

## CHAPTER 4

### Data analysis and interpretation

#### 4.1 INTRODUCTION

The major purpose of this chapter is to discuss and interpret the findings of this research. In the previous chapter, the methodology of this research was discussed. The research was conducted according to objectives and the research questions, which are the characteristics of the DOTS strategy, and formed the framework of the research.

The following were the research questions:

- Has the level of knowledge of the TB patient in the North South Central Health district of KwaZulu-Natal about the TB improved since the implementation of the DOTS strategy?
- Has the level of knowledge of other members of the community according to the TB patient improved since the implementation of the DOTS strategy?
- Has the level of support for the TB patient improved since the implementation of the DOTS strategy?
- Was the TB patient on the DOTS strategy more compliant to the treatment in the North South Central Health district of KwaZulu-Natal?
- Was TB still stigmatized in the North South Central Health district of KwaZulu-Natal according to the TB patient?

- What was the opinion of the TB patient in the North South Central Health district of KwaZulu-Natal of the DOTS strategy?
- Were there any other factors in the North South Central Health district of KwaZulu-Natal that could contribute to the ineffectiveness of the DOTS strategy?

## 4.2 SAMPLING

The names of forty respondents were obtained from a TB register of three institutions, which added up to 120 respondents, but only 118 respondents turned up for the interview. The sample was therefore composed of 118 TB patients who have been treated for TB before, as well as after the implementation of the DOTS strategy in the North South Central Health district of KwaZulu-Natal.

## 4.3 DISCUSSION AND INTERPRETATION OF DATA OBTAINED FROM THE INTERVIEW SCHEDULES

### 4.3.1 Biographical information

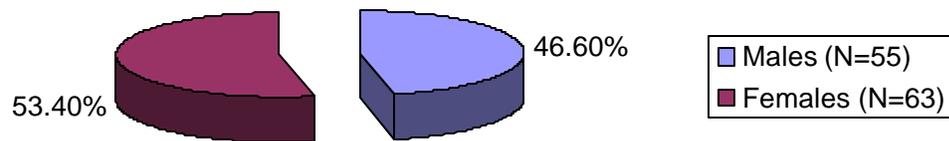
#### ITEM 1.1 THE AGE OF THE RESPONDENTS

The ages of respondents ranged between 10-59 years of age.

**Table 4.1 Age categories of respondents**

	<b>N</b>	<b>PERCENTAGE</b>
10-19 years	7	5,9
20-29 years	28	23,7
30-39 years	27	22,9
40-49 years	37	31,4
50-59 years	19	16,1
<b>TOTAL</b>	<b>118</b>	<b>100,0</b>

The majority of respondents were between 40-49 years, and only 6,0% (N=7) were younger than 19



years, but not younger than 18 years.

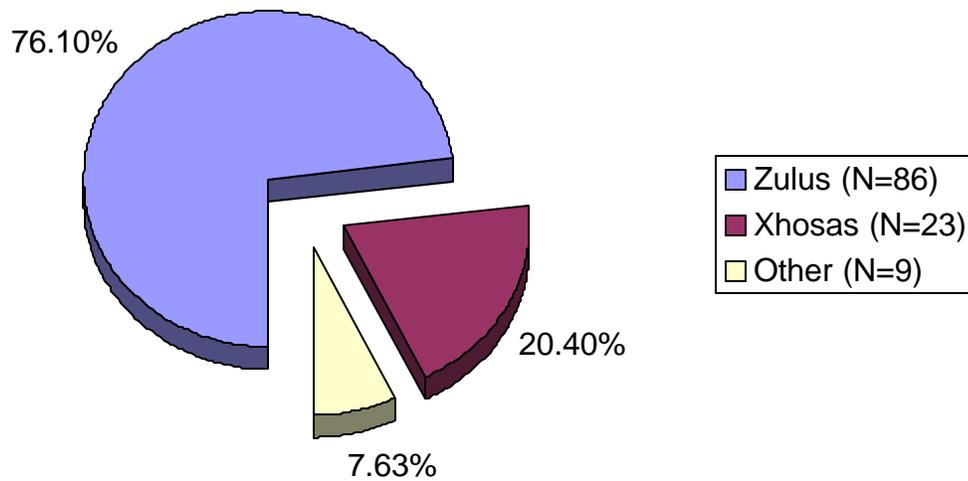
Figure 4.1 Gender of respondents

#### ITEM 1.2 THE GENDER OF THE RESPONDENTS (N=118)

Both genders were represented in this sample.

The majority of the respondents were females namely, 53,4% (N=63) and 46,6% (N=55) were males.

#### ITEM 1.3 CULTURAL GROUP (N=118)



**Figure 4.2 Cultural groups of respondents**

The majority of respondents were Zulus namely, 76,1% (N=86) which was not surprising as the research was conducted in the province where Zulus live. Almost 8,0% of the respondents indicated that they belonged to other cultural groups, but failed to indicate to what cultural group they belonged to.

**ITEM 1.4 EMPLOYMENT STATUS (N=98)**

Many respondents, namely 72,9% (N=86) indicated that they were unemployed and only 10,2% (N=12) were employed. Respondents who did not respond to this question were (N=20), which is

16,9%.

**ITEM 1.5 THE EMPLOYER (N=12)**

The majority of the employed respondents were employed by the provincial government, 9,2% (N=9) and 3,1% (N=3) were employed by private companies.

#### ITEM 1.6 TYPE OF WORK (N=12)

On the questions what type of work the respondents did, the twelve respondents who were employed answered as follows:

**Table 4.2 Respondents' type of work**

	<b>N</b>	<b>PERCENTAGE</b>
Labourers	2	16,6
General assistants	3	25,1
Nurses	2	16,6
Teachers	2	16,6
Clerks	3	25,1
<b>TOTAL</b>	<b>12</b>	<b>100,0</b>

Out of the twelve respondents who were employed, it was clear that general assistants 25,1% (N=3) and clerks 16,6% (N=3) were more than labourers, nurses, and teachers.

### ITEM 1.7 MARITAL STATUS (N=118)

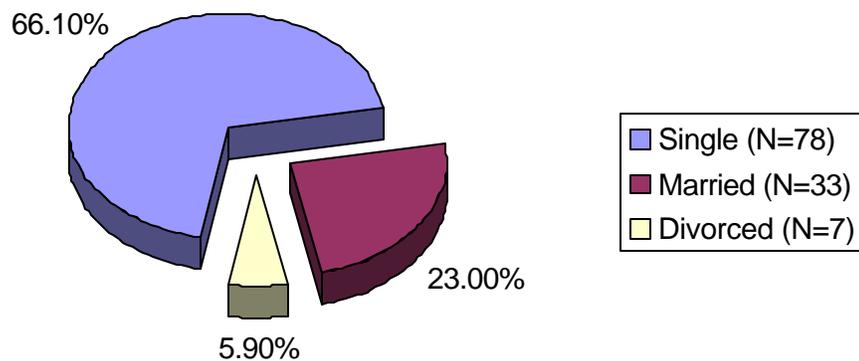


Figure 4.3 Marital status of respondents

The majority of respondents were single namely 66,1% (N=78), 23,0% (N=33) were married and 5,9% (N=7) were divorced.

### ITEM 1.8 INCOME DEPENDANTS (N=118)

All respondents, 100% (N=118) had between 1-8 dependants who they had to care for from their income.

#### 4.3.2 Knowledge of tuberculosis

On the questions what the abbreviation "TB" stands for the results were as follows:

### ITEM 2.1 THE MEANING OF THE ACRONYM TUBERCULOSIS (N=118)

"TB stands for Tuberculosis, which is an infectious disease caused by a micro-organism, a bacilli called *mycobacterium tuberculosis* which usually enters the body by inhalation through the lungs" (Department of Health 2000d:11).

**Table 4.3 Patients' knowledge of the acronym tuberculosis**

	<b>N</b>	<b>PERCENTAGE</b>
Good idea	22	72,9
Vague idea	10	18,6
No idea	86	8,5
<b>TOTAL</b>	<b>118</b>	<b>100,0</b>

The number of respondents 72,9% (N=86) who answered correctly that *TB* stands for *Tuberculosis* have been categorised as having a *good idea*, 18,6% (N=22) of the respondents could be considered as having a *vague idea* what the acronym *TB* stands for as they answered "*a chest condition*" and a "*chest infection*". Only 8,5% (N=10) had *no idea* at all as they indicated that they really *did not know*. It is surprising that there are still people who do not know the name of the disease as it is often mentioned through the media and in health education.

Health workers therefore have an important role to play in informing the patients not only of the disease itself but also what the name of the disease they are suffering from means.

## **ITEM 2.2 TUBERCULOSIS AS AN INFECTIOUS DISEASE (N=118)**

According to the Department of Health 1998a:6), "*TB is infectious, which means that TB can be passed from one person to another.*" ... and ... *it spreads from the initial location in the lungs to other parts of the body via the blood stream. When a TB patient with active pulmonary TB coughs, s/he produces small droplets that contain TB bacilli. Anyone who inhales this air with droplets can then be infected and may later develop TB disease*" (Department of Health 2000d:11).

**Table 4.4 Tuberculosis as an infectious disease**

	<b>N</b>	<b>PERCENTAGE</b>
Yes	110	93,2
No	6	5,1
Uncertain	2	1,7
<b>TOTAL</b>	<b>118</b>	<b>100,0</b>

The majority of respondents were of the opinion that TB is an infectious disease, namely 93,2% (N=110) and 5,1% (N=6) did not know and 1,7% (N=2) were unsure. This finding is important, as some patients do not seem to know that TB is infectious, and they therefore might not take steps to prevent the spread of the disease.

### **ITEM 2.3 THE FATALITY OF TUBERCULOSIS (N=118)**

The literature states that, "... in 1996, TB killed far more people in South Africa than any other infectious disease" (Department of Health, KwaZulu-Natal 1997:6).

On the question whether a person can die of TB the respondents answered as follows:

**Table 4.5 Fatality of tuberculosis**

	<b>N</b>	<b>PERCENTAGE</b>
Yes	112	94,9
No	4	3,4
Uncertain	2	1,7
<b>TOTAL</b>	<b>118</b>	<b>100,0</b>

The majority of respondents, namely 94,9% (N=112) felt that a person could die of TB. On the other hand, 3,4% (N=4) were of the opinion that a person could not die of TB and then 1,7% (N=2) were uncertain. This simply means that some patients do not believe that TB is serious and as a result might therefore not follow the TB treatment regimen properly.

#### ITEM 2.4 THE CAUSE OF TUBERCULOSIS (N=118)

The respondents were asked to indicate in open questions what the cause of TB was. The results of the analysis of these questions were as follows:

**Table 4.6 Causes of tuberculosis**

	<b>N</b>	<b>PERCENTAGE</b>
Poor nutrition	8	6,7
Environmental factors	12	10,2
Poor hygiene	12	10,2
TB germ	86	72,9
<b>TOTAL</b>	<b>118</b>	<b>100,0</b>

The majority of the respondents, namely 72,9% (N=86) indicated correctly that TB is caused *by a TB germ*, 10,2% (N=12) believed that TB is caused by *environmental factors and poor hygiene*, 6,7% (N=8) felt that TB is caused by *poor nutrition*. Although these factors mentioned by the respondents are contributing factors "*TB is caused by mycobacterium tuberculosis which is known to kill more people than any other single infectious agent*" (Department of Health 2000d:7). As the majority of the respondents were unemployed, poorly fed and lived in poor environmental conditions, it is not surprising that they were of the opinion that these contributing factors were the sole causative factors of the disease.

#### ITEM 2.5 RECOGNITION OF A PERSON WITH TUBERCULOSIS (N=118)

The respondents were requested to provide the most important symptom by which a TB patient could be recognised.

**Table 4.7 Respondents' opinion on how to recognise a person with tuberculosis**

	<b>N</b>	<b>PERCENTAGE</b>
Severe cough	30	25,4
Chest pains	30	25,4
Weight loss	20	16,9
Coughing up blood	14	11,9
Dyspnoea	8	6,8
Night sweats	12	10,2
Uncertain	4	3,4
<b>TOTAL</b>	<b>118</b>	<b>100,0</b>

The majority of respondents namely 50,8% (N=60) felt that a person with TB could be recognised by severe coughs and chest pains. The data also revealed that, 16,9% (N=20) were of the opinion that it would be weight loss and 11,9% (N=14) coughing up blood were the ways in which a TB patient could be recognised. Furthermore, 6,8% (N=8) believed that TB patients suffered from dyspnoea whereas 10,2% (N=12) felt that a TB patient is recognised by night sweats and 3,4% (N=4) were uncertain. According to the literature, "*...the signs and symptoms of TB are as follows:*

- *Persistent cough for 3 weeks or more*
- *Sputum productive, which may be blood stained*
- *Shortness of breath and chest pain*
- *Loss of appetite and loss of weight*
- *A general feeling of illness (malaise)*
- *Tiredness and loss of motivation*
- *Night sweats and fever"* (Department of Health 2000d:12)

It is clear from the analysis of this question that the respondents were generally enlightened about the symptoms of TB, perhaps because they have experienced it themselves.

## **ITEM 2.6 MOST SERIOUS CONDITION (N=118)**

The respondents were asked to choose the most serious disease (which caused the highest mortality rate per annum) from a list provided in the questionnaire. They answered as follows:

**Table 4.8 Most serious of listed conditions**

	<b>N</b>	<b>PERCENTAGE</b>
TB	20	16,9
HIV/AIDS	94	79,7
Malaria	-	-
Motor Car Accidents	4	3,4
Violence	-	-
Measles	-	-
<b>TOTAL</b>	<b>118</b>	<b>100,0</b>

The majority of respondents, namely 79,7% (N=94) believed that HIV/AIDS was the most serious condition and 16,9% of the respondents were of the opinion that TB was the most serious condition. Four respondents (3,4%) believed that motor car accidents were the most serious. None of the respondents considered malaria, violence, and measles as being serious conditions. According to the literature, *"TB is a common cause of death in people living with HIV/AIDS"* (Department of Health 2000d:38). The literature, once more, states that *"TB is humanity's greatest killer"* because TB kills more adults each year than any other infectious disease, including malaria and all tropical diseases. *"HIV/AIDS has put TB on the fast track"*. This means that HIV has greatly accelerated the progression of TB infection to active TB. Eight million new TB cases develop every year; three million people die from TB every year (Department of Health 1998b:1).

## **ITEM 2.7 KNOWLEDGE ON THE SPREAD OF TB (N=118)**

### **ITEM 2.7.1-2.7.5 Ways in which tuberculosis is spread**

On the question "How is TB spread?" The majority of respondents, namely 76,3% (N=90) correctly indicated that TB is spread by breathing in the air. The infectiousness of a case of TB is determined by

the concentration of micro organisms within the lungs and they are spread into the air surrounding the patient who has TB. When a TB patient with active pulmonary TB coughs or spits, s/he produces small droplets that contain TB bacilli. Anyone who inhales this air with droplets can then be infected and may later develop TB. (Department of Health 2000d:11). Only 23,7% (N=28) of the respondents did not believe that breathing in air spreads TB.

