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THE RELATIONSHIP BETWEEN EMPLOYEE KNOWLEDGE, PERSONAL CONTACT AND ATTITUDES TOWARDS CHRONICALLY ILL CO-WORKERS: CASE OF SELECTED ORGANISATIONS WITHIN THE BANKING SECTOR

MINI DISSERTATION

BY

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DECLARATION

I, the undersigned, Herbert Kanengoni, hereby declare that the study on **'The Relationship between Employee Knowledge, Personal Contact and Attitudes towards Chronically Ill Co-employees: Case of Selected Organisations within the Banking Sector'** is my own original work and that any quotations used in study have been attributed to their authors. The dissertation has not been submitted, at any university for a similar or any other degree.

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Signature

_____/_____/ 2010

Date

DEDICATION

For my mother, Mrs. C. Kanengoni.

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First of all, I would like to thank God who made it possible for me to study at the University of Fort Hare.

Mr. C. Murugan, my supervisor, for all the support and guidance which was so crucial for me to complete this study.

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My Mom and my brothers and sisters,

All my friends, whose support and remarks always motivated me, not forgetting all the employees who participated in the study.

ABSTRACT

As chronic illnesses continue to be a burden in today's organisations, it remains a very crucial call for management to find ways to eradicate the associated organisational problems. While people of all ages are affected by chronic illnesses, there is a higher risk of the elderly developing chronic diseases. However, as much as chronic illnesses are inevitable among employees, there should be ways at least to curb negative social and goal achievement impact which they bring in organisations. In this regard, a survey of 80 employees was conducted to examine the relationship between employees' knowledge about, contact with, and attitudes towards their co-employees with chronic illnesses (CI). Results indicated that employees' knowledge about and contact with individuals diagnosed with chronic illnesses were significantly related to better attitudes toward this population. The findings also revealed that knowledge was related to positive attitudes among employees who had more personal contact with individuals with Chronic illnesses (CI) and such findings indicate the importance of exposing employees to information about chronic illnesses and direct practice experience with individuals who have these illnesses. To be noted also is that 39% of the respondents preferred to be exposed to health bulletins and magazines; 18% of the respondents preferred the help of health workers and about a third (30%) favoured brochures, posters and printed materials such as flyers. Managerial implications for employees with chronic illness are discussed.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

CHAPTER 1: INTRODUCTION AND BACKGROUND OF THE STUDY

1.1 Introduction

As organisations face an increasingly diverse labour force, workplaces incur challenges in hiring, retaining, and accommodating productive employees, (Brown & Peters 2009). Organisations have struggled with these challenges for decades apart from health issues being experienced by these organisations. One of the most prevalent and escalating health concerns facing organisations is the issue of chronic illnesses. Defining the national health priority conditions as “chronic illnesses” is generally consistent with international terminology, although the World Health Organisation [WHO] continues to use the term “non-communicable diseases” or “degenerative diseases” (Bradshaw, Buthelezi & Matters, 2000).

The American Centre for Disease Control and Prevention [CDC], (2010) defines a chronic disease as one that, in general terms, has a prolonged course, that does not resolve spontaneously, and for which a complete cure is rarely achieved. Communicable or infectious diseases which are also chronic in nature, such as Hepatitis C or HIV/AIDS are included in the conditions addressed in this study. CDC uses the term to encompass the following diseases and disorders: cardiovascular diseases, heart disease, hypertension, diabetes (and complications for instance renal disease), arthritis and other musculoskeletal diseases, cancers, chronic lung diseases, chronic neurological disorders, asthma, back pain, depression, anxiety, high blood cholesterol, sleeping sickness and obesity among others. These cause various disease processes

such as strokes, heart attacks, chronic bronchitis, emphysema and many others that culminate in high mortality rates. Many of these deaths occur in middle-aged members of the workforce, and constitute an enormous financial burden to organisations and the country as a whole due to the premature loss of life.

Non-communicable diseases are usually long-term but cannot be classified under terminal illnesses such as HIV/AIDS. Lee, (2002) argues that while employees with chronic illness differ in terms of the severity of symptoms and the frequency with which they experience these, they usually experience difficulties in work engagement. The symptoms may include difficulties in concentration, reduced mobility, extreme fatigue, sensitivity to pressure, and pain among others. On a similar note, Penn, Kohlmaier, and Corrigan, (2002) adds that, in most instances, managing these symptoms can make full-time work very difficult for most employees as it may require taking medication or attending appointments during working hours. They may also experience difficulties travelling to work or using public transport, climbing stairs or lifting objects, working for long periods of time and multi-tasking.

In this regard, chronic illness can have a major effect on a person's self image, feelings of confidence and self worth especially where employees work face to face with clients. This therefore requires people to cope in the face of adversity which is known as resilience. According to Ortiz & Harwood, (2007) resilience is the positive capacity of people to cope with stress and catastrophe. It can also be used to indicate having an adaptive system that uses exposure to stress to provide resistance to future negative

events. With this in mind, many roles can be adjusted to suit employees with chronic illnesses better, thereby helping them to work through their illness and ensuring that the organisation capitalises on their contribution. A good example is that of a female employee in marketing who is undergoing breast cancer treatment. She finds the journey to work exacerbating her fatigue but is still able to work on her laptop from home and speak to clients. Support and accommodation are vital to ensuring a healthy and sustainable workplace.

One of the perspectives that guide this study is Kohlberg's Theory of Moral Development. It proposes that there are various stages of reasoning in the theory of moral development that occurs throughout the lifespan of human beings. Stage three concerns interpersonal relationships, often referred to as the “good boy – good girl” orientation. This stage of moral development focuses on living up to social expectations and roles. There is an emphasis on conformity, being "nice," and consideration of how choices and attitudes influence relationships (About.com Psychology, 2005). However many studies show that the primary factor is to have relationships that provide care and support, create love and trust, and offer encouragement both within and outside the family. Additional factors such as the capacity to make realistic plans, having self-confidence and a positive self image, developing communication skills, and the capacity to manage strong feelings and impulses are also associated with resilience.

Someone who has an illness that is viewed as relatively minor may look well and yet experience unpleasant symptoms which are not evident to those around them. According to Clarian Human Resources [CHR] (2007), other workers may be unaware

of how these minor illnesses can impact on a person's life and well-being because not everyone knows how a single bout of even a minor illness can be very debilitating. The pattern of diseases in South Africa is being exacerbated by an exploding epidemic of HIV/AIDS. The employment problems of individuals who suffer from HIV/AIDS are receiving considerable attention as mounting evidence demonstrates the extent of their personal, social and economic impact (Krupa, 2007). This has diverted quite a considerable share of the employers' and employees' attention from long – term non – terminal illnesses. Review of the most recent analysis of mortality patterns by Bradshaw *et al.* (2000) shows that there is little recognition of the magnitude of the burden of chronic illnesses in South Africa, where 41% of the reported mortality was due to chronic illnesses in 1996.

Although individuals at the workplace who are personally in contact with the affected co-workers have remained committed to assisting them, they often feel inadequately prepared for this challenging work (Johannesen, McGrew, Griss, & Born, 2007). The challenges they face in the course of working with persons with chronic illness may influence their attitudes toward this population (Eack & Newhill, 2008).

