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**A SCREENING INSTRUMENT FOR  
MENTAL ILLNESS IN BLACK PATIENTS IN  
PRIMARY HEALTH CARE SETTINGS**

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a thesis submitted in accordance with the requirements for a

**Doctor Philosophiae**

in the

**Faculty of Health Sciences**

**School of Nursing**

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# CHAPTER 1

## *Introduction and problem statement*

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---

### 1.1 INTRODUCTION

Historically the detection of mental illness in Africa was very low. Some of the reasons for this were that statistics were based on hospital admissions and only violent people were admitted (German, 1987:436). These hospital based statistics also indicated that men presented with a 50% higher incidence of mental illness than women. These statistics lead to a distorted view regarding the prevalence of mental illness in Africa. Epidemiological studies gave conflicting information but gradually it was accepted that the prevalence of mental illness in Africa was similar if not higher than other first world countries (German, 1987:440; Hall & Williams, 1987:239; Ben-Tovim, 1983:199).

Although the distorted view of the prevalence of mental illness in Africa has changed, the literature still indicates that the detection of people suffering from non-psychotic mental illness among black people of Africa is low (Reeler, 1987:1).

There are several reasons for this.

- There seems to be a tendency among Black people somatisise their mental health complaints. Different sources indicate between 10-36% of all black people who attend primary health clinics have mental health care needs but these needs are not identified (Hall & Williams, 1987:239; Abiodun, 1989:372; Ben-Tovim, 1983:202; Reeler, 1987:37). Psychotic disorders are identified because they are easily recognized but the non-psychotic disorders go undetected (German, 1987:436).



- The workload of the nurses at clinics makes it very difficult to spend extra time screening patients for mental disorders. A look at the statistics for 2002 of the Mangaung Local Municipality shows that a total of 399,659 clients were seen at primary health care facilities (PHC). During the same time a total of 12697 nurse (11,889 registered nurses and 808 enrolled nurses and nursing assistants) clinical work days were recorded. This implies that every registered nurse saw 33.6 clients per day or 4.2 clients per hour. Additional functions like in service training, meetings, recordkeeping and general administrative functions have not been calculated. These statistics clearly indicate that nurses do not have the time to assess all the patients for mental illness.

The lack of detection of mental illness has serious consequences. Clients suffering from mental illness attend PHC facilities where they present with primarily somatic complaints and its resulting incorrect diagnosis. The problems associated with incorrect diagnosis are many and are naturally not in line with the concept of PHC. Roughly the problems resulting from misdiagnosis can be categorized as follows:

- Unnecessary strain on the PHC service. Hall and Williams (1987:241) note that inappropriate and expensive tests were done and unnecessary prescriptions for medication were given. Patients kept coming back because they did not get the problem solved. These repeated visits to the clinics were supported by nurses in the PHC setting. During discussions with them they indicated that these clients repeatedly visit the service.
- Undiagnosed mental illness can lead to more serious problems such as substance abuse and suicide (Kaplan & Sadock, 2003:393). Again these problems impact negatively on the health care services. On the other hand these people and their families suffer unnecessarily which is unethical.

- Delayed detection impacts negatively on the prognosis of the disease (WHO, 2001:55).

It is now important to identify the best place where to identify mental illness. A reasonable place to consider is the PHC setting. There are several reasons for the choice of the PHC setting:

- PHC has internationally and in South Africa been adopted as the basis for health care. PHC is the hub of the health system. Around it are arranged the other levels of the system whose actions converge on PHC in order to support it and to permit it to provide essential health care on a continuing basis (WHO, 1978:53; Department of National Health and Population Development 1992:6).
- Because PHC is often the first contact point with health services it is logical that this is where the detection of mental illness should take place.
- A big problem in the management of mental illness is its stigma. It is less exposing to people to go to a PHC facility for treatment and thus continuity of care is ensured if they can be identified as well as treated in the same setting.

To summarise the problem, the detection of mental illness among black people in Africa is low leading to different problems. There is thus a need to develop an instrument which will assist nurses, working in the PHC setting, to detect mental illness.

## **1.2 RESEARCH AIM AND OBJECTIVES**

This study aims at answering the following question: *“How can the detection of black people with mental illness be enhanced in the PHC setting?”*

The research objectives are to:

- design an instrument which will assist nurses working in PHC settings to screen for mental illness among the patients attending the clinic;
- implement the instrument; and
- assess the value of the instrument in detecting mental illness among black people.

## **1.3 RELEVANT CONCEPTS**

### **1.3.1 Concepts**

The main concepts to be taken into account are:

- PHC
- screening
- instrument
- black patients and
- mental illness.

### **1.3.1.1 Primary health care**

The definition of PHC that has been accepted in South Africa is that of the WHO (1988:15).

*Primary health care is essential care based on practical, scientifically sound and socially acceptable methods and technology, made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination. It forms an integral part both of the country's health system, of which it is the central function and main focus, and of the overall social and economic development of the community. It is the first level of contact of individuals, the family and the community with the national health system, bringing health care as close as possible to where people live and work, and constitutes the first element of a continuing care service.*

### **1.3.1.2 Screening**

There are different definitions which should be taken into consideration in deciding on a definition for this study.

Sackett and Holland (in Shepherd, Wilkinson & Williams, 1986:58) described screening as:

*"... a procedure whereby a test is applied to apparently healthy volunteers from the general population, in order to identify those individuals who are at high risk of having otherwise unrecognized disease."*

As this study is not aimed at healthy volunteers but at people whose problems are not identified correctly it would be wise to look at the definition of case finding.

Sackett and Holland (in Shepherd *et al.* 58:1986) described case-finding as:

*"...a process whereby patients who have sought health care are tested, with their consent, for disorders which may be unrelated to their presenting complaint."*

Again this definition does not fit the bill because the people do consult the health care practitioner for their mental health problem but the way in which they present their complaint goes unrecognized by the health care team.

For this study screening is defined as:

a process whereby clients who have sought health care are tested for possible mental illness which is hidden as a result of the way in which the problems are presented by the clients.

### **1.3.1.3     *Black patient***

The concept "Black patient" is very difficult to define as it is very broad and especially in this study does not refer to a specific group. For the purposes of this study a black patient will be considered to be a person visiting a PHC facility and who is originally from a cultural group which has its roots in the African tradition.

### **1.3.1.4     *Mental illness***

There are many synonyms e.g. mental disorder, mental health problems, psychiatric illness, psychopathology and many more. The nursing literature has more discussions on the concept "Mental Health" than mental illness.

Mental disorder is defined by Sadock and Sadock (2003:282) as:

*"... clinically significant behaviour or psychological syndrome associated with distress or disability, not just an expected response to a particular event or limited to relations between a person or society.*

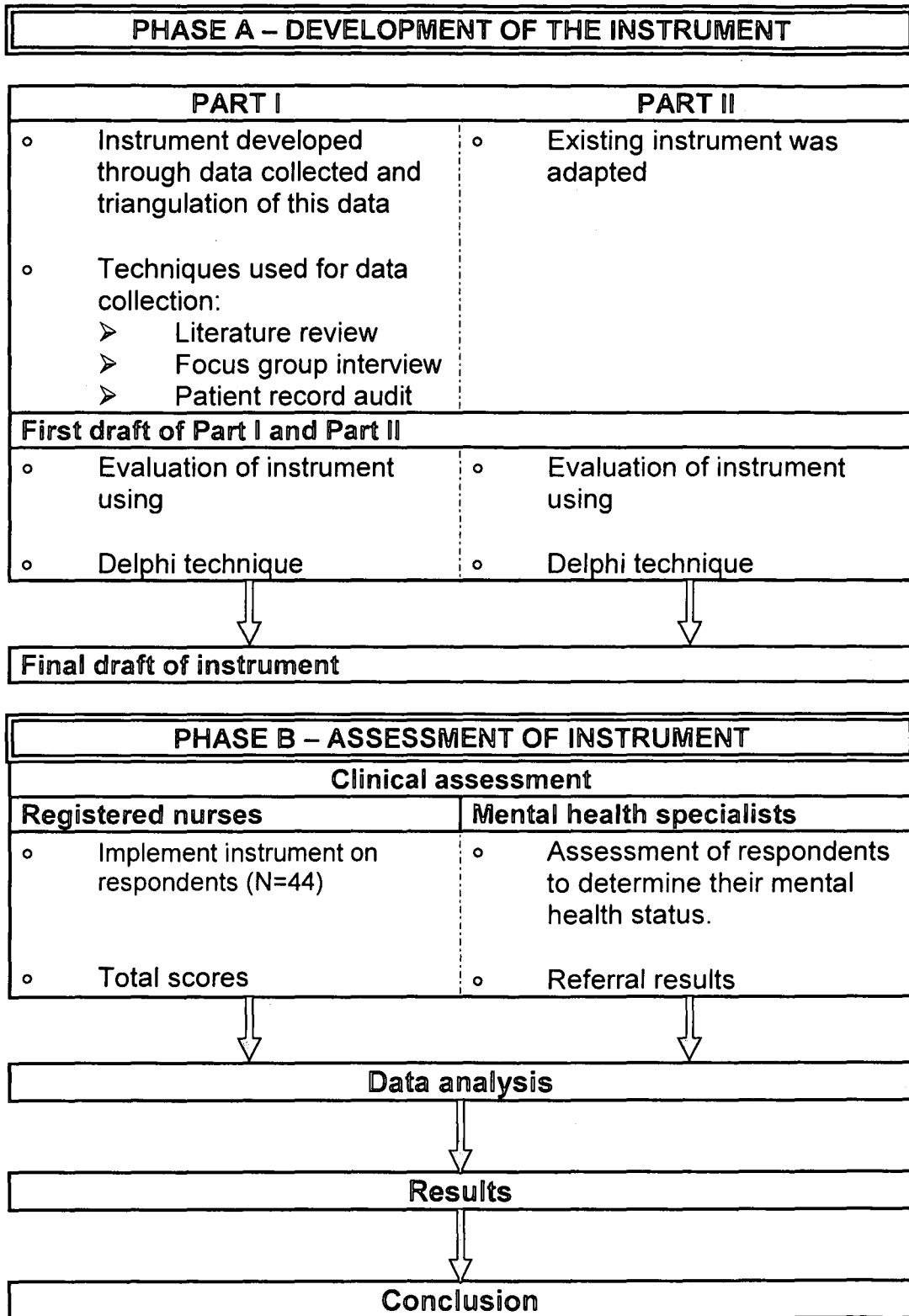
For this study the definition of mental illness will be that of the definition of mental disorder by the American Psychological Association which states that it is:

*"...a clinically significant behavioural or psychological syndrome or pattern that occurs in an individual and that is associated with present distress or disability (i.e. impairment in one or more important areas of functioning) or with a significantly increased risk of suffering death, pain, disability or an important loss of freedom" (Sadock & Sadock, 2003:293).*

#### **1.4 RESEARCH DESIGN**

A non-experimental, design which aims to explore, describe, develop and assess was used. Different techniques were used to collect data on which to base the development of the instrument which was then evaluated.

For the sake of clarity the research process has been separated into two phases, **Phase A and B (see Diagram 1.1).**



**DIAGRAM 1.1: Diagram of research process**

### 1.4.1 Phase A

In **Phase A** of the research process the instrument for screening of patients was developed. The instrument has two parts (I and II). The objective of Part I is a **very brief** screening of all patients to determine the necessity for further screening. Part II is the actual screening which determines whether the patient has a mental illness or not.

Phase A consists of the techniques used in the development of the instrument.

#### 1.4.1.1 *Research techniques used in the development of Part I*

To gather data on which to base the development of Part I of the instrument four techniques were used.

- *Literature review*

A literature review was done to determine whether there are aspects which have already been described which can act as cues to what patients present with when they suffer from a mental illness.

- *Patient record audit*

Patient records were audited to identify the symptoms which patients, who have already been identified with mental illness, presented with when they were first identified as suffering from a mental illness.

- Population for the record audit. The population was all black adults who had been diagnosed with a mental disorder in the Bloemfontein area.



- Sampling for the record audit. Convenience sampling was used as only records of black adults who had consulted state psychiatric services were used. The sample size was determined by saturation of information and 286 records were audited. The most recent records were selected first.
- Focus group interview. A focus group interview was conducted to find out from nurses working in PHC the factors which they think could indicate mental illness. Discussions with these nurses indicated that they are aware of certain trends. The focus group interview attempted to identify further aspects which could indicate the presence of mental illness.

The population and sampling for the focus group interview is discussed in **Chapter 3**.

As this part of the research design is qualitative in nature it was important to ensure rigor in the research design. In the quest for trustworthiness four criteria had to be met (Holloway & Wheeler, 1996:164-169), namely credibility, transferability, dependability and confirmability.

#### **1.4.1.2 Triangulation of data**

The data gathered by these three techniques were triangulated to form the basis on which Part I of the instrument was designed.

As Part II of the instrument was an adaptation of an existing instrument (Self Reporting Questionnaire –SRQ) there were no research techniques involved in its development.

### **1.4.1.3 Development of Part II**

The objective of Part II is to screen patients more thoroughly to determine whether they have a mental health need. As Part II was an adaptation of an existing instrument no other research techniques were used in the development.

### **1.4.1.4 Evaluation of the instrument (Part I and II)**

The instrument was evaluated for face and content validity by means of the Delphi technique. A panel of six experts in mental health or anthropology was used.

## **1.4.2 Phase B**

During this phase the instrument was assessed in the clinical setting to ascertain its sensitivity and specificity.

### **1.4.2.1 *Assessment of the instrument in the clinical setting***

A pilot study was done on 10 black patients to determine its ease of use and acceptability to the clients.

The instrument was implemented on 44 randomly selected black patients by registered nurses in PHC settings which were conveniently selected for the availability of fieldworkers. Thereafter the same patients were then individually assessed by mental health specialists using a standardised psychiatric procedure to determine whether they had a mental illness or not. These experts had no prior knowledge of the results obtained from the instrument. The two sets of results (scores obtained on the instrument that was implemented by the registered nurses and the referral results obtained from the mental health specialists) were compared to determine the screening value of the instrument (sensitivity and specificity).

## 1.5 ETHICAL ISSUES

The main areas in which ethical issues played a role were in auditing the patient records, conducting the focus group interviews and subjecting the patients to the instrument and subsequent assessment by the mental health specialist.

- ***Patient record audit***

The relevant permission was obtained to gain access to patient records. **(Annexure 2)** Complete confidentiality was maintained, not only as part of the responsibility of a researcher but also in line with the nursing profession.

- ***Focus group interviews***

The nurses who participated in the focus group interviews did so voluntarily and again confidentiality was maintained **(Annexure 5)**.

- ***Implementation of the instrument***

The information obtained in the instrument is information that nurses obtain from patients in the normal course of their duties and within their scope of practice. This information is treated in confidence as prescribed by the employer as well as the professional body. Only people who gave informed consent were involved in the evaluation of the instrument **(Annexure 7)**.

The study was submitted to the Ethics Committee of the Faculty of Health Sciences at the University of the Free State. Because the development of the instrument is dependent on information that was to be obtained during the study there were two submissions to the Ethics Committee. The first is to obtain permission to audit patient records and the second to obtain

permission to implement the instrument during which time the instrument was submitted as well.

## **1.6 VALUE OF THE STUDY**

Nurses comprise the largest group of professionals in the health care field and PHC is a nurse based service. It is thus the nurses who have the most frequent contact with persons contacting the health services for help. The nurses are in the best position to detect the mental illness in these clients.

Early detection of mental illness will save a lot of time, effort and scarce resources and improve the prognosis of many mental illnesses. More accurate identification of mental illness may lead to mental illness being seen as the health priority that it is and not relegated to receive the "leftovers" of the health budget.

## **1.7 STUDY OUTLINE**

**Chapter 1:** The problem statement and a brief overview of the research to be undertaken.

**Chapter 2:** An in depth literature review of all the relevant concepts pertaining to the research.

**Chapter 3:** A discussion on the research methodology used in the study.

**Chapter 4:** The design and evaluation of the instrument

**Chapter 5:** Results of the clinical assessment

**Chapter 6:** Discussion of the results and recommendations.

## CHAPTER 2

# *Mental health in primary health care settings*

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---

### 2.1 INTRODUCTION

This chapter will give an overview of the literature pertaining to the main aspects of this study. The goal is to present the background to the aspects involved as well as to present arguments for the reasons for the study.

As stated in **Chapter 1** the detection of mental illness among black patients in Africa is low. This gives rise to several questions?

- Why is the detection of mental illness among black patients low?
- In what health care setting should the screening take place? In other words where will this screening render the most effective results?
- Which members of the health care team will be in the best position to do the screening?
- What logistical problems are there to implement this instrument, e.g. time constraints?

This review of the literature aims to answer these questions and indicate the relationship between the ways in which black patients present with mental illness, where they most often go to for help and the role of the nurse in detecting mental illness. Furthermore this review addresses aspects such as the impact of mental illness on the health and welfare of a population; a

discussion on mental health nursing; catering for mental health at the PHC level; identification of mental illness among black patients; screening for mental illness as well as the role of the nurse in identifying mental illness among black patients.

## **2.2 MENTAL ILLNESS**

The concept "*Mental Illness*" has many synonyms. Through the ages it has been referred to as madness, insanity, lunacy and mentally defective (Taylor, 1986:4). The terms indicating mental illness and mental retardation were often interwoven. Later new terms came into use, i.e. psychopathology, which was largely due to Freud's psychoanalytic theories. In recent years terms like lunacy and insanity have become derogatory and the terms most commonly used today are mental illness, psychiatric illness or psychopathology.

Just as there is not a single term for mental illness the definitions of mental illness are multiple and varied. Often there would be an attempt at defining mental illness and the discussion would be about mental health instead (Stuart & Laraia, 2001; Nganusurian, 1988:7). This usually consists of a list of attributes of a mentally healthy person.

### **2.2.1 Defining mental illness**

The definitions of mental illness are varied as the following examples will illustrate.

- Jaspers (1962:28) defines psychopathology as: "*Its theme is the whole man in his state of sickness, in so far as that sickness shows itself in the psychic sphere and is psychologically conditioned.*"

- Kaufmann in a discussion on analytical psychotherapy explains psychopathology like this: *“Analytical psychology does not view psychopathology as a disease or a deviation from a ‘normal’ state. Symptoms are considered to be unconscious messages to the individual that something is awry, presenting a task that demands to be fulfilled”* (in Corsini, 1989:132).
- Frisch and Frisch (2002:4) defines mental illness as: *“State in which an individual shows deficits in functioning, cannot view self clearly or has distorted image of self, is unable to maintain personal relationships, and cannot adapt to the environment.”*

During the late 1960's and 1970's it became evident that the label of mental illness became a big problem and many fought against labelling people as mentally ill. The reasons being, that it is difficult to disprove the presence of mental illness once the label has been attached to a person. It also affected the individuals chances of work, the way people interact with them, diminishes credibility and will stay with the person for life (Nganusurian, 1988:15).

Thus there are not only different definitions of the concept of mental illness but even antagonism against defining mental illness.

### **2.2.2 Types of mental illness**

The variety of types of mental illness and their symptoms are varied and again there is controversy regarding the classification of mental illness. Currently there are two main classification systems used. The Diagnostic and Statistical Manual of Mental Disorders (DSM) which is a product of the American Psychological Association and the International Statistical Classification of Diseases and Related Health Problems (ICD) which is a product of the World Health Organization (Sadock & Sadock, 2003:288). On the whole these two systems have similar groupings of mental illnesses.

A broad classification of the different groups of mental illness is presented in Table 2.1

**TABLE 2.1: Groups of mental illness**

GROUPING	MENTAL ILLNESSES
Disorders of specific organic origin	Delirium Dementia Amnestic disorders Mental disorders due to a medical condition
Substance related disorders	This group includes disorders that are caused by specific substances e.g. psychotic disorders or the problem of abuse and/or dependence.
Psychotic disorders	Schizophrenia Schizophreniform disorder Schizoaffective disorder Delusional disorder Brief psychotic disorder
Mood disorders	Major Depressive disorder Bipolar I + II disorder Dysthymic disorder Cyclothymic disorder
Anxiety disorders	Panic disorder and Agoraphobia Phobia Obsessive-Compulsive disorder Posttraumatic Stress disorder Acute Stress disorder Generalized Anxiety disorder
Adjustment disorder	
Sexual disorders	Includes the paraphilias, sexual dysfunction and gender identity disorder
Eating disorders	Anorexia Nervosa Bulimia Nervosa Obesity
Personality disorders	Includes the different personality disorders – considered to be developmental disorders.
Somatoform disorders	This group of disorders include the different ways in which people with a mental disorder presents with specific physical complains, e.g. Conversion disorder
Factitious disorders	People presenting with this disorder purposefully fake physical illness for secondary gain.
Psychological factors affecting medical condition	These people have developed a physical problem but it is the result of a mental or emotional problem.

(Sadock & Sadock, 2003:307-313)



Some of these disorders are easier to identify than others, e.g. a psychotic person who hears voices or proclaims to be God is easily identified as having a mental illness or at least that there is something wrong, but other disorders are not as readily recognized, e.g. a person with a Depressive Mood Disorder. Some mental illnesses have several physical signs and symptoms as part of its diagnostic criteria, e.g. the diagnostic criteria for a Panic Attack lists more physical signs than emotional symptoms (Sadock & Sadock, 2003:602).

This is important because the detection of many types of mental illness in Africa is low because it goes unrecognized (Reeler, 1993:1; Abiodun, 1987:372; Hall & Williams, 1987:239 & De Jong *et al.*, 1986:27). This will be discussed later in this chapter.

When considering the diversity in definitions, classification systems and absence of clear physical or chemical parameters, as in most physical illnesses, the complexity of the identification and classification is clear.

### **2.2.3 Aetiology of mental illness**

Yet again here are many theories. Some mental illnesses have a clear cause, e.g. Dementia Due to Other General Medical Conditions like HIV disease or Huntington's disease but Dementia of the Alzheimer's type does not always have a clear cause (Sadock & Sadock, 2003:331).

The main theories regarding the cause of mental illness can be grouped under biological, psychological and social factors.

#### **2.2.3.1 *Biological factors***

Recent advances in the study of the brain have given new insight into causes of mental illness. The Nobel Prize in Physiology or Medicine for 2000 was awarded for the discoveries concerning how brain cells communicate with each other (Butcher, 2000:1331).

These discoveries are insightful but neuroscience still has a long way to go. A more complete understanding of how the brain is related to complex mental and behaviour function is still needed (World Health Organization, 2001:12). For example in schizophrenia, abnormalities in the maturation of neural circuits may produce detectable changes in pathology at the cellular and gross tissue level that result in inappropriate or maladaptive information processing (Lewis & Lieberman 2000:333). On the other hand in depression it is possible that distinct anatomical abnormalities may not occur; rather, risk of illness may be due to variations in the responsiveness of neural circuits (Berke & Hyman, 2000:516).

The development in the study of genetics has also given new insights. Almost all of the common severe mental and behavioural disorders are associated with a significant genetic component of risk. Mental and behavioural disorders are predominantly due to the interaction of multiple risk genes with environmental stressors that elicit the pathology (WHO, 2000:12).

Another cause of mental illness, although it is not fully understood, is that of the role of neurotransmitters. Theories involving neurotransmission state that there is either too much activity as in Schizophrenia or too little activity in Major Depression. Other conditions that are also associated with the theory of neurotransmitters are Panic disorder, Alzheimer's disease and substance abuse. The principal neurotransmitters involved are norepinephrine, serotonin and dopamine (Sadock & Sadock, 2003:477, 536-537,801,387).

The natural aging process plays a role in mental illness. Dementia is closely associated with the aging process and improved health care leads to people growing older just for them to become vulnerable to new illnesses (Desjarlais *et al.*, 1995:207, Sadock & Sadock, 2003:329).

The discoveries in the biological causes of mental illness have brought great relief to many people who have often thought that their own actions caused the mental illness. A good example is that of the Double Bind theory in the causation of Schizophrenia. Many parents thought they had caused their children to develop Schizophrenia (Sadock & Sadock, 2003:484).

### **2.2.3.2 Psychological factors**

The WHO's description of individual psychological factors is very succinct.

*Individual psychological factors are also related to the development of mental and behavioural disorders. One main finding throughout the 20th century that has shaped current understanding is the crucial importance of relationships with parents or other caregivers during childhood. Affectionate, attentive and stable caring allows infants and young children to develop normally such functions as language, intellect and emotional regulation. Failure may be due to the mental health problems, illness or death of a caregiver. The child may be separated from the caregiver because of poverty, war or population displacement. The child may lack care because of the unavailability of social services in the broader community. Regardless of the specific cause, when children are deprived of nurture from their caregivers they are more likely to develop mental and behavioural disorders, either during childhood or later in life (WHO 2001:12).*

The way in which a person interacts with the environment may influence behaviour. It is accepted that most people will engage in behaviours that are "rewarded" than otherwise. Mental illness can be seen as maladaptive behaviour that has been learned.

Life events and the failure to cope with them can also lead to disorders like, anxiety, depression, substance abuse and even physical diseases (WHO, 2001:13; Sadock & Sadock, 2003:796; Stuart & Laraia, 2001:66).

### **2.2.3.3 Social factors**

The impact of social factors on mental health is also closely linked to political and economic changes. The influence of social factors on mental health is complex and although factors such as urbanization, poverty and technological changes have been linked to the development of mental illness it is not necessarily true in all segments of society. Economic status, sex, race and ethnicity play a role in the consequences of social factors on mental health (WHO, 2001:13).

Urbanization, wars and drought have led to the immense social upheaval of millions of people. Modern urbanization may have damaging consequences for mental health through the influence of increased stressors and adverse life events, such as overcrowded and polluted environments, poverty and dependence on a cash economy, high levels of violence, and reduced social support (Desjarlais *et al.*, 1995:4; Sadock & Sadock, 2003:476).

Poverty plays a major role in mental health but it is not always clear whether the poverty causes the mental illness or the mental illness causes the poverty (Desjarlais *et al.*, 1995:4; Sadock & Sadock, 2003:477).

Not only does poverty play a role in the development of mental illness but it also impacts on its recovery.

*There is also evidence that the course of mental and behavioural disorders is determined by the socioeconomic status of the individual. This may be the result of an overall lack of mental health services together with the barriers faced by certain socioeconomic groups in accessing care. Poor countries have very few resources for mental health care and these are often unavailable to the poorer segments of society (WHO, 2001:14).*

It is further stated that the social roles of women increase their risk for mental illness. As women continue to bear the burden of being wives, mothers, educators and carers of others, they are increasingly becoming an essential part of the labour force and in one-quarter to one-third of households they are the prime source of income. In addition to the pressures of these expanding and often conflicting roles they are subjected to sex discrimination, overwork, domestic and sexual violence (WHO, 2001:14).

