IS AWARENESS OF DOTS AMONG MEDICAL PRACTITIONERS A WORRY? A DEVELOPING NATION SCENARIO

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ABSTRACT

Introduction: Annually 2 million people in India develop Tuberculosis and 330,000 die. WHO-recommended DOTS strategy was pilot-tested in 1993 and launched as Revised National Tuberculosis Control Program (RNTCP) in 1997. Awareness of DOTS among the doctors in the private sector was appalling although nationwide coverage was attained by 2006.
Objective: To study awareness of DOTS among Medical Practitioners of urban and rural Mysore.
Method: 401 Medical practitioners in hospitals and nursing homes of urban and rural areas of Mysore who treated Tuberculosis patients (private and public sector) were approached. They were grouped under different specialties as per the year of graduation (before or after introduction of DOTS).
Result: 38 % doctors who graduated before the introduction of DOTS didn't follow DOTS compared to 14.9% doctors who graduated later. 100% doctors working in Government sector felt that DOTS was better than daily regimen while 85% from the private sector felt so. Only 47.9% of the doctors in the private sector practiced DOTS compared to 95.1 % in the Govt. Sector. Hence, the number of doctors practicing DOTS in Private Sector was less than 50 % of that in the Govt. Sector. Both of these comparisons were found to be statistically highly significant ($p<0.001$). Awareness of DOTS was alarmingly low among Orthopedic Surgeons, Gynecologists and Pediatricians when compared to Physicians and General Practitioners.
Conclusion: DOTS awareness is still low among doctors who graduated before the introduction of DOTS. Private practitioners harbored myths and misconceptions about DOTS.

Keywords: DOTS AWARENESS, TUBERCULOSIS, MEDICAL PRACTITIONERS

Introduction

Globally 9.2 million new cases were reported and 1.7 million deaths1 occurred due to tuberculosis (TB) in 2006. Reported incidence of TB in India, as per WHO, is 168/ 1, 00,000 and there are about 28 deaths/lac population. TB has become global epidemic with emergence of HIV/AIDS and multidrug resistant strains of the microbes2. Tuberculosis (TB) is one of India's most important public health problems. India accounts for nearly one fifth of the global TB burden. Every day in India more than 20,000 people develop the disease, and more than 1000 die from TB3. Many of these deaths can be prevented with timely care and treatment. They can be cured and the battle against TB can be won. As the treatment is of such a long duration, Indian patients feel the pressures of poverty and unemployment. Treatment is often interrupted as the awareness of compliance leaves a lot to be desired both among the care-providers as well as the care-seekers. Therefore, just providing anti-TB medication is not sufficient to ensure that patients are cured. Today, for the first time since the discovery of the first anti-TB medicines in 1944, there is hope of stopping TB. The RNTCP-DOTS (Revised National Tuberculosis Control Program- Directly Observed Treatment, Short-course) was formally launched in 1997, following a pilot test phase from 1993-96, and by March 2006 the entire country was covered under the programme.4

In the period prior to implementation of the Government of India's Directly Observed Treatment Short course (DOTS) based RNTCP, studies on health care seeking behavior revealed that patients approached private facilities more frequently than government health facilities for the treatment of acute ailments irrespective of socio-economic class.5, 6The private sector accounts for 82 per cent of all out patient visits at the all India level, with no significant variations by income group7. Suspected TB patients also first approach private sector. Private practitioners in India treat over half of the TB cases8.

But there seems to be a missing link between the Medical practitioners and DOTS. The Practitioners have their own misconceptions regarding its efficacy and the mode of functioning. These inhibitions among the doctors and reluctance to adopt (or refer patients to take) DOTS have been quite astonishing as staggering. Available research data suggests that the basic knowledge about DOTS is lacking among the doctors practicing in the private sector.9 Tuberculosis is a disease encountered by doctors across various disciplines of medicine. Hence studying the awareness about DOTS among them will reveal the picture of how different specialists perceive DOTS and treat TB patients. 100% DOTS coverage was achieved throughout the country by RNTCP in March 20064. Not many studies were conducted to know DOTS awareness among medical practitioners after this achievement.

Aims and Objectives

1. To study the extent of awareness of 'DOTS – Directly Observed Treatment-Short course' among Medical practitioners who practice in Mysore Urban and Rural.