1.2 Problem Statement

Murray & Lopez (as cited in Bradshaw, *et al*. 2000) posits that with an estimated 59.7% mortality rate due to chronic illness by 2020, how much do people know about these diseases? In addition, how much do we also know about the impact that chronic illnesses have on an individual's ability to work and the management strategies that can

help sick employees better manage their illness and be productive at work. Moreover, with the impending shortage of labour in South African scarce skill categories, organisations will not find it easy to turn away capable workers. While numerous studies (Juma, 2001; Kahn, 2002) have examined workplace health problems with respect to HIV/AIDS, there are comparably fewer studies on non-terminal chronic illnesses, and most of this work has focused on Western countries (Stone-Romero, Stone, & Lukaszewski, 2006). In support of this, a study conducted by Papadopoulos in 2002 also found that lower knowledge levels in a British Greek-Cypriot population were associated with more stigmatising attitudes. However, despite such studies indicating a relationship between levels of knowledge and valence of attitude, the relationship is not clear-cut across countries and organisations. Therefore, the use of intervention models and materials developed in Western societies is frequently inappropriate for those people with different lifestyles, habits and practices. This implies the need to develop and test culturally-appropriate intervention and education materials for the specific target groups and situations in South African organisations. With this in mind, the study at hand concerns the relationship between knowledge, personal contact and attitudes of employees towards their chronically ill co-workers in the banking industry in order to gain insight into the perceptions of employees. To address this problem, the following are the objectives of this research study.

1.3 Objectives of the Study

a) To determine the relationship between employees' knowledge and attitudes towards co-employees diagnosed with chronic illnesses.

b) To investigate the relationship between employees' personal contact and their attitudes towards co-employees diagnosed with chronic illnesses.

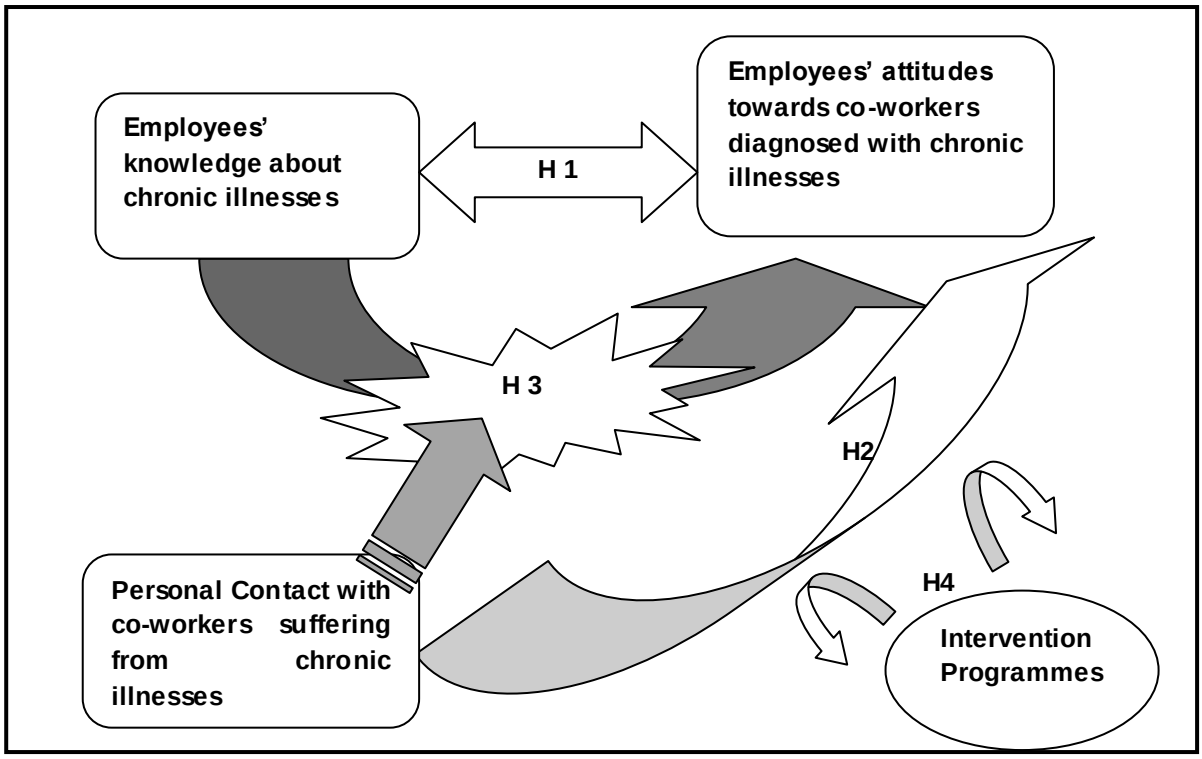
c) To determine if the relationship between the employee's knowledge and attitudes towards employees with chronic illnesses is moderated by the amount of contact they have with these individuals.

d) To determine effective employment interventions for individuals who experience chronic illnesses.

1.4 Hypotheses

In pursuit of the above mentioned objectives the following hypotheses have been formulated. The hypotheses of this study are diagrammatically illustrated in Figure 1 below.

Figure 1.1: Hypotheses [Source-Self elaboration*]**



i. There is a relationship between employees' knowledge, and their attitudes towards co-employees diagnosed with chronic illnesses.

ii. There is a relationship between the amount of contact employees have with chronically ill individuals and their attitudes towards these individuals.

iii. The relationship between employees' knowledge and attitudes towards chronically ill individuals is moderated by the amount of contact they have with them.

iv. Organisations do not have effective intervention programmes for employees suffering from chronic illnesses.

1.5 Significance of the Study

The general purpose of this study is to investigate the relations between employees' knowledge, personal contact and attitudes towards co-employees with chronic illnesses. It will help gain insight into the views of employees in as far as co – working with chronically ill individuals is concerned. The study is designed to assist managers meet their obligation to incorporate chronic illnesses into their core principles and to help them embed the principles in their organizational culture and management systems. It is meant to offer suggestions about how to effectively manage chronically ill employees while adhering to legal standards. Managing the long – term illnesses successfully can be an important factor in helping managers to realise the full potential of their employees. In addition, the study reflects the need for organisations to reach out to their employees, including the need to understand and communicate with employees in terms

that reflect their concerns to help improve employee's working life and relationships at work.

1.6 Definition of Concepts

1.6.1 Chronic Illness

The term *chronic illness* is used to define a disease that, in general terms, has a prolonged course, that does not resolve spontaneously, and for which a complete cure is rarely achieved. In this study the term *chronic illness* will be used interchangeably with the terms "*non-communicable disease*", "*chronic disease*" and "*degenerative disease*".

1.6.2 Employee Knowledge

This term refers to an employee's awareness, familiarity or understanding of a concept or subject.

1.6.3 Employee Attitudes

Attitudes refer to the employee's opinions, way of thinking or behavior reflected relative to the given variables in the study. The term refers to the inclinations to react in certain ways to certain situations; to see and interpret events according to certain predispositions; or to organise opinions into coherent and interrelated structures.

Attitudes consist of the following three components:

i. The Cognitive component

This consists of convictions, opinions and thoughts about a person or object. It refers to the thinking and interpreting that goes into forming or using an attitude. The cognitive component varies from good and supportive arguments to bad or derogatory arguments or opinions.

ii. The Emotive or Feeling component

Refers to positive or negative emotions and this consists of a reaction from the central nervous system and is also called ‘gut reaction’. This kind of response may also be expressed as a verbal response of feeling such as “I hate my team mate” or “I like my team mate”.

iii. The Behavioural component

It involves our intentions to act in certain ways, to engage in behaviours that are sometimes relevant to our attitudes. It refers to overt (observable) actions, behavioural intentions and so on. The behavioural component varies from supportive and protective behaviour (helping a colleague from another group) to hostile and destructive behaviour (assaulting a colleague from another group).