#### **2.2.3.4      *Combination of factors***

Looking at the different factors discussed above it is obvious that these factors often overlap and influence each other. The child of a parent suffering from a mental illness might inherit the illness as well as not get the nurturing she/he should get. Furthermore there is rarely a single cause for mental illness and mostly the mentioned factors combine to cause mental illness (Sadock & Sadock: 2003:477; Uys & Middleton, 2004:47; Stuart & Laraia, 2001:66; Nganusurian, 1988:12).

Mental illness is inextricably linked to almost any human activity, politics, economics, level of education, physical health and natural disasters just to mention a few. Unfortunately this is not always recognized.

The WHO's report on mental health summarizes this very well:

*Mental health is as important as physical health to the overall well-being of individuals, societies and countries.....Advances in neuroscience and behavioural medicine have shown that, like many physical illnesses, mental and behavioural disorders are the result of a complex interaction between biological, and social factors (WHO, 2001:1).*

#### **2.2.4 Epidemiology**

Mental illness is a truly equal opportunity disease. It strikes across races, gender, socio-economic and geographical boundaries. The prevalence of an illness can be demonstrated in different ways. Point prevalence refers to how many people have the illness at a given point in time, or period prevalence referring to how many people will have the illness during a given period of time and lastly a lifetime prevalence indicating how many people will have the illness at any time during their lives. Surveys conducted in developing as well as developed countries indicate that 25% of all people will develop one or more mental or behavioural disorders during their lives (Regier, Boyd, Burke, Rae, Myers, Kramer, Robins, George, Karno & Locke, 1988:782).

The WHO estimates that worldwide about 450 million people are suffering from a mental disorder. These conditions include unipolar depressive disorders, bipolar affective disorder, schizophrenia, epilepsy, alcohol and selected drug use disorders, Alzheimer's' and other dementias, post traumatic stress disorder, obsessive and compulsive disorder, panic disorder, and primary insomnia (WHO, 2001:1).

From this information it is obvious that mental illness is an enormous problem that impacts on every part of a person's life. This places a great burden on the whole of society and needs to be identified and addressed.

### **2.3 MENTAL ILLNESS – UNRECOGNIZED AND IGNORED**

Mental illness has long been the step child of the health profession with the result that its importance has been underestimated.

### 2.3.1 Mental illness - the ignored phenomena

The quality of health care and the accompanying increase in the life expectancy has improved dramatically in recent times. There is unfortunately a downside, namely an increase in mental illness and other social pathologies that impact on mental health. Because of the increased life expectancy people are now attaining the age of risk for these mental illnesses. There is also an increase in substance abuse, suicide, violence against women, the aged and children. Desjarlais *et al.* (1995:4) say it very well:

*In other words, in many parts of the world economic progress and gains in overall longevity have been accompanied by an increase in the social, psychiatric, and behavioural pathologies that have become a part of daily life in North America and Western Europe. Although poorer countries have made great progress, they are plagued by continued infectious diseases and by chronic medical, mental and behavioural conditions. Many in these poorer nations face the worst of both worlds; they continue to suffer from high rates of parasitic and infectious diseases at the same time that they are being afflicted by a growing burden of chronic diseases and new social pathologies.* (Desjarlais *et al.*, 1995:4)

Mental health has always received a low priority rating compared to other health aspects and this is especially true in the less affluent countries, where the choice between using scarce resources for reducing deficits or establishing mental health programs is a difficult one (Desjarlais 1995:4; Giel & Harding, 1976:513).

Allwood & Gagliano (1997, ii) state this in a concise manner. *"The mentally ill are often at the back of the queue when it comes to getting help."*

In a study commissioned by the World Health Organisation (WHO) seven geographical areas in developing countries were studied. It was found that community mental health care did not exist before 1975. The lack of this service corresponds to the realities in the majority of communities of developing countries (Harding, Busnello, Climent, Diop, El-Hakim, Giel, Ibrahim, Ladrado-Ignacio & Wig, 1983:1474).

One of the main reasons why mental health has always been considered a low priority is as a result of the lack of understanding of the impact of mental health on a population. This is because of the way in which public health statistics have been formulated and presented in the past. Until recently health statistics have focused on mortality, rather than morbidity or dysfunction. Deaths have been ascribed to their direct causes with no reference to the underlying behaviours or disease states that led to the cause of death. For example, liver failure as a result of alcohol abuse is reflected as a liver condition and no mention is made of the substance abuse that preceded it. Thus these methods of communication render mental illness almost invisible (Desjarlais *et al.*, 1995:5; Uys & Middleton, 2004:40).

The WHO uses indicators to plan and evaluate PHC programs. These indicators reflect a given situation and can be defined as variables which help to measure change. The indicators for health status are reflected by the following statistics:

- infant mortality rate;
- child mortality rate;
- life expectancy;
- maternal mortality rate; and
- morbidity (WHO 1981 (B):9-40).

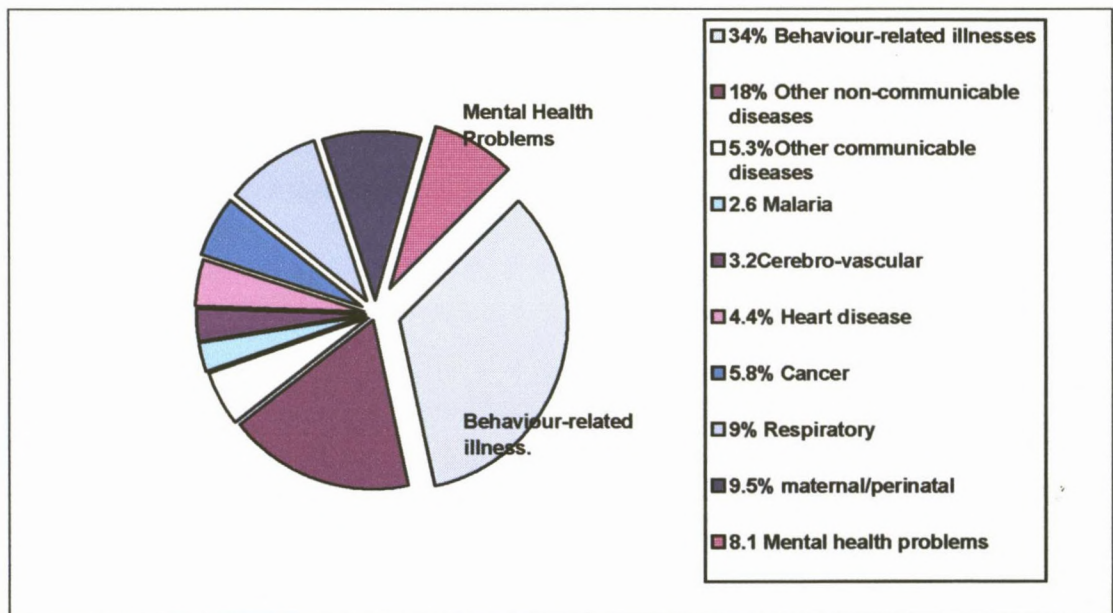
These statistics will have difficulty in reflecting the impact of mental health on a population, even though it is possible that mental health could have an impact on these statistics.



### 2.3.2 The impact of mental illness

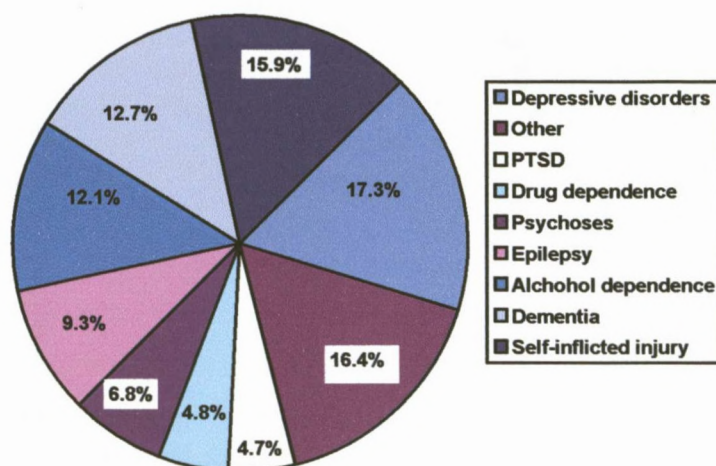
A new method was developed to survey and communicate health problems. This method called the Global Burden of Disease (GBD) is measured in Disability Adjusted Life Years (DALYs) which are lost as a result of a specific condition. This method reflects the impact that a condition has on the community (Desjarlais *et al.*, 1995:5; Uys & Middleton, 2004:41).

According to this method mental health problems are responsible for 8.1% of the DALYs lost which is more than heart diseases and cerebrovasuclar conditions combined. Furthermore behaviour related illnesses make up a staggering 34% (see Figure 2.1).



**FIGURE 2.1:** Global Distribution of Health Burdens (Desjarlais *et al.*, 1995:5)

A breakdown of this 8.1%, as illustrated in Figure 2.2 indicates depressive disorders as the most common with 17.3% followed by self-inflicted injury with 15.9% and Dementia at 12.7%.



**FIGURE 2.2: Disability from Mental Health Problems** (Desjarlais *et al.*, 1995:35)

Many of these conditions affect people in the prime of their community and economic life, e.g. schizophrenia has an average age of onset at 15 to 25 years for men and 25 to 35 years for women and Major Depressive Disorder at 20 to 50 years (Sadock & Sadock, 2003:472, 536). These people are not only a burden on their families and the community but it impairs or incapacitates them to participate in all levels of society whether it be at home or work (Uys & Middleton, 2004:41). The impact of mental illness on the communities of the world now becomes clearer.

The estimates for the leading causes of DALYs for 2000 are given in Table 2.2. The figures depict the causes for all ages and then go on to differentiate between sex and age.

TABLE 2.2 (a): Leading causes of DALYs, in all ages by sex

BOTH SEXES, ALL AGES	% TOTAL	MALES, ALL AGES	% TOTAL	FEMALES, ALL AGES	% TOTAL
1. Lower respiratory infections	6.4	1. Perinatal conditions	6.4	1. HIV/AIDS	6.5
2. Perinatal conditions	6.2	2. Lower respiratory infections	6.4	2. Lower respiratory infections	6.4
3. HIV/AIDS	6.1	3. HIV/AIDS	5.8	3. Perinatal conditions	6.0
4. Unipolar depressive disorders	4.4	4. Diarrhoeal diseases	4.2	4. Unipolar depressive disorders	5.5
5. Diarrhoeal diseases	4.2	5. Ischemic heart disease	4.2	5. Diarrhoeal diseases	4.2
6. Ischemic heart disease	3.8	6. Road traffic accidents	4.0	6. Ischemic heart disease	3.3
7. Cerebrovascular disease	3.1	7. Unipolar depressive disorders	3.4	7. Cerebrovascular disease	3.2
8. Road traffic accidents	2.8	8. Cerebrovascular disease	3.0	8. Malaria	3.0
9. Malaria	2.7	9. Tuberculosis	2.9	9. Congenital abnormalities	2.2
10. Tuberculosis	2.4	10. Malaria	2.5	10. Chronic obstructive pulmonary disease	2.1
11. Chronic obstructive pulmonary disease	2.3	11. Chronic obstructive pulmonary disease	2.4	11. Iron-deficiency anaemia	2.1
12. Congenital abnormalities	2.2	12. Congenital abnormalities	2.2	12. Tuberculosis	2.0
13. Measles	1.9	13. Alcohol use disorders	2.1	13. Measles	2.0
14. Iron-deficiency anaemia	1.8	14. Measles	1.8	14. Hearing loss, adult onset	1.7
15. Hearing loss, adult onset	1.7	15. Hearing loss, adult onset	1.8	15. Road traffic accidents	1.5
16. Falls	1.3	16. Violence	1.6	16. Osteoarthritis	1.4
17. Self-inflicted injuries	1.3	17. Iron-deficiency anaemia	1.5	17. Protein-energy malnutrition	1.2
18. Alcohol use disorders	1.3	18. Falls	1.5	18. Self-inflicted injuries	1.1
19. Protein-energy malnutrition	1.1	19. Self-inflicted injuries	1.5	19. Diabetes mellitus	1.1
20. Osteoarthritis	1.1	20. Cirrhosis of the liver	1.4	20. Falls	1.1

TABLE 2.2 (b): Leading causes of DALYs, in 15- 44-year-olds, by sex

BOTH SEXES 15-44 YEAR OLD		MALES 15-44 YEAR OLD		FEMALES 15-44 YEAR OLD		TOTAL	
	% TOTAL		% TOTAL		% TOTAL		% TOTAL
1. HIV/AIDS	13.0	1. HIV/AIDS	12.1	1. HIV/AIDS	13.9		
2. Unipolar depressive disorders	<b>8.6</b>	2. Road traffic accidents	7.7	2. Unipolar depressive disorders	<b>10.6</b>		
3. Road traffic accidents	4.9	3. Unipolar depressive disorders	6.7	3. Tuberculosis	3.2		
4. Tuberculosis	3.9	4. Alcohol use disorders	5.1	4. Iron-deficiency anaemia	3.2		
5. Alcohol use disorders	3.0	5. Tuberculosis	4.5	5. Schizophrenia	2.8		
6. Self-inflicted injuries	2.7	6. Violence	3.7	6. Obstructed labour	2.7		
7. Iron-deficiency anaemia	2.6	7. Self-inflicted injuries	3.0	7. Bipolar affective disorder	<b>2.5</b>		
8. Schizophrenia	2.6	8. Schizophrenia	2.5	8. Abortion	2.5		
9. Bipolar affective disorder	<b>2.5</b>	9. Bipolar depressive disorder	2.4	9. Self-inflicted injuries	2.4		
10. Violence	2.3	10. Iron-deficiency anaemia	2.1	10. Maternal sepsis	2.1		
11. Hearing loss, adult onset	2.0	11. Hearing loss, adult onset	2.0	11. Road traffic accidents	2.0		
12. Chronic obstructive pulmonary disease	1.5	12. Ischemic heart disease	1.9	12. Hearing loss, adult onset	2.0		
13. Ischemic heart disease	1.5	13. War	1.7	13. Chlamydia	1.9		
14. Cerebrovascular disease	1.4	14. Falls	1.7	14. Panic disorder	<b>1.6</b>		
15. Falls	1.3	15. Cirrhosis of the liver	1.6	15. Chronic obstructive pulmonary disease	1.5		
16. Obstructed labour	1.3	16. Drug use disorders	1.6	16. Maternal haemorrhage	1.5		
17. Abortion	1.2	17. Cerebrovascular disease	1.5	17. Osteoarthritis	1.4		
18. Osteoarthritis	1.2	18. Chronic obstructive pulmonary disease	1.5	18. Cerebrovascular disease	1.3		
19. War	1.2	19. Asthma	1.4	19. Migraine	1.2		
20. Panic disorder	<b>1.2</b>	20. Drownings	1.1	20. Ischemic heart disease.	1.1		

(WHO, 2001:27)

\*The disorders pertaining to mental illness are in bold.

Looking at the statistics depicted in Table 2.2 the impact of mental illness on society is frighteningly clear. The leading causes of DALYs in all ages which relate to mental illness can be linked to each other. Depression and self inflicted injuries as in suicide attempts are common. Alcohol use disorders and suicide are also closely linked (Sadock & Sadock, 2003:916). When considering these links it is not too far a leap to wonder whether there is not a link in the causation as well as the prevention of these conditions. Furthermore when one adds them up they make up the leading cause of DALYs.

The DALYs for the 15-44 year old group is even more frightening as this age group comprises the most active and productive age group, whether it be in reproduction, education or economics. For both sexes as well as for males four different types of mental illness have a greater impact on their productivity than war. It is clear that the impact on mental illness on society cannot be ignored.

### **2.3.3 New hope**

In her address to the East African Regional Psychiatric Conference the Director-General of the WHO, Dr. G.H. Brundtland said:

*Before I took office as Director-General of the World Health Organization, I was determined to address mental health as a priority. I had seen how hard it had been to strengthen mental health policies in my own country, Norway. I had started to see some of the vast neglect that people with mental health problems faced in developed and developing countries alike. It was very clear to me: Mental health must rise to a more prominent place if we are to live up to our mandate of promoting health and human rights.*

*During my time at WHO, I have been greatly encouraged by what I have seen and heard. I sense that mental health is increasingly being treated as a part of the whole health agenda – not as a low-priority side-show. I believe one of the reasons for this is the understanding of the dominating place mental illness and brain disorders have in the global burden of disease (Brundland, 2000).*

The theme of the WHO Report: 2001 was “*New understanding, new hope*”. In her introduction to the report Dr. G.H. Brundtland states the science and common sense are being combined to break down barriers to the care and treatment of mental health. There is a new understanding of the combined influence of the genetical, biological, social and environmental factors on mental and brain illness. Mental and physical illness is inseparable and their influence on each other is complex.

*And this is just the beginning, I believe that talking about health without mental health is a little like tuning an instrument and leaving a few discordant notes (WHO, 2001: ix).*

It is clear that the importance of mental illness is slowly being recognised but a lot has still to be done. This is hampered because of a lack of detection and stigma (WHO, 2001:4).

## **2.4 IDENTIFICATION OF MENTAL ILLNESS AMONG BLACK PATIENTS**

As already mentioned the identification of mental illness among black patients has been a problem due to the fact that they often present with somatic complaints.

### 2.4.1 Historical overview

Up to the 1960's it was generally accepted that mental illness in black people in Africa was rare. These assumptions were based on mental illness statistics which were primarily gathered from hospital admissions. Considering that hospitals were far and few between and most colonial African countries had only one central mental hospital it becomes clear that these statistics did not sketch a realistic picture of the problem. Compounding the problem is the fact that mostly violent patients were selected for admission and that led to the belief that men presented with a 50% higher incidence of mental illness than women (German, 1987:441).

The picture regarding the prevalence of mental illness suggested an extremely low incidence of mental illness in Africa and that admissions to psychiatric hospitals were also low especially when compared to Western countries.

Thoughts were also expressed that the nature of mental illness among black people in Africa differed in nature to that found in the West. Compounding this problem was the fact that standardised, detailed operational definitions of psychiatric symptoms have been a recent development (German, 1987:441). To this day this problem still exists, although to a much lesser degree. The International Statistical Classification of Diseases and Related Health Problems published by the WHO in 1992 is a comprehensive classification system of medical conditions and mental disorders and is the official medical and psychiatric nosology used throughout the most of the world. On the other hand some countries use compatible or modified classifications, e.g. the United States of America and Japan (Sadock & Sadock, 2003:288).

More recent studies have indicated that mental illness among black people in Africa is not a culturally bound phenomena but a universal one.



*Rather than being simply violations of the social norms of particular groups, as labelling theory suggests, symptoms of mental illness are manifestations of type of affliction shared by virtually all mankind (Murphy, 1976 in German, 1987:441).*

More recent studies focusing on different types of mental illnesses such as schizophrenia and depression and other mood disorders have indicated that the symptomatology and incidence of these disorders are comparable to that of the West (Ben-Tovim, 1984:199; Reeler, 1986:298; German, 1987:441; Abiodun, 1989:372).

Reeler's (1987:301) summation on the issue of culture bound symptomatology and incidence is clear.

*Generally, studies of the prevalence of psychological disorders in Africa support the view that rates are little different to those reported in the West. Furthermore, broad categorisation shows much the same distribution of psychotic and neurotic disorders in most cultures. This constancy would seem to indicate that little weight should be attributed to 'acculturation' as a factor in the genesis of psychological disorder. It would further seem that the role of socio-cultural factors in the genesis of disorders should be reduced to an indirect role, and consequent emphasis be given to biological and psychological factors as causal in the development of this particular psychological disorder.*

Even in an area such as puerperal psychiatric disturbances, which is strongly culture bound, a study in Tanzania found that 38% of the women exhibited symptoms of "maternity blues" which is similar to that in other cultures (German, 1987:437).

Another aspect that influenced the reporting of the incidence of mental illness is the fact that it is often missed by health workers especially in the PHC settings (Harding *et al.*, 1983:1481; Ben-Tovim, 1984:199; Reeler, 1986:298; De Jong, de Klein & Ten Horn, 1986:27; Abiodun, 1989 :372).



## 2.4.2 Undetected morbidity of mental illness among black people

Literature abounds with studies from many parts of Africa that the incidence of mental illness is similar to that of the rest of the world, especially the West. A summary of studies into the prevalence of psychiatric morbidity in Africa is shown in Table 2.3.

**TABLE 2.3: Incidence of mental illness in some countries in Africa**

AUTHOR	COUNTRY	SAMPLE	MORBIDITY%
Leighton <i>et al.</i> (1963)	Nigeria	Community	23
Giel and Van Lwijk (1969)	Ethiopia	Community	18.5
German and Arava (1969)	Uganda	Health care facility	10.8
Orley and Wing (1979)	Uganda	Community	20.4
	Kenya	Community	20
Ndetei and Muhangi (1979)	Sudan	Health care facility	10.6
Harding <i>et al.</i> (1980)	Sudan	Health care facility	29
Dhadphale and Ellison (1982)	Kenia	Health care facility	29
Dhadphale and Ellison (1982)	Kenya	Health care facility	25
Diop <i>et al.</i> (1982)	Senegal	Health care facility	16
Azinge (1983)	Nigeria	Health care facility	25
Dhadphale <i>et al.</i> (1983)	Kenya	Health care facility	28.6

(Reeler, 1986:299)

These studies confirm that mental illness is prevalent in Africa. It is interesting to note that these studies were not conducted in mental hospitals like the first studies mentioned in 2.4.1 and naturally gives a totally different picture.

Moreover, according to Hall and Williams (1987:239) and Abiodun (1987:372, 239) the incidences of mental illness among people who attend PHC facilities are comparable to the overall prevalence of mental illness. These figures range from 10.5% to 22.4%.

In South Africa very few studies have been done regarding the prevalence of mental illness in PHC facilities. As Bhangwanjee, Paruk, Petersen and Subedar (1998: 1137) point out:

*The South African literature unfortunately reflects a paucity of research into psychiatric morbidity at the community level*

Bhagwanjee et al. (1998:1137) found a prevalence of 23.9% while Thom, Zwi and Reinach (1993:654) found a prevalence of 14.4%. These figures are in line with studies done in the rest of Africa. Thom et al. (1993:654) stated that 93% of all patients discovered by the researchers to have a mental illness were missed by the clinic staff.

On the other hand the detection rate of mental illness is low, although there is a high rate of attendance of health facilities (Reeler, 1987:37). Table 2.4 summarises the findings of some studies into the prevalence and detection rates by health workers. This indicates the mental illness morbidity in percentage and the percentage of the morbidity detected by the health care workers.

**TABLE 2.4: Detection of mental illness**

AUTHOR	COUNTRY	MORBIDITY %	DETECTION % OF MORBIDITY
Reeler	Zimbabwe	10,5 - 36,7	10-20
Abiodun	Nigeria	22.4	14
Hall & Williams	Zimbabwe	10,5	4.25
De Jong <i>et al.</i>	Guiné-Bissau	10,6-17,7	33

(Reeler, 1993; Abiodun 1987; Hall & Williams, 1987 & De Jong *et al.*, 1986)

These figures indicate that although people with mental illness attend health care facilities, in most cases their problem is not detected. The detection rate varies from 33% to as low as 4.25%.

### **2.4.3 Reasons for inadequate detection of mental illness**

The reason for the inadequate detection of mental illness lies in several areas. Firstly there is the intrinsic nature of mental illness, especially across different cultures, secondly health care workers and lastly the patients themselves.

### **2.4.3.1      *The nature of mental illness***

Mental illness is not always easy to detect. Often mental illness presents as a physical problem and can only be considered a mental illness after exhaustive physical and laboratory examinations have ruled them out (Sadock & Sadock, 2003).

The WHO report on Mental Health states it very well:

*There are varying degrees of uncertainty in GBD 2000 estimates of DALYs and YLDs for mental and neurological disorders, reflecting uncertainty in the prevalence of the various conditions in different regions of the world, and uncertainty in the variation of their severity distribution. In particular, there is considerable uncertainty in the estimates of prevalence of mental disorders in many regions, reflecting the limitation of self-reporting instruments for classifying mental health symptoms in a comparable way across populations, limitation in the generalizability of surveys in subpopulations to broader population groups, and limitations in the information available to classify the severity of disabling symptoms of mental health conditions (WHO, 2001:26).*

### **2.4.3.2      *Health workers***

Regarding the health workers two aspects are noted, namely an attitudinal problem regarding mental illness and a lack of skills. One can assume that these two factors are related (Reeler, 1987:39; Giel & Harding, 1976:513-522; Harding *et al.*, 1983). In a study 18 - 24 months following training of health care workers Harding *et al.* (1983) found that the attitudes and knowledge of the workers had changed appreciably. Workers were more aware of the extent of mental illness as well as the link between somatic symptoms and mental illness.

### **2.4.3.3     *The patients***

Concerning the patients it has been found that the patients do not present with symptoms which are associated with mental illness, rather they present with somatic complaints (Reeler, 1987; Hall & Williams, 1987; Reeler, 1994).

Black patients present with somatic symptoms rather than the conventional symptoms of mental illness. There appears to be a trend in the way in which patients suffering from mental illness indicate their problem and could be regarded as help seeking behaviour.

Abiodun (1989:375) found that patients attending a rural PHC centre in Nigeria who quoted three or more reasons for visiting the clinic had a six times higher chance of suffering from mental illness. The main reasons for attending the clinic amongst those suffering from mental illness were:

- generalised body ache
- abdominal pain
- headache
- weakness
- backache
- poor sleep
- chest pain
- peppery/crawling sensation
- dizziness
- poor appetite
- internal heat

De Jong *et al.* (1986:31) also found that multiple reasons for attendance at a general health facility in Guiné-Bissau had a 3.5 chance of suffering from a mental illness. The reasons for attending the service were:

- abdominal pain
- chest pain
- headache

- pain in arm/leg
- weakness
- general body pain
- back pain

Hall and Williams (1987:241) found in Zimbabwe that two or more of the following physical complaints indicated mental illness:

- abdominal pain
- chest pain
- cough
- general body/joint pains
- dizziness
- backache
- headache
- urino-genital complaints
- general body weakness

Reeler (1994:311) summarised the trend as again three or more complaints of somatic origin encompassing more than one organ system. Reeler *et al.* (1993:6) states that when patients complain of three or more body systems or incongruent symptoms it can be an indication of mental illness. The following systems which are commonly complained of are, musculo-skeletal, neuro-physiological and gastrointestinal.

