1 According to Age and Sex

Sex	Age in years			Total
	45 years or less	46 to 65 years	66 years or more	
Male	8(17.7%)	12(26.6%)	5(11.2%)	25(55.5%)
Female	5(11.1%)	14(31.2%)	1(2.2%)	20(44.5%)
Total	13(28.8%)	26(57.8%)	6(28.1%)	45(100%)

Table - 2 According to their Religion

Table - 3 According to their Marital Status

MARITAL STATUS	NUMBER	PERCENTAGE
Married	39	90.6

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Unmarried	4	5.2
Widow	2	4.2
Total	45	100.0

Table - 4 According to their Educational status

Education	Number	Percent
No Education	09	20
School	29	64.4
Graduate & Post graduate	07	15.5
Total	45	100

Table – 5 According to their Occupation

OCCUPATION	NUMBER	PERCENTAGE (%)
Unemployed	12	26.6
Worker	23	51.1
Clerical/Shop/Farm owner	9	20
Professional	1	2.3
Total	45	100

SES	Frequency	Percent
>5775	36	37.5
2887to2886	47	49.0
1733to2886	12	12.5
866to1732	1	1.0
Total	96	100.0

Table - 7 According to the type of Family

Types of Family	Number	Percentage
Nuclear	30	66.6
Joint	14	31.2
Three Generation	1	2.2
Total	45	100

SES	Number	Percentage
Class I	2	4.5
Class II	12	26.6
Class III&IV	31	68.9
Total	45	100

Table - 8 According to their locality

Locality	Number	Percentage
Urban Area	4	8.8
Rural Area	41	91.2
Total	45	100

Table – 9 According to personal Habit

Locality	Number	Percentage
Smoking	12	26.6
Smoking with Drink	14	31.2
Drink	19	42.2
Total	45	100

Table – 11 According to used of DOTS and other medicine

Locality	Number	Percentage
Used DOTS	35	77.8
Not used DOTS	05	11.1
Used Other Medicine	05	11.1
Total	45	100

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Table – 12 According to effect of DOTS and other medicine

Locality	Number	Percentage
Effect of DOTS	35	77.8
Not effect of DOTS	05	11.1
Effect of other Medicine	05	11.1
Total	45	100

CONCLUSION

Our study finding how that community directly observed Treatment (DOT) was more effective than other treatment in terms of tuberculosis patients. The treated by Directly Observed treatment (DOT) have excellent cure rates with lesser default rates. Thus we conclude that treatment plans that emphasize directly observed treatment from the start of treatment have greatest success in improving tuberculosis treatment outcomes, thereby preventing the transmission of disease in community.The patients have inadequate knowledge about the free treatment and facilities and delay in seeking treatment due to monetary constraints and face tough life situations so it is required to study the aspects like knowledge of TB patients as well as their family members so that need based information can be provided and get them motivated to get their patient treated in the hospital. Those who are already getting treatment can be educated regarding treatment compliance so that relapses can be prevented and moreover psychological problems can be reduced as tuberculosis patients living in the society may experience physical, psychological and social problems because people have many misconceptions and stigma is also attached to this disease.

REFERENCES

- "Tuberculosis Fact sheet N°104". WHO. October 2015. Archived from the original on 23 August 2012. Retrieved 11 February 2016.
- "Tuberculosis (TB)". World Health Organization. 16 February 2018. Retrieved 15 September 2018.
- "Global tuberculosis report". World Health Organization. Retrieved 2017-11-09.
- "Tuberculosis Fact sheet N°104". World Health Organization. November 2010. Archived from the original on 4 October 2006. Retrieved 26 July 2011.
- World Health Organization. Global Tuberculosis Control: WHO report 2013
- TB India 2014, RNTCP, India
- Khatri GR. DOTS progress in India 1995-2002. Tuberculosis 2003; 83:30-34.
- Global tuberculosis control: surveillance, planning, financing. WHO report 2005. Geneva, World Health Organization (WHO/HTM/TB/2005.349)
- Tuberculosis Chemotherapy Centre Madras. A concurrent comparison of home and sanatorium treatment of pulmonary tuberculosis in South India. Bull World Health Organ 1959;21:51-144.
- Fox W. The problem of self-administration of drugs with particular reference to pulmonary tuberculosis. Tubercle 1958;39:269-274.
- Baily GVJ, Savic D, Gothi GD et al. Potential yield of pulmonary tuberculosis by direct microscopy of sputum in a district of South India. Bull World Health Organ 1967;37:875-892.
- Balasubramanian R. Fully intermittent six-month regimen for pulmonary tuberculosis in South India. Indian J Tuberc 1991;38:51-53.
- Gledovic Z, Jovanovic M, Pekmezovic T. Tuberculosis trends in central Serbia in the period 1956-1996. IJTLD 2004:32-35.
- Marrvrioa Caminerja, Roderigez R, Billo NE. Towards elimination of TB in low income country: the experience of Cuba 1962-97. Thorax 2000;55:38-45.

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August 2020 | Vol. 1 Issue 3
www.uijir.com

- DOTS program WHO - DOTS
- ACTION Advocacy to Control TB Internationally
- What is DOTS? A guide to Understanding the WHO-recommended TB Control Strategy Known as DOTS by World Health Organization 1999
- National Strategic Plan for Tuberculosis Control, 2012-2017 (PDF). *Central TB Division, Ministry of Health and Family Welfare. Aug 2012*. Retrieved 22 November 2015.
- "Project Nikshay". *nikshay.gov.in*. Retrieved 2017-07-18.