Thus each attitude is therefore made up of a cluster of feelings, likes and dislikes, behavioural intentions, thoughts and ideas.

1.6.4 Personal Contact

In the study at hand the phrase *personal contact* will be used to refer to a condition of touching, meeting, communicating or being near individuals who have chronic illnesses.

1.6.5 Resilience

The term *resilience* being used in this study refers to the positive capacity of people to cope with stress and catastrophe.

1.7 Theoretical Framework

1.7.1 The Cluster Approach

The Cluster approach which underpins the study identifies a “cluster” of modifiable risk and protective factors, biological risk factors (or markers) and preventable conditions, broadly aligned with the health priority areas. These priority areas should focus on the prevention effort (National Public Health Partnership Australia [NPHPA], 2001). These conditions can be grouped together based on commonalities in their risk factors and pathogenesis. The cluster framework also recognises the role played by non modifiable factors; and the relationship of broader social and environmental determinants to patterning of individual risk factors and the distribution of health outcomes. By grouping together a range of related health issues which are often addressed independently, the cluster approach can help to reflect the connections between many of the health problems and concerns of people.

The conditions and risk factors included in the framework are illustrated in Table 1.1 below. However, the cluster does not include all chronic diseases and conditions nor all possible risk factors. The intention in the first instance is to improve coordination around a manageable number of related conditions which are known to be preventable, share commonalities in pathogenesis and risk factors, and constitute a significant proportion of the total burden of disease. If "clustering" population health activity around these "core" conditions and risk factors prove successful, other conditions and risk factors (for instance skin cancer and sun exposure) may be added to the framework in the future.

However limitations that can be posed by this framework are that the approach just groups or outlines the diseases but it does not mention plausible ways to manage this at the organisational level or enlighten the stakeholders concerned on the possible impact that each of the illnesses has on the organisation and the magnitude of the impact.

Table 1.1: *Initial cluster of preventable chronic diseases, risk factors and determinants*

Risk and Protective Factors	Biological Risk Factors/Markers	Preventable Chronic Diseases and Conditions
Behavioural Factors • Diet • Physical Activity, Smoking • Alcohol misuse **Psychosocial Factors** • "Sense of control" •Social support/social exclusion • Resilience and emotional well-being **Early Life Factors** • Maternal Health • Low birth weight • Childhood infections • Abuse and neglect	• Obesity • Hypertension • Dyslipidemia (disordered lipids, including elevated cholesterol) • Impaired Glucose Tolerance • Proteinuria	• Ischaemic Heart Disease • Stroke • Type 2 Diabetes • Renal Disease • Chronic Lung Disease (COPD & Asthma) • Certain Cancers (e.g. colorectal, lung) • Mental health • Problems/Depression* *Possible inclusion:* • Oral health* • Musculo-skeletal conditions2
Non modifiable factors: Age, sex, ethnicity, genetic make-up, family history **Socio-environmental determinants *(may or may not be modifiable):* Socio-economic status, community characteristics (e.g. presence/absence of social capital), working conditions, environmental health etc**		

* can also be defined as risk/protective factors
**Source: National Public Health Partnership Australia Report, 2001

1.8 Delimitation of the Study

The study focuses on the issue of how the employees' knowledge about chronic illnesses and personal contact with relation to their attitudes towards persons with chronic illnesses.

1.8.1 Type of the organisation

The respondents will be drawn from the employees of selected organisations in the banking sector.

1.8.2 Size of the organisation

The inclusive total of the organisations from which the respondents will be drawn is not predetermined because the organisations will be randomly selected from the banking sector.

1.8.3 Geographic demarcation

The study will be conducted in Buffalo City Municipality which is located in the Eastern Cape Province.

1.8.4 Units of analysis

The units of analysis include all employees in the selected organisations regardless of the title or level, that is, all employees at all levels of the organisational hierarchy.

1.8.5 Subjects of evaluation

The present study is designed to explore the relationship between employee knowledge about, personal contact with and their attitudes toward employees diagnosed with chronic illnesses. A secondary aim was to establish whether or not the relationship between knowledge (as measured by personal knowledge of a person suffering or free from any chronic illness) and attitudes is stronger for employees who have more frequent and closer contact with this population.

1.9 Proposed Outline of the Study

1.9.1 Chapter 1: Introduction and background of the study

This chapter will provide the background to the focus of the study globally, within South Africa and concerns at organisational level. The chapter addresses the importance of the need to deal with chronic illnesses in South Africa as well as in the global economy and the background to importance putting effective intervention programmes to address challenges faced by organisations in South Africa. The statement of the research problem, research objectives and hypotheses in this chapter shall be followed by the significance of the study, theoretical framework, delimitation of study and ethical considerations.

1.9.2 Chapter 2: Literature Review

The chapter will provide a comprehensive literature review of chronic illnesses and their probable impact if left unaddressed and specifically in the organisational context. The definitions, importance and special contributions of interventions and previous studies

shall be discussed in this chapter. Literature study on challenges facing organisations in both public and private sector interventions to assist the employees with chronic illnesses shall also be addressed in this chapter.

1.9.3 Chapter 3: Research Methodology

Chapter 3 describes the research methodology applied in the study. The research methods, techniques and sampling procedures followed are discussed in this chapter.

1.9.4 Chapter 4: Results and Discussions

Chapter 4 focuses on the empirical interpretation and analysis of the research results, using quantitative analysis. Tables and graphs shall be used to illustrate the research results.

1.9.5 Chapter 5: Conclusions and Recommendations

Chapter 5 provides conclusions and policy recommendations drawn from the research results. The limitations of the study and recommendations for further studies shall also be provided in this chapter.

1.10 Conclusion

This chapter was the foundation of the study at hand. The main theme behind the research was introduced taking into cognizance the objectives. The hypotheses of the study were formulated. In this chapter, the details concerning location, type and units of analysis have been described.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

A chronic illness is one that continues for a long period of time or recurs over a long period of time. As chronic illnesses continue to be a burden in today's organisations, it remains a very crucial call for management to find ways to eradicate the associated organisational problems. Link and Phelani (2002) point out the chronic illnesses may be inherited, but many lifestyle and environmental factors such as smoking, inappropriate diet, lack of exercise and heavy alcohol consumption are known to significantly increase risks. These factors are to some extent within the control of a well-informed individual, but there are often other factors such as poverty, poor nutrition during pregnancy and in infancy, genetic predisposition and ageing, over which the individual has little or no control.

Besides early diagnosis, management and harm reduction, a very important aspect of intervention programmes is aimed at prevention of illness and promotion of healthy lifestyles. Most of these illnesses are long-term and while many cannot be cured, they can be controlled. While people of all ages are affected by chronic illnesses, there is a higher risk of the elderly developing chronic diseases; this in turn can result in disability. However, the Ministry of Health (2000) argues that as much as chronic illnesses are inevitable among employees, there should be ways at least to curb negative impacts (both social and goal achievement) which they bring about in organisations.