The majority of respondents, namely 23,7% (N=28) also indicated that TB is spread through

- sexual intercourse 28,6% (N=7)
- by touching a TB sufferer 17,9% (N=5)
- using utensils used by a TB sufferer 35,7% (N=10 ), or
- by other ways 17,9% (N=5) – which the respondents could not mention

Although the majority of the respondents knew how TB spread, they were uncertain when confronted with other possibilities.

#### **ITEM 2.8 WILL ALL PEOPLE INFECTED WITH TB BACTERIA BECOME ILL? (N=118)**

On the above question, the majority of respondents, namely 96,6% (N=114) answered that all people infected with TB bacteria become ill, 3,4% (N=4) were of the opinion that even if people are infected with TB bacteria they do not become ill. According to literature, *"...90% of infected people never become ill with tuberculosis unless their immunity is seriously compromised for example by malnutrition, stress, HIV/AIDS, cancer, and diabetes. The micro-organism remains dormant within the body and their presence is indicated only by a significant size of induration in reaction to a tuberculin skin test"* (Department of Health 2000d:11).

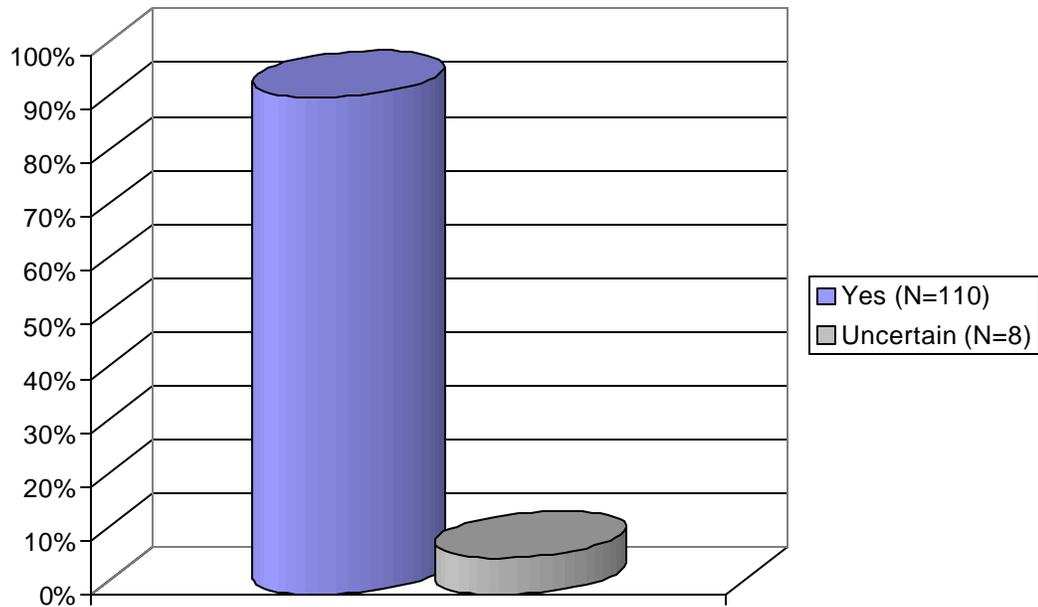
#### **ITEM 2.9 CAN TB BE CURED? (N=118)**

On the above question the majority of respondents, namely 98,3% (N=116) felt that TB can be cured, whereas only 1,7% (N=2) were unsure. It is therefore clear that the respondents have seen TB patients recover completely or felt positive about the treatment and their prognosis.

#### **ITEM 2.10 THE FIRST OF THREE IMPORTANT SYMPTOMS OF TUBERCULOSIS (N=118)**

The respondents were requested to choose the first three important symptoms of TB from the list provided in the questionnaire. The most important symptoms of TB chosen by the respondents as the **early symptoms** of TB were cough, weight loss, and night sweats.

### ITEM 2.10.1 Coughing (N=118)



**Figure 4.4 Coughing as one of the first important signs and symptoms of tuberculosis**

The majority of respondents, namely 93,2% (N=110) were of the correct opinion that a TB patient develops severe persistent cough before the other symptoms appear, although 6,8% (N=8) were uncertain. *"Persistent cough for 3 weeks or more should be regarded as tuberculosis suspect"* (Department of Health 2000d:12). Therefore, this is one of the first symptoms of TB.

#### ITEM 2.10.4 Weight loss (N=118)

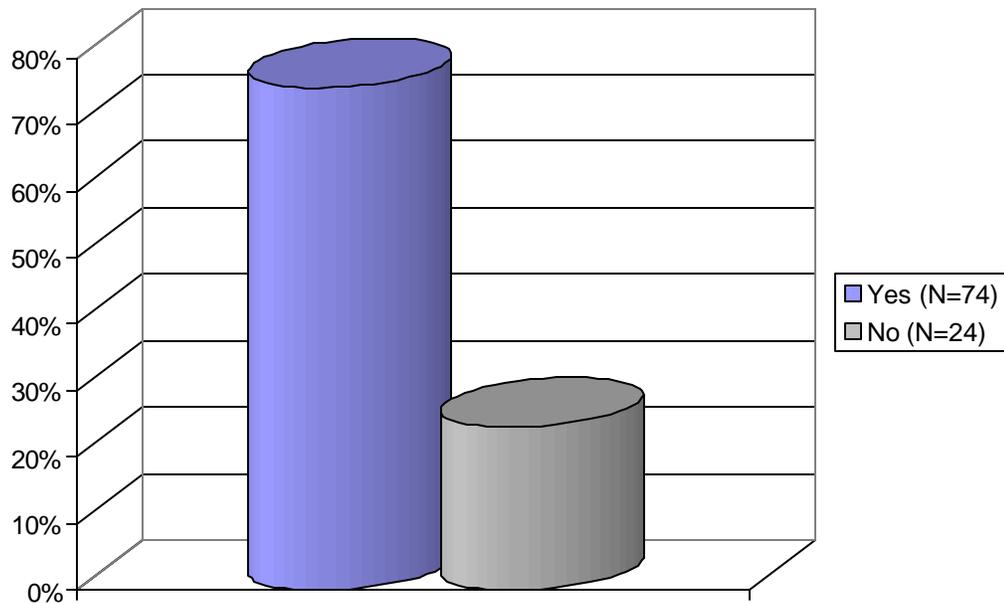
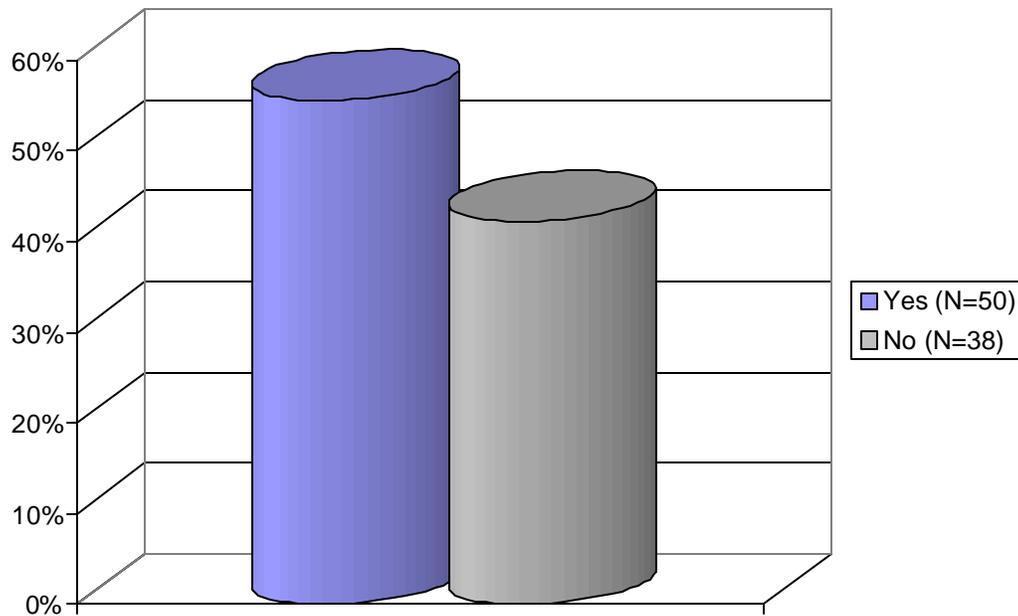


Figure 4.5 Weight loss as one of the first important signs and symptoms of tuberculosis

The majority of respondents 62,7% (N=74) felt that weight loss also falls under the most important symptoms of TB although 20,3% (N=24) did not regard weight loss as one of the first symptoms of TB. Other respondents (16,9%;N=20) did not answer this question.

### ITEM 2.10.6 Night sweats (N=118)



**Figure 4.6 Night sweats as one of the first important signs and symptoms of tuberculosis**

The majority of respondents, namely 42,4% (N=50) were of the opinion that night sweats occur during the initial stage of TB, but 32,2% (N=38) did not believe that night sweats could be considered as an important symptom of TB. Thirty respondents (25,4%) did not answer the question.

The respondents did not consider any of the following symptoms, which were listed in the interview schedule, as important symptoms of TB.

Item 2.10.2 High fever

Item 2.10.3 Severe fatigue

Item 2.10.5 Chest pain

Item 2.10.7 Coughing up blood

Item 2.10.8 Enlarged glands

Item 2.10.9 Other

According to literature, "...the early symptoms are cough, tiredness, and weight loss" (Department of Health 1996a:2).

## **ITEM 2.11 THE THREE MOST IMPORTANT LATER SIGNS AND SYMPTOMS OF TUBERCULOSIS (N=118)**

In this item the respondents were asked to choose the maximum of three later symptoms of TB from a list of nine possibilities provided in the interview schedule. The respondents were of the opinion that chest pain, coughing up blood, and enlarged glands were the only three symptoms, which develops as TB progresses.

### **ITEM 2.11.5 Chest pain (N=118)**

All respondents 100,0% (N=118) felt that chest pain is the most important later symptom of TB.

### **ITEM 2.11.7 Coughing up blood (N=118)**

The majority of respondents 95,8% (N=113) were of the correct opinion that when a TB patient is getting worse, s/he develops hemoptysis, 4,2% (N=5) of the respondents were not sure.

### **ITEM 2.11.8 Enlarged glands (N=118)**

The majority of the respondents, namely 97,5% (N=115) believed that at the later stage of TB the patient develops enlarged glands though 2,5% (N=3) felt that enlarged glands do not fall under the later symptoms of TB.

The respondents did not regard any of the following items, which were also listed in the interview schedule, as the later symptoms of TB.

- Item 2.11.1 Coughing
- Item 2.11.2 High fever
- Item 2.11.3 Severe fatigue
- Item 2.11.4 Weight loss
- Item 2.11.6 Night sweats

The literature considers "*coughing up blood, high fever, excessive sweating, and chest pains ...*" as the "*... later symptoms of TB*" (Department of Health KwaZulu-Natal 1997:3).

## **ITEM 2.12 BODY PARTS AFFECTED BY TUBERCULOSIS (N=118)**

In this item the respondents had to choose any of the six options that were provided in the interview schedule. This was aimed at determining whether they knew which body parts could be affected by TB.

### **ITEM 2.12.1 Lungs**

The majority of respondents, namely 95,8% (N=113) felt that TB affects the lungs and 1,7% (N=2) were of the opinion that TB does not affect the lungs and 2,5% (N=3) were uncertain.

The respondents did not consider any of the items listed below as body parts that are affected by TB.

- Item 2.12.2 Spine
- Item 2.12.3 Heart
- Item 2.12.4 Blood

Item 2.12.5 Kidneys

Item 2.12.6 Other body parts

According to literature, *"there are different types of TB such as pulmonary TB or TB of the lungs and TB outside the lungs known as extra-pulmonary TB. TB of the lungs is the most common type of TB and is infectious. Extra-pulmonary TB may spread through the blood system to other parts of the body, such as: glands, brain, spine, bones, heart, and joints"* (Health Department, KwaZulu-Natal 1997-1998:4). This is an indication that the respondents only had a basic knowledge of which body parts were affected in TB and were unaware of the fact that other body parts could also be affected. This has an implication on the early detection of TB and prevention of the spread of the disease as the patients might not realise that they might have contracted TB and seek help in time, if other parts of the body other than the lungs were affected.

### **ITEM 2.13 THE TIME IT TAKES TO CURE TUBERCULOSIS IN A PATIENT ON TREATMENT (N=118)**

On the questions *"How long does it take to cure TB if a patient is taking his drugs as prescribed?"* all respondents, namely 100,0% (N=118) correctly indicated that TB could be cured if a patient is taking his drugs for more than 6 months, but TB cannot be cured within:

Item 2.13.1 One week

Item 2.13.2 2-3 weeks

Item 2.13.3 1 month

Item 2.13.4 2-3 months

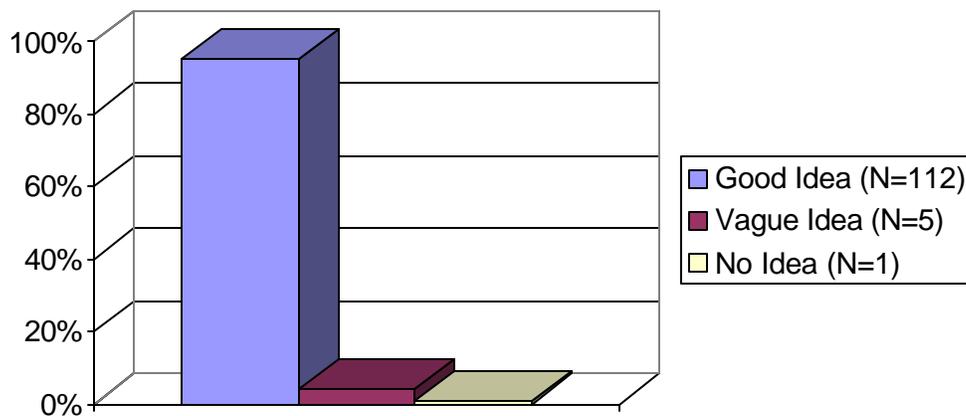
Item 2.13.5 4-5 months

According to the literature, "TB patients have to take treatment 5 days a week for a period of 6 to 8 months to be cured" (Matsha 1997-1998:2). At the same time the literature has indicated that some patients remain positive even though they took their treatment as prescribed and are still sputum smear or culture positive. Such a patient is referred to as a *treatment failure* and need 8 months of retreatment (Department of Health 1998a:56).

In Item 2.9 it was indicated that 98,3% (N=116) of the respondents believed that TB could be cured – that they felt positive about the outcome of the disease, is therefore clear, but that it would be a long process (at least 6 months).

