

CHAPTER 5

Summary, findings, conclusions and recommendations

5.1 INTRODUCTION

This chapter presents the summary of the findings, conclusions and recommendations based on the data analysed in the previous chapter. Some limitations have been identified. The effectiveness of the DOTS strategy for control of pulmonary TB was researched by determining to what extent some of the objectives of the DOTS strategy have been attained.

5.2 SUMMARY OF THE RESEARCH

The focus of this study was to determine the effectiveness of the DOTS strategy in the control of pulmonary TB. SA realised that its TB control efforts which have been in place for some time were ineffective and joined its international counterparts by adopting the DOTS strategy to fight the spread of TB. The objectives of the DOTS strategy are to

- lower the TB mortality rate
- lower the TB morbidity rate
- reduce the treatment interruption rate
- improve the knowledge of the TB patient
- eradicate the stigma attached to TB

This research used some of the objectives of the DOTS strategy to establish to what extent the DOTS strategy has been effective in the North South Central Health district of KwaZulu-Natal.

The background of this study was done by studying the literature on the situation internationally, nationally and in the KwaZulu-Natal province. The background of the research problem covers the impact of TB as a health problem, its impact on communities and the success rate of measures implemented by governments in some countries to combat the disease was discussed. Pulmonary TB has been discovered to be a health problem world-wide according to the background of this study.

The literature study was done in chapter two on the research already conducted on the effectiveness of the DOTS strategy in other countries. The impact of HIV/AIDS on the health problem was also discussed. The treatment of TB, which was used previously before the DOTS implementation, and theories why the method of treatment of TB in the past did not succeed, were discussed.

The objectives of this study were to

- evaluate whether the level of knowledge of the TB patient in the North South Central Health district of KwaZulu-Natal about TB has improved since the implementation of the DOTS strategy
- determine whether the TB patient on the DOTS strategy was more compliant to the TB treatment in the North South Central Health district of KwaZulu-Natal
- determine whether TB is still stigmatised in the North South Central District of KwaZulu-Natal
- explore the opinion of the TB patient in the North South Central District of KwaZulu-Natal of the DOTS strategy
- identify any factor which is currently present in the North South Central Health district of KwaZulu-Natal that could contribute to the ineffectiveness of the DOTS strategy
- make recommendations to improve the DOTS strategy in the North South Central Health district of KwaZulu-Natal
- make recommendations for further research in this field

The research approach used in this study was a quantitative, cross-sectional research approach (Polit & Hungler 1991:195).

The research population was TB patients who were treated before the DOTS implementation using self-administered therapy in 1994-1995 and who were also being treated under the DOTS strategy in the North South Central Health district of KwaZulu-Natal. The research population was obtained from TB registers of the North South Central Health district of KwaZulu-Natal. The sampling method used in this study was the purposive sampling method, as it was believed that the most important information to answer the research questions could be obtained from this sample. The number of respondents who took part in this research was 118.

Interviews were conducted with 118 respondents using a prepared structured pre-tested interview schedule. The interview schedule was coded for easy analysis and analysed using the SPSS computer program. The findings were presented and discussed in chapter 4 by making use of frequency tables, bar and pie graphs.

The findings revealed that the majority of the respondents were aged between 40-49 years and both genders were almost equally represented in the sample. The majority of respondents namely 89,8% (N=106) were unemployed. The respondents could therefore be considered poor as the type of work the employed respondents did was also not very well paid jobs and it was found that the respondents also had to care for between 1-8 family members. The majority of respondents were from the Zulu cultural group, this could be due to the fact that the research was conducted in their geographical area.

◆ **Objective 1: Evaluate the level of knowledge of the TB patient in the North South Central Health district of KwaZulu-Natal**

The findings of this research revealed that a large majority of the respondents had a very good knowledge of TB and that it has increased since the implementation of the DOTS strategy. The findings indicated that they knew

- the first and later symptoms of TB
- that TB was an infectious disease – although they appeared to be doubtful about the ways it could be contracted when they were confronted with more possibilities
- that TB sufferers on treatment will not be infectious and these people would be able to return to work
- that TB could be fatal but it was clear that they felt more positive about the fact that it was curable
- what caused TB. The respondents also understood that TB was caused by a micro organism but they also understood the impact of good food and a clean environment had on the curability of the disease
- how TB was treated and also knew the drugs they were taking
- that TB was a serious disease but felt that HIV/AIDS was more serious
- that it took long to cure TB and that it was very important to take the medication as prescribed
- the treatment of TB. It was clear from the findings that their knowledge in this area has improved and also that it was important to complete the treatment
- what MDR TB means, and generally knew how it developed, but did not know what the side effects of the drugs were
- and believed that their treatment supporters, the nurses and medical staff had sufficient knowledge of the signs and symptoms of TB, the treatment, drugs and side effects of the drugs and would know how to treat, support and monitor them properly.

The majority of respondents obtained information about TB from their families, nurses and medical practitioners during current infection. The majority of respondents indicated that their knowledge have increased about TB during the current infection (since the implementation of the DOTS strategy).