Summarizing the trends found in the literature the trend appears to be the following. Patients presenting with three or more complaints covering more than one organ system are likely to suffer from mental illness. Furthermore there are specific symptoms which can serve as further indicators. The most commonly found symptoms are:

◦ abdominal pain	◦ weakness
◦ general body pains	◦ backache

◦ headache	◦ chest pain
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It is interesting to note that the research indicating this trend was done in different countries and amongst different cultures. Considering the debate whether the nature of mental illness in African cultures are comparable to that of the West (German, 1987:444; Reeler 1987:37), this raises an interesting point. Irrespective of the nature of mental illness there seems to be a similar manner in which these patients indicate their problems. Perhaps we are "*more human than otherwise*" or perhaps it is the only way in which these patients can get the attention of the health care workers.

The research illustrating the problem of prevalence and detection of mental illness in Africa is rather old but very few recent studies have been done. A MEDLINE search as recent as 2005, did not reveal any more recent studies.

## **2.5 CONSEQUENCES OF INADEQUATE DETECTION OF MENTAL ILLNESS**

Earlier (2.1) the point was made that one of the reasons that mental illness does not receive a high priority is because it's impact is not clear. It follows then that any hidden morbidity should compound this problem. In other words, no problem will receive priority attention if it is not seen to be a problem. The old adage "*it is the squeaky wheel that gets the oil*" is applicable.

Patients have the right not to be subjected to excessive and unnecessary treatment (Sadock & Sadock, 2003:13358). This implies that a patient is to be diagnosed accurately and quickly. Inappropriate treatment is common amongst mentally ill black patients (Giel & Harding, 1976:518; Abiodun, 1989:379; Kortman & Ten Horn, 1988:95) and results in wastage of already overstretched resources.

Hall and Williams (1987: 241) described their findings.

*Results have been inappropriate medication, expensive and unnecessary medical investigations. and repeated visits by patients in an attempt to find a 'cure' for their problems. At Bindura, 21 per cent of patients were prescribed antibiotics or antimalarial when there was no evidence of infection, and others were sent for expensive and unnecessary X-rays. Prescriptions for cough mixture and aspirin abounded!*

Patients who do not get relief from the treatment often return to the service again and again (Abiodun, 1989:379). This has several consequences. One must remember that most of these people are very poor and live far from the health services. To visit a health service is often difficult and implies sacrifices in terms of time or even money for transport. Then again the health services have to cope with these patients in addition to their normal load which is already overburdened.

Undetected cases can lead to patients becoming chronically affected. In addition patients who could have been treated effectively in the community now need hospitalisation which is costly (Reeler, 1993:2).

In a study conducted amongst Mozambican refugees it was found that patients were concerned about their symptoms and their health. This added an unnecessary burden on people who were living under almost unbearable conditions (Reeler, 1994:313).

Inadequate detection can also have lethal consequences. In Hall and Williams' research (1987:241) 40% of women identified to be suffering from mental illness responded positively when questioned about suicide. The majority of these cases were not identified by the health care workers to be suffering from a mental illness.

Inadequate detection of mental illness has an impact not only on the patients and their families but on the health resources and priorities of the whole country.

## 2.6 PRIMARY HEALTH CARE

PHC developed as a result of the skewed priorities in health care which led to extremely specialised services for a few but no basic health care for the majority of the population.

### 2.6.1 Origins

During the 1970's health services world wide was extremely ineffective. Services were fragmented and vast amounts of money were spent on expensive health care for a few rather than rendering health promotion and basic health care for many. This state of affairs led to the Alma-Ata conference (Dennill *et al.*, 1995:9).

In 1978 the government of the USSR hosted a conference in Alma-Ata, jointly sponsored by the WHO and the United Nations Children's Fund. The International Conference on Primary Health Care heralded the trend towards universal availability for health for all people and directed the policies of the WHO and many other countries (WHO, 1978:15).

At this conference PHC was described as:

*Primary health care is essential care based on practical, scientifically sound and socially acceptable methods and technology, made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination. It forms an integral part both of the country's health system, of which it is the central function and main focus, and of the overall social and economic development of the community. It is the first level of contact of individuals, the family and the community with the national health system, bringing health care as close as possible to where*



*people live and work, and constitutes the first element of a continuing care service (WHO 1988:15).*

The declaration of Alma-Ata clearly indicates the nature of PHC and is a commitment towards health care for all as well within a framework of partnership where the individual client and the community are primary role players (WHO, 1978:428-430). The Ottawa Charter followed in 1986 and it was noted the promotion of health was lagging behind and not enough was done to really involve communities to solve their problems according to their unique needs and resources (Dennill *et al.*, 1995:11).

### **2.6.2 Aspects of PHC**

It is important to note that PHC is much more than rendering health care at community level. PHC can only be said to be implemented if it goes hand in hand with community development (Dennill *et al.*, 1995:15).

PHC is not:

- only the assessment and treatment of a client, this is only a small part of PHC;
- only first contact care. It is the point of entry into the health system but care can be ongoing without the need for secondary service;
- only health services for all. It must go hand in hand with community development which implies a multidisciplinary approach involving many more stakeholders than just health care staff; and
- cheap, simple or second-class care. It is an approach that meets the basic needs of the people to empower them to live healthy lives (Dennill *et al.*, 1995:3).

Although different countries and communities differ they need different approaches to address their health problems, but promotive, preventive, curative, rehabilitative, and emergency care appropriate to meet the main health problems in the community should be rendered. However special attention needs to be paid to vulnerable groups as well as being responsive to the needs and capacities of the people (WHO, 1978:18).

### **2.6.3 Selective vs. comprehensive PHC**

Selective PHC is problem orientated and cost effective. The program targets a specific problem and implements appropriate strategies. This approach is very seductive as it gives quick and easily quantifiable results which are appreciated by sponsors. One such a program is the Control of Diarrhoea Diseases (CDD).

The problem with this approach is that it misses the all important concept of community development and this is where comprehensive primary health care comes in. Comprehensive primary health care is a strategy for the health development of a community and the emphasis of the programs is on change in the communities (Dennill *et al.*, 1995:15),

The selective PHC approach is also not in line with the recommendations made at Alma-Ata. The recommendation was that, in order for PHC to be comprehensive, all development-oriented activities should be interrelated and balanced so as to focus on problems of the highest priority as mutually perceived by the community and health system, and that culturally acceptable, technically appropriate, manageable, and appropriately selected interventions should be implemented in combinations that meet local needs. This implies that single-purpose programs should be integrated into PHC activities as quickly and smoothly as possible (WHO, 1978:25).

## 2.6.4 PHC in South Africa

In 1986 the Department of Health and Population Development established a committee on PHC to devise strategies to implement PHC. This was finalised in 1992 (Dennill *et al.*, 1995:31).

The success of PHC needs a strong political commitment and fortunately that was forthcoming in South Africa. The ANC's draft of its health plan was publicised in 1994 and this plan was very comprehensive. It acknowledged the importance of a broader approach than just health care, amongst others, community development and a single health care system (National Health Service).

The White Paper for the Transformation of the Health System in South Africa was published in 1997. This became the blueprint for the delivery of health care in South Africa. It focuses strongly on PHC and its structure is aimed at involving as many groups of people at the lowest possible level. This is done by acknowledging the role of Non-governmental organisations and the creation of the health districts (Government Gazette, 1997).

## 2.7 MENTAL HEALTH AND PHC

The very nature of mental illness and its successful treatment fits perfectly into the model of PHC:

*Mental health care should not only be local and accessible, but should also be able to address the multiple needs of individuals. It should ultimately aim at empowerment and use efficient treatment techniques which enable people with mental disorders to enhance their self-help skills, incorporating the informal family, social environment as well as formal support mechanisms. Community-based care (unlike hospital-based care) is able to identify resources and create healthy alliances that would otherwise remain hidden and inactive (WHO, 2001:54).*

When considering the principles of PHC as set out in the Declaration of Alma-Ata the concept of development and involvement of communities is the most effective way to address the multifaceted needs of people suffering from mental illness and the families involved (WHO, 1978:428-430).

### **2.7.1 Overview of past treatment paradigms**

In the past mental illness was treated in institutions. These institutions failed miserably on many levels. Firstly they were un-therapeutic and abuse of patients was common. They were often geographically isolated which led to isolation of the patients from their families and communities and lastly they became uneconomical (WHO, 2001).

De-institutionalization of mentally ill patients followed but this has not been all that successful because resources saved from the closing of the institutions have not always been reallocated to the community care and professionals have not been adequately prepared to accept their changing roles. Also the stigma attached to mental disorders is still strong and in some countries these patients have been shifted to prisons or have become homeless.

### **2.7.2 The South African situation**

The White Paper for the Transformation of the Health System in South Africa proclaimed the following principles:

- *A comprehensive and community-based mental health and related service (including substance abuse prevention and management) should be planned and co-ordinated at the national, provincial, district and community levels, and integrated with other health services.*

- *Essential national health research should include an analysis of mental health and substance abuse to identify the magnitude of the problem.*
- *Human resource development for mental health services should ensure that personnel at various levels are adequately trained to provide comprehensive and integrated mental health care based on primary health care principles (Government Gazette, 1997:136).*

These principles make it clear that all health problems including mental health are to be addressed at the community level. This includes the accurate detection of mental illness.

## **2.8 MENTAL HEALTH NURSING**

Although many definitions of mental health nursing are to be found in the literature they do not adequately encapsulate the depth and breadth of mental health nursing. The American Nurses Association (2000) in Stuart and Laria (2001:6) defines mental health nursing as, *"a specialised area of nursing practice employing theories of human behaviour as its science and purposeful use of self as its art."* Another definition by Uys and Middleton (2004:15) defines mental health nursing as *"an interpersonal process in which counselling is aimed at supporting and facilitating healthy lifestyle functioning."*

Although these two definitions appear to be quite different they do address the same issues. The *"use of self"* implies an *"interpersonal process"* and to be able to facilitate functioning according to a healthy lifestyle the nurse needs to employ theories of human behaviour. In order to get clarity on this concept it will be more useful to examine the role of the mental health nurse, especially where early detection or screening for mental illness is concerned.

## **2.8.1 The role of the mental health nurse**

The description of the role of the mental health nurse can be done under the categories of Primary, Secondary and Tertiary Prevention. Primary prevention is aimed at decreasing the incidence of mental illness, secondary prevention at the early detection and effective treatment of mental illness and tertiary prevention is aimed at rehabilitation. (Uys & Middleton, 2004:42) The categories of primary, tertiary and secondary prevention should not be confused with Primary, Secondary and Tertiary health care which refers to the level of specialisation in the service.

### ***2.8.1.1 The role of the mental health nurse in primary prevention***

The main objective of primary prevention is to prevent the occurrence of mental illness. In pursuing this goal there are different approaches as well as techniques. These can be aimed at the individual, families, groups, communities as well as nations.

Specific activities include:

- health teaching;
- assisting patients in a general hospital setting to avoid future problems;
- developing life skills;
- identification of high risk groups and implementing appropriate actions;
- effecting changes in improved living conditions;
- combating poverty;
- making appropriate referrals before mental illness occurs, based on assessment of potential stressors; and
- being involved in political activities related to mental health (Stuart & Laraia, 2001:222; Uys & Middleton, 2004:43).

### **2.8.1.2     *The role of the mental health nurse in secondary prevention***

Considering that the main objective is to decrease the prevalence of mental illness it follows that early detection and treatment are important aspects of secondary prevention. Again the specific activities include:

- intake screening and evaluation;
- emergency treatment and psychiatric services in the general hospital;
- providing a therapeutic milieu;
- supervising patients receiving medication;
- suicide prevention;
- crisis intervention; and
- intervening with communities and organisations based on an identified problem.

As in the case of primary prevention these activities can be aimed at individuals, groups, communities and nations (Stuart & Laraia, 2001:217; Uys & Middleton, 2004:46).

### **2.8.1.3     *The role of the mental health nurse in tertiary prevention***

The effect of mental illness can be devastating, not only for the patient but also the family. This is further complicated by the stigma attached to mental illness. The objective is to assist the patient and the family in helping the patient to attain the highest level of functioning possible.

Specific activities include:

- Increasing skills;
- increasing support;
- manipulating resources;
- optimising symptom control;

- education of the public in general; and
- promoting vocational training (Stuart & Laraia, 2001:223; Uys & Middleton, 2004:48).

## **2.8.2 Mental health nursing in Primary Health Care service**

Considering the definition of PHC, the role of the mental health nurse and the fact that in 1990 34% of all DALYs were lost due to behaviour related diseases, it follows that the role of mental health nursing in PHC is invaluable. Be that as it may, looking at what PHC is and how nurses and mental health slot in should be enlightening.

### **2.8.2.1 *The role of the nurse in PHC***

Nurses are the most universal members of the multi-disciplinary primary health team. In South Africa they constitute 67.8% of all health workers. With the change to primary health care it has become necessary for nursing to change to accommodate the altered needs of the health delivery system (Dennill *et al.*, 1995:21). It then follows that nurses play a vital role regarding the collection of information as well as the implementation of programs in primary health care.

Considering the role and activities of mental health nursing discussed in 2.8.1 many of these activities are compatible with the concept of comprehensive primary health care. E.g. the development of life skills and the development of confidence in own abilities are clearly linked to the role of the mental health nurse.

The screening for mental illness in the PHC setting does not lie exclusively within the domain of the nurse but the following aspects which have already been mentioned indicate the vital role that nurses play in this regard:



- nurses are the main role-players in PHC in regard to numbers and distribution;
- nurses are ideally situated to collect information on which priorities and programs are to be based; and
- the role of the nurse in screening for illness is part of their practice.

### ***2.8.2.2 Challenges for nurses in PHC***

When considering the diverse roles the nurse must play in PHC it is obvious that this is a very tall order. The challenges are many and diverse.

In **Chapter 1** the workload of the nurses working in the PHC clinics was explained. To see an average of 4.2 patients per hour is a tall order. The PHC Progress Report of the Department of Health (DoH) (2000:14) notes that the attendance to clinics has improved. In itself this is good news but it just adds to the workload of the PHC nurse.

Furthermore one should consider the diversity of complaints that are presented at PHC facilities. This means coping with the whole spectrum of physical conditions – throughout the life span – as well as mental health issues, including substance abuse (Department of Health, 2000:6). In its set of norms and standard for PHC the Department of Health (DoH) considers the possibility that health care staff might not have the necessary skills, but states that it is the staff's responsibility to address any lack of skills and knowledge.

The lack of adequate trained people at PHC clinics becomes clear when observing the figures on the number of full-time Primary Health Care Nurses (PHCN) at each clinic. Four provinces had 50% or more PHCN's at the clinics and two provinces had 0% with the average lagging at 35% (DoH, 2000:14).

The integration of mental health at PHC level, the increased attendance as well as the lack of skills create immense challenges for these nurses.

## **2.9 SCREENING FOR MENTAL ILLNESS IN BLACK PATIENTS IN PHC SETTINGS**

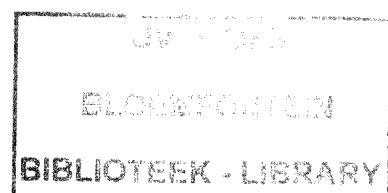
The objective of the screening instrument is not to identify specific mental illness, but to identify the presence of a mental health need. On the other hand screening for an illness implies that there are certain criteria to look out for which act as indicators of what is being screened for. In the case of mental illness these indicators could be a blend of the clinical features of mental illness as well as the methods in which people present with their mental illness.

### **2.9.1 Pathology to be identified**

When developing a screening instrument the types of illness that is to be identified should be clarified so that the indicators for the illness can be identified. The presence of mental illness in Africa has already been discussed but now the specific types of mental illness found in PHC need to be looked into.

### **2.9.2 Prevalence regarding types of mental illnesses in Africa**

Accurate data on the prevalence of mental illness as well as the specific types of mental illness in Africa are not available. Studies into the prevalence and types of mental illness have been done on a small scale. Using these studies and other statistics broad categories of mental illness that should receive priority may be identified. This is especially important when considering that the more obvious mental disorders like the psychotic disorders, have always been readily identified.



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Harding *et al.* (1980) studied 255 cases, attending PHC facilities, in developing countries. The types of mental illness among these cases are depicted in Table 2.5.

**TABLE 2.5: Types of mental illness detected in developing countries**

DIAGNOSIS (according to ICD-8 diagnostic criteria)	% OF MENTAL ILLNESS
Depressive neurosis	48.6
Anxiety neurosis	30.9
Other neurosis	8.3
Schizophrenia	3.1
Mental retardation	2.1
Affective psychosis	1.7
Others	5.2

These figures clearly indicate the need to identify the less obvious mental illnesses like the depressive and anxiety neurosis.

De Jong, *et al.* (1986:29) found similar results in PHC facilities. This sample was much smaller, comprising of only 57 patients.

Reeler (1987:16) summarises different studies and the most prevalent mental illness alternate between depression and anxiety with alcohol abuse the next most important problem.

Statistics by the American Psychiatric Association indicate the following epidemiological trends:

**TABLE 2.7: Epidemiological trends in mental illness**

<b>MENTAL ILLNESS</b>	<b>EPIDEMIOLOGY</b>
Depressive disorders	10-25% for women 5-12% for men
Dysthymic disorders	6%
Bipolar disorder	3%
Anxiety disorders	25% of all people at least once 30.5% of women with a lifetime prevalence 19.2% of men with a lifetime prevalence
Cognitive disorders <ul style="list-style-type: none"><li>◦ Delirium</li><li>◦ Dementia</li></ul>	These statistics relate to hospitalised patients and not the general population Disease of the aged - prevalence increases with age 5% of people over 65 years 20% of people over 80 years
Schizophrenia	1% of the population

(Sadock & Sadock, 2003)

It must be remembered that these figures do not indicate the situation in Africa, but as already mentioned there are indications that the incidence of mental illness in Africa does not differ dramatically from Western figures.

Taking these figures as well as those of Desjarlais (discussed in 2.2) into consideration the indications are that the focus should be on the Mood Disorders, specifically depression and the Anxiety Disorders.

### **2.9.3 Clinical features of relevant mental illness**

The objective of this study is not to identify specific mental illnesses but to indicate that mental illness is present. Therefore the focus should be on clinical features that act as indicators of mental illness. These indicators can assist in the development of a screening instrument.

As stated in 2.4.3.3 the focus will be on depression and anxiety and their clinical features.

Clinical features of depression according to the Diagnostic and Statistical Manual of Mental Disorders, ed. 4 (2000 in Sadock & Sadock, 2003:542).are summarised as follows:

- Depressed mood and loss of interest - key symptoms
- Depressed mood - patients. say - feel worthless, blue, worthless, hopeless
- 2/3 patients think of suicide and 10 - 15% commit suicide
- Withdrawal from family and friends
- 97% reduced energy - difficulty in finishing tasks, impaired in work or school tasks, lower motivation to initiate tasks
- 80% sleep problems - terminal or intermittent insomnia and hypersomnia
- Decreased appetite or increase in weight
- 90% anxiety
- 67-84% complain of inability to concentrate
- psychomotor agitation or retardation
- Feelings of worthlessness and irrational feelings of guilt

Clinical features of anxiety, according to the Diagnostic and Statistical Manual of Mental Disorders, ed. 4 (2000 in Sadock & Sadock, 2003:602) are summarised as follows:

- Panic attack:
  - ⇒ palpitations, accelerated heart rate
  - ⇒ sweating
  - ⇒ trembling or shaking
  - ⇒ sensations of shortness of breath or smothering
  - ⇒ feeling of choking
  - ⇒ chest pain or discomfort
  - ⇒ nausea or abdominal distress
  - ⇒ feeling dizzy, unsteady, light-headed or faint
  - ⇒ derealization or depersonalization
  - ⇒ fear of losing control or going crazy
  - ⇒ fear of dying
  - ⇒ paresthesias

- ⇒ chills or hot flushes
- Phobias, most commonly agoraphobia

Interesting to note is that many of these symptoms appear to indicate a physical condition.

## **2.10 SUMMARY**

Mental illness plays a much more important role in the health of any community or country than is thought. It usually receives less funding and status than other physical illnesses even though its impact is bigger. This is possibly because of the manner in which health statistics have been drawn up. The situation in Africa has an added problem that many mental illness, specifically depression and anxiety have been under identified, even though the patients present themselves at PHC facilities.

A major factor which influences the detection of mental illness in black people is that they do not present with symptoms indicative of mental illness but with somatic complaints which causes the health workers to pursue a wrong line of treatment. The result is that these people do not get the relief they need.

Doctors and especially psychiatrists are scarce in PHC facilities and the slack is picked up by the nurses. Often these nurses do not have any training in mental health which adds to the whole problem of lack of identification of mental illness.

# CHAPTER 3

## *Research design and methods*

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### 3.1 INTRODUCTION

In the previous chapter a literature overview was presented which indicated the need for an instrument to identify mental illness among black patients attending PHC facilities. This chapter aims to describe the research design, methodology, and techniques that were used in the development and evaluation of the proposed instrument.

### 3.2 THE PURPOSE OF THE STUDY AND IT'S RELATION TO THE DESIGN

**Chapter 1** explains that the purpose of the study is to design an instrument to identify mental illness among black patients in the PHC setting. The research process has two different phases. **Phase A** consists of the development of the instrument and **Phase B** is the assessment of the instrument.

### 3.3 DESIGN OF THE STUDY

Research design is described as the overall plan for getting the answers to the research questions and is an indication of the strategies used to develop the information (Polit & Hungler 1993:129). Uys and Basson (1991:40), agrees with this statement and adds that it is the structural framework within which the study is implemented.

In this study a non-experimental design which aims to explore, describe, develop and assess was used.

### **3.3.1 Explorative**

Exploratory research is conducted to gain new insights and increase knowledge of a phenomenon (Burns & Grove, 2001:374; Uys & Basson, 1991:40). This design is used when there is very little known about the topic. This method guides the collection of additional information on which to base the development of Part I of the instrument.

### **3.3.2 Descriptive**

According to Burns and Grove (2001:248) a descriptive research design is aimed at an accurate portrayal or account of characteristics of a particular individual, situation or group. Uys and Basson (1991:41) note that the most important consideration of a descriptive study is to collect accurate data on the topic. The descriptive design was used to describe those indicators/cues which indicate the presence of a mental illness in a black patient attending a PHC facility. This information formed the basis for the development of Part I of the instrument. The disadvantage of the descriptive and explorative designs is that they do not indicate any relationships between the relevant phenomena, but they do provide the knowledge base for correlational studies.

## **3.4 SUMMARY OF THE PROCESS FOLLOWED**

The research was done in two phases. **Phase A** consists of the development of the instrument and **Phase B** is the assessment of the instrument.

### **Phase A**

#### ***Development of Part I***

In the development of Part I of the instrument different research techniques were used.



- A literature survey was conducted to facilitate an understanding of the area under study and to obtain information on which to base the instrument. This has been discussed in **Chapter 2**.
- An audit of patient records was done to obtain further information on which to base the instrument.
- A focus group interview was conducted with registered nurses working in the PHC setting to obtain from them any information which could assist in the development of the instrument.
- These three sources provided the data according to which the indicators of mental illness were identified and were then triangulated to form the basis on which Part I of the instrument is based.

### ***Development of Part II***

The SRQ was adapted to counteract the reported concerns where questionable “yes” answers were given. The first draft of the instrument was then sent to a panel, of experts using the Delphi technique, to enhance its face, content and construct validity.

After making alterations according to the feedback of the panel of experts the final draft of the instrument was then subjected to clinical assessment and the data analysed.

### **3.5 PHASE A: DEVELOPMENT OF THE INSTRUMENT**

As already explained Phase A of the research, involves the development of the instrument.

### 3.5.1 Development of Part I of the instrument

Although there is abundant literature on the lack of detection of mental illness among black people, information on which to base the development of Part I of the instrument is very limited. The broad aspects encountered are as follows:

- Reeler (1993:6) states that when patients complain of three or more body systems or incongruent symptoms it can be an indication of mental illness. The following systems which are commonly complained of are, musculo-skeletal, neuro-physiological and gastrointestinal.
- Informal discussions with nurses working in PHC reveal that they have noticed that certain patients have vague complaints and that these patients keep on returning to the clinic. After about five to six visits they have discovered that these patients have emotional problems.
- One nurse mentioned that she often sees patients that she feels would not have attended the clinic if they had to pay for the service and this could be an indication that the patient has mental health needs.

It was thus necessary to develop a broader knowledge base which can be used to develop Part I of the instrument.

The techniques used in the development of Part I of the instrument were, a survey of the relevant literature, an audit of patient records, a focus group interview and triangulation of the data.

In research it is important to strive for excellence, i.e. rigor. Burns and Grove (2001: 38-39) explain that rigor is related to precise adherence to detail and accuracy. Each technique used is described as well as the measures that were taken in striving towards rigor in each case.

### **3.5.1.1 Literature review**

There are several reasons for reviewing the relevant literature. It can be used to obtain a thorough background or understanding of available information related to the topic. Researchers must build upon previous works of others and in the end relate their findings to that of other researchers (Burns & Grove, 2001:107).

A literature review was done to determine whether there were aspects which have already been identified that could act as cues indicating that patients who present with somatic complaints were in actual fact suffering from a mental illness. The literature review was done in a systematised way and needed to address the following issues. The current knowledge of the topic, any limitations to the knowledge or contradictions in the knowledge, if any, whether there is any significant debate on the issues as well as the relationships between the main concepts (Burns & Grove, 2001:108).

The literature was obtained via the services of a subject specialist librarian of the SASOL Library at the University of the Free State. Databases that were used were *Index Medicus* and MEDLINE.

### **3.5.1.2 Patient record audit**

An audit of patient records was done to examine the reasons for referral as well as the reason why the patient was seeking help. These reasons could reveal information on ways in which patients indicate the presence of mental illness.

The records in question were those of black patients who have been treated for non-psychotic mental conditions. The exclusion of the psychotic conditions is because these conditions are easily detected. The audit of the records focused on the presenting problem, i.e. the problem with which the patient presented to the clinic for assistance and the reason for referral. From the

way these patients presented their problems cues as to common somatic complaints or any other signs could be found.

#### **3.5.1.2.1 Sources of patient records**

Three main sources were used. The first is that of the Free State Psychiatric Complex. The Free State Psychiatric Complex is a state psychiatric hospital and the only psychiatric hospital in the Free State as well as the primary location to which patients from the PHC facilities are referred.

The other two are the psychiatric clinics at the Thusong and Batho clinics. Although psychiatric services have been integrated there are still one or two clinics that have a separate psychiatric service. Thusong and Batho are the largest of these clinics in the Bloemfontein area.

All patients treated for mental illness at the Free State Psychiatric Complex and the Thusong and Batho psychiatric clinics are given a psychiatric assessment. This assessment is done according to the psychiatric assessment form of the Department of Psychiatry at the University of the Free State which includes asking the patient to state why he/she has come for psychiatric help. This part of the assessment also encourages the assessor to state the patients exact words, if possible. It is from this part of the patients' records that the relevant information was found.