#### ITEM 2.14 IMPORTANCE OF COMPLETING TUBERCULOSIS TREATMENT (N=118)

The majority of respondents, namely 94,9% (N=112) had a good idea about the importance of completing TB treatment, as they believed that a TB patient has to complete his/her treatment in order to be cured.



The following quotations have been extracted directly from the interview schedule (Item 2.14) where the respondents had to state **why** it is important to complete TB treatment:

- "it is important to complete TB treatment in order to get well" and
- "it is important to complete treatment in order to be cured"

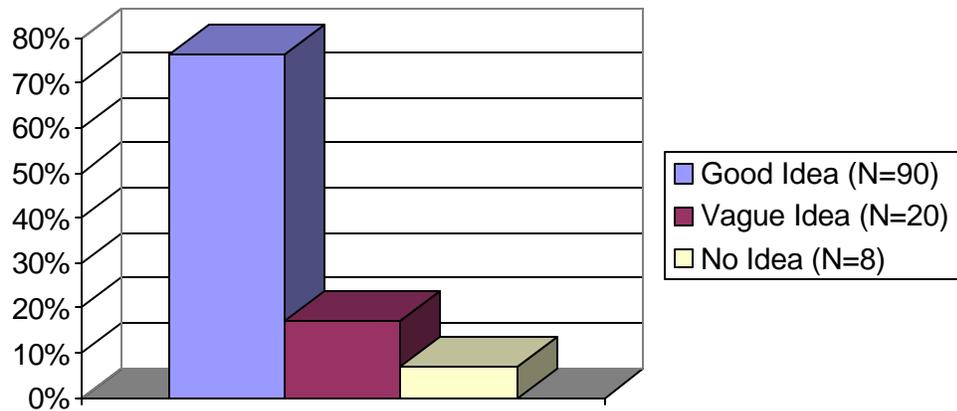
Five respondents, 4,3% had a vague idea as they answered as follows:

**Figure 4.7 Opinion of the respondents on the importance of completing tuberculosis treatment**

Mrs Mkuzo: and 0,8% (N=1) had no idea at all, as they could not provide any explanation why it was important to complete the TB treatment. Mr Mandela, in a speech, encouraged TB patients all over South Africa to complete their treatment. He even said that he is still alive because he listened to health care workers and took his TB treatment and today he is cured of the disease (Matsha 1997-1998:2).

**ITEM 2.15 WHAT IS MEANT BY THE TERM *MULTI-DRUG RESISTANT TUBERCULOSIS* (N=118)**

In this item the respondents had to state their understanding of the meaning of the term MDR TB. The result of the analysed item was as follows:



**Figure 4.8 Knowledge of respondents about what the term *multi-drug resistant* tuberculosis means**

The majority of respondents, namely 76,3% (N=90) had a good idea about what MDR TB is, as one of them stated that, "*MDR TB - Multi Drug Resistant TB means that some drugs cannot fight the disease.*" Others felt that "*MDR TB means a strong type of TB which takes long to be cured.*" This indicated that some respondents had knowledge about what drug resistant TB is. Furthermore, 16,9% (N=20) had a vague idea about MDR TB and 6,8% (N=8) had no idea at all as they could not provide any explanation of the term. The literature defines MDR TB as "*...the drug resistance to at least the two key TB drugs Isoniazid and Rifampicin*" (Matsha 1997-1998:9).

**ITEM 2.16 HOW DOES DRUG MULTI-RESISTANT TUBERCULOSIS DEVELOP? (N=118)**

On the above question the respondents answered as follows:

**Table 4.9 Respondents' understanding on how multi-drug resistant tuberculosis develops**

	N	PERCENTAGE
Good idea	80	67,8
Vague idea	10	8,5

No idea	28	23,7
<b>TOTAL</b>	<b>118</b>	<b>100,0</b>

The majority of respondents, namely 67,8% (N=80) had a good idea about how drug resistant TB develops as the following quotations extracted directly from the interview schedule illustrates *“drug resistant TB develops when one does not take treatment correctly”* and *“defaulting to take treatment as prescribed and failing to complete treatment can cause MDR TB.”* Then, 8,8% (N=10) had a vague idea as they stated the MDR TB is a wrong TB and 23,7% (N=28) had no idea at all as they could not provide an answer. According to Matsha (1997-1998:9), MDR TB can develop when patients do not take treatment correctly. Later they become sick and need treatment again. At this stage some of the TB bacteria may have developed resistance to the TB drugs they had taken before.

#### **ITEM 2.17 REASONS FOR INTERRUPTING TREATMENT (N=118)**

**Table 4.10 Reasons for interrupting treatment**

	<b>N</b>	<b>PERCENTAGE</b>
Good idea	113	95,8
No idea	5	4,2
<b>TOTAL</b>	<b>118</b>	<b>100,0</b>

On the question, “why do TB patients interrupt treatment,” the majority of respondents, namely 95,8% (N=113) had a good idea about the reasons why TB patients in general tend to interrupt their treatment, and 4,2% (N=5) had no idea whatsoever, as they could not provide any reason. Those who had indicated that they knew why TB patients interrupt their treatment gave the following reasons:

- People are mostly not employed, which makes it difficult to go to the clinic for treatment, because of financial problems.
- TB treatment consists of many drugs and patients become tired of taking drugs.

- Some patients have problems at home; others do not care about their own health.
- It seems to be a long period or people think they are well and then interrupt their treatment.

**ITEM 2.18 CAN HIV POSITIVE PEOPLE BE SUCCESSFULLY TREATED FOR TUBERCULOSIS?  
(N=118)**

On the above question the respondents answered as follows:

**Table 4.11 Whether HIV positive people can be successfully treated for tuberculosis**

	<b>N</b>	<b>PERCENTAGE</b>
Yes	10	8,5
No	90	76,3
Uncertain	18	14,3
<b>TOTAL</b>	<b>118</b>	<b>100,0</b>

The majority of respondents, namely 76,3% (N=90) believed that HIV positive people could **not** be successfully treated for TB, 15,2% (N=18) were uncertain and 8,5% (N=10) believed that even if a person is HIV positive, s/he could be successfully treated for TB. The fact is that TB is curable even in the presence of HIV (Matsha 1997-1998:7).

**ITEM 2.19 IS A PATIENT TAKING TB DRUGS ABLE TO SPREAD THE DISEASE TO OTHER PEOPLE? (N=118)**

On this question the majority of respondents, namely 93,2% (N=110) were of the correct opinion that if a person is taking TB treatment, s/he is no longer infectious. Then, 5,1% (N=6) believed that even if a person is on treatment, s/he remains infectious, and 1,7% was unsure. Matsha (1997-1998:2) states

that, "the number of infectious bacilli decreases and within a few days to a few weeks patients being treated are no longer infectious".

**ITEM 2.20 CAN A TUBERCULOSIS SUFFERER TAKING TB DRUGS GO BACK TO WORK?  
(N=118)**

On this question the majority of respondents, 83,1% (N=98) believed that a TB sufferer who is taking TB drugs could go back to work. A worker could return to work and a clinic could allocate a staff member to coordinate DOTS in the workplace (Matsha 1997-1998:16). If one analyses the answers of Item 2.19 and 2.20 together, it is clear that more respondents felt that a TB patient on treatment could return to work as they were not infectious. Then, 10,1% (N=12) felt that TB patients could never go back to work even when they are taking TB treatment and 6,8% (N=8) were not sure. It could be that they thought that the patient would be too fatigued to work. The reasons for their negative responses were however not explored.

**ITEM 2.21 PREVENTION OF TUBERCULOSIS (N=118)**

To test the knowledge of the respondents on the prevention of TB they were asked to state in their own words how TB is prevented. They responded as follows:

**Table 4.12 Respondents' opinion on how tuberculosis is prevented**

	<b>N</b>	<b>PERCENTAGE</b>
Good idea	90	76,3
No idea	28	23,7
<b>TOTAL</b>	<b>118</b>	<b>100,0</b>

The respondents who were considered as having a good idea about the ways in which TB could be prevented were 76,3% (N=90), as they gave specific responses some of which are listed below:

- By good environmental hygiene and good nutrition.
- By closing the mouth when coughing.
- By good diet.
- By taking TB treatment regularly to prevent the spread of infection.
- By responding to precautionary measures and avoid what we are warned about by the health workers.

The respondents who were considered as having no idea were 23,7% (N=28), as they could not provide any answer. TB can be prevented by educating people in the communities on *inter alia* ways in which the spreading of TB could be prevented; ensuring a strong immune system by following a good nutritional diet; and by vaccination (Health Department, KwaZulu-Natal 1997-1998:10).

## ITEM 2.22 REASONS FOR DEFAULTING TREATMENT

The respondents were asked to choose the five most probable reasons from the list provided in the interview schedule why they believed patients in general do not complete their TB treatment.

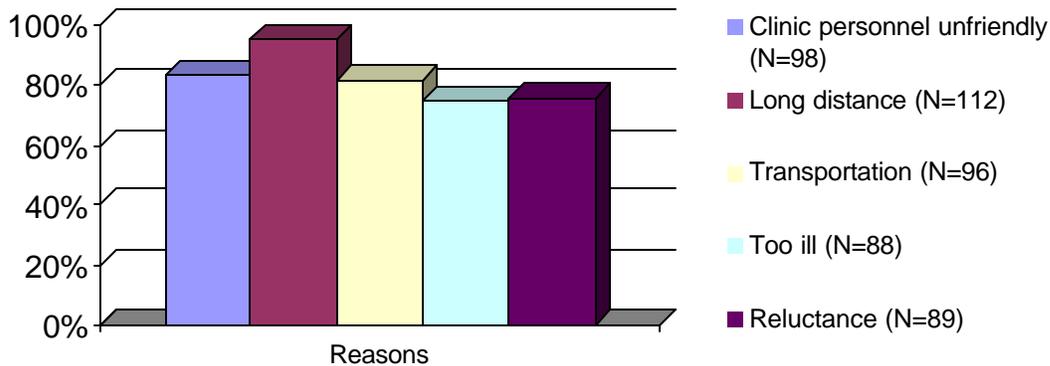


Figure 4.9 Respondents' reasons why tuberculosis patients generally default treatment

The respondents regarded the following five most probable reasons, which could cause TB patients to default TB treatment.

### ITEM 2.22.7 Long distance between clinic and home/work (N=118)

The majority of respondents, namely 94,9% (N=112) believed that the distance between the clinic and home/work was the most important reason for defaulting treatment, and 5,1% (N=6) felt that the distance would be the fourth reason for defaulting treatment.

### ITEM 2.22.6 Unfriendly and uncaring clinic personnel (N=118)

The majority of respondents, namely 83,1% (N=98) felt that unfriendly clinic personnel were the most probable reason for defaulting treatment, 9,3% (N=11) felt that this reason may be the second reason and 7,6% (N=9) believed that this might be the fourth important reason.

#### **ITEM 2.22.9 Lack of funds for transport (N=118)**

The respondents who felt that TB patients default treatment due to lack of funds for transport were 81,4% (N=96) where as 18,6% (N=22) felt that this reason would be the fifth reason for defaulting treatment.

#### **ITEM 2.22.12 Too ill to attend the clinic (N=118)**

The majority of respondents, namely 74,6% (N=88) were of the opinion that if a TB patient is too ill, he/she would default treatment.

#### **ITEM 2.22.14 Do not want to go to the clinic every time (N=118)**

The majority of respondents, namely 75,4% (N=89) felt that this reason was also an important cause for patients to default treatment.

The respondents did not regard the following as the most probable reasons for defaulting treatment:

Item 2.22.1 Patient does not care about own health

Item 2.22.2 Patient does not believe the disease is serious

Item 2.22.3 Does not understand TB

Item 2.22.4 Does not understand treatment

Item 2.22.5 Clinic hours are inconvenient

- Item 2.22.7 Not enough drugs in the clinic
- Item 2.22.10 Constant location due to varying workplace
- Item 2.22.11 Forget to attend clinic
- Item 2.22.13 Frustrated to wait long hours at the clinic
- Item 2.22.15 Feels better and therefore discontinues treatment
- Item 2.22.16 Medication makes them feel ill

All respondents, namely 100,0% (N=118) felt that none of the above reasons would cause TB patients to default TB treatment. Therefore, it could be deducted that the respondents felt that TB patients in general **did** care about their own health, felt that the disease is serious, and had enough information to understand the disease. The way in which the clinic was functioning or run, such as long waiting hours, availability of medicines and the side effects did not, according to the respondents play a role in the decision of TB patients in general to default treatment.

Factors such as the attitude of health workers, transport problems, and their own health status appeared to be according to the opinion of the respondents, the three most important reasons why TB patients default treatment.

### **ITEM 2.23 REASON(S) FOR CONTINUING TREATMENT (N=118)**

On the question “why should a patient continue treatment even if he feels better,” the majority of respondents, namely 94,9% (N=112) felt that a TB patient should indeed continue treatment even if s/he feels better. Some of their responses are listed below:

- To complete the course of treatment.
- To avoid relapse of TB again.
- To completely kill the TB germ.

- To obey doctor's prescription.
- So that one can be completely cured.

A patient should according to the respondents therefore continue the TB treatment although s/he might feel better in order to be cured. Six respondents 5,1% (N=6) did not respond to this question. Literature emphasises that, *"for treatment to be effective, it is crucial that correct drugs are given for the correct period of time"* (Department of Health 2000d:27).

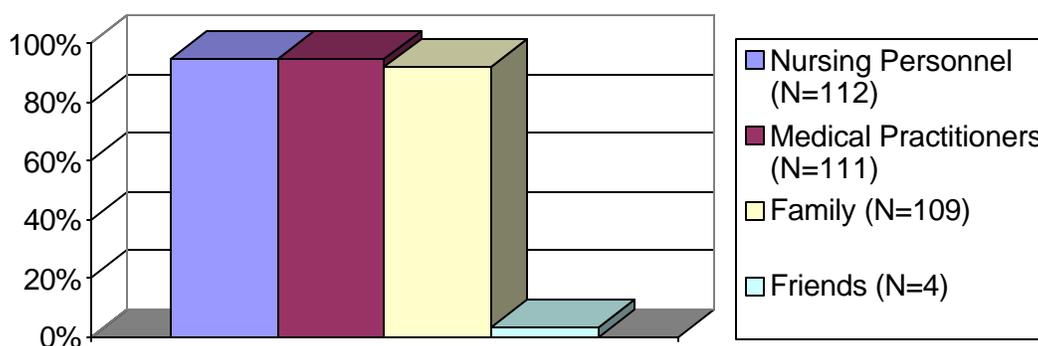
#### ITEM 2.24 HOW OFTEN HAVE YOU VISITED THE CLINIC TO COLLECT TREATMENT WITHOUT GETTING IT? (N=118)

The majority of respondents, 95,8% (N=113) believed that TB treatment was always available in the clinic, though 4,2% (N=5) felt that most often the TB drugs were not available in the clinic. When TB drugs are not available when a TB patient visits the clinic it could mean that this patient will interrupt treatment or discontinue the treatment completely with grave consequences for the patient as well as for the prevention and eradication of TB in general.