2. To Compare DOTS awareness and usage among

1. Doctors who have graduated before and after the inclusion of DOTS in the medical school curriculum.

2. Doctors working in different types of health centers (Govt. Hospitals, Private hospitals, Nursing Homes & Private clinics) and area of practice (rural and urban).
3. Doctors across different specialties of medicine.

3. To know and understand the myths, misconceptions and apprehensions that thwart DOTS from being accepted as an effective weapon to combat TB.

Material and Methods:

It is a cross-sectional comparative study which was done in Mysore. 401 medical practitioners, belonging to both govt. and Private sector were approached to participate in the study. Only 311 practitioners in Mysore urban and rural from all possible specialties who confronted tuberculosis responded. Questionnaire consisted of 3 parts. In Part – 1, all the practitioners were grouped under different specialties; type of healthcare setup; year of graduation - before or after DOTS was introduced and so on. In Part – 2, experience/opinion of doctors who were practicing DOTS was analyzed. In Part – 3, the various myths which deterred some practitioners from practicing DOTS were obtained. The data thus gathered was systematically tabulated, compared, graphically analyzed and interpreted. A report was prepared including suggestions for improving the awareness of DOTS among Medical Practitioners.

Inclusion criteria:

2 Registered Medical Practitioners in Mysore (Urban & Rural) who encountered TB patients.

Exclusion criteria:

3 Registered Medical Practitioners in Mysore District who did not come across TB patients

Results and Discussion

Basic Information about DOTS

Out of 401 subjects only 311 individuals responded. Based on the area of practice, 87% of medical practitioners belonged to Mysore urban and 13% were from rural areas. 30 % of the doctors saw more than 5 new TB patients in a month. It included some TB and chest diseases specialists who saw up to 200 new TB patients in a month. The rest of them came across 1 to 5 new TB patients per month. Only 21 of the doctors who encountered TB patients had not heard of DOTS and 6 of them thought that drugs were given daily in DOTS. All of them were from private sector and graduated before the introduction of DOTS. The basic knowledge about DOTS was considerably low among the doctors who graduated before the introduction of DOTS in medical curriculum. 26.9% of them did not know the correct expansion of DOTS and 38.0% of doctors did not follow DOTS. Comparing it with the doctors who graduated in the DOTS era, 98.6% of them knew the basic difference between DOTS and NTCP regimen whereas 85.1% of doctors followed DOTS. ($p<0.001$ and hence statistically highly significant). This significant disparity reveals that many doctors have not made an attempt to know about DOTS even if they

are encountering and treating TB patients. The paradox is that some of the doctors who practice DOTS themselves don't know the correct expansion of the acronym DOTS! The basic awareness of DOTS expansion and the number of people following it was alarmingly low among orthopedic surgeons, Gynecologists and Pediatricians when compared to Physicians and General Practitioners in the present study. This can probably be attributed to not only lesser number of TB patients seen by orthopedic surgeons, Gynecologists and Pediatricians but also lesser emphasis on DOTS in their respective curriculum. Only 47.9 % of the doctors in the private sector practiced DOTS compared to 95.1 % in the Govt. Sector. Hence the number of doctors practicing DOTS in Private Sector was less than 50 % of that in the Govt. Among the doctors in the private sector, the number of people who followed DOTS was considerably less in the doctors working in Private Hospitals compared to Private Clinics. Doctors working in rural areas had more knowledge regarding DOTS compared to those who practiced in urban areas. ($p<0.028$)

Opinion about DOTS

The doctors who followed (referred the patients to take) DOTS were asked about their opinion/ experience in treating TB patients with DOTS. 94% of the 197 doctors felt that DOTS was better than NTCP this suggested clearly that doctors who practiced DOTS thought that it was better than the earlier mode of therapy. 100% of the doctors working in Government sector felt that DOTS was better than NTCP; whereas only 85% of the respondents from the private sector felt so. 33.75 % of the private hospital doctors felt that DOTS was not reaching all sections of society. This was because they were unaware of the 100% coverage of DOTS in India under RNTCP and that it is provided free of cost.Only 4.1% of doctors who practiced DOTS felt that the efficacy of treatment with DOTS was not satisfactory to them only 8.75% of the doctors from private sectors said that adherence to full course of therapy was not better with DOTS. These 2 points suggest that doctors practicing DOTS felt that it was highly effective in treating TB.