It is therefore clear that the DOTS strategy implemented in the North South Central Health district of KwaZulu-Natal was effective as they were more informed and the knowledge of all people involved have increased.

◆ **Objective 2: Determine whether the TB patient on the DOTS strategy was more compliant to the TB treatment in the North South Central Health district of KwaZulu-Natal**

According to the findings the patients were more compliant to the treatment since the implementation of the DOTS strategy. The respondents indicated that patients in general and they themselves, during the previous infection, were less compliant to the treatment as it was difficult to travel long distances to the clinic when one does not have the funds to do it. The majority of the respondents was unemployed and did not have the financial resources to pay for transport. With the DOTS strategy treatment supporters were used to supervise the taking of the drugs. In the case where the family acted as treatment supporter the respondents did not need to travel to the clinic. Where the patients were too ill to report to the treatment supporter, they visited the patient at home. It is also clear from the findings that nurses have always followed the patients up when they defaulted, even during the previous self administered TB treatment system. In the case where nurses and medical doctors were used as treatment supporters the respondents had to travel to the nearest health service, but according to the findings, there were now more health services available and the services were now also more affordable.

The respondents also indicated that the fact that the taking of their treatment was supervised by someone else contributed to the improved compliancy. The findings revealed that the patients tended to become tired and disinterested to keep up with the long term treatment and needed someone to motivate them. The medical practitioners, family and nurses were seen as the best supporters of the patients. The community also supported them well as well as the employers and colleagues of the respondents who were employed.

The respondents all seemed very happy with their treatment supporters and felt that they were knowledgeable enough to monitor their treatment closely. Another encouraging fact is that the respondents appeared to be more motivated to complete their treatment and not even unfriendly personnel; distances they need to travel to the clinics; or lack of funds, would deter them from complying to the treatment. Although they were poor and funds appeared to be a major problem, the fact that the services were more available and accessible made the services more affordable and they will be less inclined to default on their treatment. The only remaining reason that could have caused them to default their treatment seems to be the possibility of finding employment that might have necessitated the relocation to another area.

Based on the findings of this research it is clear that the DOTS strategy was effective in the North South Central Health district of KwaZulu-Natal in that the patients seemed to be more compliant to their TB treatment.

◆ **Objective 3: Determine to what extent TB is still stigmatised in the North South Central District of KwaZulu-Natal**

The findings of this objective revealed that there was no proof that the stigma that has been attached to TB still exists. The respondents indicated that the members of the community, family, colleagues and employers were aware that they have contracted TB, that the support they received from these people was very good and that they did not treat them any differently than other non-infected people. A small percentage of the respondents indicated that they felt ashamed of the fact that they were suffering from TB and they might therefore feel that the stigma still exist. This could also be contributed to the fact that their friends “ran away from them” when they heard that they had TB. The respondents who indicated that they were not ashamed of their TB status substantiated it by saying that they knew that they were not infectious anymore while on treatment, that they believed that they will be cured and that TB could affect

anybody. Perhaps the latter respondents were more enlightened and if people were better informed about TB, the stigma attached to the disease would be completely eradicated.

The feeling that there was still a stigma attached to TB could be a personal perception of some of the respondents due to the reaction of a small group of friends. The findings of this research revealed however that people with TB were accepted and supported and indicated that the stigma attached to TB is greatly eradicated since the implementation of the DOTS strategy. Therefore the DOTS strategy has been effective in the North South Central Health district of KwaZulu-Natal.

The findings revealed that the knowledge of members of the community, families, friends, treatment supporters and their own knowledge have increased since the implementation of the DOTS strategy and this could be the reason why the stigmatisation of TB has decreased.

◆ **Objective 4: Explore the opinion of the TB patient in the North South Central district of KwaZulu-Natal of the DOTS strategy**

The respondents indicated that they heard about the DOTS strategy shortly after the implementation, from the nursing and medical staff as well as their treatment supporters. It is also clear from the findings that they knew and understood the philosophy behind the strategy. It is also clear from the findings that the DOTS strategy was implemented correctly as the respondents indicated that they were involved in the choice of their treatment supporters, that they were involved in all the decisions involved, that they were informed and educated and felt that they had a role to play in future in the DOTS strategy. They clearly felt part of the process and therefore accepted it.

The majority of the respondents also believed that the DOTS strategy should continue as people would not take their TB drugs unless they are supervised as people tend to be irresponsible and stubborn and believed that it is the only way TB could be controlled. The respondents indicated that the DOTS

strategy has changed their lives as they were more hopeful than in the past that they will be cured and their health has greatly improved on the DOTS.

It is therefore clear from the opinions of the respondents that they were satisfied with the DOTS strategy and it should continue to successfully control TB. It is clear that the treatment support system is effective and that all people involved in the life of the TB patient appeared to be more informed and supportive.