Another question that should have been included here but was unfortunately not asked is how long the five respondents who felt that medication was not always available at the clinic were without medication.

#### ITEM 2.25 SOURCE OF KNOWLEDGE OF TUBERCULOSIS

The following question required respondents to indicate specific people from whom they received



knowledge of TB, a list was provided. The results were as follows:

The majority of respondents, 94,9% (N=112) felt that they obtained their knowledge of TB from nursing personnel whereas almost as many believed that medical practitioners 94,07% (N=111) were the source of their knowledge of TB. Family members also provided the respondents with knowledge as 92,4% (N=109) felt that their family members educated them about TB whereas only 3,4% (N=4) felt that they obtained their knowledge about TB from their friends.

#### **Figure 4.10 People from whom respondents obtained knowledge of tuberculosis**

The respondents had no comments on the following sources:

- Item 2.25.5 Treatment supporter
- Item 2.25.6 Television
- Item 2.25.7 Radio
- Item 2.25.8 Magazines and newspapers

It is therefore clear that nursing personnel were the most important source of information followed by the medical practitioners and the family. Direct contact with people therefore appeared to have a greater impact in the education of sufferers of TB, according to the analysed data, than any other source.

#### **4.3.3 Previous experience as tuberculosis patient**

In this section information on respondents' previous experiences as TB patients (before the implementation of the DOTS programme) was collected in order to compare their experiences with the DOTS programme.

### ITEM 3.1 PREVIOUS TUBERCULOSIS INFECTION IN YEARS (N=118)

All the respondents reported that they have been infected before, as 83,9% (N=99) respondents reported that they had it more than 6 years ago and 16,1% (N=19) had TB less than 5 years ago.

### ITEM 3.2 REASON WHY THEY WERE NOT CURED (N=118)

On the question, "why in your opinion were you not cured" the majority of respondents, namely 93,2% (N=110) indicated that they had no idea as to why they were not cured during their previous infection.

**Table 4.13 Reason the respondents were not cured**

	<b>N</b>	<b>PERCENTAGE</b>
Good idea	8	6,8
No idea	110	93,22
<b>TOTAL</b>	<b>118</b>	<b>100,00</b>

Only a few respondents, namely 6,8% (N=8) knew why they were not cured as they indicated that they did not give their full cooperation to the treatment or defaulted treatment or was merely too ill to continue the treatment.

### ITEM 3.3 DISCONTINUING OF TREATMENT BEFORE CURED (N=118)

Most of the respondents, namely 56,9% (N=66) indicated that they did not discontinue their treatment before they were cured and 37,3% (N=44) answered "yes" to the question. Six respondents (5,17%) were uncertain whether they discontinued treatment or not.

### ITEM 3.4 REASON(S) WHY TREATMENT WAS DISCONTINUED BEFORE CURED (N=44)

On the open question, "why did you discontinue treatment" the majority of respondents, namely 56,8% (N=25) indicated that they discontinued treatment as they felt that they had financial problems and were unable to attend their clinics, 36,3% (N=16) provided vague reasons. One of their reasons were: "I had a social problem," and 6,8% (N=3) of the respondents provided no reasons for discontinuing treatment. This is in line with the finding of Item 2.22.9 where also the majority, namely 81,46% (N=96) indicated that financial problems caused many TB patients to discontinue treatment.

The deduction could therefore be made that the majority of TB patients experienced financial problems and this caused them to discontinue treatment.

### **ITEM 3.5 THE REACTION OF THE NURSE WHEN PATIENT DISCONTINUED TREATMENT (N=118)**

On the question "What did the nurses do when you discontinued your TB treatment" the majority of respondents, namely 65,5% (N=76) indicated that nurses did follow them up by tracing them when they discontinued treatment and encouraged them to continue treatment until discharged, 34,5% (N=42) indicated that nurses did not contact them. Although the patients were most probably **not** on DOTS strategy during previous infection (as it was only implemented during 1997) nurses still followed the majority of the respondents up when they defaulted their treatment. This is important as giving constant encouragement and support to TB patients to take and complete their treatment was the best way to protect the patient and others from TB infection (Matsha 1997-98:2). This is one of the reasons why the DOTS were implemented.

### **ITEM 3.6 SUPERVISION OF TREATMENT DURING PREVIOUS TUBERCULOSIS INFECTION (N=118)**

On the question who supervised their treatment during the previous infection the majority of respondents, namely 98,3% (N=116) indicated that they had nobody to supervise their treatment. Only 1,7% (N=2) of respondents indicated that nurses supervised them. This could be because supervision was not done as it is being done now with the DOTS, instead TB patients were encouraged by nurses to take and complete their TB treatment.

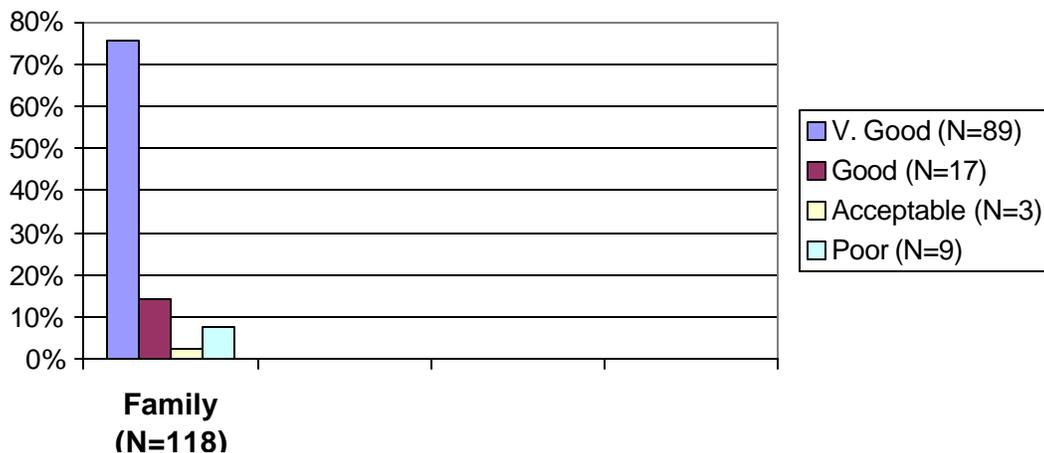
### ITEM 3.7 SUPPORT FROM OTHER PEOPLE

The respondents were asked to indicate who supported them during their previous TB infection. The respondents indicated that they received support from family, friends, employer, community, nurses, and medical practitioners. No support was obtained from the treatment supporter, as they had none at that time (see Item 3.8.5).

### ITEM 3.8 SUPPORT RECEIVED BY TUBERCULOSIS PATIENTS FROM OTHER PEOPLE DURING THE PREVIOUS TUBERCULOSIS INFECTION

The respondents were asked to rate the support they received from family, friends, employer, community members, treatment supporter, nurses, and medical practitioners.

#### ITEM 3.8.1 Support received from family during the previous infection (N=118)



The majority of respondents, namely 75,4% (N=89) rated the support they received from their families as very good, whereas 14,4% (N=17) rated it as good. Only 2,5% (N=3) rated the support as just acceptable, and then 7,6% (N=9) rated it as poor.

### ITEM 3.8.2 Support received from friends during the previous tuberculosis infection

Figure 4.11 Support received by the patients from family

(N=71)

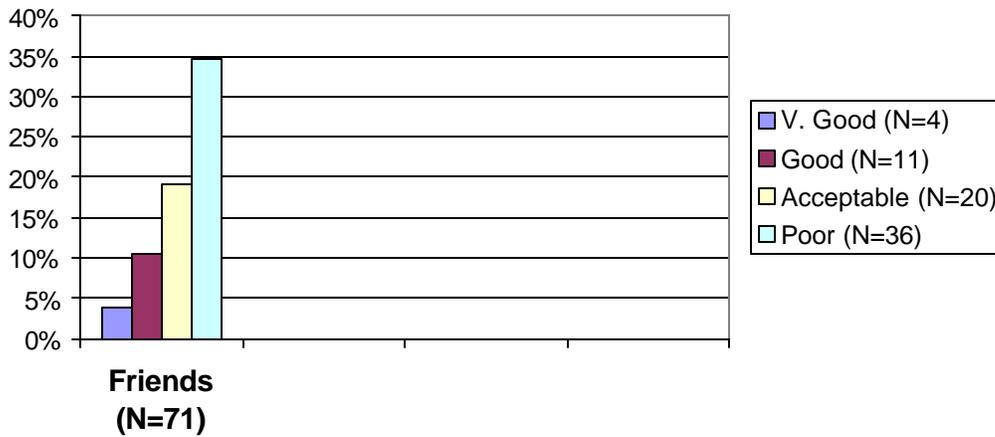


Figure 4.12 Support received by the patients from friends

Many respondents, namely 34,6% (N=36) rated the support they received from their friends as poor, though 19,2% (N=20) felt that their friends properly supported them. Just a few respondents, namely 3,9% (N=4) rated it as very good, whereas 10,6% (N=11) rated it as good. Although the findings of Item 2.25.4 indicated that the TB patients generally received most of their information from friends, they were clearly not their most important support system.

### ITEM 3.8.3 Support received from the employer during the previous tuberculosis infection

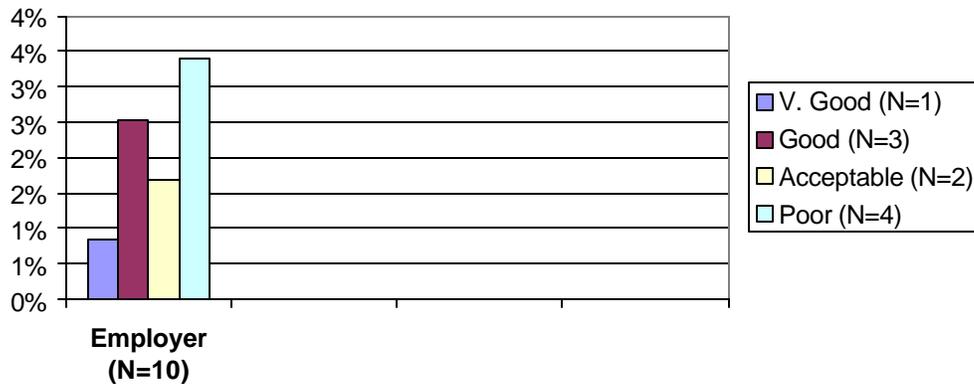
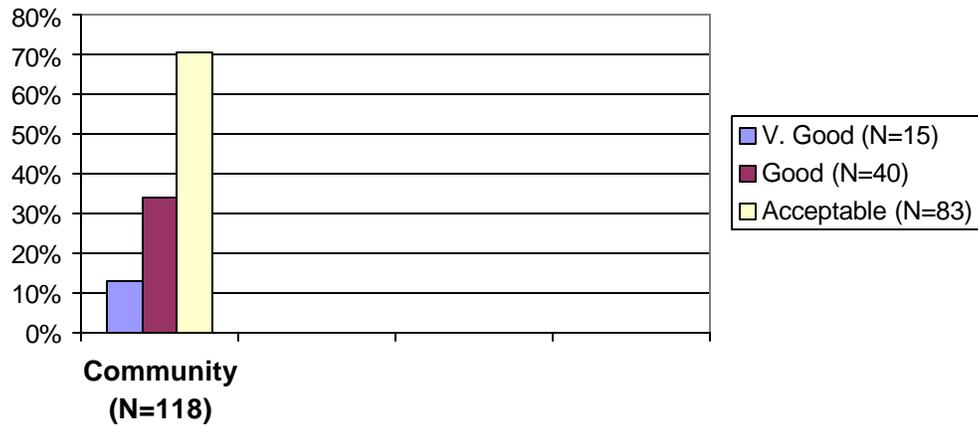


Figure 4.13 Support received by the patients from employer

Only 2,5% (N=3) of the employed respondents (10,2%; N=12; Item 1.4) indicated that the support they received from their employer was good, although the majority of the employed respondents rated the support they received from the employer as poor, whereas 1,9% (N=2) rated it as just acceptable. Only one respondent, namely 0,8%(N=1) of the total sample rated the support he/she received from his/her employer/s as very good. Therefore, the majority of respondents felt that their employers supported them during their previous infection.

### ITEM 3.8.4 Support received from members of the community during the previous tuberculosis infection (N=118)



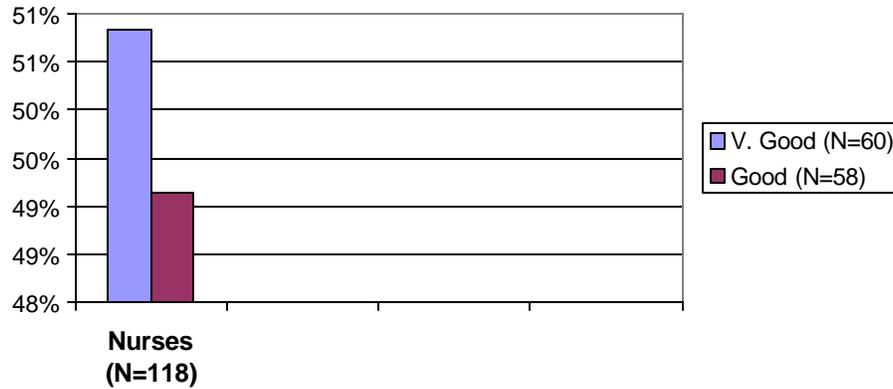
**Figure 4.14 Support received by the patients from community**

The respondents that constituted 12,7% (N=15) rated the support they received from their communities as very good, whereas 33,9% (N=40) rated it as good. Significantly, 70,3% (N=83) rated the support as just acceptable, and 7,6% (N=9) rated it as poor.

**ITEM 3.8.5 Support received from treatment supporters during previous tuberculosis infection (N=118)**

All respondents, namely 100% (N=118) felt that treatment supporters did not support them, as they had none at that time (see Item 3.7).

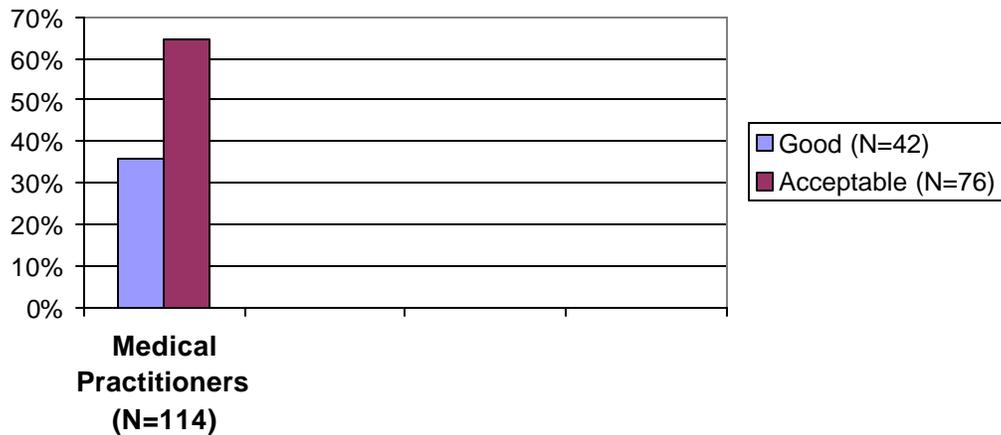
**ITEM 3.8.6 Support received from nurses during previous tuberculosis infection (N=118)**



**Figure 4.15 Support received by the patients from nurses**

The majority of respondents, namely 50,8% (N=60) rated the support they received from the nurses as very good, whereas 49,2% (N=58) rated it as good. This finding as well as the finding of Item 3.8.7 below is an indication that the medical staff has always been important supporters to TB sufferers.