2.2 Chronic Illnesses in Organisations

Chronic, non-communicable diseases are conditions of great concern, because of the significant burden they place on individuals, communities and health services. Kahn (2002) contends that many chronic illnesses are highly preventable, and effective action on prevention is, therefore, a high priority. He further stresses that, although prevalence has been recognised by some observers for at least three decades, neither the general public nor health professionals recognise the full implications of this for training, care, health insurance, and indeed for health care institutions themselves. Hoffmann, Kafatos, Janeway, & Ezekowitz, (1999) warn that we are just beginning to enter into a period when chronic illness per se (rather than specific or categorical chronic diseases) is referred to, considered, and acted on as a general reality.

2.2.1 World Health Organisation (WHO) – Global strategy for the prevention and control of non-communicable diseases

International research (NPHPA, 2001) shows that health systems can be designed to prevent and manage chronic disease more effectively. However, it is essential that system level change is accompanied by, and supportive of the empowerment and active participation of individuals, organisations, their families and communities. Globally, chronic diseases are now considered to be of epidemic proportions. Chronic diseases are among the most prevalent, costly, and preventable of all health problems (WHO, 2005). Chronic diseases continue for a long period of time or recur over a long period of time. According to the World Health Organisation [WHO], (2005), chronic diseases are the leading cause of mortality in the world. Heart disease, stroke, cancer, chronic

respiratory diseases and diabetes represent 60% of all deaths. Early diagnosis and compliance management are very important to manage a chronic condition and make sure that you continue to have a good quality of life.

While people of all ages are affected by chronic illnesses, there is a higher risk of the elderly developing chronic diseases. Most people over the age of forty suffer from one of the top five chronic diseases (WHO, 2000). An interesting fact from the World Health Organisation is that out of the 35 million people, who died from chronic disease in 2005, half were under 70 and half were women. In January 2000, the Executive Board of WHO endorsed a global non-communicable diseases strategy and recommended that the 53rd World Health Assembly (WHA) urge member states to adopt this strategy. The Director-General's Report to the WHA notes that the rapid rise of non-communicable diseases represents one of the major health challenges to global development in the present era. This growing challenge threatens economic and social development as well as the lives and health of millions of economically active people.

2.2.2 An overview of chronic illnesses in South African organisations

According to the Ministry of Health (2000), in South Africa the complex disease pattern of HIV/AIDS places high demands on health services undergoing transformation in the face of shrinking budgets and other infrastructural development demands. These include the provision of primary health care services for the majority of the population. The consequences of these competing priorities are that there is little recognition of the magnitude of the burden of non - communicable diseases in South Africa, where 41% of the reported mortality in 1996 was due to non-communicable diseases (Bradshaw, *et al*.

2000). Many of these deaths occur in middle-aged members of the workforce, and constitute an enormous financial burden to the country because of premature loss of life in the banking sector, which plays a major role in the country's economy.

Provision for the early detection, prevention, and cost-effective management of non-communicable diseases is generally inadequate. The report by Bradshaw *et al*. (2000) further reveals that in South Africa, approximately 6 million people have hypertension; 4 million have diabetes, 7 million smoke and 4 million have hyperlipidaemia. Therefore, the use of intervention models and materials developed in Western societies is frequently inappropriate for those people with different lifestyles, habits and practices. This implies the need to develop and test culturally-appropriate intervention and patient education materials for the specific target groups and situations in South African organisations.

2.2.2.1 Most common chronic illnesses in South Africa

Clicks Stores is one of the organisations that deliver medicine for any chronic condition in South Africa. The government has legislated that an employee's medical aid must pay for at least 25 of them. These are called the Prescribed Minimum Benefit (PBM) conditions. According to Clicks Stores, (2009) the most common chronic conditions that they dispense scripts for are hypertension (High Blood Pressure), hyperlipidaemia (High Cholesterol), diabetes, asthma, depression, and menopause. These illnesses reflect the common chronic conditions in South Africa at large.

2.2.3 Connecting prevention and management

The natural history of chronic disease without intervention is one of a continuum from disease-free state, to asymptomatic biological change to clinical illness, impairment and disability, development of complications, and, for many conditions, ultimately death (NPHPA, 2001). At each point of the continuum of care the objective therefore is to control the condition and to prevent or delay progression to more severe forms of disease or complications. It is recommended in Ortiz and Harwood, (2007) that healthy behaviours such as physical activity, a healthy diet, not smoking and so on play a key role not only in the onset of disease, but also in management of many conditions.

The principles, approaches and messages of health promotion – for example, empowerment, health literacy, supportive environments, recognising the links between mental and physical health (WHO, 2000), are therefore relevant across the spectrum of care, and not only at the primary prevention end of the continuum. This study will therefore consider prevention at the levels of primary, secondary and tertiary prevention. Johannesen, *et al*. (2007) defines primary prevention as the protection of health by measures which eliminate causes and determinants of departures from good health and control exposure to risk such that the number of new cases of a disorder, illness, and premature death are decreased. Secondary prevention is defined as the measures available to individuals and populations for the early detection and prompt effective intervention to correct departures from good health. Secondary prevention may lower the rate of established cases in the community. Tertiary prevention consists of the measures available to reduce or eliminate long-term impairments, disabilities and

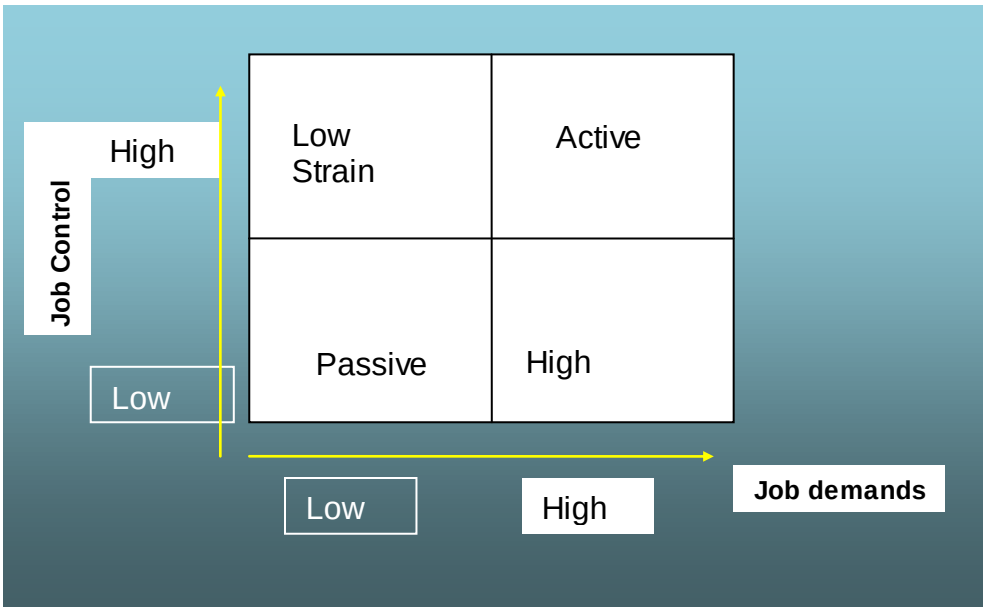
complications from established diseases, and to minimise suffering caused by existing departures from good health.

2.2.4 Support and accommodation of chronic patients in the workplace

The issue of support and accommodation of chronically ill employees in the workplace is an essential lifeline because the support an employee receives is vital. Affinity Health at Work, (2006) contends that it makes the difference for employees by enabling them to stay on in their workplace with the possibility of more flexible or reduced hours during an exacerbation of illness. Perhaps it could mean making some temporary changes to their role within the organisation. In order to retain a valued employee who has given long and dedicated service significant changes, looking at retraining the worker in a new role which would assist him/her through a difficult period can be considered (Affinity Health at Work, 2006).