There could also be some form of communication from the health worker making the referral to these sources. The information stated in the psychiatric assessment as well as any information mentioned in the referral was the target of the audit.

### **3.5.1.2.2      *Population and sampling of patient records***

Defining the population of a study enables the researcher to define the people that are relevant to that specific research. This ensures that the relevant aspects are examined. In defining a population the criteria for inclusion must be stated (Burns & Grove, 2001:48).

The population is all black adults who have been treated for a non-psychotic mental illness in the Bloemfontein area.

The sample is a subset of the population selected for investigation. Sampling of elements to be studied includes aspects of type and method of sampling as well as the sample size (Burns & Grove, 2001:39).

Purposive sampling was used. Purposive sampling is described as “... *the conscious selection by the researcher of certain subjects or elements to include in the study*” (Burns & Grove, 2001:376). The objective or purposive sampling is to seek out specific subjects in order to increase theoretical understanding of a facet of the field of study.

Sampling of patient records was based on the following criteria

- Age - the patient must be 18 years or older. The reason for excluding is two fold. Although children do have mental illnesses that are comparable to those of adults there are differences in which these illnesses manifest, e.g. in Mood disorders children will present with somatic symptoms than a feeling of sadness (Sadock & Sadock, 2003:1276). The ways in which children enter the health care service may be influenced by their parents. These two factors add variables which could render the results of the study useless.

- Diagnosis - the patient must have been referred for psychiatric treatment for a non-psychotic disorder. As stated earlier the identification of psychotic conditions is not as big a problem and the symptoms are more explicit.
- Time frame - the most recent records were taken first to ensure against a possible alteration of assessment policies that might impact on the way in which patient records are kept.

The sample size was determined by the availability of the information in the patient records as well as saturation of data. After saturation was reached a total of 286 records had been audited – 203 in the two clinics which render a psychiatric service and 83 at the Outpatients Department of the Free State Psychiatric Complex.

Many of the records could not be used for this study because the patient profiles did not fall into the scope of this study.

Exclusion factors:

- Diagnoses
  - ❖ Psychosis
  - ❖ Substance abuse
  - ❖ Dementia
  - ❖ Epilepsy
- Age group – must be older than 18 years.
- Lack of information
  - ❖ Diagnosis unavailable
  - ❖ No record of presenting complaints
  - ❖ No record of somatic complaints

A total of 47 records were found to be of value to the study.

### **3.5.1.3 Focus group interview**

The development of focus group interviews was the result of the need to obtain the perceptions of participants in a focused area in the least threatening manner and has been used in the development of instruments (Burns & Grove, 2001:424-425).

In a further attempt to obtain information on what complaints patients might present with that indicate the presence of mental illness a focus group interview was conducted with nurses working in PHC. As previously mentioned informal discussions with these nurses indicated that they are aware of certain trends in the manner in which patients may present with mental illness. The focus group interview was aimed at obtaining additional cues to the presence of mental illness in addition to that of the literature and the patient records.

#### **3.5.1.3.1 Population and sampling**

The population is all nurses working in a primary health care service which caters mainly for black patients in the Bloemfontein area. There are seven main clinics involved, Thusong, Thusanong, Kagisanong, Mabana, Pelonomi, Batho and the clinic at the Mangaung University Community Partnership Program (MUCPP).

For the sampling of respondents the principle of purposeful sampling was used. The inclusion criteria were:

- registered nurses working in primary health care settings and
- who were willing to participate in the focus group interview.

The group consisted of nine members. The recommended size for a focus group interview is between six to ten participants. Less than six does not give

enough discussion and more than ten inhibits the full participation of each member (Burns & Grove; 2001:425).

### **3.5.1.3.2 Rigor**

As this part of the research design is qualitative in nature it is important to ensure rigor in the research design. The main aim is to establish trustworthiness and to achieve this, four criteria are to be met (Guba & Lincoln, 1981 in Krefting, 1991:215).

- Credibility is ensured by accurate description and identification of the research participants (Koch, 1994:977). As indicated the research participants were nurses working in a PHC facility.
- Transferability, especially when purposive sampling is used, is ensured when the participants fulfil the study needs (Holloway 1998:166). The participants are nurses who are confronted daily with the clients in the PHC setting for whom the instrument is being designed.
- Dependability is achieved by the process being audited (Koch, 1994:977). As this study had two supervisors who are both experienced researchers these criteria were met.
- Confirmability results from clear links between conclusions and interpretations and the raw data. Again the supervision of this study will ensure this.

### **3.5.1.3.3 Procedure of the focus group interview**

The relevant aspects to take into consideration are:

- Selection of group members;
- venue and time;
- recording;



- interviewer; and
- process.

#### **3.5.1.3.3.1 Selection of group members**

At a monthly training session for registered nurses of the Municipality of Bloemfontein the researcher approached the attending nurses. The municipality manages most of the PHC clinics in the Bloemfontein area. The object of the research was explained to them and their co-operation requested. A paper was circulated and all interested nurses were requested to give their names and contact information. At the same time they were guaranteed that giving their names was in no way an indication that they would participate, but merely that they gave the researcher permission to contact them. After contacting the interested nurses a final group of nine nurses were willing and able to participate in the focus group interview.

Co-incidentally all the group members were black. This is not surprising as the majority of registered nurses working in the community with primarily black clients are black.

#### **3.5.1.3.3.2 Venue and time**

The group interview was conducted in the video recording studio of the School of Nursing at the University of the Free State. The studio has built in cameras as well as audio facilities and the recording equipment is located in a room leading off the studio. The studio is also private and made this a very convenient arrangement.

The most convenient time was on a Friday afternoon after the nurses had completed another training session at the Municipality offices.

#### **3.5.1.3.2.3 *The interviewer***

The interviewer was an experienced mental health nurse who has extensive experience in group work. The interviewer was also selected because she is black. This was done to help the group members feel more comfortable. She was briefed as to the objective of the focus group interview.

#### **3.5.1.3.2.4 *Conducting the focus group interview***

The group members and the interviewer were given a light lunch by the researcher in order to break the ice a little and give the members the opportunity to get to know the interviewer. The lunch was served in the same audio-visual studio and the group members as well as the interviewer had a little time to become accustomed to the cameras. Most of the members knew the interviewer and it turned out to be a relaxed lunch.

When the group started the members were briefed about the problem of lack of detection of mental illness and asked to identify any indicators they had experienced that could indicate that the way in which clients presented themselves was an indication of mental illness. The question they were asked was: *“What have you noticed that could indicate that a patient might have a mental health problem and not a physical one?”*

#### **3.5.1.3.2.5 *Recording***

The group was recorded audio-visually. This allowed the researcher to record any pertinent non-verbal communication as well as all the verbal communications.

There were two cameras trained on the group so all participants could be viewed either frontally or laterally. These cameras are near the roof and not obtrusive. Obviously the members were informed of all the recording devices and their permission to record the session was obtained in advance.

#### **3.5.1.3.2.6 Data analysis**

The data from the focus group interview was analysed as follows and is based on the principles of analysis described by Creswell (1994:155).

The steps used were:

- To gain an understanding of the whole the transcript was read through.
- Next the cues that indicated mental illness were listed.
- These cues were then placed into categories of similar symptoms.

Afterwards the data was triangulated with the data gathered from the literature as well as the patient record audit.

#### **3.5.1.4 Triangulation of data**

The information gleaned from these three techniques, i.e. literature review, patient record audit and focus group interview formed the basis on which Part I was based. Through a process of data triangulation the most important indicators were extracted and incorporated in Part I of the instrument. This has been described in **Chapter 4**.

### **3.5.2 Development of PART II**

Regarding the second part of the instrument there are many instruments that evaluate whether people have mental illness or not. The Self-Reporting Questionnaire (SRQ) was developed especially to assist PHC workers in discriminating between people suffering from mental illness and those suffering from physical illness. Although a study done by Kortman (1987:563-570) indicates certain problems in this instrument an adapted version, which attempts to counteract these problems, of this instrument was used as the basis for developing Part II of the instrument.

In spite of the problems encountered by Kortman the SRQ has been used with success in several studies (Thom et al., 1993:654, Reeler, 1993:2 and Bhagwanjee et al. 1998:1138).

### **3.5.2.1 Concerns of the SRQ**

The Self Reporting Questionnaire (SRQ) was developed by the World Health Organisation specifically to enable primary health care workers with limited training to distinguish between patients who are physically ill, and those whose mental illness is disguised by physical symptoms (Kortman, 1987:75) (see Table 3.1).

Kortman (1987:75) implemented the SRQ in Ethiopia and describes certain problems regarding this instrument and put them into three categories, language, motivation and conceptual difficulties. Some examples of the problems under each category are:

- Language. The question *“Do you feel unhappy?”* was associated with mourning and respondents thought it was only applicable after having suffered a loss due to death.
- Motivation: In seven percent of all *“Yes”* answers the respondents could not motivate their choice and it was assumed that there was another motive other than the presence of the symptom.
- Conceptual difficulties: The question *“Is your appetite poor?”* in a country where famine is rife will understandably lead to conceptual difficulties.

The instrument was designed to elicit clear *“yes”, “no”* answers, but that can lead to inaccuracies. For example, the question, *“Do you often have headaches?”* is open to differences of interpretation. It begs the question, *“How much is ‘often’?”*

**TABLE 3.1: Self Reporting Questionnaire (SRQ)**

SELF REPORTING QUESTIONNAIRE (SRQ)	
1.	Do you often have headaches?
2.	Is your appetite poor?
3.	Do you sleep badly?
4.	Are you easily frightened?
5.	Do your hands shake?
6.	Do you feel nervous, tense or worried?
7.	Is your digestion poor?
8.	Do you have trouble thinking clearly?
9.	Do you feel unhappy?
10.	Do you cry more than usual?
11.	Do you find it difficult to enjoy your daily activities?
12.	Do you find it difficult to make decisions?
13.	Is your daily work suffering?
14.	Are you unable to play a useful part in life?
15.	Have you lost interest in things?
16.	Do you feel that you are a worthless person?
17.	Has the thought of ending your life been in your mind?
18.	Do you feel tired all the time?
19.	do you have uncomfortable feelings in your stomach?
20.	Are you easily tired?
21.	Do you feel that somebody has been trying to harm you in some way?
22.	Are you a much more important person than most people think?
23.	Have you noticed any interference or anything else unusual with your thinking?
24.	Do you ever hear voices without knowing where they come from or which other people cannot hear?

(Harding *et al.*, 1980:240)

### **3.5.2.2 Proposed changes to the SRQ**

Taking into account the identified concerns of the SRQ, namely that some patients could not motivate their “yes” responses (Kortman, 1987:75) as well as the opinion of experts in the clinical field as well as anthropologists that “yes/no” type questions can lead to inaccuracies, the SRQ was adapted to use ordinal measurement. The objective of the ordinal measurement is to avoid asking “yes/no” type questions.

As stated in **Chapter 1** the workload of the PHC nurses is of such a magnitude that it cannot be expected of them to administer this questionnaire to each patient as it will place an impossibly time consuming load on them. As already stated the instrument developed in this study has two parts. Part I is a

pre-screening instrument to identify patients for further evaluation. In other words Part II of the instrument is not intended to be applied to all patients. Thus the extreme time constraints do not apply in Part II of the instrument and neither do they make the instrument more difficult to administer.

### **3.5.3 Establishing content validity**

*“Content related validity evidence examines the extent to which the method of measurement includes all the major elements relevant to the construct being measured. This evidence is obtained from the following three sources: the literature, representatives of the relevant populations, and content experts”* (Burns & Grove, 2001:400). In striving towards content validity the instrument was based on literature, evidence obtained from a focus group interview, patient record audit, was evaluated by content experts and subjected to clinical assessment. The *Delphi Technique* was used to elicit the responses of the content experts.

#### **3.5.3.1 The Delphi technique**

The method used in obtaining the feedback of the experts was that of the *Delphi Technique*. There are many different definitions of the *Delphi Technique* as the following two definitions indicate.

*“A method of measuring the judgements of a group of experts, assessing priorities or making forecasts”* (Burns & Grove, 2001:795).

*“Questionnaire strategy in which a panel of experts complete consecutive questionnaires generated on the basis of the answer of the previous questionnaires; designed to achieve a consensus among the panel of experts”* (Woods & Catanzaro, 1988:555).

There are however, several characteristics that are common to this technique and are described in different sources:

- A panel of experts are identified to take part in the study;

- This panel is required to give it's opinions on a specific topic;
- The returned answers are summarised and analysed by the researcher and resubmitted to the panel and the panel is again asked to give it's opinions;
- This procedure is repeated till consensus is reached.
- Anonymity of respondents as well as their responses is maintained. (Crisp, Pelletier, Duffield, Adams & Nagy, 1997:1177; Balsmeyer *et al.*, 1996:265; Goodman, 1987:730; McKenna, 1994:730.)

There are many variations to this technique and even though there is agreement that a specific set of features is necessary, the agreement of this set of features is not common, as Crisp *et al.* (1997: 116), so eloquently put it. *"There is no doubt that the Delphi technique and the purposes for which it has been used have been extensively modified by researchers over the years"*.

The application of the *Delphi Technique* in this study as well as the motivation for each step is described.

### **3.5.3.2 Selection and size of the panel**

A panel of six experts was purposively selected. The Delphi technique has been described as having a large panel but Dalkey and Helmer (1963) in Lindeman (1975:435) used a panel of only seven. The criteria for selection were to include experts in the areas of mental health and cultural sensitivity.

The panel consisted of:

- a psychiatrist who had wide experience in community psychiatry;
- a psychologist who has done research in aspects of cultural sensitivity;
- a psychologist who has published extensively on the problems of identification of mental illness in black people on a primary health care level specifically using the SRQ;
- a mental health nurse academic with a lot of research experience;
- an anthropologist; and

- a community mental health care nurse who has had many years of experience in community mental health nursing.

Geographically the panel were located in Bloemfontein, Botswana, Zimbabwe and Kwazulu-Natal.

After the instrument had been developed it was sent to these experts for their assessment regarding its face and content validity as well as its applicability in the clinical field.

The standards for managing feedback from the panel of experts were as follows:

- Where the acceptability of given items was sought four (4) or more positive responses were considered to be acceptable. If four positive responses were not reached a second round of questions would ensue.
- In instances where the panel was asked for comments and these suggestions enhanced the understanding of a question these were integrated into the instrument.
- If three or more members made suggestions that altered the meaning or focus of the instrument (i.e. that it stays a brief screening instrument) or questions in the instrument a second round of questions was done.

As the set standard of consensus was attained after one (1) round, no further rounds were deemed necessary.

### **3.6 PHASE B – ASSESSMENT OF THE INSTRUMENT**

After the instrument had been developed it still needed to be assessed to determine its accuracy and this was done by determining its sensitivity and its specificity (Lilienfeld & Lilienfeld, 1980:151). The clinical assessment of the



instrument was also necessary to indicate what score on Part I indicated the need for further screening and what score on Part II indicated the presence of a mental illness.

There are several criteria to which an instrument must adhere to. It should:

- be easy to implement;
- not take up a lot of time (this was especially important in this case);
- the data obtained in the instrument should serve as basis for further investigation;
- be aimed at the needs and problems of the specific group to which it is being applied;
- be acceptable to the client;
- be structured;
- be valid and
- reliable. (Burns & Grove, 2001:404-448, Abdellah & Levine, 1979:346-345).

The instrument was evaluated in two ways. Firstly a pilot study was done to determine its acceptability and ease of use and secondly it was subjected to clinical assessment. Before that could be done it had to be translated into Sotho, which is the most commonly used black language in the Bloemfontein area.

### **3.6.1 Translation of the instrument**

Firstly the instrument was translated into Sotho by a Sotho speaking nurse academic and then it was given to another Sotho speaking nurse, to translate it back into English, i.e. back translation. There were a few discrepancies in the translation and both translators were then brought together and they thrashed out the final translation.

### **3.6.2 Pilot study**

The instrument was administered to ten patients, to determine its ease of use and acceptability to the respondents. The pilot study was done by two different nurses and neither they nor the patients expressed any problems with the instrument.

### **3.6.3 Clinical assessment**

The purpose of the clinical assessment is to determine whether the instrument can be used to accurately screen for mental illness and also determine the values which indicate either the necessity of further screening (Part I) or the presence of mental illness (Part II).

#### **3.6.3.1 *Population and sampling in the clinical assessment***

The population consisted of all black adults who attend PHC services in the Bloemfontein area.

Two types of sampling were involved.

- Sampling of the PHC facilities that were used, and
- Sampling of the respondents at these facilities.

Sampling of the PHC facilities was based on the principle of convenience sampling. The PHC clinics were selected on the basis of the availability of registered nurses who were willing to assist with the fieldwork. The clinics involved were, Thusong, Pelonomi and Batho.

Sampling of the respondents was random and based on the following inclusion and exclusion criteria.

- Inclusion criteria:

- Black adults who attend the clinic for a minor ailment.

- Exclusion criteria:

- People who attend the clinic for follow up of another condition,

- People who are already receiving treatment for a mental illness, and

- People who exhibit signs of psychosis.

### *Motivation for the exclusion criteria*

As stated earlier, black people attend PHC facilities complaining of somatic complaints, when in fact they are suffering from a mental illness. If a person already has an appointment to visit the clinic for a follow up this person already has a reason for visiting the clinic and does not target the desired group.

#### **3.6.3.2 Sampling procedure of respondents**

In the clinics used in the study registered nurses are allocated to specific sub services, e.g. prenatal, diabetes and minor ailments. The registered nurses who assisted in the fieldwork were allocated to the sub service for minor ailments. Each clinic involved in the clinical assessment was issued a container with laminated discs numbered from 1-100. On the day that respondents were to be sampled for evaluation the registered nurse would see how many patients had arrived and take those laminated numbers after which a number would then blindly be picked from the container. If, for example, there were 25 patients to be seen the first 25 laminated numbers were taken in put into a bag and then if the selected number was eight, the nurse asked the eighth patient seen, whether he/she was willing to participate in the study. When the eighth patient was not willing to participate, or did not

comply with the selection criteria, then the next patient was approached until a willing, applicable participant was found.

### **3.6.4 Sample size**

The sample size was planned to be 100. With an expected prevalence of psychiatric disorders of 30% a sample of 100 respondents would ensure that there are 30 participants in the group with psychiatric disorders. This number is considered large enough to make useful deductions.

Unfortunately some unforeseen problems arose and the final sample size was 44. A description of the problems encountered as well as attempts to remedy these problems has been described.

#### **3.6.4.1 *Problems in getting the desired sample size***

The problems seemed to fall into two categories, namely communication or organizational and co-operation of fieldworkers.

As regards to the organizational problems the following incidents took place. On prearranged dates when the researcher had arranged with the fieldworker to collect two respondents, to take to the Free State Psychiatric Complex for the referral assessment by a mental health specialist, the respondents had left the clinic. Days when there were mental health specialists available to do the referral assessment there were no fieldworkers allocated to the minor ailment sub service or the clinic was closed for administrative reasons.

In the one clinic where a mental health specialist was available and it was not necessary for the researcher to transport respondents to a mental health specialist, several files with questionnaires as well as the money for the respondents were left with the fieldworkers to identify the respondents and send them through to the mental health specialist. When the researcher went

to collect the hopefully completed files it was found that most of the files had disappeared and the research had effectively ground to a halt for that period.

Concerning the fieldworkers some often said that they could not find patients who were willing to take part in the study. This usually happened on a day when mental health specialists were standing by especially to do the referral interview. Some of the fieldworkers did not experience these problems. In fairness it must be said that the workload of the nurses in the clinics is very high.

#### **3.6.4.2      *Attempts at solving the problems***

In the beginning the fieldworkers were asked to participate and no remuneration was mentioned. When the problems arose financial incentives were given to them but this did not seem to solve the problem. Other fieldworkers were recruited with limited success.

After 30 respondents' data had been analysed there was an indication of a relationship between the referral score and the scores achieved on Part I of the instrument. This relationship was however not sufficient to conclude the study. Although a larger sample size would have been preferable time constraints intervened and the decision was made to decrease the sample size. The achieved sample was 44.

#### **3.6.5      Procedure of the clinical assessment**

The manner in which the instrument was subjected to clinical assessment is described here. Before a description of the procedure can be done the manner in which the procedure for implementation of the instrument was envisaged needs to be described.

### 3.6.5.1 Envisaged implementation of the instrument

When a patient attends a PHC clinic a nurse routinely asks about the presenting complaint, takes the patients medical history and does a physical examination. After this has been done the nurse fills in Part I of the instrument. It is important to note that the nurse does not put these questions to the patient directly but only to tick off the relevant items if the patient had mentioned them during the routine course of events. If the score achieved by the patient indicates (this score was determined after the data analysis of the clinical assessment) the need for further screening Part II was implemented by asking the questions of the patient.

### 3.6.5.2 Procedure of the Clinical assessment

The days on which the sampling of respondents was done as well as the amount of respondents selected on that day depended on the availability of the mental health specialist. On a day when there a mental health specialist was available the PHC nurses were asked to select either one or two patients, depending on the schedule of the mental health professional. This selection was done according to the sampling procedure described in 3.5.2.2. Before commencing with the routine consultation the purpose and procedure of the research was described (according to the information on the Respondent consent form – **Annexure 7**) to the respondents and they were asked if they were willing to participate in the study. After indicating their willingness to participate they were requested to sign the Respondent consent form confirming their decision. A fee of ten rand was given to them to compensate them for the inconvenience.

The registered nurse then implemented Parts I and II of the instrument. The completed instrument was then sealed in an envelope before the respondent proceeded to the mental health specialist to be assessed for a mental illness. For the purposes of this study this assessment was termed the **referral assessment** and consisted of the standard psychiatric assessment of the

Department of Psychiatry at the University of the Free State. Upon completion of the assessment the mental health specialist was requested to indicate the respondents' need for treatment for a mental health problem (**Annexure 9**). They were expected to indicate whether the referral was either, critical, necessary, of some use or of no value at all. In the event that were the referral was deemed to be important and that psychiatric treatment was needed the nurses who did the initial assessment were informed and arrangements for psychiatric treatment was made. This was done because it is unethical to discover a problem without giving the respondent an avenue of assistance.

If there was a mental health professional available in the clinic the respondents were assessed at the clinic and then sent through for the referral assessment. When there was no mental health professional available at the clinic the researcher took the respondents to an available mental health specialist for assessment after which the researcher either took them back to the clinic or sometimes dropped them off at their homes.

### **3.6.6 Reliability and validity**

Reliability refers to consistency in measurement, whereas validity indicates whether the measurement is in fact measuring that which it purports to be measuring (Burns & Grove, 2001:395-400; Uys & Basson, 1991:82-90).

#### **3.6.6.1 Reliability**

Factors that could influence the reliability was, comprehension of the instrument, differences in the application of the instrument by the registered nurses and differences in the judgements of the mental health specialists after the referral assessment.

The possibility of problems in understanding the instrument was counteracted by the pilot study which indicated that the nurses as well as the respondents did not experience any problems in this regard.

The interrater reliability in the implementation of the instrument among the registered nurses was enhanced by giving them a through explanation of the methods to be employed as well as written instructions. (**Annexure 10**)

The drive towards interrater reliability in the referral assessment was based on two aspects. First the mental health specialists were selected for their experience in assessment of patients and judgement regarding the presence of mental illness and second they all used a standard format (the psychiatric assessment of the Department of Psychiatry of the University of the Free State) which they use on a regular basis in their work.

### **3.6.6.2      *Validity***

The steps taken to enhance the validity of the instrument were:

- Triangulation of the data between the literature, focus group interview and record audit. By basing the content of Part I of the instrument on a triangulation of three different sources that directly involved in the construct being studied content validity was enhanced.
- Application of the Delphi technique. Getting the input of a panel of experts also enhanced the face and content validity of the instrument.
- Exclusion of irrelevant respondents. Clear guidelines were set which ensured that only the relevant persons were included in the clinical assessment which enhanced construct validity.
- Statistical analysis of the clinical assessment. The statistical analysis of the clinical assessment gave evidence of the construct validity.



### 3.6.7 Data analysis

The data analysis was done by the Department of Biostatistics in the Faculty of Health Sciences at the University of the Free State. **This analysis determined what the cut-off value was for Part I which indicated the need for further screening by Part II and what the value was on Part II that indicated the presence of mental illness.**

#### *Statistical analysis*

Demographic characteristics of participants were summarized by frequencies and percentages. A total score of positive items was calculated for Part 1 and summarized by the median and range. The Part 1 score per referral assessment result was also summarized by medians.

To determine the value of each item in Part I as an indicator of the need for psychiatric evaluation, the sensitivity and specificity of each item was calculated, using the result of the referral assessment (categorised as 1 and 2 versus 3 and 4) as the gold standard. Logistic regression on all items with an association with the gold standard (p-value <0.10) was performed to determine which set of items are independent predictors of the need for psychiatric evaluation.

To determine the value of the total score in Part I as an indicator for psychiatric evaluation, the sensitivity and specificity of each cut-off value of the total score was calculated, using the result of the referral assessment (categorised as 1 and 2 versus 3 and 4) as the gold standard .

The total of Part II was determined by adding the scores for each item. Items 2 and 3 were first recoded as 1 (not present) and 2 (present). Item 19 was excluded due to a translation inconsistency on the questionnaire. The sensitivity and specificity of each cut-off value of the total score was then

calculated, using the result of the psychiatric evaluation (categorised as 1 and 2 versus 3 and 4) as the gold standard.

Due to the size of the sample percentages may have been rounded off to full percentages. Therefore total percentages may add up to 99 or 100.

### **3.7 ETHICAL CONSIDERATIONS**

The main areas in which ethical issues could play a role were:

- audit of patient records;
- the focus group interviews held with nurses; and
- implementation of the instrument.

#### ***Patient records***

The relevant permission was obtained to gain access to patient records. **(Annexure 3)** Complete confidentiality was maintained, not only as part of the responsibility of a researcher but also in line with the nursing profession.

#### ***Focus group interviews***

The nurses who participated in the focus group interviews did so voluntarily and again confidentiality was maintained. **(Annexure 5)**

#### ***Implementation of the instrument***

The information obtained in the instrument is information that nurses obtain from patients in the normal course of their duties and within their scope of practice. This information was treated in confidence as prescribed by the employer as well as the professional body.

Only people who gave informed consent were involved in the evaluation of the instrument. **(Annexure 7)**

It is unethical to identify a health need in a person and not to assist the person to obtain the needed help. If a respondent was deemed to be in need of mental health care they were given assistance in obtaining the necessary treatment.