**ITEM 3.8.7 Support received from medical practitioners during previous infection**



**Figure 4.16 Support received by the patients from medical practitioners**

Out of 100% (N=118) respondents, those that constituted 35,6% (N=42) rated the support they received from the medical practitioners as good, whereas the majority of respondents, namely 64,4% (N=76) rated it as just acceptable.

**ITEM 3.9 HOW OFTEN DID YOU CONSULT A HEALTH PROFESSIONAL? (N=118)**

On the above question the majority of the respondents namely 76,7% (N=94) consulted their health professionals once a month, whereas 23,3% (N=24) were seen on a daily basis.

**Table 4.14 Patients' frequency in consulting health professionals**

	N	PERCENTAGE
Daily	24	23,3
3-4 times a week	-	-
A few times a month	-	-
Once a month	94	76,7
Less than once a month	-	-
<b>TOTAL</b>	<b>118</b>	<b>100,0</b>

## 4 THE CURRENT INFECTION

In this section information on respondents' current experiences as TB patients was collected in order to compare the current infection and previous infection to determine how effective DOTS is.

### ITEM 4.1 DURATION OF CURRENT TUBERCULOSIS INFECTION (N=118)

On the question how long have you had TB this time the majority of the respondents, namely 67,8% (N=80) stated that they have had TB more than 10 months, 17,0% (N=20) have had TB between 5 to 10 months and 15,2% (N=18) have had TB for less than 5 months.

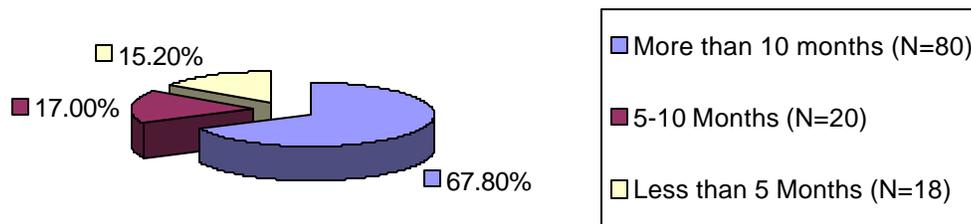


Figure 4.17 Duration of current infection

### ITEM 4.2 HOW HOPEFUL ARE YOU THAT YOU WILL BE CURED THIS TIME? (N=118)

The respondents' answer to the above question is an indication that they were very hopeful to be cured as 93,2% (N=110) of the respondents indicated that they were very hopeful to be cured this time and 6,8% (N=8) had no hope to be cured. Unfortunately the respondents were not asked to motivate their answers.

#### ITEM 4.3 HOW OFTEN DO YOU CONSULT A HEALTH PROFESSIONAL? (N=118)

On the above question the majority of the respondents, namely 80,5% (N=95) consulted their health professionals daily, 10,2% (N=12) were seen once a month; 5,1% (N=6) consulted their health professionals 3-4 times a week; 2,5% (N=3) were seen 1-2 times a week and 1,7% (N=2) were seen a few times a month. When comparing the findings of Item 3.9 (76,7%- N=94) patients were consulting their health professionals once a month and in Item 4.3 it is clear that the respondents consulted a health professional more often during the current DOTS supervised infection than the previous infection.

**Table 4.15 Patients' frequency in consulting health professionals**

	<b>N</b>	<b>PERCENTAGE</b>
Daily	95	80,5
3-4 times a week	6	5,1
1-2 times a week	3	2,5
A few times a month	2	1,7
Once a month	12	10,2
<b>TOTAL</b>	<b>118</b>	<b>100,0</b>

#### ITEM 4.4 REASONS THAT CAN CAUSE THE RESPONDENTS TO DISCONTINUE TREATMENT BEFORE COMPLETION IN THEIR CURRENT INFECTION

The respondents seemed to be more motivated to complete their TB treatment for they indicated that they did not consider any of the following reasons to cause them to discontinue their current treatment before completion time.

- Item 4.4.1 You do not care about own health
- Item 4.4.2 You do not believe it is serious
- Item 4.4.3 You do not understand TB
- Item 4.4.4 You do not understand treatment
- Item 4.4.5 Clinic hours inconvenient
- Item 4.4.11 Will forget to attend clinic
- Item 4.4.12 Too ill to attend the clinic
- Item 4.4.13 Frustrated to wait long hours at the clinic
- Item 4.4.14 Do not want to go to the clinic every time
- Item 4.4.15 Discontinue treatment because you feel better

The respondents then considered the following as possible reasons that they might default their treatment before completion during the current infection:

**Table 4.16 Reasons why respondents might default treatment before completion in current infection**

	YES	%	NO	%	UNCERTAIN	%	TOTAL
Item 4.4.6 Clinic personnel unfriendly	N=38	33,2	N=80	67,8	-	-	118
Item 4.4.7 Drugs not enough in the clinic	N=97	82,2	N=18	15,3	N=3	2,5	118
Item 4.4.8 Long distance between clinic and home	N=10	86,4	N=16	13,6	-	-	118
Item 4.4.9 Lack of funds for transport	N=11	96,6	N=3	2,5	N=1	0,9	118
Item 4.4.10 Constant location change due to varying workplace	N=97	82,2	N=21	17,8	-	-	118
Item 4.4.16 Medication makes me ill	N=94	79,7	N=18	15,3	N=6	5,0	118

These findings are in line with the findings of Item 2.17 where 95,8% (N=113) felt that it was clear that they believed that their disease is serious; that their health is important to them; and that they had enough information about the disease to realise that they should not discontinue their treatment. The reasons that could cause some other TB patients to discontinue their treatment were:

- Drugs not enough in the clinic
- Long distance between clinic and home
- Lack of funds for transport
- Constant location change due to varying workplace
- Medication makes me ill

These were the possible and very important reasons that would cause them to discontinue treatment and these aspects need to be considered urgently.

#### **ITEM 4.4.6 Unfriendly/uncaring personnel (N=118)**

The majority of respondents, namely 67,8% (N=80) felt that they would not discontinue their current treatment because the clinic staff was unfriendly, whereas 32,2% (N=38) believed that unfriendly clinic personnel would affect their clinic attendance. This finding is in line with Item 2.22.6 where the majority of the respondents 83,1% (N=98) also indicated that in their opinion the negative attitude of clinic personnel could cause people to discontinue treatment before completion. The clinic personnel should therefore improve their attitude towards patients in order to avoid the defaulter rate.

#### **ITEM 4.4.7 Not enough drugs in clinic (N=118)**

The majority of respondents, namely 82,2% (N=97) were of the opinion that unavailability of drugs in the clinic would affect their compliance to their current treatment, 15,3% (N=18) indicated that they do

not view the problem of drugs in the clinic as a possible reason for defaulting treatment and 2,6% (N=3) were not sure.

When comparing these findings with the findings of Item 2.24 where 4,2% (N=5) respondents indicated that most often the TB drugs were not available in the clinics. This is therefore a more significant problem than in the past, perhaps because of increased numbers of TB patients who are now followed up by their treatment supporters. This problem needs to be addressed by the government.

#### **ITEM 4.4.8 Long distance between clinic and home/work (N=118)**

The majority of respondents, namely 86,4% (N=102) felt that the distance between the clinic and home or work has a contributory effect in their current clinic attendance, 13,6% (N=16) did not believe that long distance between home/work and clinic would cause them to default their current treatment.

This is in line with Item 2.22.7 where 94,9% (N=112) indicated that they view the distance between the clinic and home/work as the second most important reason for TB patients in general to default treatment. This also played a role in defaulting during their previous treatment (see Item 3.4) as they did not have enough financial resources to travel to the clinic.

#### **ITEM 4.4.9 Lack of funds for transport/lack of transport (N=118)**

The majority of respondents, namely 96,6% (N=114) felt that financial problems would grossly affect them to attend the clinic as the majority of clinics were far from them, but 2,6% (N=3) would not be affected and 0,9% (N=1) indicated that they were not sure.

This is in line with Item 1.4 where 72,9% (N=86) of the respondents indicated that they were unemployed and did not have the financial resources to pay for their travelling expenses (Item 3.4). In Item 2.22.9 the respondents indicated that they believed that a lack of funds would cause TB patients in

general to default. The financial problems of the respondents and TB patients in general still exist and are a real problem in the combating of this disease.

#### **ITEM 4.4.10 Constant location change due to varying workplace (N=118)**

Although 10,2% (N=12) of the respondents indicated in Item 1.4 that they were employed, the majority namely 82,2% (N=97) believed that change of work would have an effect in attending the clinic. Perhaps it is because it could be difficult to request the new employer time off for clinic appointments, or it could mean that a new treatment supporter should then be found. This appears to be a real problem in compliance as stated by Matsha (1997-98:19), "... in South Africa TB patients are often lost in transfer between health facilities". Only 17,8% (N=21) of the respondents indicated that they would not anticipate any problems in changing workplace that would affect their clinic appointments. In Item 2.22.10 the respondents indicated that they did not see this as a problem that caused TB patients in general to default.

The respondents most probably had no hope to find employment in any case.

#### **ITEM 4.4.16 Side effect of the medication (N=118)**

The majority of respondents, namely 79,7% (N=94) were of the opinion that with severe reaction to drugs, it would make it difficult for them to continue treatment despite the serious condition. Only 15,3% (N=18) indicated that consequential illness would not cause them to discontinue treatment before it has been completed, and 5,1% (N=6) were not sure about what they would do when becoming ill due to TB treatment. When comparing these findings with the findings of Item 2.22.16, respondents indicated that they believed that the side effects of drugs did not play a role in the decision of TB patients in general to default their treatment. They also did not name the side effects of the drugs as a reason why they might have defaulted their treatment during their previous infection. During the current infection the

respondents felt that MDR TB has bad side effects, which would make people unable to continue with treatment. It was established in Item 4.17 that the respondents were taking MDR TB medication.

#### ITEM 4.5 MEDICATION RESPONDENTS ARE CURRENTLY TAKING (N=118)

The respondents were asked to identify the drugs from a list provided in the interview schedule they are currently taking for TB.

**Table 4.17 Medication taken by patients**

	<b>N</b>	<b>PERCENTAGE</b>
Item 4.5.1 Taravid	-	-
Item 4.5.2 Ethambutol	100	84,8
Item 4.5.3 Ethionamide	8	6,8
Item 4.5.4 Cycloerene	40	33,9
Item 4.5.5 INH	9	7,6
Item 4.5.6 PZA	40	33,9
Item 4.5.7 Rifampicin	10	8,5
Item 4.5.8 Kanamycin	1	0,95
Item 4.5.9 None of the above	-	-
Item 4.5.10 Other	-	-
<b>TOTAL</b>	<b>118</b>	<b>-</b>

The TB patients are usually on drugs such as a combination of INH, Ethionamide, Ethambutol, and PZA, though a combination drug is now used, such as Rifina and Rifafour. The majority of respondents were on Ethambutol, Cycloerene, PZA, and Rifampicin and only 0,9% (N=1) was on Kanamycin. The drugs taken by most patients to the least number of patients are indicated in Table 4.17 above. It is therefore clear that the combination mostly used would include Ethambutol, Cycloerene, PZA, and Rifampicin. According to the literature, the combination of drugs is as follows:

#### TWO MONTHS INITIAL PHASE

- Rifampicin
- Isoniazid

- Pyrazinamide
- Ethambutol and
- Streptomycin

#### **FIVE MONTHS CONTINUATION PHASE**

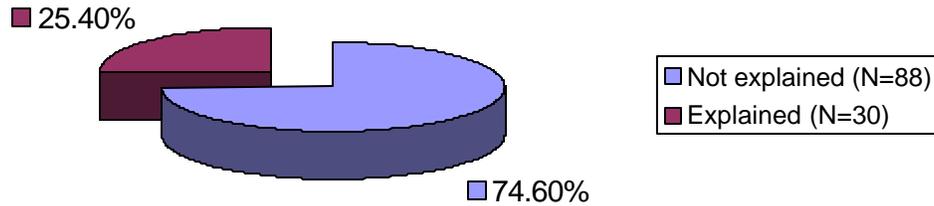
- Rifampicin
- Isoniazid
- Ethambutol (Department of Health 2000d:29)

Drugs used for MDR TB are as follows:

- Aminoglycosides; Streptomycin, Kanamycin, or Amikacin
- Thionides, that is Ethionamide
- Pyrazinamide
- Ofloxacin
- Ethambutol
- Cycloserine or Terizadone
- Ras Acid (Tuberculosis 1998:61)

#### **ITEM 4.6 HAS ANYONE EXPLAINED THE SIDE EFFECTS OF THE MEDICATION YOU TAKE? (N=118)**

On the above question the respondents answered as follows:



**Figure 4.18 Explanation of the side effects of drugs to the patient**

The majority of respondents, namely 74,6% (N=88) were of the opinion that the side effects of TB drugs were not explained to them, whereas 25,4% (N=30) felt that they were informed about the side effects of drugs. The findings of Item 4.8 were in line with Item 4.4.17 where 79,7% (N=94) of the respondents indicated that with severe reaction to drugs, they would discontinue treatment. Perhaps, in the researcher's view, nurses felt that if the TB patients would be informed about side effects, they would experience them and then discontinue treatment.

**ITEM 4.7 THE SIDE EFFECTS THAT COULD BE EXPECTED WHEN TAKING TUBERCULOSIS DRUGS? (N=118)**

On the question, "what are the side effects you can expect when taking TB drugs," the majority of respondents, namely 87,3% (N=103) had no idea about side effects of TB drugs.

**Table 4.18 Side effects the patients can expect when taking tuberculosis drugs**

	<b>N</b>	<b>PERCENTAGE</b>
Good idea	15	12,7
No idea	103	87,3
<b>TOTAL</b>	<b>118</b>	<b>100,0</b>

Some of the reasons they considered as having no idea are listed below:

- I am not sure
- I was not informed
- I do not know

Some respondents namely 12,7% (N=15) could correctly name the side effects. The side effects named by these respondents are listed below:

- Nausea and vomiting
- Rash
- Deafness
- Drowsiness after medication

This finding is in line with the findings of Item 4.6, which revealed that the TB patients were generally not educated on the side effects of the drugs.