Several models have been developed to try and come up with the most appropriate way of dealing with chronic illnesses in organisations. One of the models that were identified is the Job Strain (Job Demands) Model. The Job Strain Model which also underpins this study posits that the adverse effects of the work environment focuses primarily on two types of jobs. It identifies low latitude/low demand jobs, or passive jobs, often involving an inability to solve problems, make judgments, or tackle challenges on one's own, and thus can breed disaffection in the workplace. But, not surprisingly, high strain jobs are the ones related to the highest levels of physical health complaints and evidence of psychological distress. The Job Strain Model is diagrammatically illustrated in Figure 2 below.

Figure 2.1: The Job Strain (Job Demands-Control) Model.



****Adapted from Taylor (2008)*

Psychological distress typically assumes the form of anxiety, depression, or exhaustion, and physical symptoms are often expressed as absenteeism. By contrast, in job circumstances in which control over decision alternatives and skills exists, people have opportunities for active learning and participation in their work, which can act as buffers against stress. Considerable research has suggested the usefulness of thinking about jobs in these ways, not the least of which is because these characteristics predict important health outcomes, such as chronic diseases. With this in mind, how then can social support help? Recently, it has become clear that social support is a critical moderating factor for fostering resilience in today's organisations (Fitzgerald, Haythornthwaite, Suchday, & Ewart, 2003). For example, people who have high strain jobs or high demand jobs have a much higher probability of experiencing risks that

might be associated with high demands. But if they are in a supportive workplace environment they are bound to cope in the face of adversity.

However limitations that can be posed by this framework are that the approach does not identify the types of chronic illnesses that are associated with low strain and high strain jobs.

Companies need to provide support at a crucial time for their employees and do all that is possible to provide accommodation in the workplace. Regardless of the period of time, there may be some difficulties with the recruitment and retention of employees with a long-term illness but there is also a great deal of commitment from staff with long-term illnesses. Employees, who have been out of the workforce for a number of years due to illness and those who remain in the workforce, value the opportunity to work and to contribute. Employers should recognise this commitment, and value the contribution that employees with a long-term illness make, by assessing their needs and developing mechanisms and strategies to support them (CHR, 2007).

2.2.5 Disclosing an illness

For those people in employment or for those rejoining the workforce after a long absence, the issue of disclosure is a major one and the consequences to an individual who chooses to disclose an illness can be great. It can be damaging to an employee's career and promotional prospects. It can impact on how a person is viewed by colleagues and on their perceived ability to do the job. A recent review of stigma theory and research (Major & O'Brien, 2005) concluded that stigma is an adapted response to

group living that causes people with certain attributes to be excluded or stigmatised. The attributes that trigger stigma are those that signal that the person "is a poor partner for social exchange" (for example, mentally ill), or might carry parasitic infection for instance a physical deformity, and so on.

On the other hand, not disclosing can mean that employers might be less sympathetic to a sickness' absence. If someone needs to have frequent hospital appointments for example, then it is probably better to discuss it with colleagues and managers to avoid speculation. It also means that they have support in place to ensure that their work is being covered in their absence. Making a decision about whether to tell an employer about a long-term chronic illness is not easy. It is particularly difficult if the employee has an illness that is not visible and if they feel that it does not impact on their ability to do their job or affect their performance. Some people make the decision to hide their illness fearing that disclosure can cost them their job. Employees may feel that their employers will discriminate against them if they know they have an illness (CHR, 2007).

2.3 Knowledge and Attitude Formation

Private and public perceptions of chronic illness remain largely negative and there is still a need to combat discrimination and stigma. Jorm (2000) has suggested that the general public's beliefs about the causes and treatments of chronic diseases differ greatly from those of health professionals and that, attitudes which actively hinder help-seeking are prevalent.

Greater knowledge about chronic diseases and handicaps may have a prerequisite influence on employees' especially line managers' attitudes towards their disabled subordinates. Positive supervisor's attitude towards chronic patients is important, as this may serve as a model for all employees in the organisation. This is the ideal situation; but in many situations, the reality is quite different. Corrigan, et al. (2003) pointed out that discrimination towards the chronic patients begins in organisations, when the line managers do not know enough or are ignorant to their medical condition and its sequellae. It is more important that supervisors spend more time with the individual employee in their command and have direct contact with their employees. They are the conduits of helping affected employees with their worries and problems.

Allport (1954), as cited by Pettigrew, (2006) argued that the original idea of early theorists was that intergroup contact facilitated learning about the other individuals, and this new knowledge in turn reduced prejudice. The explicit idea was that interaction allows the individuals to learn about each other and see how similar they really are. This approach focuses on information as a means of lessening stigimatisation, while virtually denying actual group differences. But these well-meaning efforts carefully avoided tackling intergroup conflict at the societal level and politically explosive issues of institutional change. Nevertheless, intergroup contact research followed Allport's (1954) emphasis on knowledge as a key prejudice mediator.

Byrne, (1997) suggested that negative attitudes are not inevitably related to the amount of personal knowledge of an illness. So, those elements important in the formation and maintenance of negative attitudes are still imperfectly understood, though some possible

candidates for inclusion are demographic factors, factual knowledge and possibly some types of personal experience of people with mental illness. With regard to the role of demographic factors, Hayward and Bright (2000), suggest that a consistent finding has been that those who are older, are less educated and who belong to the lower occupational/social classes tend to hold less favourable attitudes towards chronically ill people. It is also this demographic cluster which is most likely to suffer from chronic illness, so they may be doubly disadvantaged in that both their own attitudes and those of their acquaintances may impact upon the support they either request or receive. Additionally, those people suffering from chronic illness are themselves the holders of negative attitudes, and this may have a deleterious effect on their help-seeking behaviour.

Simonds and Thorpe, (2003), posit that the somewhat tenuous relationship between demographic variables and attitudes towards chronically ill people may be an indirect effect of knowledge levels, that is, it is not the demographic variables themselves which relate to attitudes, but rather that the demographic variables may reflect an underlying variation in knowledge between different social groups. Wolff, Pathare, Craig, and Leff (1996), suggest that a link between negative attitudes and lower social class or educational level may be due to a lack of knowledge of chronic illness in those groups. In support of this, studies conducted at different times indicate a positive relationship between knowledge and tolerance (Wolff, *et al.,* 1996).

2.4 Stigma

Social psychological theories of attitude and stereotype development suggest that inadequate knowledge about a group of people may lead to negative attitudes or stigma toward that group (Weber & Crocker, 1983). Stigma may be defined as a mark of shame or disgrace that is viewed as not normal and "is manifested by bias, distrust, stereotyping, fear, embarrassment, anger and /or avoidance" (United States Department of Health and Human Services, 1999). Such stigma is often operationalised through the development of negative stereotypes and attitudes toward a group of people that are based on either a lack of knowledge or inaccurate knowledge about some aspect of that group. For example, certain stereotypes about individuals with chronic illness have been derived from ill-formed notions about the dangerousness of such persons (Corrigan, Markowitz, Watson, Rowan & Kubiak, 2003).