The study was submitted to the Ethics Committee of the Faculty of Health Sciences at the University of the Free State. Because the development of the instrument was dependent on information that was obtained during the study there were two submissions to the Ethics Committee. The first is to obtain permission to audit patient records and the second to obtain permission to implement the instrument during which time the instrument was submitted as well (**Annexure 12 and 13**)

### **3.8 CONCLUSION**

The research methods used in this study have been described. In **Chapter 4** the development of the instrument was described.

# CHAPTER 4

## *Development of the instrument*

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### 4.1 OVERVIEW

The methods used in the development of the instrument have been described in **Chapter 3**. In this chapter the data gathered according to these techniques are described as well as the manner in which this data was used to develop the instrument as well as the use of the Delphi technique to establish face and content validity.

### 4.2 DEVELOPMENT OF PART I

The development of Part I of the instrument was based on three different sources of information, literature, record audit and a focus group.

#### 4.2.1 Literature survey

The complete literature survey has been discussed in **Chapter 2** and only a summary of the final aspects which have been taken into consideration in drafting the instrument have been presented here.

The most common presenting complaints found by Hall and Williams (1987:33) were: Abdominal pains, chest pains, cough, general body/joint pains, dizziness, backache, headache, urino-genital complaints and general body weakness.

Reeler (1993:6) states that when patients complain of three or more body systems or incongruent symptoms it can be an indication of mental illness. The following systems which are commonly complained of are, musculo-skeletal, neuro-physiological and gastrointestinal.

#### **4.2.2 File audit**

As stated previously the object of the record audit was to examine patient files of applicable mental health patients to determine whether they presented with physical complaints and what they complained of.

#### **4.2.3 Results of the file audit**

A total of 47 files were found to be of value to the study. A summary of the information in each file regarding, age, gender, diagnosis, and presenting complaints are summarised in **Table 4.1**.

Although Insomnia is not a somatic complaint it was a frequent complaint and it was decided to include it.

**TABLE 4.1: Diagnosis and presenting complaints from patient records (to be continued)**

	AGE	SEX	DIAGNOSIS	PRESENTING COMPLAINTS
1.	34	f	Anxiety Disorder	Chest pain, dyspnoea, peptic ulcer (unconfirmed) tiredness [pt. Has asthma]
2.	52	f	Major Depression	Pain in head and shoulder, swollen stomach, insomnia, coughing, vaginal discharge
3.	39	f	Panic Disorder	Dizziness, mouth feels numb
4.	18	f	Adjustment disorder	Pain in frontal part of head
5.	41	f	Adjustment Disorder	Insomnia, loss of appetite, crying
6.	42	f	Major Depression	Pain in neck, forgetful, short tempered
7.	26	f	Major Depression	Heat on veins of head
8.	31	f	Major Depression	Headache
9.	43	f	Major Depression	Insomnia, headache
10	50	f	Major Depression / Grief reaction	Headache
11	41	f	Major Depression	Headache, lack of concentration, Insomnia
12	20	f	Adjustment Disorder	Insomnia
13	40	f	Major Depression	Tiredness, pain on cheeks, forgetful
14	25	f	PTSD	Headache
15	67	f	Major Depression	Insomnia
16	25	f	Major Depression	Headache, fears cancer, insomnia
17	23	f	Adjustment Disorder	Headaches, itching eyes, painful neck veins
18	26	f	Anxiety Disorder	Palpitations, shivering, sweating dizzy, headache
19	49	f	Adjustment Disorder	Headache – going down face and to (l) nipple, neck tension
20	42	f	Major Depression	Insomnia, headache
21	56	f	Major Depression	Headache, neck stiffness, tired
22	32	f	Major Depression	Headache, stiffness of back and neck , pains
23	26	f	Major Depression	Itching
24	24	f	Major Depression	Headache, dizzy
25	42	f	Major Depression with anxiety	Frontal headache, painful neck muscles, insomnia, palpitations
26	35	f	Major Depression	Headache, emotional numbness
27	42	f	Major Depression with anxiety	Lower back ache, headache, anxiety
28	41	f	Major Depression	Head and neck ache
29	32	f	Adjustment Disorder	Insomnia, loss of appetite
30	24	f	Dysthemia	Headache, general body malaise
31	51	f	Major Depression	Frontal headache, stiff and sore neck, insomnia
32	33	f	Major Depression	Insomnia, headache, dizziness
33	25	f	Post Traumatic Stress Disorder	Headache, insomnia

**TABLE 4.1: Diagnosis and presenting complaints from patient records**

	AGE	SEX	DIAGNOSIS	PRESENTING COMPLAINTS
34	29	f	Major Depression	Frontal headache, insomnia, stiff neck muscles, palpitations
35		f	Major Depression	Headache, insomnia, pain in shoulders, general body pains
36	24	m	Major Depression	Insomnia, lack of concentration
37	23	m	Somatisation	Headache, back and neck pains
38	44	m	Adjustment Disorder	Headache, forgetful
39	38	m	Major Depression	Insomnia, loss of appetite
40	24	m	Major Depression	Pain from chest to hip, painful neck muscles
41	34	m	Major Depression	Aggression, insomnia
42	34	m	Major Depression	"Unusual physical complaints"
43	35	m	Major Depression	Insomnia
44	63	m	Major Depression Anxiety	Cramps in hands, tiredness, insomnia
45	37	m	Major Depression	Headache, tiredness, insomnia
46		m	Major Depression	Headache, insomnia, stiff neck veins
47		m	Major Depression	Headache, insomnia tiredness

Two of the files (numbers 46 and 47) did not give the ages of the patients.

The results were grouped into biographical data, diagnoses and presenting complaints and are reflected in tabulated form.

#### **4.2.4.1 Biographical data**

**TABLE 4.2 Percentages of male and female patients (N=47)**

FREQUENCY	SEX	%	AVERAGE AGE
35	Female	74.5%	36.1
12	Male	25.5%	35.6

The average of all the patients was 35.89 years.

Being a very purposeful selection in a study that has its basic premise that mental illness goes undetected any form of comparison will have no real value. It is however interesting to note the high female to male ratio.

#### 4.2.4.2 Diagnoses

TABLE 4.3: Percentage of recorded diagnoses (N=47)

DIAGNOSIS	FREQUENCY	%
Major Depressive Disorder	33	70.2
Adjustment Disorder	7	14.9
Anxiety Disorder	5	10.6
PTSD	2	4.3
Panic Disorder	1	2.1
Grief Reaction	1	2.1
Dysthemia	1	2.1
Somatisation	1	2.1
<b>Total</b>	<b>52</b>	

The total of the diagnoses is higher than the total of the files because some files indicated two diagnoses. Again comparison with other figures was not useful but there was correlation with the types of mental illnesses detected in other studies in Africa as described in Table 2.6 in Chapter 2. In both instances depression is the most common mental disorder followed by the anxiety disorders.

#### 4.2.4.3 Presenting complaints

The different complaints the patients originally presented with as well as the frequency of each complaint is listed in Table 4.4.



**TABLE 4.4: Percentage of presenting complaints**

COMPLAINT		%
1.	Headache	53.2
2.	Insomnia	44.6
3.	Neck stiffness	21.3
4.	Tiredness	12.7
5.	Lack of concentration	12.7
6.	Dizziness	8.5
7.	Loss of appetite	8.5
8.	Frontal headache	8.5
9.	Pain in neck	6.4
10.	Back ache	6.4
11.	Palpitations	6.4
12.	Pain in shoulder	4.3
13.	Chest pain	2.1
14.	Dyspnoea	2.1
15.	Peptic ulcer (unconfirmed)	2.1
16.	Swollen stomach	2.1
17.	Coughing	2.1
18.	Vaginal discharge (confirmation unknown)	2.1
19.	Numb mouth	2.1
20.	Crying	2.1
21.	Short tempered / aggression	2.1
22.	Fears cancer	2.1
23.	Itching eyes	2.1
24.	Painful neck veins	2.1
25.	Shivering	2.1
26.	Sweating	2.1
27.	Headache which spreads to other areas	2.1
28.	Itching	2.1
29.	Chest pain spreading to hip	2.1
30.	Anxiety	2.1
31.	Unusual physical complaints	2.1
32.	Pain on cheeks	2.1
33.	Cramps in hands	2.1
34.	Heat on veins of head	2.1
35.	General body pains	2.1

There seems to be no other data with which to compare these findings but the high percentage of reported headaches is marked. Insomnia is not a somatic complaint and is a symptom often found in mental illness for example Major Depression and Sleep disorders (Sadock & Sadock, 2003:542, 767).

## 4.2.5 Focus group

The objective of the focus group was to discover trends in complaints by patients in the PHC setting. Because very little is known about the specific indicators or symptoms that may indicate the presence of mental illness, registered nurses working in the PHC setting, were approached to explore their experiences and impressions.

### 4.2.5.1 Results of the focus group

Although the group interview lasted approximately an hour only the first 10 minutes produced the majority of the relevant data. The rest of the time they discussed other problems encountered in the practice. The interviewer repeatedly brought them back to the main topic but no further information was elicited.

The group reached consensus that the indicators of mental illness were:

- Headaches
- Pains all over
- Abdominal pain
- Backache
- Neckache
- Repeated visits to the clinics with different complaints
- Incongruent physical complaints
- Tiredness
- Mode of dress (a "doek") This is a cloth worn around the head. It appeared that the group understood what was said but no further elaboration was made and the researcher is in the dark as to exactly what this means.

## 4.2.6 Design of Part I of the instrument

All three sources were used in designing Part I of the instrument. Through a process of triangulation the most important indicators were extracted and incorporated in this part of the instrument.

### 4.2.6.1 Summary of all indicators

The indicators gathered from the literature, record audit and the focus group are listed here.

- Abdominal pains
- Backache
- Chest pain
- Chest pain spreading to hip
- Complaints encompassing three or more body systems
- Coughing
- Cramps in hands
- Crying
- Dizziness
- Dyspnoea
- Frontal headache
- Gastrointestinal complaints
- General body pains
- General body weakness
- General body/joint pains
- Headache
- Headache which spreads to other areas
- Heat on veins of head
- Incongruent physical complaints
- Insomnia
- Itching
- Itching eyes
- Lack of concentration
- Loss of appetite
- Mode of dress (a "doek")
- Musculo-skeletal complaints
- Neck stiffness
- Neuro-physiological complaints
- Numb mouth
- Pain in neck
- Pain in shoulder
- Pain on cheeks
- Painful neck veins
- Palpitations
- Repeated visits to the clinics with different complaints
- Shivering
- Short tempered / aggression
- Sweating
- Swollen stomach
- Tiredness
- Unusual physical complaints
- Urino-genital complaints
- Vaginal discharge (confirmation unknown)

#### 4.2.6.2 *Exclusion of indicators*

Certain indicators have been excluded for different reasons. The first symptom indicator that was excluded was crying as this is a clear indicator of emotional distress. The object of the instrument is to detect indicators that do not indicate an emotional problem. The second indicator to be excluded was short temperedness or aggression. Again it is not a somatic complaint and it is also a clear emotional indicator.

#### 4.2.6.3 *Categorising of indicators*

In order to make the information more manageable certain of the above indicators have been combined. These combinations group similar indicators or complaints involving similar systems as well as taking Reeler's (1993:6) categories into consideration.

The new categories as well as the indicators of which they are comprised are depicted in **Table 4.5**.

**TABLE 4.5:           Combination of indicators into categories**

<b>CATEGORY</b>	<b>INDICATOR</b>
Head complaints	Headache, frontal headache and heat on veins of head
Neck complaints	Pain in neck, stiffness of the neck, painful neck veins and shoulder pains
General malaise	Tiredness and general body weakness
Urino-genital complaints	Vaginal discharge and impotence
General body pains	Chest pain – spreading to hip, general body pains, cramps in hands, pain on cheeks and headache which spreads to other areas
Gastro-intestinal complaints	peptic ulcer, swollen stomach, abdominal pains

#### 4.2.6.4 Summary of indicator sources

The indicators and their occurrence in the different sources i.e. literature, record audit and focus group are indicated in **Table 4.6**. Each indicator is listed as well as an indication of its origin whether it originates from the literature, record audit and or focus group.

**TABLE 4.6: Indicator sources**

<b>Legend:</b>	
L	= literature
A	= record audit
F	= focus group

INDICATOR	SOURCE		
	L	A	F
1. Head complaints	X	X	X
2. Insomnia		X	
3. Neck complaints		X	X
4. General body pains	X	X	X
5. Lack of concentration		X	
6. Dizziness	X	X	
7. Loss of appetite		X	
8. General malaise	X	X	X
9. Urino-genital complaints	X	X	X
10. Backache	X	X	X
11. Palpitations		X	
12. Gastro intestinal complaints	X	X	X
13. Dyspnea		X	
14. Coughing	X	X	
15. Itching		X	X
16. Numb mouth		X	
17. Itching eyes		X	
18. Shivering		X	
19. Sweating		X	
20. Repeated visits to the clinics with different complaints			X
21. Incongruent physical complaints	X	X	X
22. Cough	X	X	

#### 4.2.6.5 Inclusion of indicators

Three criteria were used to decide which of the indicators to include in the instrument:

- the frequency of appearance in the file audit;
- the occurrence in different studies in literature; and
- presence in all three of the sources.

Indicators that were included in Part I of the instrument as well as the motivation for their inclusion is illustrated in **Table 4.7**.

**TABLE 4.7: Motivation for inclusion of indicators**

INDICATOR	MOTIVATION FOR INCLUSION
1. Head complaints	59.2% occurrence in record audit and is present in all three sources.
2. Insomnia	42.9% occurrence in file audit
3. Neck/shoulder complaints	32.7% occurrence in record audit and in two of the sources
4. Malaise (tiredness)	Occurred in all three sources
5. Incongruent physical complaints	Occurred in all three sources
6. Gastro-intestinal complaints	Occurred in all three sources
7. Urino-genital complaints	Occurred in all three sources
8. General body pains (pain in two or more areas of the body)	Occurred in all three sources
9. Backache	Occurred in all three sources
10. Complaints encompassing three or more body systems	Has been indicated in several different studies

#### 4.2.7 Draft of Part I

In the design of part I of the instrument two main aspects were taken into consideration:

- the problem statement indicated that the reason for the low detection rate of mental illness is because black patients complained of somatic complaints when experiencing emotional distress;

- the main objective of part I of the instrument is to give a brief screening of all patients in order to identify the need for further screening, which is done with part two of the instrument.

In an attempt to save time and stay in line with the concept that black patients use somatic complaints to indicate mental distress it was decided that part I of the instrument will not be administered to the patient but is to be completed by the nurse from information gleaned from the complaints the patients present with as well as the routine physical examination and history taking. The proposed Part I of the instrument is shown in **Table 4.8**.

**TABLE 4.8: Proposed instrument Part I**

***Instructions for use***

The nurse must make a tick behind the appropriate indicator:

INDICATOR	YES	NO
Head complaints		
Insomnia		
Neck/shoulder complaints		
Malaise (tiredness)		
Incongruent physical complaints		
Gastro-intestinal complaints		
Urino-genital complaints		
General body pains (pain in two or more areas of the body)		
Backache		
Complaints encompassing three or more body systems		

**4.3 DEVELOPMENT OF PART II**

Part II of the instrument is based on the Self Reporting Questionnaire (SRQ) that was developed by the World Health Organisation specifically to enable primary health care workers with limited training to distinguish between patients who are physically ill, and those whose mental illness is disguised by physical symptoms. (Kortman, 1987:75) (see **Table 4.9**).

**TABLE 4.9: Self Reporting Questionnaire (SRQ)**

<b>SELF REPORTING QUESTIONNAIRE (SRQ)</b>	
1.	Do you often have headaches?
2.	Is your appetite poor?
3.	Do you sleep badly?
4.	Are you easily frightened?
5.	Do your hands shake?
6.	Do you feel nervous, tense or worried?
7.	Is your digestion poor?
8.	Do you have trouble thinking clearly?
9.	Do you feel unhappy?
10.	Do you cry more than usual?
11.	Do you find it difficult to enjoy your daily activities?
12.	Do you find it difficult to make decisions?
13.	Is your daily work suffering?
14.	Are you unable to play a useful part in life?
15.	Have you lost interest in things?
16.	Do you feel that you are a worthless person?
17.	Has the thought of ending your life been in your mind?
18.	Do you feel tired all the time?
19.	do you have uncomfortable feelings in your stomach?
20.	Have Are you easily tired?
21.	Do you feel that somebody has been trying to harm you in some way?
22.	Are you a much more important person than most people think?
23.	you noticed any interference or anything else unusual with your thinking?
24.	Do you ever hear voices without knowing where they come from or which other people cannot hear?

#### **4.3.1 Concerns regarding the SRQ**

Kortman (1987:75) who implemented the SRQ in Ethiopia describes certain concerns regarding this instrument and put them into three categories, language, motivation and conceptual difficulties. Some examples of the concerns under each category are:

- Language. The question "*Do you feel unhappy?*" was associated with mourning and respondents thought it was only applicable after having suffered a loss due to death.



- Motivation: In seven percent of all “Yes” answers the respondents could not motivate their choice and it was assumed that there was another motive other than the presence of the symptom.
- Conceptual difficulties: The question “*Is your appetite poor?*” in a country where famine is rife will understandably lead to conceptual difficulties.

The concerns mentioned here indicate that the instrument should be customised to each culture and language. This interferes with the standardisation of the instrument, but the aim of the instrument is to give an indication of mental illness and not to act as a fine diagnostic tool.

The instrument was designed to elicit clear “yes/no” answers, which may lead to inaccuracies. For example, the question, “*Do you often have headaches?*” is open to differences in interpretation. It begs the question, “*How much is ‘often’?*” There is no exemplary evidence, but word of mouth evidence from experienced practitioners as well as different anthropologists is considered as motivation of the unacceptability of asking “yes/no” questions. The reason given is that black people will try to give the answer they think the questioner wants to hear. This is seen as a sign of respect and has nothing to do with a lack of truthfulness.

#### **4.3.2 Alterations to the SRQ**

In an attempt to address the concerns described by Kortman, (1987:75) the formulation of the questions in the SRQ has been altered. The altered SRQ is presented in **Table 4.10**.

**TABLE 4.10: Revised SRQ (to be continued)**

1. Do you ever get headaches?	Almost never A few times a month Once a week Everyday
2. Have your eating habits changed?	Eat more Eat less Eat the same as usual
3. How do you sleep?	Sleep well Can't fall a sleep Keep waking up Wake up too early
4. Do everyday things frighten you?	Never Sometimes Often Very often
5. Do your hands shake?	Almost never A few times a month Once a week Everyday
6. Do you feel nervous tense or worried?	Almost never A few times a month Once a week Everyday
7. Do you have stomach problems?	Almost never A few times a month Once a week Everyday
8. Do you have trouble thinking clearly?	Almost never A few times a month Once a week Everyday
9. Do you feel unhappy?	Almost never A few times a month Once a week Everyday
10. Women: Do you cry more than usual? Men: Do you get angry more than usual?	Almost never A few times a month Once a week Everyday
11. Do you enjoy you everyday activities like you used to?	Never Sometimes Often Very often
12. Do you find it difficult to make decisions?	Never Sometimes Often Very often
13. Is your daily work suffering?	Never Sometimes Often Very often

**TABLE 4.10: Revised SRQ**

14. Do you play a useful part in life?	Never Sometimes Often Very often
15. Have you lost interest in things?	Never Sometimes Often Very often
16. Do you feel that you are a worthless person?	Never Sometimes Often Very often
17. Have you thought of killing yourself?	Never Sometimes Often Very often
18. Do you get tired more than you used to?	Never Sometimes Often Very often

### **4.3.3 Motivation for alterations**

The alterations can be classified into general alterations and alterations to specific questions.

#### **4.3.3.1 General alterations**

Before looking at the reasons for the alterations it is necessary to examine the reasons for the yes/no responses. The objective of the SRQ is to assist primary health care workers, with limited training, to identify mental illness among black patients. (Kortman, 1987:75) A yes/no answer format would simplify things for the PHC workers.

As stated in **Chapter 1** the workload of the PHC nurses is of such a magnitude that it cannot be expected of them to administer this questionnaire to each patient as it will place an impossibly time consuming load on them. As already explained the instrument developed in this study has two parts. Part I is a pre-screening instrument to identify patients for further evaluation. In other words Part II of the instrument is not intended to be applied to all patients, but only to those indicated by Part I. Thus the extreme time constraints do not apply in Part II of the instrument.

The reason for the alterations was to avoid asking **yes/no** type questions and uses ordinal measurement. The problem with **yes/no** questions are twofold.

This type of question could be the cause of a concern described by Kortman (1987:565) who indicated a possible hidden motive behind a "yes" answer other than the presence of the symptom. This ties in with the opinion that one should not ask black people "yes/no" questions as explained in 4.3.1.

Closer examination of the questions in the SRQ reveals that almost all the questions are formulated in such a manner that it suggests the answer, i.e. a leading question. Asking leading questions is an unacceptable style of questioning as it suggests the answer.

#### **4.3.3.2     *Alterations to specific questions***

##### ***Question 1***

The question is formulated to be in line with the ordinal measurement and combats the problem of a leading question.

##### ***Question 2***

The question is formulated to be in line with the ordinal measurement and combats the problem of a leading question.

### **Question 3**

The question is formulated to be in line with the ordinal measurement and combats the problem of a leading question.

### **Question 4**

The wording has been altered to refer to *everyday things*. Some people are more timid than other and are more easily frightened. When one looks at the levels of violence in South Africa it is rational to be easily frightened.

### **Question 5**

The question is formulated to be in line with the ordinal measurement.

### **Question 6**

The question has not altered, only the possible answers.

### **Question 7**

The concept "*digestion*" can lead to conceptual difficulties. Putting the question in this manner also combines it with question 19 of the SRQ and can save on time as well as prevent confusion.

### **Question 8**

The question has not altered, only the possible answers.

### ***Question 9***

The question has not altered, only the possible answers.

### ***Question 10***

Culturally men are discouraged to cry and the original question rules out any emotional display by men. As found in the record audit there was one instance of a man complaining of aggression. The focus group also mentioned an instance of a man becoming angry. Thus the question is altered to include an emotional measurement for men.

### ***Question 11***

The question is formulated to be in line with the ordinal measurement and combats the problem of a leading question.

### ***Question 12***

The question has not altered, only the possible answers.

### ***Question 13***

The question has not altered, only the possible answers.

### ***Question 14***

The question has been rephrased to avoid leading the patient to a "yes" answer and in line with the ordinal measurement.

### ***Question 15***

The question has not altered, only the possible answers.

### ***Question 16***

The question has not altered, only the possible answers.

### ***Question 17***

The question is formulated in a simpler and more direct manner to combat the conceptual misunderstandings mentioned.

### ***Question 18***

The question suggests a recent change in energy levels. The original question can cause conceptual difficulties as a person who suffers from a chronic psychical condition can register a false positive response.

### ***Question 19 and 20***

These questions have omitted for being repetitive.

### ***Question 21 - 24***

These questions were omitted because they are aimed at identifying psychosis which is not within the scope of this study.

#### 4.3.4 First draft of Part II

After the alterations have been made and the ordinal measurement included the first draft of Part II was finalises and is depicted in **Table 4.11**.

**TABLE 4.11: Part II of the instrument (to be continued)**

QUESTIONS	POSSIBLE RESPONSES	
1. Do you ever get headaches?	Almost never	1
	A few times a month	2
	Once a week	3
	Everyday	4
2. Have your eating habits changed?	Eat more	1
	Eat less	2
	Eat the same as usual	3
3. How do you sleep?	Sleep well	1
	Can't fall a sleep	2
	Keep waking up	3
	Wake up too early	4
4. Do everyday things frighten you?	Never	1
	Sometimes	2
	Often	3
	Very often	4
5. Do your hands shake?	Almost never	1
	A few times a month	2
	Once a week	3
	Everyday	4
6. Do you feel nervous tense or worried?	Almost never	1
	A few times a month	2
	Once a week	3
	Everyday	4
7. Do you have stomach problems?	Almost never	1
	A few times a month	2
	Once a week	3
	Everyday	4
8. Do you have trouble thinking clearly?	Almost never	1
	A few times a month	2
	Once a week	3
	Everyday	4
9. Do you feel unhappy?	Almost never	1
	A few times a month	2
	Once a week	3
	Everyday	4
10. Women: Do you cry more than usual? Men: Do you get angry more than usual?	Almost never	1
	A few times a month	2
	Once a week	3
	Everyday	4



**TABLE 4.11: Part II of the instrument**

11. Do you enjoy you everyday activities like you used to?	Never Sometimes Often Very often	1 2 3 4
12. Do you find it difficult to make decisions?	Never Sometimes Often Very often	1 2 3 4
13. Is your daily work suffering?	Never Sometimes Often Very often	1 2 3 4
14. Do you play a useful part in life?	Never Sometimes Often Very often	1 2 3 4
15. Have you lost interest in things?	Never Sometimes Often Very often	1 2 3 4
16. Do you feel that you are a worthless person?	Never Sometimes Often Very often	1 2 3 4
17. Have you thought of killing yourself?	Never Sometimes Often Very often	1 2 3 4
18. Do you get tired more than you used to?	Never Sometimes Often Very often	1 2 3 4

#### **4.4 IMPLEMENTATION OF THE DELPHI TECHNIQUE**

The instrument has been developed using different techniques. In order to enhance the face and content validity of the instrument it was sent to a panel of experts by way of the Delphi technique. The description of this technique and the selection of the panel have been described in **Chapter 3**.

The standards according to which the information obtained from the panel was managed have been described in **Chapter 3**. However in the interest of convenience they are repeated here.

- Where the acceptability of items was sought four or more positive responses were considered to be as having reached consensus. If four positive responses were not obtained a second round questions would ensue.
- In instances where the panel was asked for comments and these suggestions enhanced the understanding of a question these integrated into the instrument.
- If three or more members made suggestions that altered the meaning or focus of the instrument (i.e. that it stays a brief screening instrument) or questions in the instrument a second round of questions would be done.

## **4.5 RESULTS OF THE DELPHI TECHNIQUE**

The results of Parts I and II are to be discussed separately. Questions one to four covered Part I of the instrument and questions five to nine covered Part II. After each question the results, a discussion of the results and the decision based on the set standards are presented. **(Annexure 11)**

### **4.5.1 Results and discussion of Part I**

Following the results of each question a discussion of the results has been presented **(see Annexure 11 for the questionnaire).**

#### 4.5.1.1 Question 1

The objective of this question was to establish whether the respondents felt that the indicators were appropriate in identifying hidden mental illness. They were requested to indicate their opinions according to the following scale:

1	Strongly agree
2	Agree
3	Disagree
4	Strongly disagree

The feedback of the panel is depicted in Table 4.12.