◆ **Objective 5: Identify any factor which is currently present in the North South Central Health district of KwaZulu-Natal that could contribute to the ineffectiveness of the DOTS strategy**

The following were factors that appeared to be a problem and when solved it could contribute to a greater effectiveness of the DOTS strategy:

- Poverty and unemployment seemed to be a major problem for the respondents and if they do not have the resources to travel to the health services or have money for nutritional food they would either default treatment or take longer to be cured.
- Although the knowledge of TB has increased since the implementation of the DOTS strategy, there are still signs of a lack of knowledge such as that TB is not only a disease of the lungs. The respondents were also not very clear on the ways in which TB spreads and did not know that not all people infected with TB would become ill. It is clear from the findings that the nurses educated the patients, family and community on TB and they should be commended on the work they do, but should keep up the education of the community as there were still areas that needed attention.

- Unfriendly and uncaring nursing staff would, according to the respondents, cause them to stop their treatment. Although this aspect was not probed more to determine whether there was a real problem in this area, nursing personnel should remember that patients look up to them for help, knowledge and support and that they should always treat patients with respect. The role of the nurse featured greatly in the findings whereupon the success of the DOTS strategy hinged. This places a great responsibility on the shoulders of the nurse but can also be seen as a compliment for the profession.
- The availability of drugs appeared to be a problem from time to time although it has improved since the implementation of the DOTS strategy. It was however not established for how long the respondents were without drugs. It is very important that patients received their treatment every day as prescribed and the unavailability of drugs could contribute to the ineffectiveness of the DOTS strategy.
- The research findings revealed that almost half of the respondents smoked cigarettes which were detrimental for their health, and more than half of the respondents used alcohol on a regular basis. Nurses should take note of this finding and also educate TB patients on the effect smoking and the drinking of alcohol has on their general health.
- The findings revealed that some treatment supporters complained of the extra responsibility they have had to supervise a TB patient. Although it was not probed further in this study it can be deduced that the respondents referred to the non-nursing and medical staff who acted as treatment supporters. One could assume that the family members were also poor like the TB patients in this research and had extra expenses when they had to visit the patient. The patients suggested that some form of remuneration be awarded to at least cover the travelling expenses of the treatment supporter. As this system heavily relies on the cooperation of the treatment supporter this matter should be investigated.

5.3 CONCLUSIONS

According to the opinions of the respondents and the findings of this research the DOTS strategy implemented in the North South Central Health district of KwaZulu-Natal is effective as most of the objectives have been met. The success of the strategy could be attributed to the hard work and dedication of the nurses, medical practitioners and family members who acted as treatment supporters. TB will not be controlled successfully without the work of the treatment supporters but they need incentives to continue their important work. Education of the patient, family, community, employers and treatment supporters are of the utmost importance and should be kept up and even increased.

5.4 RECOMMENDATIONS FOR THE IMPROVEMENT OF THE DIRECTLY OBSERVED TREATMENT SHORT COURSE STRATEGY

- The nursing personnel should continue with health education about TB as it appeared to be very successful.
- Motivation of the community to support TB patients is still necessary, but those who proved to be good supporters should be encouraged to continue.
- Health personnel should inform TB patients about the side effects of TB drugs, which can be a cause for defaulting.
- If the community is informed about TB as a disease, they might provide better support and motivation to the TB patients.
- An incentive for treatment supporters would be ideal if possible.
- The nurse should identify the patients who have serious financial problems and refer them to the social worker. The patients should be included in skill development programmes.
- A certificate for TB patients who have completed TB treatment would be a motivation even to other patients.
- Decentralisation of health services still need to be improved.
- Health services are still very few compared to the communities they serve, an increase in the number of health services is essential.

- Staff shortage is also a problem leading to patients waiting for a long time, employment of more staff should be considered. Staff shortage also causes limited time for health education.
- Staff attitude should be improved as some patients default treatment because of insensitive treatment from nursing personnel.

5.5 RECOMMENDATIONS FOR FURTHER RESEARCH

Further research is recommended

- on the attainment of the other objectives of the DOTS strategy
- on this topic in other districts of South Africa which then could be compared with the findings of this research
- on the opinions and experiences of the treatment supporters and whether the DOTS strategy is effective

5.6 LIMITATIONS

- This study only focused on the effectiveness of the implementation of the DOTS strategy in North South Central Health district of KwaZulu-Natal province and the researcher does not claim that it can be generalized to other areas. Research done on this topic in other areas of South Africa might have quite different findings.
- Some of the items in the interview schedule should have been investigated more, for example how long the respondents were at times without TB drugs and why some respondents felt that TB patients could never go back to work. This type of probing of answers could have been done if the qualitative research method was used. Another research method could therefore have generated different findings.

- For a more complete picture the opinions of the nursing staff and treatment supporters could also have been obtained.

5.7 SUMMARY OF THIS CHAPTER

The objectives of this research have been identified and the findings of the data collected discussed. It has been concluded that the DOTS strategy for the control of pulmonary TB in the North South Central Health district of KwaZulu-Natal has been effective, that it should continue and that all involved should be congratulated, especially the nurses, for their tireless efforts. The findings have revealed that financial problems remain a major problem in the South Central Health district of KwaZulu-Natal due to gross unemployment.