Cognitive models of stereotype development support the link between knowledge and attitudes by conceptualising stereotypes as simplified collections of categorised information, which are often based on inaccurate or incomplete information (Hilton & von Hippel, 1996). Perhaps the most prominent of these models suggests that stereotypes are formed from illusory connections made between salient, but often incomplete, knowledge about dissimilar individuals and the perceived social group to which they belong. Consequently, because the information that comprises stereotypes is usually incomplete and unduly negative, lack of knowledge constitutes a primary mechanism by which negative attitudes and stereotypes develop and are maintained. Within the field of human resource education, numerous studies have supported this premise, arguing for

the importance of providing human resource personnel and related professionals with appropriate and accurate information about chronic illness, as a method of ameliorating negative attitudes and stereotypes. For example, Corrigan (2002) found that misconceptions about the persons with illnesses had a significant impact on the fearful attitudes of co-employees toward such individuals. Indeed, this knowledge-stereotype connection has been the underlying assumption of much education.

Hill and Augoustinos, (2001), proposed that educational and awareness campaigns to remediate negative attitudes toward different groups should be employed in every organisation. Research supporting cognitive models of stereotypes, which suggest that stereotypes stem from information-processing biases, have extended beyond looking at traditional minority populations, and have begun focusing on individuals with chronic illness. Findings specific to long term illnesses have suggested that stigmatising attitudes are internationally ubiquitous (Lee, 2002), and are related to misconceptions about dangerousness and other factors presumed to be associated with these illnesses and may to some degree be ameliorated by public information campaigns (Angermeyer & Matschinger, 2005).

2.5 Intergroup Contact and Attitude Formation

The conclusion from Wolff, *et al.*'s (1996) studies was in general terms that it was contact with people with chronic illness per se that seemed to be important in influencing attitudes, rather than information. However, the importance of contact in the formation of positive attitudes has been challenged by studies such as that by Huxley (1993), who compared the attitudes of local residents (in three wards of "Northtown") to the presence

of a community mental health service with results obtained from a MORI survey in 1979. Huxley (1993) also cites evidence to suggest that potential users of the service provided would be unwilling to use it themselves because of the embarrassment of being seen entering it by people they knew. Offset against this is the finding that knowing someone who had received treatment at the service mitigated the amount of embarrassment felt. In contrast to this, Hayward and Bright (2000) showed that those suffering from a mental illness were less accepting of other people with mental illnesses than were their relatives or members of the hospital staff.

More support for the importance of personal contact over knowledge has come from Corrigan, Green, Lundin, Kubiak and Penn, (2001), who found that direct interaction with patients suffering from depression or psychosis improved individuals' attributions about these illnesses more than did education. In a companion study, Corrigan *et al.,* (2001) examined the relationship between familiarity with and social distance from people with severe mental illness and concluded that increasing public familiarity with serious mental illness will decrease stigma. This is also supported by results from a Chinese study by Gao and Philips (2001). These results are broadly in line with the three component model of attitudes which was developed following the work of Rosenberg and Hoyland (1960) and Krech (1962),and which proposes that an attitude is based upon the evaluation of three classes of information: cognitive, affective and behavioural. In brief, it suggests that there are three elements which are important in the formation of attitudes: cognitive information, what people know of the attitude object (facts and beliefs), for example "the chronically ill are unproductive"; affective

information, feelings/emotions that the attitude object arouses, for instance “I do not like to be in a team consisting of the chronically ill”; and behavioural information, knowledge of past, present and future interactions with the attitude object.

According to Ortiz and Harwood, (2007), intergroup contact is an effective approach for the reduction of prejudice, negative stereotyping, and discrimination. In order to produce positive outcomes, certain conditions within the contact situation have to be met such as equal status among the individuals, individuals share common goals, individuals work together to achieve such goals and, contact has the support of authorities that is social norms favor intergroup cooperation and interaction (Gaertner & Dovidio, 2000). Pettigrew and Tropp's (2006) meta-analysis showed that contact resulted in decreased intergroup bias. Optimal intergroup contact, however, can be difficult to achieve given the anxiety and hostility that sometimes pervade intergroup relations. This anxiety and hostility carries the threat of creating negative rather than positive outcomes.

2.5.1 Intergroup Contact Theory

One central area of concern in contact theory has been the extent to which a specific positive intergroup experience generalises to broader attitudes. Can a single conversation with a chronically ill individual, for instance, change a person's more general attitudes about chronically ill people? Following Allport's (1954) initial formulation of the contact hypothesis, Harwood, Hewstone, Paolini, and Voci, (2005) argued that group membership typicality or representativeness in intergroup encounters facilitates generalisation from a specific experience to more general attitudes. If an out-group member is not seen as representative of his/her group, then contact is considered

interpersonal and the effects will not generalise and the out-group member may be treated as an exception. When the person is viewed as representative of the group, then treating them as an exception, or ignoring group memberships becomes more difficult and the specific encounter is more likely to be generalised. Evidence for the effects of group typicality in facilitating generalisation from individual encounters to intergroup attitudes has emerged in a variety of contexts, for example, attitudes toward immigrants (Voci & Hewstone, 2003).

However, maintaining group typicality while also meeting Allport's conditions for optimal intergroup contact is challenging, both because individuals inevitably learn individuating information during interactions (which renders the encounters more interpersonal), and because group-based information activates negative stereotypes and emotions, encouraging negative rather than positive outcomes (Hewstone, 2003). Negative emotions, particularly anxiety, are common in interpersonal contact and high anxiety suppresses positive effects of contact. Anxiety also arises at the mere anticipation of future intergroup interaction, as individuals anticipate negative consequences associated with their behaviour during such interactions. Anxious people rely more on stereotypes when making judgments and may even avoid interpersonal interaction altogether. Prior levels of interpersonal contact affect anxiety, such that individuals with low levels of prior contact are more likely to experience anxiety. Anxiety can be reduced by establishing clear expectations for behaviour during intergroup contact.

The issue, however, is complex. For example, observing, but not interacting, with others has been sometimes shown to exacerbate, not curb, prejudice and discrimination.

Nevertheless, prejudice can subside in individuals whose friends interact with other minorities.

2.5.2 Factors that moderate the benefits of Interpersonal contact

Numerous studies have shown that various forms of contact with other individuals can reduce prejudice towards members of these collectives and in this case, chronically ill individuals. Recent research, however, has begun to indicate factors that might moderate the benefits of personal contact at the workplace (Pettigrew, 2006).

i. Context of contact

Some studies, for example, have shown the context in which these interactions occur can affect whether or not contact will curb prejudice. For example, Cameron, Rutland, Brown, and Douch, (2006) showed that personal contact with other individuals deemed unfit within the workgroup context does not curb prejudice. That is, individuals may believe that such relationships do not reflect any genuine bond or similarity. Indeed, ill employees at work may sometimes be regarded as unfit for execution of jobs. Prejudices can sometimes intensify rather than diminish.

ii. Quality of contact

The quality of contact can also affect prejudice. Indeed, some studies show that incidental but regular exposure to chronically ill employees can amplify these prejudicial attitudes (Smith, Miller, Maitner, Crump, Garcia-Marques, & Mackie, 2006). For example, sometimes employees might observe colleagues with chronically illnesses in

the workplace but not interact with these individuals. Accordingly, these colleagues begin to feel more familiar. Familiarity without interaction, however, increases the likelihood that employees will rely on stereotypes to evaluate other colleagues. That is, when individuals feel that a colleague feels familiar, they do not evaluate that person carefully and methodically. Instead, to conserve effort, they apply stereotypes.