**TABLE 4.12: Responses of panel to Question 1 (N=6)**

	INDICATOR	RESULTS			
		1	2	3	4
1.1	Head complaints i.e. headaches, "veins of the head", etc.	1	5	0	0
1.2	Insomnia	2	3	1	0
1.3	Neck/shoulder complaints	0	6	0	0
1.4	Malaise (tiredness)	1	5	0	0
1.5	Incongruent physical complaints	2	3	1	0
1.6	Gastrointestinal complaints	2	1	3	0
1.7	Urinogenital complaints	0	2	1	2
1.8	General body pains (pain in two or more areas of the body)	1	5	0	0
1.9	Backache	1	5	0	0
1.10	Complaints encompassing three or more body systems	1	5	0	0

#### **Discussion:**

The respondents agreed or strongly agreed with most of the indicators thus achieving the standard set for consensus. The only exceptions were:

1.6 Gastrointestinal complaints where three respondents disagreed and;

1.7 Urinogenital complains where one respondent disagreed and two respondents strongly disagreed. One respondent did not answer this question.

***Decision:***

Items that have the consensus of the panel were retained in the questionnaire. The two exceptions were managed as follows. As the instrument was to be tested in the clinical situation specifically to indicate which indicators gave clues to mental illness these indicators were retained. As stated previously the results of the testing also indicated which indicators did not serve a purpose and retaining these indicators wouldn't cause any difficulties. Retaining the aspects had the additional advantage that their worth was tested in the field.

**4.5.1.2 Question 2**

This question asked for additional indicators that should be included.

The following comments were given:

*"Heart and palpitation and anxiety; poor libido."*

*"Recurrent partial or complete blindness or deafness or speech deficit"*

*"Extremely important to verify 'thinking too much' as an indicator of disorder.*

*Specify question on loss of libido, loss of appetite, and feelings of sadness.*

***Decision:***

In accordance with the standards palpitations was included even though only one member suggested it. Palpitations have the additional support that it is a clear somatic complaint.

Recurrent blindness, deafness or speech deficit is a clear indication of Somatoform disorder and its recurring nature will give enough indication that its origin is not somatic.

Loss of libido was included because two or more panel members suggested it.

#### **4.5.1.3 Question 3**

Here the focus was on whether a registered nurse without psychiatric training could complete Part I of the instrument after taking a routine history of the patient without further interrogation (see Table 4.13).

**TABLE 4.13: Responses of panel to Question 3**

1.	Strongly agree	1
2.	Agree	2
3.	Disagree	2
4.	Strongly disagree	0

#### ***Discussion:***

Two panel members disagreed that a registered nurse could complete this part of the instrument but three deemed it to be possible. One member of the panel did not respond.

#### ***Decision:***

As only two members disagreed this aspect was considered to have reached consensus.

#### 4.5.1.4 Question 4

Here the focus was on whether a staff nurse could complete Part I of the instrument after taking a routine history of the patient without further interrogation. The responses are in **Table 4.14**.

**TABLE 4.14: Responses of panel to Question 4**

1.	Strongly agree	1
2.	Agree	1
3.	Disagree	2
4.	Strongly disagree	1

#### ***Discussion:***

The panel were divided in their opinion to use of a staff nurse in implementing Part I of the instrument. The question also asked for comments and they were as follows:

#### ***Decision:***

The instrument was developed for implementation by registered nurses and thus no further action was taken.

#### ***Any other comments:***

*"Both staff nurses and registered nurses without psychiatric nursing need regular in-service training and work-shops for them to have skills on evaluation process".*

*"The questionnaire should be administered by someone who can win the trust of the interviewees so as to ensure fairly honest responses. A common understanding of what is at stake should be struck."*

*"I don't think you can do it without a clear understanding of somatization and of mental illness in general. Since this is so under-diagnosed, I doubt whether this will come easily."*

*"Further interrogation is necessary asking specifically about libido, appetite and feelings of sadness."* [This comment is not in line with the question and it may be assumed that the respondent misunderstood the question.]

One respondent did not answer this question.

#### **4.5.2 Results and discussion of Part II**

Again the results, discussion of the results as well as the decision are presented after each question.

##### **4.5.2.1 Question 5**

This question focused on whether the content of the aspects referring to specific signs and symptoms are applicable to identify the presence of mental illness. The responses are given in **Table 4.15**.

**TABLE 4.15: Responses of panel to Question 5 (N=6)**

<b>Legend:</b>	
1	= Strong agree
2	= Agree
3	= Disagree
4	= Strongly disagree

	ITEMS	RESULTS N=6			
		1	2	3	4
5.1	Headaches	4	2	0	0
5.2	Altered eating habits	2	4	0	0
5.3	Problems with sleeping	3	3	0	0
5.4	Feelings of anxiety	3	3	0	0
5.5	Shaking hands	1	4	1	0
5.6	Feelings of nervousness	2	4	0	0
5.7	Stomach problems	2	4	0	0
5.8	Problems with thinking	2	4	0	0
5.9	Feelings of unhappiness	3	3	0	0
5.10	Women: Crying Men: Anger	2	3	0	0
5.11	Loss of enjoyment	2	3	1	0
5.12	Feelings of ambivalence	2	2	2	0
5.13	Impairment of functioning	4	2	0	0
5.14	Feelings regarding participation in everyday life	1	5	0	0
5.15	Loss of interest	3	2	1	0
5.16	Feelings of worthlessness	2	3	0	1
5.17	Suicidal thoughts	5	1	0	0
5.18	Feelings of tiredness	3	3	0	0

**Discussion:**

The respondents agreed strongly or agreed that most of the aspects would indicate the presence of mental illness. The exceptions are:

- 5.5 Shaking hands where one (1) respondent disagreed
- 5.11 Loss of enjoyment where one (1) respondent disagreed
- 5.12 Feelings of ambivalence where two (2) respondent disagreed and
- 5.16 Feelings of worthlessness where one (1) respondent disagreed strongly.

Not one respondent “Disagreed strongly” with any of the items.

- 5.10 One respondent did not answer this item.



**Decision:**

All these items attained consensus from the panel and were subsequently retained.

**4.5.2.2 Question 6**

This question focused on the appropriateness in the distinction between the genders in 5.1. The responses are illustrated in Table 4.16.

**TABLE 4.16: Responses to Question 6**

ITEMS		RESULTS N=6			
		1	2	3	4
5.10 A	Women: Crying	2	3	0	0
5.10 B	Men: Anger	2	2	1	0

**Discussion:**

One respondent did not answer but made the following comment: *“Not really, but I have too little clinical experience to be certain. I think depressed men cry as much as women do. I think they might drink more than cry, though.”*

The respondents agreed or strongly agreed.

**Decision:**

As consensus among the panel was reached this item was retained.

#### **4.5.2.3 Question 7**

This question aimed to elicit any other aspects that should be included.

The comments were:

*"Communication break-down - family relationship; poor libido in both men and women cause marriage dysfunction."*

*"Destructive tendencies."*

*"Unusual beliefs about self, environment and significant others."*

*"Please specify: loss of libido, suicidal attempt, increase in alcohol or drug use."*

#### **Decision:**

Keeping the standards in mind the comments that were included were:

- Communication and breakdown in family relationships;
- Loss of libido, and
- Thoughts of suicide

Adding libido to Part II as well as to Part I might seem like repetition but Part I is only a tick list of spontaneous complaints whereas Part II specifically enquires after it.

*"Unusual beliefs"* was not included because it signifies a psychosis which is not the focus of this instrument.

*"Destructive tendencies"* was also not considered because is a behavioural aspect that clearly does not cause the health worker to think that there is a physical problem.

#### 4.5.2.4 Question 8

This question focused on the manner in which the questions are put to the clients in order to allow them the freedom to express their true concerns. The responses are given in **Table 4.17**.

**TABLE 4.17: Responses of panel to Question 8**

	ITEMS	RESULTS N=6			
		1	2	3	4
8.1	How often do you have headaches?	2	4	0	0
8.2	Have your eating habits changed?	2	3	1	0
8.3	How do you sleep?	1	5	0	0
8.4	Do everyday things frighten you?	0	6	0	0
8.5	Do your hands shake?	0	6	0	0
8.6	Do you feel nervous tense or worried?	1	5	0	0
8.7	Do you have stomach problems?	1	4	1	0
8.8	Do you have trouble thinking clearly?	2	4	0	0
8.9	Do you feel unhappy?	2	4	0	0
8.10	Women: Do you cry more than usual? Men: Do you get angry more than usual?	1	5	0	0
8.11	Do you enjoy you everyday activities like you used to?	1	4	1	0
8.12	Do you find it difficult to make decisions?	3	3	0	0
8.13	Is your daily work suffering?	2	3	1	0
8.14	Do you play a useful part in life?	1	5	0	0
8.15	Have you lost interest in things?	2	3	1	0
8.16	Do you feel that you are a worthless person?	1	4	1	0
8.17	Have you thought of killing yourself?	3	3	0	0
8.18	Do you get tired more than you used to?	2	4	0	0

#### **Discussion:**

On the whole the respondents either agreed strongly or strongly that the manner in which the questions were put should allow the clients the freedom to express their concerns.

The exceptions were:

- o 8.7 Where one (1) disagreed
- o 8.11 Where one (1) disagreed
- o 8.13 Where one (1) disagreed

- 8.15 Where one (1) disagreed and
- 8.16 Where one (1) respondent disagreed

***Decision:***

Because the set standards for consensus had been reached these items were retained in the stated format.

**4.5.2.5 Question 9**

Here any further comments were requested and the responses were as follows:

***Discussion:***

- *“Family history to be included because you will be able to diagnose mental illness e.g. congenital defects and collateral information from any person who know the patient well.”*
- *“Sometimes it is difficult to get very rural people to think in a scales fashion, but this can be tested during the pilot phase.”*
- *“Change 8.15 to: ‘Have you lost interest in things you used to like?’*
- *“There is a need to qualify some questions, e.g. ‘Do you feel unhappy for no apparent reason’ 8.9. ‘Do you have stomach problems not associated with what you ate or from medication.’*
- *“The biggest problem is translating the second part into the African languages, since they have very few feeling words. I think you will have to work with one or two African language translations for the instrument to be validated.”*

Suggestions to alter the wording of some questions were made.

Questions 8.2, 8.11 and 8.18. The timeframe in during which the symptoms appeared needed to be qualified.

Alternative wording in some questions were suggested. The alternative wording is in bold.

Question 8.6: Do you feel nervous, tense or worried **for no reason**?

Question 8.13: The current question should be substituted by: **Are you performing badly at work?**

8.14 Do you play a useful part in life **as you used to?**

### ***Decision:***

As per usual the set standards were adhered to.

- Family history was not included as it altered the nature of the instrument.
- The concern about rural people thinking in a scales fashion was mentioned and the panel member also suggested that it will be tested in the pilot phase so that stayed as is.
- The change to 8.15 was an alteration in wording and was subsequently implemented.
- The concern about translation had been catered for by back translating the instrument as described in **Chapter 3**.
- The time frame suggestions were incorporated.

- The alternate wordings were not incorporated as only one panel member made each of the suggestions and it would make the question too complicated.

A second round of questioning was not deemed necessary because the set criteria had been met.

### 4.5.3 Instrument after incorporation of the inputs by the panel

The instrument after incorporating the alterations suggested by the panel is depicted in Table 4.18.

**TABLE 4.18: Instrument after incorporation of inputs by the panel (to be continued)**

#### PART I

INDICATOR	YES	NO
1. Head complaints		
2. Insomnia		
3. Neck/shoulder complaints		
4. Malaise (tiredness)		
5. Incongruent physical complaints		
6. Gastrointestinal complaints		
7. Urine-genital complaints		
8. General body pains (pain in two or more areas of the body)		
9. Backache		
10. Complaints encompassing three or more body systems		
11. Palpitations		
12. Poor libido		
13. Thought problems e.g. thinking too much or thoughts racing.		

**TABLE 4.18: Instrument after incorporation of inputs by the panel  
(continued)**

**PART II**

1. How often do you have headaches?	Never or almost never A few times a month A few times a week Everyday
2. Have your eating habits changed?	Eat more Eat less Eat the same as usual
3. How do you sleep?	Sleep well Can't fall a sleep Keep waking up Wake up too early
4. Do everyday things frighten you?	Never or almost never Sometimes Often Very often
5. Do your hands shake?	Never or almost never A few times a month A few times a week Everyday
6. Do you feel nervous tense or worried?	Never or almost never A few times a month A few times a week Everyday
7. Do you have stomach problems?	Never or almost never A few times a month A few times a week Everyday
8. Do you have trouble thinking clearly?	Never or almost never A few times a month A few times a week Everyday
9. Do you feel unhappy?	Never or almost never A few times a month A few times a week Everyday
10. Women: Do you cry more than usual? Men: Do you get angry more than usual?	Never or almost never A few times a month A few times a week Everyday
11. Do you enjoy you everyday activities like you used to?	Never or almost never Sometimes Often Very often
12. Do you find it difficult to make decisions?	Never or almost never Sometimes Often Very often
13. Is your daily work suffering?	Never or almost never Sometimes Often Very often

**TABLE 4.18: Instrument after incorporation of inputs by the panel**

14. Do you play a useful part in life?	Never or almost never Sometimes Often Very often
15. Have you lost interest in things you used to like?	Never or almost never Sometimes Often Very often
16. Do you feel that you are a worthless person?	Never or almost never Sometimes Often Very often
17. Have you thought of killing yourself?	Never or almost never Sometimes Often Very often
18. Do you get tired more than you used to?	Never or almost never Sometimes Often Very often
19. Have your sexual habits changed?	Has more sex than usual Has less sex than usual Is the same as usual
20. Do you argue with your family more than you used to?	Never or almost never Sometimes Often Very often
21. Do you do things that cause you harm?	Never or almost never Sometimes Often Very often

## 4.6 CONCLUSION

The panel did not indicate many alterations to the instrument and the relevant suggestions were included. The next step in the process was to “*eat the pudding*” by subjecting the instrument to a clinical assessment. The results of the clinical assessment have been described in **Chapter 5**.



## CHAPTER 5

### *Results of clinical assessment*

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#### 5.1 INTRODUCTION

This chapter describes the data obtained from the patients assessed according to the instrument, the referral results of the mental health experts as well as the analysis of the data. This data indicates whether the objectives of the instrument have been met, i.e. the sensitivity and specificity of the instrument as well as indicating the cut-off values for both parts of the instrument.

#### 5.2 OVERVIEW OF THE PURPOSE AND PROCESS OF THE DATA ANALYSIS

The purpose of the data analysis was aimed at determining the sensitivity and specificity of the instrument as well as determining the cut-off scores for predicting the need for referral to mental health services in both parts of the instrument. This was as follows.

- Comparing the scores obtained in Part I of the instrument with the referral results would indicate whether Part I distinguishes between respondents who had a mental illness and those who did not. Furthermore it would also indicate the cut-off score that indicates the need for further screening.
- Comparing the scores obtained in Part II of the instrument with the referral results would indicate the effectiveness of the adapted SRQ in identifying mental illness.

To facilitate clarity a list of concepts used in this chapter is given here. Although these concepts have been described in the study a brief reminder of them could be useful.

### **KEY CONCEPTS**

<b>Total Score Part I:</b>	Indicates the total score respondents obtained in Part I of the instrument.
<b>Total Score Part II:</b>	Indicates the total score respondents obtained in Part II of the instrument.
<b>Referral scores:</b>	Refers to the score rating the respondents' state of mental health as described in terms of the value of the referral ( <b>see Annexure 9</b> ).
<b>Mental health specialists:</b>	Experienced mental health workers, i.e. psychiatrists, psychologists and psychiatric nurses who assessed the respondents to determine the state of their mental health.

First the data of the fieldworkers will be presented, followed by the biographical data of the respondents. The data from Part I was analysed to indicate the usefulness of the individual items and then to compare the total score in Part I to the referral scores to determine whether Part I alone could indicate the presence of mental illness. The sensitivity and specificity of Part I as well as the independent predictors were then determined which then leads to the cut-off point for Part I. The analysis of Part II starts with comparing similar items in Parts I and II, then determining the sensitivity and specificity of Part II. Finally the sensitivity and specificity of Parts I and II were combined in an effort to enhance the practical applicability of the instrument.

The sample size throughout was 44.

### 5.3 REGISTERED NURSES WHO IMPLEMENTED THE INSTRUMENT

There were 11 registered nurses who screened the respondents according to Part I and Part II of the instrument. The number of respondents screened by each nurse differed substantially. Five nurses screened only one respondent each, three screened two respondents and two screened seven and eight respectively while one registered nurse screened 17 respondents. The reason for this wide distribution was the result of convenience and different levels of co-operation, as some nurses were in a better position to screen the specified respondents, i.e. those who mostly worked with patients who attended the clinics for minor ailments.

### 5.4 BIOGRAPHICAL DATA OF THE RESPONDENTS

Table 5.1 depicts the frequencies and percentages according to the different ages of the respondents.

**TABLE 5.1** Percentages and frequency of age of respondents  
(N=44)

Age	n	Percentage %
<20	3	7
21-29	17	39
30-39	9	20
40-49	9	20
50-59	5	12
>60	1	2
	<b>44</b>	<b>100</b>

The median age was 31 years and the range was 19 to 62 years.

The frequencies and percentages of respondents according to gender is depicted in Table 5.2.

**TABLE 5.2** Percentage of gender distribution of respondents

GENDER	N	PERCENTAGE %
Male	13	29.55
Female	31	70.45
	44	100

Almost three times more females (70.45%) were present in the sample than men. This skewed gender distribution was also found in a study by Harding *et al.* (1980:235).

## 5.5 DATA OBTAINED FROM PART I OF THE INSTRUMENT

The data obtained from Part I of the instrument has been presented here.

### 5.5.1 Frequency of total score on Part I

The frequencies and percentages of the total the respondents scored in Part I of the instrument are depicted in **Table 5.3**.

**TABLE 5.3** Frequency and percentages of respondents' total score on Part I (N=44)

TOTAL SCORE	N	PERCENTAGE %
1	3	7
2	2	5
3	4	9
4	3	7
5	5	11
6	5	11
7	3	7
8	7	15
9	4	9
10	3	7
12	2	5
13	3	7
	44	100

There is a wide distribution between the total scores achieved by the different respondents, e.g. three (3) respondents' total scores were only one (1) and

three (3) respondent's total scores were thirteen (13), The highest number of respondents (seven) scored a total of eight (8).

As stated in **Chapter 3** it was necessary to determine the value of the individual items in Part I and whether these items differentiated between the different respondents. For example if an item was mentioned by all the respondents or if no respondent mentioned it, it would have no discriminating value and could thus be discarded. In order to make a more informed decision about the value of the items the sensitivity and specificity in predicting the need for referral of each item was determined.

### **5.5.2 Sensitivity and specificity of the individual scores in Part I**

The sensitivity of an instrument determines whether it will identify the sought after trait or condition, in this case mental illness, while the specificity indicates whether the instrument can exclude false positives or not. In this instance two aspects were considered. Firstly the individual items in Part I were analyzed to determine if there were any specific items that could act as a clear indicator of mental illness and if there were any items that had no value and could be omitted from the instrument. Secondly if there was any set of items that could independently act as predictors of mental illness.

**Table 5.4** indicates the sensitivity and specificity of each item in Part I.

**TABLE 5.4: Sensitivity, specificity and p-value of each item in Part I**

DESCRIPTION	ITEM NO	SENSITIVITY (%)	SPECIFICITY (%)	P-VALUE
Head complaints	1	85.7	30.4	0.2889*
Insomnia	2	76.2	52.2	0.0536
Neck/shoulder complaints	3	81	52.2	0.0225
Malaise	4	71.4	60.9	0.0316
Unusual physical complaints	5	61.9	73.91	0.0166
Gastrointestinal complains	6	78.3	38.1	0.2349
Uro-genital complaints	7	87	33.3	0.166*
General body pains	8	71.4	39.1	0.4605
Backache	9	61.9	69.5	0.0363
Complaints in three or more body systems	10	61.9	65.2	0.0720
Palpitations	11	52.38	73.91	0.0736
Poor libido	12	52.38	73.91	0.0736
Thought problems	13	80.95	30.43	0.3836

Note: p-values marked with an asterisk had 25% of cells with expected counts less than 5. The Fisher Exact test rather than the chi-squared test, was used to obtain the p-value.

No specific items could be singled out as clear indicators of mental illness. Those items that showed the most promise were "*Unusual physical complaints*" with a sensitivity of 61.9% and a specificity of 73.91% and "*Backache*" with a sensitivity of 61.9% and a specificity of 69.57%. None of the items had a sufficient discrepancy in their sensitivity and specificity to indicate that they could be discarded.

### 5.5.3 Independent predictors in Part I

A logistic regression was done on the items in Part I to identify any set of independent predictors. With a p-value of <0.10 three were identified, namely items 4 (Tiredness), 5 (Incongruent physical complaints) and 12 (Poor libido). The most useful number of items in this set of predictors was  $\geq 2$  as this renders a sensitivity of 67% and a specificity of 78%. The sensitivity and specificity of these predictors are presented in **Table 5.5**.

**TABLE 5.5: Number of independent predictors – Part I**

n ITEMS	SENSITIVITY (%)	SPECIFICITY (%)
≥1	95	30
≥2	67	78
≥3	24	100

This information might be useful in the clinical field because it is very little information to obtain from a patient and for such little information the sensitivity (67%) and specificity (78%) is encouragingly high. It must be kept in mind that for the clinical practice these indicators will miss too many patients suffering from mental illness (33%) and will result in 22% of patients being referred unnecessarily to psychiatric services.

#### 5.5.4 Total score in Part I compared to the scores of the referral result

In order to determine whether the total score obtained in Part I indicates the presence of mental illness these scores are compared to the referral results that came from the mental health specialists who assessed the respondents to determine the necessity of the referral (see Chapter 3, point 3.6.5).

The referral result tick list has been included here. For the complete form (see Annexure 9).

### RESULT OF REFERRAL

#### Tick list

ITEM	RATING	TICK
This referral was not appropriate at all.	1	
The patient may benefit from psychiatric treatment.	2	
This was a useful referral and the patient will benefit from psychiatric treatment.	3	
This referral was vital and the patient needs immediate psychiatric treatment.	4	

The comparison between the different scores in Part I and the referral results are presented in Table 5.6.

**TABLE 5.6: Comparison between total scores in Part I and the referral scores (N=44)**

REFERRAL SCORE	NUMBER OF RESPONDENTS	RANGE OF SCORES ON PART I	MEDIAN SCORE ON PART I
1	8	1-9	4
2	15	1-9	5
3	9	3-13	8
4	12	3-13	9
1+2	23	1-9	5
3+4	21	2-13	8

A total of eight respondents scored one (1) on their referral result. A score of one indicates that the respondents do not have a mental health problem. The median score in Part I was four (4) for this group. However one must remember that Part I seeks out somatic symptoms and it is possible that the symptoms mentioned by the respondents indicate a physical illness and nothing more.

The number of respondents who scored a two (2) on the referral result was 15. A score of two indicates that their might be a mental health problem but without a clear indication of mental illness. The median score was five (5) for this group.

A score of three on the referral result indicates the presence of mental illness. A total of nine respondents scored three (3), and again there is a wide distribution of the total scores with a median of eight (8).

A score of four indicates that the respondent is in immediate need of treatment for a mental illness. A total of 12 respondents scored four on the referral result with two respondents each scoring 10 and 13 on Part I. Again a wide distribution is present with scores ranging from three to 13, with a median of nine (9).

The referral results were combined by grouping the scores of the referral results one and two, and three and four (see Table 5.4). This was done



because a referral result of either one or two did not indicate the presence of mental illness and a result of three or four did.

These combined scores indicated a clearer trend. A combined referral score of one and two renders a median of five on Part I and for a score of three and four the median is eight. This indicates an association between a higher score on Part I and the presence of mental illness.

This trend is promising as it indicates that Part I could be used as a screening tool to identify the presence of mental illness. Before such a bold statement can be made the sensitivity and specificity of Part I needs to be determined.

### 5.5.5 Determining the cut-off score for Part I

The purpose of Part I was to indicate whether further screening is necessary or not. It was thus necessary to determine what score on Part I indicated the need for further assessment. Table 5.7 give the sensitivity and specificity in predicting the need for referral of the different total scores obtained in Part I.

**TABLE 5.7: Sensitivity and specificity for total scores of Part I**

SCORE	SENSITIVITY %	SPECIFICITY %
>3	90	30
>4	86	39
>5	81	57
>6	67	65
>7	62	74
>8	48	91
>9	38	100
>10	24	100

The results for scores lower than three and higher than ten were not relevant because they indicate unusable levels of sensitivity and specificity. For example a score of >10 indicates with 100% certainty that the respondent had a mental illness but 76% of the respondents with mental illness were not identified.

These results do not give a clear indication as to what score in Part I should be used to indicate further screening. Scores of between >5 and >8 render useful values of sensitivity and specificity. It must be kept in mind that the objective of Part I was only **to indicate the need for further screening**. Thus when deciding on the total score obtained in Part I that indicates the need for further screening it is necessary to keep practical realities as well as statistical indicators in mind.

The principle that is applicable here is that of practicality, i.e. the time that further screening will take. In this case further screening could be judged as taking three to five minutes. To make a determination on the applicable total score obtained, a look at the total number of respondents that obtained scores of between five and eight is needed. These have been presented in **Table 5.3**.

When the data of **Tables 5.3** and **5.6** are taken together a score of five on Part I indicates that a total of 39% of respondents will not need further screening and of the 61% left a total of 19% (Sensitivity being 81%) with mental illness might not be identified. The specificity as regards to this score is not that important because further screening will take place and this screening only takes about three to five minutes. On the other hand a score of six, whilst cutting the total number of respondents down to 50% will fail to identify a total of 33% of people with a mental illness.

## **5.6 COMPARISON OF SIMILAR ITEMS IN PARTS I AND II**

The items in Part I were obtained from spontaneous complaints made to the registered nurse during the normal course of the examination of the respondent. Part II asked questions directly of the respondents. In both parts of the instrument similar information was sought. Comparing these items gave information on two aspects. Whether the spontaneous statements were a realistic representation of their complaints, and if they presented with

complaints that did not stand up to closer scrutiny. This was one of the concerns about the SRQ Kortman (1987:565) indicated.

Part II required a grading of the item. Any score higher than one (1) in Part II was considered to be the equivalent of a “yes” in Part I.

The items in question are compared in **Table 5.8**. The compared items from the two parts of the instrument are also given.