#### **ITEM 4.8 FREQUENCY OF MEDICATION ADMINISTRATION (N=118)**

According to the answers to the question of *how often the respondents take their medicine* it was clear that most respondents, namely 44,0% (N=52) were taking their medicine three times a day; 40,7% (N=48) were on daily treatment and 15,3% (N=18) were taking treatment twice a day.

**Table 4.19 Patients' regularity of taking their medicine**

	<b>N</b>	<b>PERCENTAGE</b>
Mostly once a day	48	40,7
Mostly three times a day	52	44,0
Mostly twice a day	18	15,3
<b>TOTAL</b>	<b>118</b>	<b>100,0</b>

These findings are correct as TB patients take treatment at different times depending mostly on the drugs used to a particular patient, for instance Ethionamide is given three times a day or it may be given once a day if a patient has to take three tablets at the same time.

**ITEM 4.9 NUMBER OF CIGARETTES SMOKED BY THE RESPONDENTS PER DAY (N=118)**

As smoking is one of the contributing factors of pulmonary tuberculosis the respondents were asked how many cigarettes they smoke per day. The majority of respondents, namely 59,3 (N=70) were non-smokers; 22,0% (N=26) were smoking between 11 to 30 cigarettes a day; 12,7 (N=15) were smoking less than 10 cigarettes a day and 6,0 (N=7) were smoking more than 31 cigarettes a day.

The literature states that "... health workers should encourage people in the community to give up bad habits like smoking, drinking too much alcohol or taking drugs, like mandrax or dagga" (Department of Health 1998a:16).

**ITEM 4.10 NUMBER OF GLASSES OF ALCOHOL CONSUMED BY THE RESPONDENTS PER WEEK (N=118)**

On the question "*how many glasses of alcohol do you drink per day?*"– the respondents answered as follows: The majority of respondents, namely 55,9% (N=66) were drinking more than 20 glasses of alcohol per week; 26,3% (N=31) were drinking between 11 to 20 glasses of alcohol per week; 17,8%

(N=21) were drinking less than 10 glasses of alcohol per week. The respondents could therefore be considered to be heavy drinkers.

According to the Department of Health (1998a:16), bad habits like smoking, drinking too much alcohol by TB patients should be avoided as the body becomes weak, through bad habits, it can no longer fight the bacteria, and the body becomes diseased and the person with TB can spread the disease to others.

#### **ITEM 4.11 HOW MANY TIMES DO YOU SMOKE DAGGA A WEEK? (N=118)**

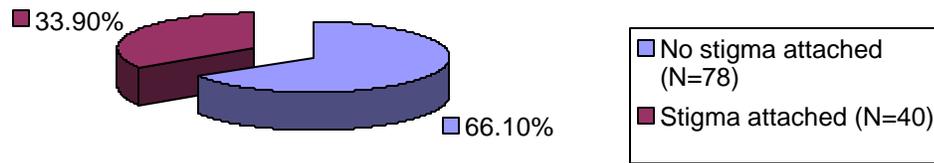
On the above question all respondents, namely 100% (N=118) answered that they never smoke dagga, which is encouraging.

The literature states "TB patients should not take drugs like mandrax or dagga" for the same reasons provided in Item 4.10 (Department of Health 1998a:16).

### **5 THE STIGMA ATTACHED TO TB (N=118)**

In this section data was obtained from respondents in order to explore the possibility of stigma attached to the TB disease.

#### **ITEM 5.1 IS THERE IN YOUR OPINION, A STIGMA ATTACHED TO TUBERCULOSIS (N=118)**



**Figure 4.19 Patient's opinion on a possibility of stigma attached to tuberculosis**

The majority of respondents, namely 66,1% (N=78) answered the abovementioned question by indicating that they felt that there is no stigma attached to TB whereas 33,9% (N=40) felt that the stigma attached to TB was still in existence.

This is a very significant finding for TB treatment, as it would allow people to come forward to be treated. There is, however, still work to be done, as there is a significant number who feel that TB is stigmatised.

**ITEM 5.2 DO WORKERS AT THE WORKPLACE KNOW THAT YOU HAVE TUBERCULOSIS?  
(N=11)**

On the above question the majority of the respondents gave no response as they were not employed. All (100,0%) of the 10,2% (N=12) respondents who were employed indicated that the co-workers did know that they have TB.

**ITEM 5.3 ACCEPTANCE BY CO-WORKERS (N=11)**

All the employed workers, namely 10,2% (N=12) felt that the workers accepted them at work even though they knew that they had TB.

**ITEM 5.4 DOES YOUR EMPLOYER KNOW THAT YOU HAVE TUBERCULOSIS? (N=12)**

On the above question all the employed respondents, namely 10,2% (N=12) believed that their employers knew that they had TB.

**ITEM 5.5 DOES YOUR EMPLOYER TREAT YOU DIFFERENTLY BECAUSE OF THE TUBERCULOSIS? (N=11)**

On the above question all the employed, namely 10,2% (N=12) felt that their employer was treating them the same as any other workers though they were known to have TB. This finding is in line with the findings for Item 5.2 where 10,2% (N=12) respondents indicated that their co-workers had no problem with them although they knew that they were TB sufferers.

**ITEM 5.6 EXPLAIN EMPLOYERS' ATTITUDE TOWARDS YOU (N=12)**

In an open question the respondents were asked to describe the attitude of their employers towards them. All the employed respondents, namely 10,2% (N=12) felt that their employers had a good attitude towards them. Some of them pointed out that the employers were able to release them for their clinic appointments to collect treatment. It is therefore clear that at least in the work place there is no stigma attached to TB and that the employers gave their full cooperation in the treatment of their employees who have TB.

**ITEM 5.7 ARE YOU ASHAMED OF THE FACT THAT YOU ARE SUFFERING FROM TUERCULOSIS? (N=118)**

The majority of respondents, namely 56,8% (N=67) felt that they were not ashamed of the fact that they had TB, whereas 43,2% (N=51) felt that they were ashamed of having TB. This finding is in line with the

findings of Item 5.1 where 33,9% (N=40) of the respondents indicated that the stigma attached to TB does exist. Could it be that these TB patients placed a stigma on themselves because the workers at workplace did not treat them differently? The findings indicated that there was apparently no significant indication that the stigma existed.

#### **ITEM 5.8 EXPLANATION OF ITEM 5.7**

On the question (Item 5.7) that asked if the respondents were ashamed of the fact that they are suffering from TB, the respondents answered as follows: The respondents, namely 43,2% (N=51) who indicated that they were ashamed of their TB status indicated that their friends ran away from them when they initially heard of their condition; 56,8% (N=67) who were not ashamed believed that if a person is compliant, TB is curable and can affect everybody. Could this be that the friends were previously TB patients and were afraid to become infected again? According to Item 2.25.4 just 3,4% (N=4) respondents indicated that their friends were willing to give them information about TB, but did not support them. Then in Item 3.8.2, 34,6% (N=36) of the respondents indicated that their friends did not properly support them.

#### **ITEM 5.9 DO MEMBERS OF THE COMMUNITY KNOW THAT YOU HAVE TUBERCULOSIS? (N=118)**

The majority of respondents, namely 81,4% (N=96) answered this question by indicating that their communities were aware of their TB status; 15,2% (N=18) were not sure and 3,4% (N=4) felt that the community members were not aware that they had TB.

#### **ITEM 5.10 ACCEPTANCE BY THE COMMUNITY (N=96)**

On the question whether the community accepted them although they had TB the majority of the respondents, namely 81,4% (N=96), believed that the community accepted them and 18,6% (N=22) indicated that their communities did not know their TB status.

Findings of items 5.9 and 5.10 therefore strengthen the opinion that the patient him/herself is responsible for stigmatising the disease in their own minds, as the findings of this research could not find any certainty that TB is still stigmatised by members of the community.

Matsha (1997-98:8), refers to a case study when stating that “Thoko was a TB patient who managed to complete her TB treatment without any interruption and is now cured of TB. Her community had accepted her and she has never suffered any discrimination and has never felt stigmatised.”

#### **ITEM 5.11 THE SUPPORT RECEIVED FROM PEOPLE DURING THE CURRENT ILLNESS**

In this item, the respondents were asked to rate the support they received from their families, friends, employer, and others during their current illness.

**Table 4.20 Support from other people**

MEDICAL PRACTITIONERS	NURSES	TREATMENT SUPPORT	COMMUNITY	EMPLOYER	FRIENDS	FAMILY	
N=9	N=76	N=88	N=98	N=2	N=7	N=98	<b>VERY GOOD</b>
7,6	64,4	74,6	83,0	1,6	6,9	83,9	%
N=99	N=24	N=18	N=13	N=2	N=11	N=13	<b>GOOD</b>
83,9	20,3	15,2	11,0	1,6	10,9	11,0	%
N=10	N=18	N=12	N=1	N=4	N=17	N=1	<b>ACCEPTABLE</b>
8,5	15,1	10,2	0,9	33,3	16,8	0,9	%
-	-	-	N=6	N=3	N=41	N=6	<b>POOR</b>
-	-	-	5,1	25,0	40,6	5,1	%
-	-	-	-	N=1	N=25	-	<b>VERY POOR</b>
-	-	-	-	8,3	24,8	-	%
N=118	N=118	N=118	N=118	N=15	N=101	N=118	<b>TOTAL</b>

##### **ITEM 5.11.1 Support received from the family during the current infection (N=118)**

The majority of respondents, namely 83,9 (N=98) indicated that they received very good and good support from their families; then 7,9% (N=7) were of the opinion that the support received from their families ranged from acceptable to poor.

These findings are in line with findings of Item 3.8.1 where 75,4% (N=89) and 14,4% (N=17) of the respondents indicated that they obtained very good and good support from their families during their previous infection and 7,6% (N=9) indicated that their support was acceptable to poor. The family appears to remain the most important supporter of TB patients.

#### **ITEM 5.11.2 Support received from friends during current infection (N=101)**

The majority of respondents, namely 40,6% (N=41) indicated that they received poor and 24,8% (N=25) indicated that they received very poor support from their friends during this current infection; 10,9% (N=11) felt that their friends provided them with good support, 6,9% (N=7) rated the support as very good and 16,8% (N=17) rated the support they received from their friends as acceptable.

These findings are in line with the findings of Item 3.8.2 where the majority of the respondents, namely 34,6% (N=36) indicated that their friends provided them with acceptable to poor support and only 19,23% (N=20) of the respondents felt that they obtained very good support from their friends.

The support they have received from their friends have not changed much over time. This means that friends are not a good support system for the TB patient.

#### **ITEM 5.11.3 Support received from the employer during current infection (N=12)**

Of the respondents who were employed, namely 10,2% (N=12), 91,7% (N=11) respondents indicated that they currently received **very good** support from their employers, and 19,3% (N=1) indicated that the support they received from their employer was acceptable.

These findings have improved since the previous TB infection as the findings of Item 3.8.3 indicated that the 33,3% (N=4) respondents amongst those who were employed indicated that they received good and very good support from their employers.

#### **ITEM 5.11.4 Support received from members of the community during current infection (N=118)**

The majority of respondents, namely 83,0% (N=98) felt that their communities were very supportive, and 11,0% (N=13) believed that their communities did provide them with good support.

These findings are in line with the findings of Item 3.8.4 where also the majority, namely 46,6% (N=55) of the respondents indicated that they obtained very good support from their communities during their previous infection, and 53,4% (N=63) felt that the support they received was quite acceptable.

Support from community members improved since DOTS have been implemented.

#### **ITEM 5.11.5 Support received from the treatment supporter during the current infection (N=118)**

All respondents, namely 100% (N=118) felt that their supporters were very positive towards them, with good support.

Although the treatment during previous infection was not under DOTS strategy and the patients did not have a treatment supporter nurses provided the support. Item 3.6 showed that 1,7% (N=2) of the respondents indicated that nurses supervised them, and Item 3.5 showed that 65,5% (N=76) felt that the nurses encouraged them to take treatment.

These findings are important as it is in line with the objective of the DOTS strategy.

#### **ITEM 5.11.6 Support received from the nurses during the current infection (N=118)**

All respondents, namely 100% (N=118) believed that their clinic nurses provided them with good support. These findings are in line with the findings of the previous infection. Item 3.8.6 and Item 3.8.7 found that all 100,0% (N=118) of the respondents indicated that they received very good and good support from their nurses, which means that the nursing staff have been a constant support system for the TB patient over the years.

#### **ITEM 5.11.7 Support received from the medical practitioners during the current infection (N=118)**

All respondents, namely 100,0% (N=118) were of the opinion that their medical practitioners provided them with good support.

These findings are in line with the findings of Item 3.8.7 where the majority, namely 35,6% (N=42) were of the opinion that the medical practitioners provided them with good support. This means that the medical staff is also supportive to TB patients but that their support has increased since DOTS have been implemented.

## **ITEM 5.12 WHAT DO YOU THINK SHOULD THESE INDIVIDUALS DO MORE TO SUPPORT YOU? (N=118)**

On the above question, 71,2% (N=84) of the respondents gave some suggestions which are listed below:

- Give me money
- Provide me with food and love
- To keep motivating me to take treatment
- They should take care of me

The majority of respondents namely, 89,8% (N=106) were unemployed (see Item 1.4) and had dependants who were ranging from 1-8 in number, (see Item 1.8) to take care of. It is therefore not surprising that food and money could be the most pressing needs.

## **6 INFORMATION ABOUT THE TREATMENT SUPPORTER (N=118)**

### **ITEM 6.1 WHO SUPERVISE YOU WHEN TAKING YOUR MEDICINE? (N=118)**

On the above question the majority of respondents, namely 59,3% (N=70) indicated that their families were responsible for their supervision; 25,4% (N=30) indicated that their supervisors were clinic nurses; whilst 15,3% (N=18) indicated that they were under the supervision of their medical practitioners.

This finding is in line with the finding of Item 3.8.1, Item 3.8.6, and Item 3.8.7 where the role families, nurses, and medical practitioners played were considered the major support systems of TB sufferers, even before the DOTS strategy was implemented.

## **ITEM 6.2 WHO SELECTED YOUR TREATMENT SUPPORTER? (N=118)**

This question was asked to determine whether the TB patient him/herself was involved in the selection of the treatment supporter. The majority of respondents, namely 83,0% (N=98) indicated that they were responsible for selecting their own treatment supporters whereas 17,0% (N=20) indicated that the nursing staff decided about their treatment supporters. This finding is in line with the philosophy of the DOTS strategy where the patient should be part of the decision making process (Department of Health 1998b:63).

## **ITEM 6.3 INVOLVEMENT IN DECISION MAKING (N=118)**

This question might seem to be unnecessary in light of the findings of Item 6.2 but could have elicited interesting findings should the outcome of Item 6.2 have been different.

The majority of respondents, namely 83,0% (N=98) answered positively to the question whether they were involved in the decision making process to select a treatment supporter. Twenty respondents (17,0%) the same number as in Item 6.2 indicated that they were not part of the decision-making process. All patients should be allowed to take part in decision-making and in this way also take responsibility for his/her own health.