For example, consider an employee who observes a person with a walking stick at a corporate function. This other person will thus seem familiar to the employee. Hence, they will apply stereotypes of an individual who uses a walking stick in their organisation to evaluate this person. To substantiate this proposition, in one study, conducted by Smith *et al*., (2006), participants received limited information about a person (an accountant) and were instructed to characterise the personality of this individual. Some of the participants had been exposed to photographs of this person before. These participants were especially likely to apply the stereotypes of accountants when characterising the person.

iii. Salience of group membership

Brown and Hewstone, (2005) argue that group membership must be salient to ensure that contact curbs prejudice and unfavorable attitudes to out-groups and in this case individuals with chronic illnesses. If group membership is not salient, any exposure to some minority might not generalise to other members of that constituency. Some scholars posit that individuals do not themselves need to be exposed to individuals from other minorities or with other characteristics. Instead, if their friends often interact with

other minorities or individuals with different characteristics, their prejudices will also diminish.

2.5.3 Mechanisms that Underpin the Benefits of Intergroup Contact

Studies have also been conducted to understand the mechanisms that underpin the benefits of interpersonal contact. The consistent and widespread findings raise a central question: just how does intergroup contact reduce prejudice and stigmatisation? A number of different processes have been proposed and tested in the research literature. Turner, Hewstone, and Voci, (2005), for example, uncovered four mechanisms that underpin the benefits of group contact.

i. Intergroup anxiety

First, Turner, *et al*., (2008) found the relationship between personal contact, that is, the perception that friends interact with a minority, and attitude to that minority was partly mediated by intergroup anxiety. In their study, the participants were white British students. Intergroup anxiety was measured with questions like "Please think of how you would feel (if you) mixed socially with complete strangers who are Asians". Intergroup anxiety was lower in individuals whose friends know Asian individuals. As a consequence, during future exchanges with anyone from these ethnicities, these individuals are more relaxed and thus more inclined to focus their attention on favourable facets of the interaction.

ii. Positive in-group norms

Second, Turner, *et al*., (2008) found the relationship between extended contact with a minority and attitude to that minority to be partly mediated by perceived in-group norms. That is, if the friends of participants interact with some constituency, these participants assume that such behaviour is typical, which governs their own attitudes. Specifically, in this study, white British individuals whose friends spoke to Asians were more likely to "think (their) white friends are (friendly) to Asian people".

iii. Positive out-group norms

Third, Turner, *et al*., (2008) found the relationship between extended contact with a minority and attitude to that minority was partly mediated by perceived out-group norms. In particular, if the friends of participants interact with some constituency, these participants assume these ethnicities must also be willing to interact with their ethnicity or race. That is, they endorsed items such as "...Asian people like white people (a lot)"

iv. Empathy and Perspective Taking

Finally, Turner, *et al*., (2008) found the relationship between extended contact with a minority and attitude to that minority is partly mediated by the degree to which the out group is assumed to overlap with the self. The work of Batson, Lishner, Cook, and Sawyer, (2005) has examined empathy and perspective taking, as possible mediators of the association between intergroup contact and prejudice. Intergroup contact, and especially close, cross-group friendship, may enable one to take the perspective of out-group members and empathise with their concerns. This new perspective could in turn

contribute to improved intergroup attitudes, thereby acting as a mediator in reduction of prejudice. This contention is consistent with recent findings that intergroup contact can involve self-expansion processes, in which individuals extend their sense of self to include the outgroup (Aron & Mclaughlin-Volpe, 2001). Similarly, in an experimental setting, Vescio, Sechrist, and Paolucci (2003) found that perspective taking can promote more favourable attitudes.

2.6 Extended versus direct friendships

Some of these mechanisms, intergroup anxiety, positive in-group norms, and positive out-group norms may not mediate the relationship between direct contact with some minority and attitudes towards that minority. Further evidence is warranted to establish whether the same mediators apply to direct, rather than vicarious, contact. Some evidence has been collected. Pettigrew (2006), for example, showed that intergroup anxiety mediated the relationship between direct contact and attitudes to out-groups.

2.7 Other possible mechanisms

Pettigrew, (2006) argued that extended contact might also enhance knowledge about the other constituency, which could further curb prejudice and stigimatisation. Nevertheless, this proposition has not been substantiated empirically. Tam, Hewstone, Harwood, Voci, and Kenworthy (2006) showed that empathy also mediated the relationship between direct contact and attitudes to others with different characteristics.

2.8 Conclusion

Our society is in the throes of a great shift in attitudes. The needs of the chronically ill have moved to the forefront of social concern. The study will try to examine the relationship between knowledge, contact and attitudes of employees towards chronically ill employees and to translate this understanding into guidelines for action. Too often, intervention programmes function as satellites to employees. The many sided needs of the chronically ill offer new opportunities for intervention programmes which address the real needs of employees in organisational context. The programmes should be ideally introduced to implement a combined medical and economic assault on chronic illnesses and its consequences. Furthermore, as an important social institution, organisations can influence both community health and welfare structure and the worker's pattern of utilizing it.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

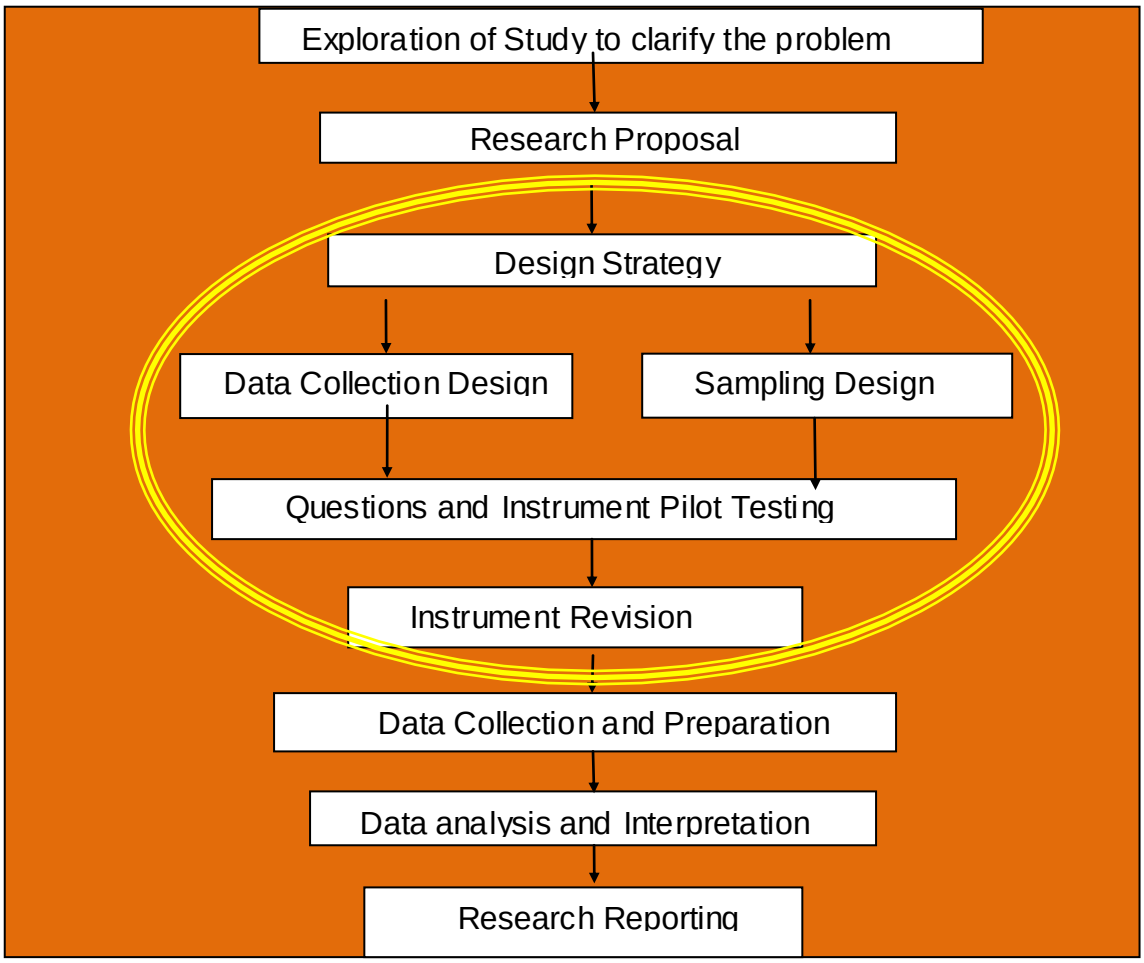
The preceding chapter is the literature review concerning the relations of the variables in question. This chapter concerns the research methodology employed in this study. Methodology refers to the body of methods used in a particular activity or research process. Research methodology constitutes variables such as the target population, size and description of the sample and research instruments used. It is the blueprint for the collection, measurement, and analysis of data in order to achieve the objectives of a research. Research methodology is important in a research due to the following reasons; it outlines the details of the study, the design of the research, the decisions regarding population, sampling procedures followed, methods employed to collect data and the procedures used to analyse the data.