**TABLE 5.8: Comparison of related items in Part I and II**

RELATED TOPICS	SCORE IN PART I		% REPORTED IN PART II	
	Item #		Item #	
Headaches	1	No (n=10)	1	70
		Yes (n=34)		94
Insomnia	2	No (n=17)	13	59
		Yes (n=27)		93
Nervousness	13	No (n=11)	6	36
		Yes (n=32)		84
Gastrointestinal complaints	6	No (n=31)	7	22
		Yes (n=13)		92
Thought problems	13	No (n=11)	8	18
		Yes (n=33)		78
Tiredness	4	No (n=20)	18	60
		Yes (n=23)		83

Considering the complaints of headaches 10 respondents did not mention it and subsequently scored nil (0) on Part I. In Part II 70% of these respondents did mention that they had headaches. This seems to indicate a significant discrepancy, but it must be kept in mind that Part I is only a representation of what the respondents mentioned spontaneously to the registered nurse and it is not inconceivable that the respondents either did not consider the headaches troubling enough to mention them or did not remember to mention them. What is of far more importance is whether respondents did mention the complaint to the registered nurse (as recorded in Part I) but when specifically asked about these in Part II the problem was absent. Again using the item of “Headaches” as an example 34 respondents did complain of headaches in Part I and 94% of these respondents repeated the complaint in Part II. The

association between items complained of in Part I and those elicited in Part II range from 78% (Thought problems) to as high as 93% (Insomnia).

These results are very promising indicators that the problems encountered by Kortman (1987:75) have been addressed.

## 5.7 SENSITIVITY AND SPECIFICITY FOR TOTAL SCORES OBTAINED IN PART II

If the instrument is to have any practical use it must indicate the score that is indicative of mental illness. Table 5.9 gives the sensitivity and specificity of predicting the need for referral of different total scores obtained in Part II. Only the relevant scores will be presented, e.g. a score of 57 gives a specificity of 95% but its sensitivity is 0%.

**TABLE 5.9: Percentages of sensitivity and specificity for the total scores obtained in Part II**

SCORE	SENSITIVITY %	SPECIFICITY %
>38	89	50
>39	84	50
>40	68	50
>41	68	60
>42	63	65
>43	53	75
>44	53	80

**Please note:** In Item 12 five scores were lost because they had not been completed on the questionnaire. In Item 19 there was a translation error between the English and Sotho questionnaires and this item had to be discarded. The error lay in the selection of answers that were given and was only discovered when the final data analysis was made.

The ideal is to have high sensitivity and specificity values. Although a score of >38 renders a sensitivity of 89.47% it will render a false positive rate of 50%. While a score of >44 will identify the absence of mental illness with an 80% accuracy level, only 52.63% of the total amount of respondents suffering from

mental illness will be identified, i.e. 47.37% of the respondents will not be picked up. The most useful scores seem to be >41 and >42.

## 5.11 COMBINATION OF SCORES OBTAINED IN PARTS I AND II

Although Part I was developed to act as a pre-screening instrument it was decided to see if the scores obtained in Part I could not be combined with those of Part II in an attempt to get a more practical value that indicates the presence of mental illness.

As it was decided in 5.8 that the cut-off score for Part I was >5, the respondents who had a score if >5 in Part I was combined with the scores in Part II. A score of >5 in Part I and a score of > 38 in Part II gave a sensitivity of 79% and a specificity of 70%. This means that 21% of people suffering from mental illness will not be identified and 30% of people not suffering from mental illness will be unnecessarily be referred for treatment.

## 5.12 CONCLUSION

Although there are obvious limitations to this study that will impact on the relevance of this data some very promising trends have been found. It appears as if all the items included in Part I may be retained as none of them rendered values that failed to distinguish between the different respondents. It also seems as if the concern of unsubstantiated complaints reported Kortman (1987:75) has been addressed and finally the combined scores of Parts I and II render a sensitivity and specificity that is comparable with a study done by Harding *et al.* (1980) where they tested the SRQ in four different areas.

All the relevant data has been presented in this chapter. Its practical application will be discussed in **Chapter 6**.

# CHAPTER 6

## *Results and recommendations*

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### 6.1 OVERVIEW

In this study several research techniques were used to develop an instrument to identify mental illness among black patients attending PHC facilities. The instrument was then subjected to clinical assessment. In **Chapter 2** a literature study described the problems of non-detection of mental illness as well as indicators of mental illness which were used in the development of Part I of the instrument. **Chapter 3** explained the research techniques and procedures in detail. **Chapter 4** described the development of the instrument and the process of the Delphi technique which added to the content and face validity of the instrument. In **Chapter 5** the data of the clinical implementation of the instrument was presented. In this chapter the results of the clinical assessment have been discussed, the limitations of the study were pointed out and further recommendations have been made.

### 6.2 DATA ON WHICH THE FIRST DRAFT OF PART I OF THE INSTRUMENT WAS BASED

Although this has been discussed in **Chapter 4** a retrospective look at the data is useful. After collecting the data from the focus group interview and the patient record audit, a lot of indicators had been found (see 4.6.2.1). Many of these indicators were supported by the findings in the literature review. The focus group interview indicated the highest agreement with data obtained from literature. The most and widest range of indicators were obtained from the patient record audit. No specific deduction can be made from this but it may support the literature's statement of complaints encompassing three or more body systems (see 2.4.3.3).

### 6.3 INPUTS BY THE DELPHI PANEL

This discussion is in no way intended to second guess the inputs by the Delphi panel but this is a good opportunity to see how their inputs panned out in the clinical assessment.

The panel did not reach consensus regarding the inclusion of gastrointestinal and uro-genital complaints (see 4.5.1.1). The sensitivity, specificity and p-value obtained in the clinical assessment for these two items were:

- Gastrointestinal complaints: sensitivity 78.26%, specificity 38.10% with a p-value of 0.2349.
- Uro-genital complaints: sensitivity 86.96%, specificity 33.33% with a p-value of 0.166.

These values were by no means the most valuable but neither did they fare the worst, i.e. general body pains with a p-value of 0.4605. Thus the decision to let the clinical situation decide the issue seems to have been justified.

Including libido in Part I was in hindsight an excellent suggestion as it was one of the set of independent predictors (see 5.5.3) indicating that this item added real value to Part I.

Unfortunately the suggestion of the panel that libido be included in Part II of the instrument was not tested due to a translation error in the instrument.

## 6.4 RESULTS OF THE CLINICAL ASSESSMENT

The objective of the study was to develop an instrument that would identify mental illness among black patients in the PHC setting. The way in which the instrument was developed had an additional objective i.e. to make the screening as quick as possible. As previously stated there is an instrument (SRQ) that has been developed specifically for this purpose but concerns regarding the SRQ have been expressed (Kortman, 1987:565). It is necessary to look if these aspects address the identified issues or not.

### 6.4.1 Time taken for screening

As explained in **Chapter 1** the work load of nurses in the PHC setting high and thus for an instrument to be of value it must take as little time as possible. Part I was specifically developed with this in mind. Nurses could follow their normal procedures and instead of having to ask patients an additional set of questions just tick off the relevant items. This screening is obviously very quick but it needs to be examined in its entirety.

The results in **5.5.4** indicated a cut-off score of  $>5$  would be the most useful. This gave a sensitivity of 80% but the specificity was only 57%. In other words 43% of all patients need to be assessed further. Because the time it took to implement Part II was not determined it is not possible to say whether this instrument will save time in the long run or not.

It is however reasonable to assume that Part I does not take as much time as the implementation of the SRQ as the SRQ necessitates the asking of 20 questions.



## **6.4.2 Counteracting “false positives”**

Kortman (1987:565) pointed out that patients who had indicated on the SRQ that they had a problem could not elaborate on these problems. It is thought that these “false positives” could have occurred as the result of external factors like getting compensation for having a mental illness. Another possible reason could be related to the assumptions that one does not ask black people a “yes/no” type question because they will give you the answer they think the questioner wants to hear (see 4.3.1 and 4.3.3.1)

A comparison was made between the spontaneous complaints made to the registered nurse (Part I) and the direct questions asked in Part II. The association between these questions ranged between 78% - 93% (see 6.9). This could indicate that the format of Part I counteracts the problems of false “yes” answers.

## **6.4.3 Effectiveness of the instrument**

Although this instrument was based on many different research techniques it is the assessment in the clinical field that is really counts. In 5.11 it was explained that combining scores of Part I and Part II of the instrument a sensitivity of 79% and a specificity of 70% was attained. In a study done by Harding *et al.* (1980:234) they indicated that the SRQ rendered a sensitivity of between 73% and 83% and a specificity of between 72% and 85%. The authors were pleased with these figures and this instrument is on par with that study regarding its ability to detect mental illness without rendering too many false positive results. There is the additional advantage that it eliminates some of the problems of the SRQ mentioned in the literature (see 6.4.1 and 6.4.2).

It is also interesting to note that the SRQ is the result of combining different instruments in existence, i.e. the Patient Self-report Symptom Form, the PGI Health Questionnaire, the Present State Examination and a few others (Harding *et al.*, 1980:233). Concerns as to the predominantly Western focus of this instrument has been expressed (Kortman, 1987:564). This instrument, especially Part I, was developed from data gathered at grass roots level.

In summary this instrument has been developed from data at grass roots level and its specificity and sensitivity is acceptable.

## **6.5 THE PROCEDURE OF THE DEVELOPMENT OF THE INSTRUMENT**

As previous stated many different techniques have been used in the development of specifically Part I of the instrument. One can almost say that this study has been a smorgasbord of research techniques. Could this be the reason why the results of the clinical implementation have been so promising? This may illustrate the value of combining qualitative and quantitative techniques in research.

## **6.6 LIMITATIONS IN THE CLINICAL ASSESSMENT OF THE INSTRUMENT**

Several problems have been identified in this part of the study.

- Although the sample size was to be 100 the achieved sample size of 44 can be considered to be limited. The results of the instrument look promising but the small sample size negates these results.
- Some items in the instrument were not completed by the fieldworkers (registered nurses). This could be because they were pressed for time as they had to implement the instrument in addition to their regular duties or

that they did not fully understand the application of the instrument. These problems just compounded the issue of the small sample.

- The translation error in Item 19 in Part II of the instrument rendered this item unusable. It is additionally disappointing because it was specifically included after being recommended by the panel of experts used in the Delphi technique.

For reasons of validity the instrument was only implemented on patients who attended the clinic for minor ailments. The normal routine for nurses in these instances is to ask about the complaint and then to do a physical examination. This makes the implementation of Part I practical. However the question can be asked: *“Will Part I be practical when patients come for a follow up of another complaint, e.g. a repeat prescription for hypertension or diabetes?”*

## **6.7 RECOMMENDATIONS FOR FURTHER RESEARCH**

Although saturation of data in the clinical assessment had been indicated the sample size was not ideal.

Even with such a small sample there are clear indications that the instrument is on the right track. It is obvious that the instrument needs further testing and this testing should include the following aspects.

- The sample size must be larger. A study with a larger sample could render valuable information regarding specific indicators in Part I that could be omitted or that can act as independent predictors. The same is true of Part II of the instrument.
- The value of the instrument in a broader geographical area should be assessed.

- The practicality of the implementation of instrument on all patients attending PHC clinics and not only those who have a minor ailment. This might need an assessment of the procedures followed at the clinics for when patients come for a follow up visit.
- The time it took to implement the instrument was not assessed and this needs to be looked into. Especially if Part II takes too long and if that is the case then the whole purpose of the instrument is in jeopardy.
- As there were gaps in the instrument the people who are to implement the instrument need better training. Not only to implement the instrument but also to alert them to the impact of mental illness and how its identification and treatment can decrease their burden (**see 2.5**).

It is clear that further and more intense evaluation is necessary.

## **6.8 POTENTIAL VALUE OF THE INSTRUMENT**

To understand the potential value of this instrument it is important to look at the reasons for its development. As explained in **Chapter 1** 10-36% of all black people who attend PHC facilities have a mental illness whilst the detection of mental illness is low. With an incidence as high as 33% in the PHC setting it can be argued that **all** patients attending PHC facilities need to be screened for mental illness. Obviously time constraints have made this difficult and impractical. Considering how rapidly Part I can be implemented the problem of lack of time has been eliminated.

Taking into account that mental illness as a group of illnesses is the leading cause of DALYs (**see 2.3.2**) can we afford **not** to screen for mental illness among all patients attending PHC facilities? Especially when taking the dire consequences of this lack of detection into account (**see 2.5**). Clinics receive repeated visits from these patients, unnecessary tests and medication are prescribed. Never mind the mindless suffering these people and their families

have to endure the burden on the health care services as a whole is immense and pointless.

## **6.9 CONCLUSION**

This instrument shows promise in the screening for mental illness in patients in a PHC setting as well as combating the described problems of the SRQ. This study may act as a pilot study for broader testing and could address an important need in mental health care.

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# *SUMMARY*

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## **A SCREENING INSTRUMENT FOR MENTAL ILLNESS IN BLACK PATIENTS IN PRIMARY HEALTH CARE SETTINGS**

**STUDENT:** I. VENTER  
**DEGREE:** Doctor of Philosophy  
**DEPARTMENT:** School of Nursing  
**PROMOTERS:** Dr. L. van Rhyn  
Prof. M.J. Viljoen

Mental illness is to an alarming extent undetected among black people and specifically in the Primary Health Care (PHC) setting. The main reason for this is that black people with mental health needs present with somatic symptoms. This results in unnecessary tests and inappropriate treatment.

Although there is an instrument (Self Reporting Questionnaire) that was specifically designed to detect mental illness in the PHC setting, literature indicates some concerns in the usage of this instrument.

This study is the development of a screening instrument to detect mental illness among black people in the PHC. A non-experimental design which explored, described, developed and assessed was used in the development of the instrument. Several research techniques were used to obtain the information on which the instrument was based, i.e. a literature survey, focus group interview, patient record audit and the Delphi technique. Thereafter the instrument was subjected to a clinical assessment.

The instrument consists of two parts. Part I is very brief with the objective of identifying the need for further screening. Part II is longer and aims to identify the presence of mental illness.

The clinical assessment of the instrument resulted in a sensitivity of 79% and a specificity 70%. These results are very promising especially when considering that some of the problems of the SRQ seem to be counteracted. Furthermore this is an instrument that has been developed at grass roots level.

To enhance the value of the instrument the following recommendations were made. The instrument should be assessed in a broader geographical area as well as the specific time it took to implement. This may act as additional motivation for a wider application of the instrument.

#### **KEY CONCEPTS:**

- Primary Health Care
- Detection of mental illness
- Focus group interviews
- Global Burden of Disease (GBD)
- Mental Health Nursing
- Mental illness
- Delphi technique
- Record audit
- Disability adjusted light years (DALY)
- Self Reporting Questionnaire (SRQ)

# OPSOMMING

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## A SCREENING INSTRUMENT FOR MENTAL ILLNESS IN BLACK PATIENTS IN PRIMARY HEALTH CARE SETTINGS

**STUDENT:** I. VENTER  
**GRAAD:** Doktor in Filosofie  
**DEPARTEMENT:** Skool vir Verpleegkunde  
**PROMOTORS:** Dr. L. van Rhyn  
Prof. M.J. Viljoen

Die vlak waartoe geestesongesteldheid onder veral swart mense in die Primêre Gesondheidsorg-omgewing, nie geïdentifiseer word nie, is kommerwekkend. Die hoofrede vir dié toedrag van sake is dat swart persone hulle geestesgesondheidsbehoeftes deur middel van somatiese simptome openbaar. Dit lei tot onnodige toetse en ontoepaslike behandeling.

Alhoewel daar 'n instrument spesifiek ontwerp is (Self Reporting Questionnaire) om geestesongesteldheid in die PGS te identifiseer dui studies in die literatuur daarop dat hierdie instrument sekere probleme het.

Hierdie studie behels die ontwikkeling van 'n siftingsinstrument om geestesongesteldheid by swart persone in PGS te identifiseer. 'n Nie-eksperimentele ontwerp wat geëksplorieer, beskryf, ontwikkel en evalueer is in die ontwikkeling van die instrument gebruik. Etlke navorsingstegnieke is gebruik om die inligting, waarop die instrument gebaseer is, te bekom, naamlik 'n literatuuroorsig, fokusgroep onderhoude, pasiënt rekord audit en die Delphi tegniek. Daarna is die instrument aan 'n kliniese evaluering onderwerp.

Die kliniese evaluering van die instrument het 'n sensitiwiteit van 79% en 'n spesifisiteit van 70% getoon. Hierdie is belowende resultate veral aangesien

sommige van die probleme van die SRQ blyk aangespreek te wees. Verder is die instrument ontwikkel op voetsool vlak.

Om die waarde van die instrument te verhoog is die volgende aanbevelings gemaak. Die instrument moet in 'n wyer geografiese area evalueer word en die spesifieke tyd wat dit neem om die instrument te implementeer moet evalueer word. Dit kan as addisionele motivering dien om die instrument wyer te gebruik.

**ANNEXURE 1**

***Letter to Free State Psychiatric  
Complex for access to patient records.***

School of Nursing (136)  
University of the O.F.S.  
P.O. Box 339  
BLOEMFONTEIN  
9300

24 October 1999

Dr. S. Otto  
Medical Superintendent  
Oranje Hospital  
Private Bag X 20607  
BLOEMFONTEIN  
9300

Dear Dr. Otto

**RE: PERMISSION TO DO RESEARCH**

I am currently busy with research towards my Ph.D. in Psychiatric nursing. The object of the research is to develop an instrument to assist nurses in the Primary Health Care clinics in detecting mental illness in black patients.

To assist me in gathering this information I propose to audit patient records to determine the complaints that patients present with. I have also included my research proposal for further reference.

I will not remove any patient records from the premises and will keep any information contained in them strictly confidential. This research is also to be evaluated by the Ethics Committee of the University of the O.F.S.

It would be greatly appreciated if permission is granted to me in this regard.

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**Idalia Venter**  
**Ph.D. STUDENT**



***ANNEXURE 2***

***Permission from Free State Psychiatric  
Complex***

TO:

IDALIA VENTER  
 FACULTY OF HEALTH SCIENCE  
 P.O. BOX 339  
 BLOEMFONTEIN  
 9300

RE:

PERMISSION TO DO RESEARCH

DATE:

24 JANUARY 2000

Your letter dated 3<sup>rd</sup> December 1999 is hereby acknowledged.

Permission is hereby granted to you for research in our institution. The management request the copy of the results on completion of the study.

Yours faithfully

*M Mkgola*

ME M.M. KGOLA  
 DEPUTY DIRECTOR : NURSING  
 (ACTING MEDICAL SUPERINTENDENT)

DATE : 2000/01/24  
 MMK/hvdh



Department of Health  
 Departement van Gesondheid  
 Letapha La Bophelo Bo Botle  
 FREE STATE PROVINCIAL GOVERNMENT

Dr L Fouché  
 Senior Executive Officer/  
 Psychiatric Complex/  
 Psigiatriese Kompleks  
 Bloemfontein

Private Bag/Privaatsak X20607,  
 BLOEMFONTEIN 9300  
 Faks/Fax: 051-4070391  
 Tel. No.: 051-4079260  
 Sel/Cell:

Reference:  
 Verwysing:

Enquiries:  
 Navrae:

*ANNEXURE 3*

*Letter to Mangaung Municipality to do  
research*

School of Nursing (136)  
University of the O.F.S.  
P.O. Box 339  
BLOEMFONTEIN  
9300

9 April 2000

Dr. A Hiemstra  
Medical Officer  
Bloemfontein Municipality  
P.O. Box 3704  
BLOEMFONTEIN  
9300

Dear Dr. Hiemstra

**RE: PERMISSION TO DO RESEARCH**

I am currently busy with research towards my Ph.D. in Psychiatric nursing. The object of the research is to develop an instrument to assist nurses in the Primary Health Care clinics in detecting mental illness in black patients.

To assist me in gathering this information I propose to audit patient records to determine the complaints that patients present with. I also propose to have a focus group with nurses working in the clinics which mostly service black patients. I have also included my research proposal for further reference.

I will not remove any patient records from the premises and will keep any information contained in them strictly confidential. This research is also to be evaluated by the Ethics Committee of the University of the O.F.S.

It would be greatly appreciated if permission is granted to me in this regard.

---

**Idalia Venter**  
**Ph.D. STUDENT**

***ANNEXURE 4***

***Permission from Mangaung  
Municipality***

# MANGAUNG

LOCAL MUNICIPALITY/PLAASLIKE MUNISIPALITEIT/LEKGOTLA LA MOTSE

DIRECTORATE  
COMMUNITY & SOCIAL SERVICES

Sub - Directorate Health

PO Box 3704, Bloemfontein, 9300	Tel: 4058329 Fax: 4058329	Our ref: letters/approval research
E-mail: genes18@civic.bfncouncil.co.za		Your ref: M Reid

Mangaung Local Municipality  
Dr AH Hiemstra  
PO Box 3704  
9301

Date: 06/04/2000

Prof/Dr/Me/Mr

Z. Venter  
School of Nursing  
University of the Free State

## APPLICATION TO CONDUCT RESEARCH / COMPLETE A STUDY - SUB - DIRECTORATE HEALTH

Your application ( Title / topic : *A screening instrument for mental illness in*  
Dated *5/4/2000* ) , has reference. *black patients in the settings*

It gives us pleasure to inform you that permission to proceed with the research is hereby granted.

Please contact Ms M Reid( Snr Professional Nurse , Training) at tel 4058329, to finalise the practical arrangements involved.

Ensure that you obtain an indemnity form by which Mangaung Local municipality will be indemnified of any legal claims which might ensure from your research, from Ms Reid.

We wish you success with your project and are looking forward to the forthcoming information on how the results thereof can be applied in our service rendering.

Kind regards.

*M Reid*  
MEDICAL OFFICER OF HEALTH

*ANNEXURE 5*

*Focus group interview consent form*

# *FOCUS GROUP*

## *Respondents consent form*

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Dear Respondent

Thank you for being prepared to participate in this research project.

It has been explained to you that your experience as a nurse in the Primary Health Care setting is needed to assist in designing an instrument that will assist nurses in identifying mental health problems among black patients.

This assistance will be to take part in a group discussion while you are being videotaped. The videotape will be transcribed but at no point will any person's name be mentioned. The tape will be treated in a confidential manner and no other person than myself and my two study supervisors will see the tapes.

To comply with the requirements of the Ethics Committee of the Faculty for Health Sciences you are requested to sign this consent form. The form is merely to indicate that you have been informed of your role in the research and that you have given your consent to participate.

Could you please complete the following section:



I \_\_\_\_\_, declare that I give my consent to participate in the above mentioned research project.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

***ANNEXURE 6***

***Pilot study consent form***

*PILOT STUDY*  
*INSTRUMENT EVALUATION*  
*Respondent consent form*

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Dear Sir/Madam

Many people suffer from emotional problems but are not treated properly because their emotional problems are not detected. I am doing research on the identification of people suffering from emotional problems. As part of my research I need to test an instrument. This instrument is designed to identify emotional problems and I need your help to find out if the instrument works.

***What do you have to do?***

1. The instrument consists of 21 questions that the nurse (sister) will ask you and should not take more than 10 minutes to complete.
2. Afterwards the nurse (sister) will ask you how you felt about answering the questions.

That is all. The information that you give to the people will be kept in the strictest confidence.

***Why have you been selected?***

It is pure chance that you have been selected. Your selection was based on a random selection. **Your selection is no way an indication that you might have a mental health problem.**

***Are you willing to participate?***

If you are willing to participate please fill in the requested information in the square.

I _____, declare that I give my consent to participate in the above mentioned research project.	
Signature: _____	Date: _____
Witness: _____	Date: _____

Thank you for your kind co-operation,

-----

**Idalia Venter**

*PILOT STUDY*  
*INSTRUMENT EVALUATION*  
*Respondent consent form*

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Monghadi/Mofumahadi?Mofumahatsana,

Batho ba bangata ba tshwengwa ke mathata a maikutio empa ha ba fumantswe pheko e nephetseng hobame mathata a na a maikutio a sa elwe hloko. Ke etsa diphuputso ho fimama le ho eia hloko batho ba naleng mathata a maikutio. Ntlha-ngwe ya diphutso tse na, tsaka, ke ho hlahloba sesebediswa lethathama la dipotso. Sesebedsiwa sena se ralletse ho ka totobatsa mathata a maikutlo. Ke hloka thuso ya hao ho ka bona hore sesebediswa sena, se a sebetsa.

***Ke hobaneng o khethuwe?***

1. Sesebediswa sena se na le dipotso tse 21 tseo kooki a kokelang ho ho botsa tsona mme se keke sa kuka metsotso e fetlang e leshome (10) se phathela.
2. Kamora moo, mooki kapa ngaka e tla o tobsa dipotso. Hona ho ke ke ha feta metsotso e mashome a mararo ho isa ho mane.

Tsebo yeo e tsebahaditseng e tla ba keluntutu le fetisisang.

***Ke hobaneng o khethuwe?***

Elibe monyetla feela hore ebe o khethuwe. Ho khethuwe ka lotho feela. Ho khethuwe ha hao ha se sesupo sa hore o nale mathata a maikutlo.

***Na o thahasell ho kna karolo?***

he ebe o na le thahasello, tlatsa (araba) tsebo e hlokawalang le bokosaneng le ka tlase. Lebake la nona ke hore ke netefatse feela hore o fela o dumetse ho nka o dumetse ho nka karolo.

Na \_\_\_\_\_, ke netefatsa hore ke dumetse ho nka karolo dipatlisisong tse boletsweng.

Tshaeno: \_\_\_\_\_

Letsatsi: \_\_\_\_\_

Paki: \_\_\_\_\_

Letsatsi: \_\_\_\_\_

***ANNEXURE 7***

***Respondent consent form***

# INSTRUMENT ASSESSMENT

## *Respondent consent form*

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Dear Sir/Madam

Many people suffer from emotional problems but are not treated properly because their emotional problems are not detected. I am doing research on the identification of people suffering from emotional problems. As part of my research I need to test an instrument. This instrument is designed to identify emotional problems and I need your help to find out if the instrument works.

### ***What do you have to do?***

1. The instrument consists of 21 questions that the nurse (sister) will ask you and should not take more than 10 minutes to complete.
2. Afterwards you will be interviewed by a doctor or a psychologist. That should not take more than 30 – 40 minutes.

That is all. The information that you give to the people will be kept in the strictest confidence.

### ***Why have you been selected?***

It is pure chance that you have been selected. Your selection was based on a random selection. Your selection is no way an indication that you might have a mental health problem.



***What do you get from it?***

Your help might help other people who are in need and for your trouble you will receive R10:00 after you have completed the interview with the doctor or psychologist.

***What are your rights?***

You have the right to refuse to participate. You also have the right to stop your participation at any time during the process.

***Are you willing to participate?***

If you are willing to participate please fill in the requested information in the square. The reason for this is just so that I can prove that you participated willingly.