**ITEM 6.4 HOW OFTEN DOES YOUR TREATMENT SUPPORTER OBSERVE YOU WHEN TAKING TREATMENT? (N=118)**

The respondents answered this question as follows: The majority of respondents, namely 59,3% (N=70) stated that their treatment supporters supervised them once a day; 25,4% (N=30) were supervised twice a day and 15,3% (N=18) were supervised three times a day.

These findings are in line with their treatment regimen as revealed in Item 4.8, where 44,0% (N=52) were taking their treatment thrice a day, 40,7% (N=48) daily, and 15,3% (N=18) were taking treatment twice a day.

It is therefore clear that the treatment supporters are keeping up their support by observing the patient every time s/he takes the medication.

**ITEM 6.5 DOES YOUR TREATMENT SUPPORTER NEED TO WALK FAR TO SUPERVISE YOU? (N=118)**

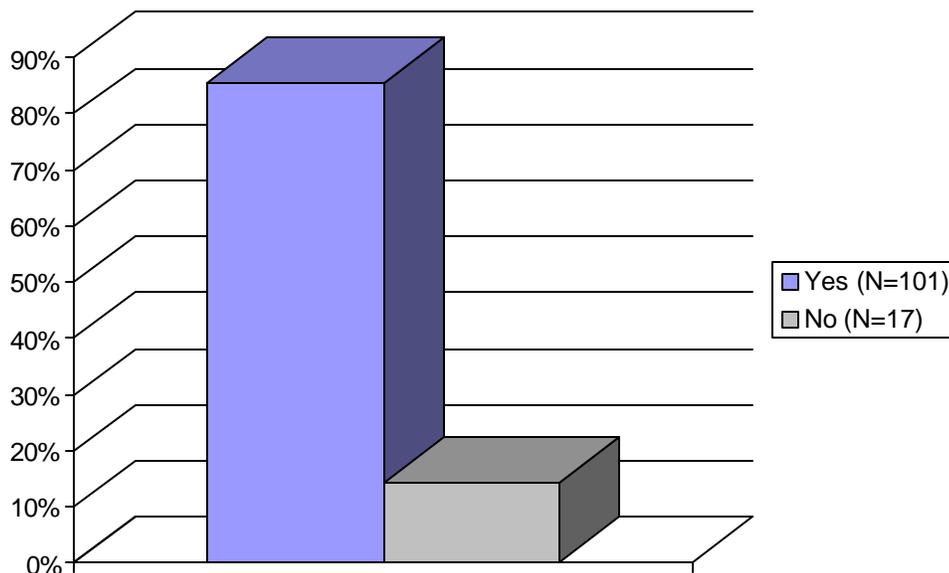
The majority of respondents, namely 94,1% (N=111) answered negatively to the above question. Only 5,9% (N=7) stated that their treatment supporters had to walk far to observe them taking their treatment. It is therefore clear that the majority of the respondents took responsibility for their own health and either they themselves walked to the treatment supporter or the supporter lived in their private homes. One of the reasons why some of the respondents did not walk to their treatment supporters, could be that they did not always feel well enough to do so. This was, however, not established in the interview.

**ITEM 6.6 COMPLAINTS RECEIVED FROM TREATMENT SUPPORTERS ABOUT EXTRA RESPONSIBILITY (N=118)**

Many respondents, namely 94,1% (N=111) indicated that their treatment supporters never complained about the extra responsibility of supervising treatment, though 4,2% (N=5) believed that their treatment supporters did complain, but not too often. Then, 1,7% (N=2) indicated that their treatment supporters were always complaining.

**ITEM 6.7 KNOWLEDGE OF THE TREATMENT SUPPORTER ABOUT SYMPTOMS OF TUBERCULOSIS (N=118)**

**ITEM 6.7.1 The knowledge of the treatment supporter on the symptoms of tuberculosis (N=118)**

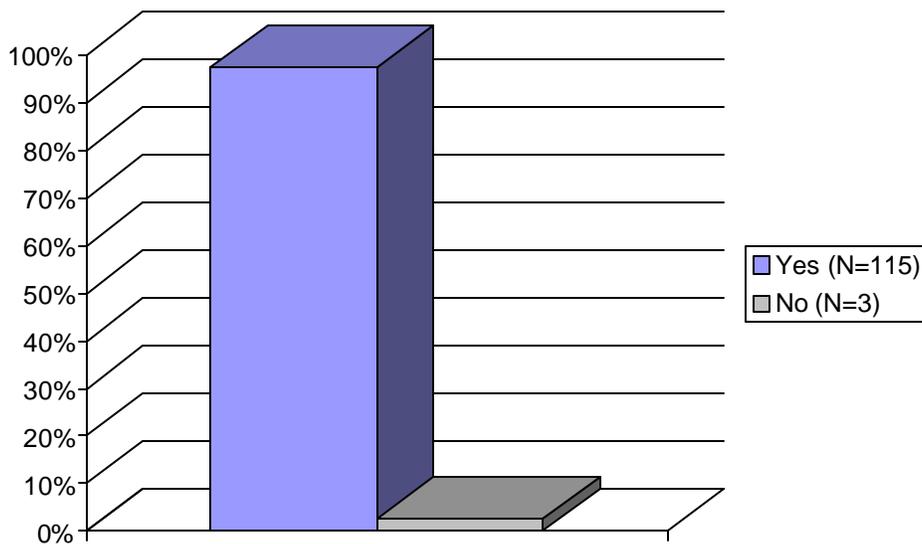


**Figure 4.20 Knowledge of the treatment supporter about signs and symptoms of tuberculosis**

The majority of respondents, namely 85,6% (N=101) were of the opinion that their treatment supporters had knowledge on the symptoms of TB, though 14,4% (N=17) felt that their treatment supporters were not quite knowledgeable about the symptoms of TB.

These findings are in line with the findings of Item 2.25.1 where 94,9% (N=112) indicated that they obtained their information about TB from their treatment supporters. Has DOTS strategy therefore improved the knowledge of the family members? Item 2.25.3 indicated that the majority of the TB supporters were family members.

**ITEM 6.7.2 The knowledge of the treatment supporter about the importance of taking treatment regularly (N=118)**



**Figure 4.21 Importance of taking treatment regularly**

The majority of respondents, namely 97,5% (N=115) believed that their treatment supporters had enough knowledge about the importance of taking treatment regularly. Only 2,5% (N=3) stated that

they believed that their treatment supporter did not have sufficient knowledge about the importance of taking treatment regularly.

Although the finding of this Item revealed that some respondents felt that they received the treatment on time as indicated in Item 6.4, some of the treatment supporters walked long distances to the patient.

### **ITEM 6.7.3 The knowledge of the treatment supporter on the prevention of tuberculosis (N=118)**

The majority of the respondents, namely 83,0% (N=98) felt that their treatment supporters were knowledgeable about the prevention of TB. Only 17,0% (N=20) believed that their treatment supporters did not possess the necessary knowledge about how TB is prevented. The respondents could evaluate the knowledge of their treatment supporters as Item 2.21, found that 76,3% (N=90) of the respondents indicated that TB could be prevented by

- eating a well balanced diet
- avoiding dust
- avoiding smoking
- a clean environment

This reveals that the respondents did obtain information about TB from their treatment supporters.

### **ITEM 6.7.4 The knowledge of the treatment supporter on the treatment of tuberculosis (N=118)**

The majority of respondents, namely 74,6% (N=88) felt that their treatment supporters knew how TB was treated. The remaining 25,4% (N=30) were of the opinion that their treatment supporter did not have enough knowledge about how to treat TB. Item 4.5 indicated that the TB sufferers were aware of

their TB drugs, which means that they themselves knew what their treatment involved. The respondents, 94,9% (N=112) indicated in Item 2.25 that they mostly obtained their knowledge from the nursing personnel.

**ITEM 6.7.5 The knowledge of the treatment supporter about the side effects of the tuberculosis drugs (N=118)**

The majority of respondents, namely 76,3% (N=90) were of the opinion that their treatment supporters were knowledgeable about the side effects of TB. Some respondents, namely 23,7% (N=28) felt that they had no knowledge about the side effects of drugs. When comparing Item 4.6 and Item 4.7 the respondents did not know the side effects of TB drugs themselves but believed that their treatment supporters did know. This is not surprising as the majority of the respondents were supervised by either nurses or medical practitioners.

**ITEM 6.7.6 The knowledge of the treatment supporters on how to monitor a patient taking treatment (N=118)**

The majority of respondents, namely 71,2% (N=84) believed that their treatment supporters knew how to monitor them properly. This finding is in line with Item 4.8 where they indicated that they always took their medicine on time as prescribed. Although the findings of Item 6.4 clearly found that the treatment supporters observed them when the respondents took their medication even if it was taken three times a day (as indicated in Item 4.8), some respondents, namely 28,8% (N=34) felt that their treatment supporters did not monitor them properly. This aspect, namely to determine who the treatment supporter was, was not explored further.

The deduction could therefore be made here that the treatment supporters monitored the patient taking medication satisfactorily.

**ITEM 6.7.7 The knowledge of the treatment supporter about what to do when the patient defaults (N=118)**

In the opinion of the majority of the respondents, namely 94,9% (N=112) their treatment supporters knew what to do when patients default. This is in line with Item 3.5 where 65,5% (N=76) respondents indicated that their nurses did follow them up when they defaulted treatment during their previous infection. Only 5,1% (N=6) were not happy with the knowledge of their treatment supporters on this matter. Item 2.5 revealed that nurses were the treatment supporters of 112 (94,9%) respondents and in the case of 09 (92,4%) respondents, were medical practitioners.

**Table 4.21 The respondents' opinion on the knowledge of the treatment supporter about various aspects of tuberculosis**

ITEM	OPINION ON KNOWLEDGE OF TREATMENT SUPPORTER	YES		NO		TOTAL
			%	N	%	
6.7.1	The signs and symptoms of TB	101	85,6	17	14,4	118
6.7.2	Importance of taking treatment regularly	115	97,5	3	2,5	118
6.7.3	How to prevent TB	98	83,0	20	17,0	118
6.7.4	How to treat TB	88	74,6	30	25,4	118
6.7.5	The side effects of the drugs	90	76,3	28	23,7	118
6.7.6	How to monitor a patient taking treatment	84	71,2	34	28,8	118
6.7.7	What to do when a patient defaults	112	94,9	6	5,1	118

The respondents were therefore of the opinion that their treatment supporter had a good knowledge of TB.

**7 COMPARISON OF PREVIOUS AND CURRENT INFECTION (N=118)**

In this section data was obtained by asking respondents a number of open questions in order to compare the treatment they received during previous infection with the treatment they received during the current infection after DOTS have been implemented.

#### **ITEM 7.1 YOUR KNOWLEDGE OF TUBERCULOSIS (THE DISEASE) (N=118)**

The majority of respondents, namely 71,2% (N=84) indicated that their knowledge of TB remained the same. Only 28,8% (N=34) indicated that they were more knowledgeable about TB during the current infection than previously. Respondents indicated that the disease itself has not changed since their first infection.

#### **ITEM 7.2 YOUR KNOWLEDGE OF TREATMENT OF TUBERCULOSIS (N=118)**

All respondents, 100,0% (N=118) felt that they possessed more knowledge about TB treatment during the current infection than previously as they were informed more about the treatment since the implementation of DOTS.

#### **ITEM 7.3 SERVICES PROVIDED BY THE MEDICAL AND NURSING PERSONNEL (N=118)**

The majority of respondents, namely 97,5% (N=115) indicated that the services provided by the medical and nursing personnel were the same, comparing the previous with the current infection. Only 2,5% (N=3) felt that it was better during the current infection as the medical and nursing personnel knew that patients were aware of their rights. There has thus been an improvement since DOTS have been implemented in the services provided by medical and nursing personnel according to the opinion of the respondents of this study.

#### **ITEM 7.4 SERVICES PROVIDED BY THE TREATMENT SUPPORTER (N=118)**

All respondents, namely 100,0% (N=118) felt that the services provided by the treatment supporters were better during the current infection. This is to be expected as they did not have a specially selected

treatment supporter during their previous infection. The DOTS strategy therefore was more effective as they were monitored more closely during the current infection than before.

#### **ITEM 7.5 SUPPORT GIVEN BY OTHER MEMBERS OF THE COMMUNITY (N=118)**

The majority of respondents, namely 83,1% (N=98) were of the opinion that the support from other members of the community improved during the current infection than previously. The remaining 17,0% (N=20) felt that the support remained the same as previously. This is also in line with a previous deduction that the support received by the community has improved since the implementation of the DOTS strategy.

#### **ITEM 7.6 AVAILABILITY OF MEDICATION (N=118)**

The majority of respondents, namely 93,2% (N=110) felt that the availability of medication remained the same, whereas 6,8% (N=8) felt that the availability of medication was better during the current infection.

This is therefore a decline of 2,0% from the finding of Item 2.24 where 95,8% (N=113) indicated that TB drugs were always available in the clinics. This is not surprising since the health services now have a larger volume of patients to care for since the implementation of the DOTS strategy and other demographical changes.

#### **ITEM 7.7 AFFORDABILITY OF TREATMENT (N=118)**

All respondents, namely 100,0% (N=118) felt that they could afford treatment better during the current infection because they had treatment supporters, who often visit them at work or home.

#### **ITEM 7.8 AVAILABILITY OF HEALTH SERVICES (N=118)**

The majority of respondents, namely 95,8% (N=113) were of the opinion that there were more health services during the current infection than previously. Only 4,2 (N=5) felt that they had no problem with the health services previously as they felt that currently, there were many health services but there were also many more patients in the clinics than previously. This resulted in long waiting hours. One respondent indicated that he had to spend a whole day in the clinic for care.

#### **ITEM 7.9 YOUR COMPLIANCE TO THE TREATMENT (N=118)**

The majority of respondents, namely 96,6% (N=114) indicated that it was better during the current infection than previously and a deduction can be made that it was because they had treatment supporters. On the other hand, 3,4% (N=4) felt that compliance remained the same.

#### **ITEM 7.10 THE SUPPORT RECEIVED FROM OTHER PEOPLE (N=118)**

The majority of respondents, namely 81,4% (N=96) felt that they were better supported during the current infection than previously. This could be due to the fact that people are better informed about TB. Only 18,6% (N=22) indicated that the support received from other people remained the same.

#### **ITEM 7.11 MEDICATION PROVIDED FOR THE TREATMENT OF TUBERCULOSIS (N=118)**

Many respondents, namely 83,9% (N=99) believed that the TB treatment they received during the current infection remained the same as previously. Only 16,1% (N=19) felt that their current treatment was better than the previous one *as they were given MDR TB treatment.*

## **ITEM 7.12 THE FAMILY'S KNOWLEDGE OF TB (N=118)**

Many respondents, namely 52,5% (N=62) were of the opinion that their families were more knowledgeable about TB during the current infection than previously as health workers educated them about TB. The remaining 47,5% (N=56) felt that their families' knowledge remained the same as previously.