57.5% of the doctors working in Private Sector, 66.7% Anesthetist, 27.3% of Orthopedic Surgeons and 16.7% of Physicians did not know the nearest DOTS center though, they followed DOTS! This suggests that there is a communication gap among the policy makers and the health care professionals working in Private Sector.65.5% of doctors who practiced DOTS felt that all TB patients could be put on DOTS, while 23.9% of doctors said that daily treatment was better in some cases. 9.6% doctors (Mostly Private Practitioners) felt that some patients were apprehensive to go to DOTS centers.They substantiated their stand by saying that when some patients were apprehensive of going to DOTS centers and could afford daily treatment regimes, there was no need to unnecessarily force all patients to take DOTS.

Opinion/Experience of doctors who didn't practice DOTS

Majority of the doctors felt that compliance to treatment; adherence to long course of therapy and the cost of daily therapy were not acceptable. 15.2% of the doctors from the Private Sector said that the cost of daily treatment was accep for their patients. They thought that some of their patients could afford daily treatment.

64.9% of the doctors felt that if the drugs are provided free of cost, people have doubts regarding its potency. Most of the doctors who said so were Private Practitioners. This was a startling observation because it reflects very badly on the Govt. supply of drugs and that doctors and people don't have confidence about its quality. 66.7 % of the Physicians & 100% Pediatricians who didn't practice DOTS had a myth that DOTS was ineffective because drugs were not given daily.The fact is that drugs given thrice a week are as effective as drugs given daily. This reflects the lack of basic knowledge of Pharmacology about the half life of anti TB drugs among these doctors.

59% of the doctors said that the cost of full course of treatment of TB with daily regimen was between Rs 500 to Rs 1000, which in fact easily exceeds Rs 1000. This suggested that the doctors who are unaware of the financial burden on the patients, while purchasing drugs for their daily treatment of TB.
It was astonishing to observe that 64.9% of these doctors said that they would not practice DOTS even after coming to know that it is given free of cost, under supervision and equally efficacious. The most prominent reason given was, they had a fear that the patient would not come back for follow up if prescribed DOTS. This indirectly suggested that these doctors did not keep patients' concerns as a priority, which was disheartening.

Conclusion

After studying the DOTS awareness among medical practitioners in the urban areas of Mysore in 2010, the following points could be concluded: Most of the doctors who participated in the study had heard about DOTS and knew that drugs were given thrice a week. The basic knowledge about DOTS was considerably low among doctors who graduated before the introduction of DOTS into the medical curriculum. 38% of them did not follow it ($p<0.001$). An interesting fact is that some of the doctors who follow DOTS don't know what the acronym DOTS stands for. Comparing DOTS awareness among various specialists, it was found to be low among the orthopedic Surgeons, Gynecologists and Pediatricians. The number of doctors practicing DOTS in the private sector was less than 50% of that when compared to the Govt. sector ($p<0.001$). 100% of the doctors working in Government sector felt that DOTS was better than NTCP; whereas only 85% of the respondents from the private sector felt so.
Doctors working in Private hospitals had the least knowledge about DOTS among the different types of health centers in the private sector. Most of the doctors who practiced DOTS felt that it was highly effective in treating TB. 57.5% of the doctors working in the Private Sector who prescribed DOTS did not know the nearest DOTS center. About 24 % of the Doctors who practiced DOTS felt that daily treatment was required in some cases of TB. The most common reason given was that some of their patients were apprehensive to go to DOTS centers. 15 % of the doctors from the Private Sector did not practice DOTS because they said that their patients could afford daily treatment regimen. About 2/3rd of the doctors who did not practice DOTS felt that if drugs were provided free of cost, people will have doubts regarding its potency. 2/3rd of the Physicians and all the Pediatricians who did not practice DOTS had a misconception that DOTS was ineffective because drugs were not given daily. 64.9 % doctors of those who did not practice DOTS did not want to do so in the future, majority of them stating that if they did so, their patients would not come back to them for follow up.

The RNTCP is being primarily implemented through the Government network of institutions and health providers. Several studies have suggested that roughly 50% of the population sought medical care from the Private Sector in India8, 10. This aspect needs further research as to why patients prefer to go to private practitioners first. The RNTCP, therefore, cannot hope to achieve major successes unless public-private mix is a success. Majority of private practitioners are not aware of or not prescribing the treatment regimen recommended by the RNTCP and the majority of patients are being improperly treated or over-treated. There is a lack of emphasis on proper supervised treatment provision. They need periodic training, and more collaborative efforts are required between public health facilities and practicing doctors for control of tuberculosis.

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