I _____, declare that I give my consent to participate in the above mentioned research project.	
Signature: _____	Date: _____
Witness: _____	Date: _____

Thank you for your kind co-operation,

-----  
**Idalia Venter**

# INSTRUMENT ASSESSMENT

## *Respondent consent form*

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Monghadi/Mofumahadi?Mofumahatsana,

Batho ba bangata ba tshwengwa ke mathata a maikutio empa ha ba fumantswe pheko e nephetseng hobame mathata a na a maikutio a sa elwe hloko. Ke etsa diphuputso ho fimama le ho eia hloko batho ba naleng mathata a maikutio. Ntlha-ngwe ya diphutso tse na, tsaka, ke ho hlahloba sesebediswa lethathama la dipotso. Sesebedsiwa sena se ralletse ho ka totobatsa mathata a maikutlo. Ke hloka thuso ya hao ho ka bona hore sesebediswa sena, se a sebetsa.

### ***Ke hobaneng o khethuwe?***

1. Sesebediswa sena se na le dipotso tse 21 tseo kooki a kokelang ho ho botsa tsona mme se keke sa kuka metsotso e fetlang e leshome (10) se phathela.
2. Kamora moo, mooki kapa ngaka e tla o tobsa dipotso. Hona ho ke ke ha feta metsotso e mashome a mararo ho isa ho mane (30 – 40 minutes). Kepetho.

Tsebo yeo e tsebahaditseng e tla ba keluntutu le fetisisang.

### ***Ke hobaneng o khethuwe?***

Elibe monyetla feela hore ebe o khethuwe. Ho khethuwe ka lotho feela. Ho khethuwe ha hao ha se sesupo sa hore o nale mathata a maikutlo.

***O mumantshwa (putswa ka eng?)***

Thuso ya hao e ka thusa batho ba bang ba hlokang thuso. Empa, ha fumantshwa R 10:00 bakeng sa biotelo ba hao ha o se o arabile dipotso tsa mooki/ngaka (ot tlatistse sesebediswa).

***Tokelo ya hao ke eng?***

O na le tokelo ya ho sa nke karolo. O beotse o nale tolelo ya ho khina/ho se tswellepele ka dipatlisiso tsena nako enge le e ngwe/ neng kapa heng.

***Na o thahasell ho kna karolo?***

he ebe o na le thahasello, tlatsa (araba) tsebo e hlokawalang le bokosaneng le ka tlase. Lebake la nona ke hore ke netefatse feela hore o fela o dumetse ho nka o dumetse ho nka karolo.

Na _____, ke netefatsa hore ke dumetse ho nka karolo dipatlisisong tse boletsweng.	
Tshaeno: _____	Letsatsi: _____
Paki: _____	Letsatsi: _____

***ANNEXURE 8***

***Instrument***

# PART I

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INDICATOR	YES	NO
1. Head complaints		
2. Insomnia		
3. Neck/shoulder complaints		
4. Malaise (tiredness)		
5. Incongruent physical complaints		
6. Gastrointestinal complaints		
7. Urine-genital complaints		
8. General body pains (pains in two or more areas of the body)		
9. Backache		
10. Complaints encompassing three or more body systems		
11. Palpitations		
12. Poor Libido		
13. Thought problems e.g. thinking too much of thoughts racing		

## PART II

1. How often to you have headaches?	Never or almost never A few times a month A few tomes a week Everyday	1 2 3 4
2. Have your eating habits changed?	Eat more Eat less Eat the same as usual	1 2 3
3. How do you sleep?	Sleep well Can't fall a sleep Keep waking up Wake up too early	1 2 3 4
4. Do everyday things frighten you?	Never or almost never Sometimes Often Very often	1 2 3 4
5. Do your hands shake?	Never or almost never A few times a month A few times a week Everyday	1 2 3 4
6. Do you feel nervous tense or worried?	Almost never A few times a month A few tomes a week Everyday	1 2 3 4
7. Do you have stomach problems?	Never or almost never A few times a month A few times a week Everyday	1 2 3 4
8. Do you have trouble thinking clearly?	Never or almost never A few times a month A few times a week. Everyday	1 2 3 4
9. Do you feel unhappy?	Never or almost never A few times a month A few times a week. Everyday	1 2 3 4
10. Women: Do you cry more than usual? Men: Do you get angry more than usual?	Never or almost never A few times a month A few times a week. Everyday	1 2 3 4
11. Do you enjoy your everyday activities like you used to?	Never or almost never Sometimes Often Very often	1 2 3 4
12. Do you find it difficult to make decisions?	Never or almost never Sometimes Often Very often	1 2 3 4

13. Is your daily work suffering?	Never or almost never Sometimes Often Very often	1 2 3 4
14. Do you play a useful part in life?	Never or almost never Sometimes Often Very often	1 2 3 4
15. Have you lost interest in things you used to like?	Never or almost never Sometimes Often Very often	1 2 3 4
16. Do you feel that you are a worthless person?	Never or almost never Sometimes Often Very often	1 2 3 4
17. Have you thought of killing yourself?	Never or almost never Sometimes Often Very often	1 2 3 4
18. Do you get tired more than you used to?	Never or almost never Sometimes Often Very often	1 2 3 4
19. Have your sexual habits changed?	Has more sex than usual Has less sex than usual Is the same as usual	1 2 3
20. Do you argue with your family more than you used to?	Never or almost never Sometimes Often Very often	1 2 3
21. Do you do things that cause you harm?	Never or almost never Sometimes Often Very often	1 2 3 4

## PART II

1. Na o tshwarwa ke hloho ha kae?	Le eseng (hohang)	1
	Makhetlho a mmalwa ka khwedi	2
	Makhehlo a mmalwer ka beke	3
	Tsatsi le leng leleleng	4
2. Na mokhwa wa hao wa hoja o felohile?	O ja ha holwanyana	1
	O ja hanyenyana	2
	O ja mokhlwa o tswanang	3
3. O robala jwang?	O robala hantle	1
	O sitwa ho robala	2
	O phaphama lehafetsa	3
	O phaphama ka matjeke	4
4. Na otshoswa ke diketsahalo tsa ka mehla?	Le eseng (hohang)	1
	Nako ngwe	2
	Ha ngata	3
	Ka sewelo	4
5. Na matsoho ha hao a thothomela?	Le eseng (hohang)	1
	Nako ngwe	2
	Ha ngata	3
	Ka sewelo	4
6. Na o ikuthwa o tshwengwa ke letswalo?	Le eseng (hohang)	1
	Nako ngwe	2
	Ha ngata	3
	Ka sewelo	4
7. Na o tshwengwa ke mala?	Le eseng (hohang)	1
	Nako ngwe	2
	Ha ngata	3
	Ka sewelo	4
8. Na o na le bothata ba ho nahana hantle?	Le eseng (hohang)	1
	Nako ngwe	2
	Ha ngata	3
	Ka sewelo	4
9. Na o kjuthwa o sa thaba?	Le eseng (hohang)	1
	Nako ngwe	2
	Ha ngata	3
	Ka sewelo	4
10. Basadi: Na o na le ho lla feela ho fet ka mehla? Banna: Na o khena ho fet ka mehla?	Le eseng (hohang)	1
	Nako ngwe	2
	Ha ngata	3
	Ka sewelo	4
11. Na o ntse o nalefelwa ke diketsahalo tsa letsatsi le letsatsi le letsatsi jwalo ka tlwaelo?	Le eseng (hohang)	1
	Nako ngwe	2
	Ha ngata	3
	Ka sewelo	4
12. Na o sitwa ke ho nka qeto?	Le eseng (hohang)	1
	Nako ngwe	2
	Ha ngata	3
	Ka sewelo	4



13. Na mosebetswe wa hao wa mehla o a haella?	Le eseng (hohang) Nako ngwe Ha ngata Ka sewelo	1 2 3 4
14. Na o nka karolo e bohlokwe bophelong?	Le eseng (hohang) Nako ngwe Ha ngata Ka sewelo	1 2 3 4
15. Na o feletswe ke thahasello dinthong tseo o neng o di rata?	Le eseng (hohang) Nako ngwe Ha ngata Ka sewelo	1 2 3 4
16. Na o ikutlwa o se motho we luthong tseo o neng o li rata?	Le eseng (hohang) Nako ngwe Ha ngata Ka sewelo	1 2 3 4
17. Na o like wa tlelwa ke monahano we ho ipolaya?	Le eseng (hohang) Nako ngwe Ha ngata Ka sewelo	1 2 3 4
18. Na o khathala ho fela pele?	Le eseng (hohang) Nako ngwe Ha ngata Ka sewelo	1 2 3 4
19. Na kikamano tsa hao tsa thobalang di betohile?	Le eseng (hohang) Nako ngwe Ha ngata Ka sewelo	1 2 3 4
20. Na o ngangisana le ba lapa lo hao ho feta pele?	Le eseng (hohang) Nako ngwe Ha ngata Ka sewelo	1 2 3 4
21. Na o ngangisana le ba lapa lematsang?	Le eseng (hohang) Nako ngwe Ha ngata Ka sewelo	1 2 3 4

***ANNEXURE 9***

***Referral result form***

## RESULT OF REFERRAL

### Tick list

ITEM	RATING	TICK
This referral was not appropriate at all.	1	
The patient may benefit from psychiatric treatment.	2	
This was a useful referral and the patient will benefit from psychiatric treatment.	3	
This referral was vital and the patient needs immediate psychiatric treatment.	4	

**ANNEXURE 10**

***Instructions for fieldworkers***

# INSTRUCTIONS FOR INSTRUMENT

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These guidelines are just a reminder of what is to be done.

1. Ask the patient if he/she is willing to participate in the study. Use the patient consent form as a guide to explain the situation to the patient.
2. If the patient is willing ask him/her to sign the consent form.
3. Assess the patient as you would normally do.
4. Fill in **Part I** of the instrument based on the information you have collected from the assessment of the patient.
5. Ask the patient the questions in **Part II** of the instrument.
6. Take the completed instrument, place it in the envelope and seal the envelope.
7. Refer the patient to the doctor or psychologist as arranged.
8. Remind the patient that their transport money will be paid by the doctor or psychologist.
9. Send the file with the envelope containing the completed instrument to the doctor or psychologist.

**IMPORTANT:** Please do not record any personal information of the patient on any part of the questionnaire.

THANK YOU VERY MUCH



**ANNEXURE 11**

***Delphi instructions and questionnaire***

School of Nursing  
Faculty of Health Sciences  
University of the Free State  
BLOEMFONTEIN  
9300

18 October 2001

Dear

In earlier communications you have indicated that you are interested in taking part in my research project. This research is toward my Ph.D. in Mental Health Nursing. The object of this project is the development of an instrument to identify mental illness in black patients in the Primary Health Care setting.

I have included:

- the aims and objectives of the study; (p. 1)
- a brief summary of the development of the instrument; (p. 1)
- the instrument as it stands and (p. 3+4)
- a questionnaire which is to be answered. (p. 6)

Please read through the documents and answer the accompanying questionnaire.

Again thank you for your kind co-operation.

Yours faithfully,

-----  
**Idalia Venter (Ms.)**

# RESEARCH PROJECT

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**TITLE:** The development of an Instrument to identify Mental Illness in Black Patients in the Primary Health Care setting.

**AIM:**

- To assist health workers (usually nurses) to identify mental illness of a non-psychotic nature in black patients attending PHC clinics.

**OBJECTIVES:**

- design an instrument which will assist nurses working in Primary Health Care (PHC) settings;
- implement the instrument and
- evaluate the instrument.

## 1. BACKGROUND

Different studies indicate that between 12 - 30% of all black patients attending PHC services suffer from mental illness (Hall & Williams, 1987:239; Abiodun, 1989:372; Ben-Tovim, 1983:202; Reeler, 1987:37). On the other hand only 10 - 33% of mental illness is detected. (Reeler, 1993; Abiodun, 1987; Hall & Williams, 1987; De Jong *et al.*, 1986).

One of the main reasons is that black people somatisise their symptoms, which leads to unnecessary treatment and tests without the patient getting any relief (Reeler, 1995; Hall & Williams, 1987).

It was decided to address this problem as part of a Ph.D. study.



## **2. DEVELOPMENT OF THE INSTRUMENT**

To assist the health care workers in identifying this hidden morbidity it was decided to develop a screening instrument.

### **2.1 Practical considerations re: the instrument**

The health care facilities are often overburdened and under resourced, whether it be staff or supplies. The staff do not have the time to administer a long instrument to each patient.

What is ideally needed is a very brief pre-screening instrument that could assist the health care worker to identify those patients the need further screening. This allows for all patients to be screened rapidly and reduces the amount of patients that are to be screened further.

With this in mind the instrument that was developed consists of two parts, each with its own objectives, characteristics and methods of development:

#### **PART I**

##### **Objective**

To indicate which patients attending a PHC facility might need further screening for the presence of mental illness. Thus precluding a more lengthy screening of all patients.

##### **Characteristics**

Administration should be brief and simple.

## **Methods of development**

Three methods were used in the development of Part I:

- File audit: The files of patients who have been treated for mental illness were examined to identify the presenting complaints.
- Focus group: Nurses working in PHC clinics were asked to identify indicators of mental illness in black patients.
- Literature study: A survey of the literature was done to discover the ways in which black patients present with mental illness.

These sources of information led to a list of ten indicators. The usefulness of these indicators will be tested statistically in the following manner. The instrument will be administered by registered nurses to 100 randomly selected patients attending a PHC facility. These patients will then be evaluated by psychiatrists, doctors, psychologists and mental health nurses to determine whether these patients need psychiatric treatment or not. Statistical analysis of these results will indicate the cut-off point indicating whether further screening is necessary or not. Hopefully these results will also indicate which of the indicators in Part I are useful and which may be discarded.

## **PART II**

### **Objective**

To identify the presence of mental illness in black patients. These patients will have been screened by using the instrument in Part I and will have indicated that their might be cause for further investigation.

## Characteristics

This part is more lengthy than Part I and acts only as a screening to identify the presence of mental illness.

## Methods of development

The Self Reporting Questionnaire was used as a basis, but because several studies indicated that there were problems with this instrument an attempt was made to address these problems.

### 3. IMPLEMENTATION OF THE INSTRUMENT

#### 3.1 Part I

Part I has the sole objective of identifying patients who are possibly using somatic complaints to indicate emotional distress. This part of the instrument is to be completed by the health workers using information deduced from their routine examination of all patients. No items in this part will be administered to the patient *per se*. but will be ticked off by the nurse after obtaining the information from the patient during routine history taking.

#### PART I

INDICATOR	YES	NO
1. Head complaints		
2. Insomnia		
3. Neck/shoulder complaints		
4. Malaise (tiredness)		
5. Incongruent physical complaints		
6. Gastrointestinal complaints		
7. urine-genital complaints		
8. general body pains (pain in two or more areas of the body)		
9. backache		
10. Complaints encompassing three or more body systems		

### 3.2 Part II

As previously mentioned Part II is based on the SRQ. Literature indicates that there are problems with false positive responses to the questions. Several reasons were given for this but one reason that does not seem to be indicated is that the SRQ asks leading questions. Furthermore it is accepted as common knowledge that many black people in South Africa are inclined to give a positive response to a question as a sign of respect. This may differ between cultures, but the principle remains that patients should never be asked leading questions and "yes/no" responses should be avoided wherever possible.

In addressing this principle the questions were reformulated where necessary and a Likert style of possible answers were included. One may argue that this makes the questionnaire too long, but with the pre screening done in Part I of the instrument not all patients need to be subjected to Part II and the time factor is addressed in that manner.

The questions in the SRQ indicating psychotic conditions have been removed as the identification of psychoses is not part of the aim of this study.

This part of the instrument is to be administered to the patient by a registered nurse in a PHC facility.

## PART II

1. How often do you have headaches?	Never or almost never A few times a month A few times a week Everyday
2. Have your eating habits changed?	Eat more Eat less Eat the same as usual
3. How do you sleep?	Sleep well Can't fall a sleep Keep waking up Wake up too early
4. Do everyday things frighten you?	Never or almost never Sometimes Often Very often
5. Do your hands shake?	Never or almost never A few times a month A few times a week Everyday
6. Do you feel nervous tense or worried?	Never or almost never A few times a month A few times a week Everyday
7. Do you have stomach problems?	Never or almost never A few times a month A few times a week Everyday
8. Do you have trouble thinking clearly?	Never or almost never A few times a month A few times a week Everyday
9. Do you feel unhappy?	Never or almost never A few times a month A few times a week Everyday
10. Women: Do you cry more than usual? Men: Do you get angry more than usual?	Never or almost never A few times a month A few times a week Everyday
11. Do you enjoy you everyday activities like you used to?	Never or almost never Sometimes Often Very often
12. Do you find it difficult to make decisions?	Never or almost never Sometimes Often Very often

13. Is your daily work suffering?	Never or almost never Sometimes Often Very often
14. Do you play a useful part in life?	Never or almost never Sometimes Often Very often
15. Have you lost interest in things?	Never or almost never Sometimes Often Very often
16. Do you feel that you are a worthless person?	Never or almost never Sometimes Often Very often
17. Have you thought of killing yourself?	Never or almost never Sometimes Often Very often
18. Do you get tired more than you used to?	Never or almost never Sometimes Often Very often

#### 4. EVALUATION OF THE INSTRUMENT

The instrument is to be evaluated in three ways.

- Firstly the instrument will be sent to a team of experts.
- Secondly the instrument will be administered to ten patients to determine its ease of use and acceptability to the clients.
- Thirdly the instrument will be administered to 100 randomly selected patients.
- Finally the respondents will be evaluated by psychiatrists, psychologists and psychiatric nurses to determine whether he/she has need for psychiatric treatment.

# QUESTIONNAIRE

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Please treat Part I and II separately and give your opinions on the following questions.

## PART I

Indicate your response to each question by circling the appropriate number using the following scale:

1.	strongly agree
2.	agree
3.	disagree
4.	strongly disagree

### *Question 1*

Indicate, by circling your response, whether each of the following indicators in Part I are appropriate in identifying the possibility of mental illness, considering the tendency to somatisise as explained on p. . [Note: These questions are not directed at the patient but the answers are deducted after taking the patients history]

Please use the scale given above.

## PART I

INDICATOR		YES	NO
1.1	Head complaints i.e. headaches, "veins of the head", etc.		
1.2	Insomnia		
1.3	Neck/shoulder complaints		
1.4	Malaise (tiredness)		
1.5	Incongruent physical complaints		
1.6	Gastrointestinal complaints		
1.7	Urogenital complaints		
1.8	General body pains (pain in two or more areas of the body)		
1.9	Backache		
1.10	Complaints encompassing three or more body systems		

INDICATE HERE			
1	2	3	4
1	2	3	4
1	2	3	4
1	2	3	4
1	2	3	4
1	2	3	4
1	2	3	4
1	2	3	4
1	2	3	4

### Question 2

Are there any other aspects that should be included in Part I of the instrument?

Please specify:

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### Question 3

It is possible for a registered nurse without psychiatric training to complete this part of the instrument after taking a routine history of a patient attending a PHC facility without further interrogation.

1.	2.	3.	4.
----	----	----	----

**Registered nurse:** A registered nurse is defined as someone who has undergone three or four years of nursing studies. These studies may include psychiatric nursing.



**Question 4**

It is possible for a staff nurse to complete this part of the instrument after taking a routine history of a patient attending a PHC facility without further interrogation.

5.	6.	7.	8.
----	----	----	----

**Staff nurse:** A staff nurse is defined as someone who has undergone two years of nursing studies. These studies do **not** include psychiatric nursing.

**Any other comments**

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/ \* / \* / \* / \* /

**PART II**

Indicate your response to each question by circling the appropriate number using the following scale:

1.	strongly agree
2.	agree
3.	disagree
4.	strongly disagree

**Question 5**

Indicate, by circling your response, whether each of the following aspects referring to specific signs and symptoms are appropriate in identifying the presence of mental illness. [Note: These questions, as opposed to Part I, are directed to the patient by the nurse.]

Please use the scale given above.

**PART II**

5.1	Headaches
5.2	Altered eating habits
5.3	Problems with sleeping
5.4	Feelings of anxiety
5.5	Shaking hands
5.6	Feelings of nervousness
5.7	Stomach problems
5.8	Problems with thinking
5.9	Feelings of unhappiness
5.10	Women: Crying Men: Anger
5.11	Loss of enjoyment
5.12	Feelings of ambivalence
5.13	Impairment of functioning
5.14	Feelings regarding participation in everyday life
5.15	Loss of interest
5.16	Feelings of worthlessness
5.17	Suicidal thoughts
5.18	Feelings of tiredness

INDICATE HERE			
1	2	3	4
1	2	3	4
1	2	3	4
1	2	3	4
1	2	3	4
1	2	3	4
1	2	3	4
1	2	3	4
1	2	3	4
1	2	3	4
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1	2	3	4
1	2	3	4
1	2	3	4
1	2	3	4
1	2	3	4
1	2	3	4
1	2	3	4
1	2	3	4

**Question 6**

Please refer to question 5.10.

Do you think that the following aspects of emotional upheaval is applicable to the specific genders?

5.10 A	<b>Women: Crying</b>
5.10 B	<b>Men: Anger</b>

1	2	3	4
1	2	3	4

**Question 7**

Are there any other aspects that should be included in this part of the instrument?

Please specify:

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### Question 8

Are the following questions asked in a manner which allows the clients freedom to express their true concerns?

#### PART II

			INDICATE HERE			
8.1	How often do you have headaches?	Never or almost never A few times a month A few times a week Everyday	1	2	3	4
8.2	Have your eating habits changed?	Eat more Eat less Eat the same as usual	1	2	3	4
8.3	How do you sleep?	Sleep well Can't fall a sleep Keep waking up Wake up too early	1	2	3	4
8.4	Do everyday things frighten you?	Never or almost never Sometimes Often Very often	1	2	3	4
8.5	Do your hands shake?	Never or almost never A few times a month A few times a week Everyday	1	2	3	4
8.6	Do you feel nervous tense or worried?	Never or almost never A few times a month A few times a week Everyday	1	2	3	4
8.7	Do you have stomach problems?	Never or almost never A few times a month A few times a week Everyday	1	2	3	4
8.8	Do you have trouble thinking clearly?	Never or almost never A few times a month A few times a week Everyday	1	2	3	4
8.9	Do you feel unhappy?	Never or almost never A few times a month A few times a week Everyday	1	2	3	4
8.10	Women: Do you cry more than usual? Men: Do you get angry more than usual?	Never or almost never A few times a month A few times a week Everyday	1	2	3	4
8.11	Do you enjoy your everyday activities like you used to?	Never or almost never Sometimes Often Very often	1	2	3	4

8.12	Do you find it difficult to make decisions?	Never or almost never Sometimes Often Very often
8.13	Is your daily work suffering?	Never or almost never Sometimes Often Very often
8.14	Do you play a useful part in life?	Never Sometimes Often Very often
8.15	Have you lost interest in things?	Never Sometimes Often Very often
8.16	Do you feel that you are a worthless person?	Never Sometimes Often Very often
8.17	Have you thought of killing yourself?	Never Sometimes Often Very often
8.18	Do you get tired more than you used to?	Never Sometimes Often Very often

1	2	3	4
1	2	3	4
1	2	3	4
1	2	3	4
1	2	3	4
1	2	3	4

**Question 9**

Any other comments.

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**Thank you for your kind co-operation.**

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**ANNEXURE 12**

***Permission from Ethics Committee to  
access data for the development of the  
instrument***

THE UNIVERSITY OF THE ORANGE FREE STATE



Office of the Director : Administration  
Faculty of Health Sciences

☒ 339 BLOEMFONTEIN 9300  
☎ (051) 401-3013 / 401-2847

REPUBLIC OF SOUTH AFRICA  
TELEFAX (051) 444 3103 SA

Enquiries Mrs G Niemand

Tel 4053004

2<sup>nd</sup> December 1999

MS I VENTER  
SCHOOL OF NURSING  
INTERNAL POST BOX 136  
U O F S

Dear Ms Venter

**ETOVS NR 241/99**

**RESEARCHER: MS I VENTER**

**PROJECT TITEL: A SCREENING INSTRUMENT FOR MENTAL ILLNESS IN BLACK PATIENTS IN PRIMARY HEALTH CARE SETTINGS.**

The abovementioned protocol was approved by the Ethics Committee during their meeting held on the 2<sup>nd</sup> December 1999. Dr van Rhyn who is a member of the Ethics Committee did not take part in the final decision of this protocol.

Your attention is kindly drawn to the requirement that a progress report be presented not later than one year after approval of the project.

Would you please quote the Etovs number as indicated above in subsequent correspondence, reports and enquiries.

Yours faithfully,

A handwritten signature in black ink, appearing to read 'G. Niemand', written over a horizontal line.

For DIRECTOR: MEDICINE ADMINISTRATION

/hs



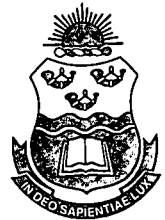
**ANNEXURE 13**

***Permission from Ethics committee to  
implement the instrument***





# UNIVERSITEIT VAN DIE VRYSTAAT UNIVERSITY OF THE FREE STATE



**Direkteur: Fakulteitsadministrasie  
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Mrs G Nlemand

2003-02-20

MS I VENTER  
SCHOOL OF NURSING  
UNIVERSITY OF THE FREE STATE

Dear Ms Venter

ETOVS NR 241/99

**PROJECT TITLE: A SCREENING INSTRUMENT FOR MENTAL ILLNESS IN BLACK PATIENTS  
IN PRIMARY HEALTH CARE SETTINGS.**

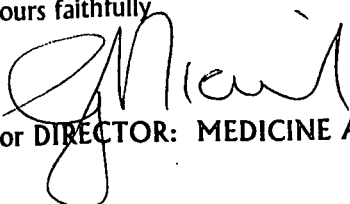
You are hereby informed that during their meeting held on the 18<sup>th</sup> February 2003 the Ethics Committee approved the instrument which will be used in the final part of the abovementioned study on condition that permission be obtained from the institutions where the study will be done and the questionnaire have to be available in the language the trial person prefers. After permission have been obtained and the questionnaire translated, the researcher may continue with the study.

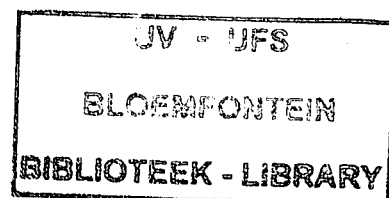
Your attention is kindly drawn to the following:

- Failure to submit a progress report not later than one year after approval of the project may result in the termination of the study.
- That all extensions, amendments, serious adverse events, termination of a study etc have to be reported to the Ethics Committee
- These documents have been accepted as complying with the Ethics Standards for Clinical Research based on FDA, ICH GCP and Declaration of Helsinki guidelines
- Translations of the Subject Information Leaflet and Consent Form have to be submitted prior to commencement of a study.

Will you please quote the Etovs number as indicated above in subsequent correspondence, reports and enquiries.

Yours faithfully

  
For DIRECTOR: MEDICINE ADMINISTRATION



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