## **8 YOUR OPINION OF THE DIRECTLY OBSERVED TREATMENT SHORT COURSE STRATEGY**

In this section data was obtained from respondents in order to explore their direct opinions on the effectiveness of the DOTS strategy for the control of the disease, which is the ultimate purpose of this study.

### **ITEM 8.1 WHEN HAVE YOU HEARD ABOUT THE DIRECTLY OBSERVED TREATMENT SHORT COURSE STRATEGY FOR THE FIRST TIME? (N=118)**

The responses of the majority of respondents, namely 66,1% (N=78) could be considered as having a good idea as when they heard about DOTS for the first time as some of their responses listed below would indicate:

**Table 4.22** When have you heard about the directly observed treatment short course strategy the first time?

	<b>N</b>	<b>PERCENTAGE</b>
Good idea	78	66,1
No idea	40	33,9
<b>TOTAL</b>	<b>118</b>	<b>100,00</b>

- I heard about the DOTS strategy the first time about four years back.
- When I was admitted in hospital for the current infection.
- I heard about the DOTS strategy for the first time about three years ago.

Only 33,9% (N=40) had no idea at all when they heard of the DOTS strategy the first time.

**ITEM 8.2 WHERE DID YOU HEAR ABOUT THE DIRECTLY OBSERVED TREATMENT SHORT COURSE STRATEGY? (N=118)**

**ITEM 8.2.1 - ITEM 8.2.9**

The majority of respondents, namely 50,9% (N=60) indicated that they obtained the information about DOTS strategy from the nursing personnel and 49,1% (N=58) felt that they heard about DOTS strategy from other sources.

**Table 4.23 Sources from where the patients heard about the directly observed treatment short course strategy**

	Yes	%	No	%	TOTAL
Nursing personnel	60	50,9	58	49,1	118
Treatment supporter	30	25,4	88	74,6	118
Medical practitioners	20	16,9	98	83,1	118
Family	8	6,8	110	93,2	118

The majority of respondents, namely 83,1% (N=98) indicated that they did not hear about the DOTS strategy from the medical practitioners. Only 16,9% (N=20) indicated that they obtained their information about the DOTS strategy from the medical practitioners.

The majority of respondents, namely 93,2% (N=110) felt that families also did not educate them about the DOTS strategy and only 6,8% (N=8) believed that they were informed by other sources about the DOTS strategy. This is an interesting finding as Item 2.25.3 revealed that 92,37% (N=109) of the respondents obtained their knowledge of TB from their families. It could be due to the fact that with this current infection the respondent was informed about the DOTS strategy and a treatment supporter was assigned to the respondent. It is only then, at this point when the family might have learned for the first time about the DOTS strategy.

The majority of respondents, namely 74,6% (N=88) indicated that they did not hear about the DOTS strategy from the treatment supporters, whereas 25,4% (N=30) felt that the treatment supporters informed them about DOTS strategy.

All respondents, namely 100,0% (N=118) were of the opinion that they did not obtain information about the DOTS strategy from the following; friends, television, radio, magazines and newspapers.

Again it has been confirmed in this item and also in Item 2.25 that the best way to inform patients of their disease is face-to-face health education provided by the nursing staff.

### **ITEM 8.3 WHAT IS DIRECTLY OBSERVED TREATMENT SHORT COURSE STRATEGY ABOUT? (N=118)**

On the question that asked what is the DOTS strategy about, the majority of respondents, namely 83,1% (N=98) had a good idea about the DOTS strategy, as they provided answers which was a clear indication that they understood the philosophy of the DOTS. Some of their answers have been quoted after the table.

**Table 4.24 Patients' knowledge about what is the directly observed treatment short course strategy about**

	<b>N</b>	<b>PERCENTAGE</b>
Good idea	98	83,1
Vague idea	15	12,7
No idea	5	4,4
<b>TOTAL</b>	<b>118</b>	<b>100,0</b>

- Watching one when taking his treatment.
- The DOTS strategy is a method initiated by the Minister of Health to check TB patients when taking their drugs.

- The DOTS strategy is about being assisted by another person when taking treatment.
- The DOTS strategy is about taking your treatment under supervision.

Only 12,7% (N=15) respondents had responses such as the DOTS strategy is getting TB treatment, and 4,2% (N=5) had no idea at all about the DOTS strategy.

**ITEM 8.4      ROLE TO PLAY IN THE DIRECTLY OBSERVED TREATMENT SHORT COURSE STRATEGY (N=118)**

The majority of respondents, namely 55,1% (N=65) indicated that they had a role to play in the DOTS strategy. The remaining 45,0% (N=53) believed that they had no role to play in the DOTS strategy. In addition, some respondents indicated that they would become treatment supervisors in order to help other TB patients to complete their treatment.

**ITEM 8.5      SHOULD THE DIRECTLY OBSERVED TREATMENT SHORT COURSE STRATEGY CONTINUE? (N=118)**

The majority of respondents, namely 67,8% (N=80) were of the opinion that the DOTS strategy should continue, whereas 32,2% (N=38) felt that the DOTS strategy should not continue.

**ITEM 8.6      WHY SHOULD THE DIRECTLY OBSERVED TREATMENT SHORT COURSE STRATEGY CONTINUE? (N=118)**

**Table 4.25      Respondents' reasons why the directly observed treatment short course strategy should continue**

	<b>N</b>	<b>PERCENTAGE</b>
Good reasons	77	65,3
Vague reasons	28	23,7
No reasons	13	11,0

TOTAL	118	100,0
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On the question that asked why should DOTS strategy continue the majority of respondents, namely 65,3% (N=77) had *good reasons* – reasons in line with the basic objectives of the DOTS – for the DOTS strategy to continue. Some of them gave the following reasons:

- TB patients do not take treatment well without supervision.
- TB patients are very irresponsible and stubborn; the DOTS strategy should continue to assist them with their treatment.
- To improve TB control.

Only 23,7% (N=28) respondents had vague reasons such as '*to get well like others*' and 11,0% (N=13) could not provide a reasons why the DOTS strategy should continue.

#### **ITEM 8.7 WHY SHOULD THE DIRECTLY OBSERVED TREATMENT SHORT COURSE STRATEGY NOT CONTINUE? (N=118)**

Only 32,2% (N=38) felt that DOTS strategy should not continue; they could not provide any reason for this. It could be the same respondents who provided vague responses or provided no explanation to the question asked in Item 8.6. This was however not established.

#### **ITEMS 8.8 WHICH METHOD WOULD YOU PREFER? (N=118)**

The respondents were given two choices, namely *supervision of treatment* **or** *self-administration of treatment*. They responded as follows:

The majority of respondents, namely 97,5% (N=115) felt that they preferred supervision of treatment rather than self-administered therapy, and only 2,5% (N=3) indicated that they preferred self-administered therapy.

**ITEM 8.9 DID THE DIRECTLY OBSERVED TREATMENT SHORT COURSE STRATEGY AFFECT YOUR HEALTH? (N=118)**

The majority of respondents, namely 83,9% (N=99) felt that their health was affected by the DOTS strategy, 12,7% (N=15) were of the opinion that the DOTS strategy did not affect their health. Four (3,4%) respondents did not answer this question.

**ITEM 8.10 EXPLAIN HOW THE DIRECTLY OBSERVED TREATMENT SHORT COURSE STRATEGY HAS AFFECTED YOUR HEALTH (N=118)**

On the question that asked how the DOTS strategy has affected your health, 91,5% (N=108) of the respondents indicated that the DOTS strategy had affected their health as follows:

- I am well and I know the importance of treatment.
- I can also supervise a TB patient myself when taking treatment.
- I would not take treatment well if I was not supervised.
- I have greatly improved under the DOTS strategy.

Only 8,5% (N=10) indicated that their health was not affected by the DOTS strategy, which is not much less than the response to Item 8.9.

**ITEM 8.11 IF NOT AFFECTED WHY? (N=118)**

All respondents, namely 100,0% (N=118) indicated that this item was not applicable to them. Perhaps the respondents who indicated that the DOTS did not affect their health in Item 8.9 could not explain their opinion.

**ITEM 8.12 IMPROVEMENT OF THE DIRECTLY OBSERVED TREATMENT SHORT COURSE STRATEGY (N=118)**

On the question whether the respondents felt that the DOTS strategy could improve the majority of respondents, namely 62,7% (N=74) felt that the DOTS strategy could improve and 37,3% (N=44) were of the opinion that the DOTS strategy could not improve.

**ITEM 8.13 HOW DO YOU THINK CAN THE DIRECTLY OBSERVED TREATMENT SHORT COURSE STRATEGY IMPROVE? (N=118)**

On the above question the majority of respondents, namely 75,4% (N=89) indicated that it could improve as follows:

- The DOTS strategy can improve if treatment supporters can be awarded when their patients have completed treatment and be cured.
- Some treatment supporters are far from their patients, which mean that they have to travel, if they can be assisted in this aspect, either financially or by using clinic transport, it would be good.
- The DOTS strategy can improve if treatment supporters can be given an incentive, as they are mostly volunteers.

Only 17,0% (N=20) of the respondents gave responses, which were more directed to the TB patient such as:

- The patient should collect treatment once a month.
- Patients should be given disability grants.

7,6% (N=9) had no idea about how the DOTS strategy could improve.

From these responses it is clear that the lack of financial resources is problematic for the respondents.

#### **4.4 INTERPRETATION OF FINDINGS**

- *Biographical data of respondents.* The majority of the respondents were between the ages 40-49 years of age. There were almost as many males as females in the sample. The majority of the respondents belonged to the Zulu cultural group and some were Xhosas. Only a few respondents were employed which would be detrimental for their recovery process. The majority was employed by the provincial administration and was general assistants and clerks. Most of the respondents were single. All the respondents had between 1-8 people to care for from their income.
- *Knowledge of TB.* The majority of the respondents had a good knowledge of TB although they did not know what the acronym TB stood for. They did however have knowledge of the fact that TB is infectious, that it could be fatal, what caused TB, and how one could recognise a TB patient from the first symptoms of TB, as well as the later symptoms. They however felt that HIV/AIDS was much more serious than TB, and they also believed that someone who is HIV/AIDS positive could not be cured of TB. The majority also correctly indicated how TB was spread, but felt that all people infected would become ill. The respondents also felt positive that TB can be cured, but that it would take long. The majority of the respondents knew that it was important to complete the TB treatment

that someone on treatment could not spread the disease, could return to work if on treatment and understood what MDR TB was and how it developed. The respondents also had a good idea how TB could be prevented. The source of their knowledge was mostly the nursing and medical personnel and family.

- *TB patients in general.* The respondents indicated that TB patients in general would interrupt their treatment due to the lack of financial resources which prevented them of having enough money to travel to the clinic. Unfriendly clinic personnel were seen as a second most important reason to default treatment and their own health status would also cause them to default their treatment. It was clear that the respondents felt that TB patients in general did care about their own health. The respondents also understood why it was important to continue treatment even when they feel better.
- *Respondents as TB patients (previous infection).* The majority of the respondents did not know why they were not cured, as they did not discontinue their treatment. It was also clear in most of the respondents' cases that the nurses followed them up when they defaulted. The nurses motivated them to take their treatment as prescribed. The support the respondents received from family, nurses, employer, community and medical practitioners could be considered as good, although their friends did not support them much. The respondents visited the nurse once a month during the previous infection.
- *Current infection.* The majority of the respondents has been ill for more than 10 months with the current infection, but is very hopeful to be cured. The majority of the respondents indicated that they consulted health professionals now on a daily basis. The most important reason which might cause them to discontinue treatment was if the drugs were not available, lack of transport and the distance they needed to travel to the clinic. Another factor would be the side effects of the medication. Unfriendly personnel would not cause them to discontinue treatment. It is clear that the respondents know the drugs they are taking currently as well as the frequency in which it should be taken. Although the respondents indicated that they received their knowledge mostly from the

nursing personnel they did not know what side effects to expect. The majority of the respondents could be considered heavy smokers and too many used alcohol.

- *The stigmatisation of TB.* All the employed workers indicated that they were accepted by co-workers and employers although they have TB. They were also accepted by the community. A large percentage, namely 43,2% of the respondents indicated that they felt ashamed that they have TB, especially because of the reaction of their friends. The majority of the respondents indicated that the best source of support was families, the community, treatment supporters, medical practitioners and nurses in that order. Friends were not considered as good support system. The fact that financial resources were a problem was also highlighted in that the respondents revealed that they would like other people to support them more – financially.
- *Defaulting of TB patients.* According to the findings it is clear that the patients were much more compliant to their treatment and would not default easily as was the case before the implementation of the DOTS strategy.
- *Information on the treatment supporter.* The majority indicated that their families were their treatment supporters, followed by nurses and medical practitioners. The majority of the respondents also indicated that they were involved in the decision making process to select a treatment provider; that the treatment supporters observed them whenever they took their medicine as prescribed and only 5,9% (N=7) indicated that their treatment supporters had to walk long distances to observe them taking their treatment, and some complained about this extra responsibility. The respondents were generally satisfied with the knowledge of their treatment supporters and indicated that they knew the importance of taking the treatment as prescribed. They also believed that their treatment supporters knew enough of the treatment of TB, the preventative measures, side effects of treatment, how to monitor them and what to do when they default. The majority of the respondents indicated that their knowledge about the disease itself as well as the

treatment thereof has grown since their first infection. The majority of respondents believed that the level of knowledge of their families increased since the implementation of the DOTS strategy.

- *Health services.* They also believe that the services they received from the medical and nursing personnel has improved and that the support they received from other members of the community has improved. The majority of the respondents indicated that TB treatment was always available before the DOTS strategy was implemented and that it has not changed significantly since the implementation of the DOTS. They believed however that there were overall more available health services, but that there were just as many patients which caused long waiting times.
- *The DOTS strategy.* The majority of the respondents indicated that they heard about DOTS from the nursing personnel, treatment supporters and medical practitioners. They also knew what the DOTS strategy was about but just more than half of the respondents believed that they had a role to play in the DOTS, and that they themselves would like to be a treatment supporter. The majority of the respondents indicated that the DOTS strategy should continue because patients will not be compliant to their treatment if they are not observed while taking it. The respondents agreed that they preferred the DOTS strategy compared to the previous treatment system, and believed that they are healthier because of the DOTS strategy. Interesting enough the majority of the respondents felt that the treatment supporter should in future receive some incentive for the work they do or when the patient has completed his treatment or is cured.

#### **4.5 CONCLUSION**

In this chapter, the findings of the research were discussed. According to the respondents the system of treatment supporters was successful and they were satisfied with the supervision and support they received from their treatment supporters. The respondents' knowledge improved and it was found that their knowledge was rather very good. The respondents indicated that their compliance was better

during the current infection than previously. The findings and recommendations have been discussed in chapter 5.