According to Hair, Wolfinbarger, Ortinau and Bush, (2008), the quality of collected data is only as good as the methodology employed to collect it. So any loopholes in the methodological procedures can cause the data collected to be questionable, that is, it will fail to measure what it was supposed to measure or will measure something else. The reliability and validity of the study will be compromised.

This chapter will attempt to explain the study at hand in terms of the study area, the study units, population and the sampling method used. It focuses on the presentation of the research method followed by the researcher. The primary focus of this study was to come up with empirically tested results and conclusions on the relationship between

employee knowledge, personal contact and attitudes towards chronically ill co-workers. Such empirical data were obtained through following a properly designed research methodology and data collection instruments. A properly planned and conducted research produces reliable results which are important in making informed decisions about future courses of action.

Figure 3.1: The Research Process



****Adopted from Cooper and Schindler, (2008)*

The researcher followed the research process outlined by Cooper and Schindler (2008) as illustrated in Figure 3 above:

The circled items represent the main focal areas of this chapter. The sections in this chapter shall begin with Research design, followed by a discussion of the sampling methodology, the research methods and techniques, data collection, and the data analysis procedures employed in the study at hand.

3.2 Research Design

A research design is concerned with the overall structure of the procedures that a researcher uses when conducting research. Research can be classified into qualitative and quantitative designs. There is an important distinction between quantitative research and qualitative research. In quantitative research, the information obtained from the participants is expressed in numerical form. Quantitative research employs mathematical analysis for the measurement of variables and places a heavy emphasis on the use of structured questionnaires (Cant, Gerber, Nel & Kotze, 2005). According to Hair, *et al.,* (2008) quantitative research enables the researcher to validate relationships and to test hypotheses. Studies in which we record the number of items recalled, reaction times, or the numbers of aggressive acts are all examples of quantitative research. In qualitative research, on the other hand, the information obtained from participants is not expressed in numerical form.

The emphasis is on the stated experiences of the participants and on the stated meanings they attach to themselves, to other people, and to their environment. Those carrying out qualitative research sometimes make use of direct quotations from their participants, arguing that such quotations are often very revealing (Eysenck, 2004). The researcher employed a quantitative research design in the micro study at hand.

3.3 Population of the Study

In research, population refers to the entire group from which the sample is drawn. Hair, *et al*., (2008), defines population as the identifiable set of elements of interest and pertinent to the researcher and to the research problem. The opinions, behaviour, preferences and attitudes of the population elements should be useful in providing information as to whether or not there is a relationship between employee knowledge, personal contact and attitudes towards co-employees diagnosed with chronic illnesses. In the research at hand, the population constituted all 203 employees in selected branches of four commercial banks within Buffalo City Munipality in Eastern Cape. The commercial banks in which the research was conducted include the Standard bank, First National Bank, Capitec bank and ABSA (*See Appendix A*).

3.4 Sample

Researchers normally use a sample, which is a small part of the population with the same attributes as those in the entire population. According to Welman, Kruger and Mitchell (2006), a representative sample is a miniature image of the population. Selection of a sample will be done carefully to allow generalisability of the results as it is usually representative of the whole population and possess the exact properties of the population. The primary idea of sampling is that by selecting some elements of a population the researcher can draw conclusions about the entire and defined group of elements (target population). It is expected that the information to be gathered from the small group will enable accurate judgement about the larger group (Hair, *et al*., 2008). As quoted by Welman, *et al.* (2006), Huysamen, (1991) points out that as a general rule,

researchers should not use any sample with less than 15 units of analysis, but preferably one with more than 30 units of analysis. The following subsections provide details on the sample size, sampling procedure and sampling technique used in this study.

3.4.1 Sample Size

The sample size used in the study was calculated using the Raosoft Sample Size Calculator (http://www.raosoft.com/samplesize.html/). The sample size *n* and margin of error *E* are given by:

$$x = Z(c/100)^2 r(100-r)$$

$$n = Nx / ((N-1)E^2 + x)$$

$$E = \text{Sqrt}[(N-n)x / n(N-1)]$$

Where *N* is the population size, *r* is the fraction of responses that you are interested in, and *Z*(*c*/100) is the critical value for the confidence level *c*. Using 8% margin of error, 90% confidence level and an expected response distribution of 50%, the minimum recommended sample size of 70 respondents was determined. However the researcher distributed 120 questionnaires to employees in the branches of the selected commercial banks and received 80 questionnaires back. This resulted in a 66.7% response rate.

3.4.2 Sampling Procedure

Sampling procedure refers to the method which is used to draw the sample as well as the way in which the sampling units will be selected. The sampling procedures constitute probability and non – probability sampling. In *Probability sampling,* every element in the population has an equal and known non-zero probability of being included in the sample. In *Non-probability sampling,* every element in the population does not have a non-zero probability of being included in the sample. The research at hand made use of the probability sampling procedure to select respondents from the entire population. This enabled all the respondents to have equal chances of being included in the sample.

The researcher chose the probability sampling method because of the following reasons;

- The use of probability sampling method is consistent with the sampling methods used in previous empirical studies and

- With probability sampling, each of the population elements has a known, non-zero chance of being included in the sample. In non-probability sampling the selection of the respondent is not known and for this reason the researcher cannot be sure that the sample is representative of the population (Loubser, 1999).

3.4.3 Sampling Technique

A simple random sampling technique was employed in the selection of respondents used in this study. Cooper and Schindler (2003), define simple random sampling as a

probability sampling technique in which each population element has a known and equal chance of being chosen. A table of random numbers was used to choose the sample elements.

The reasons for selecting this simple random sampling technique were that:

- Simple random sampling is commended for its simplicity in application as well as its ability to produce a representative sample with limited selection biases.
- It is easy to follow, less expensive and quick to implement.

3.5 Data Collection

3.5.1 Research Instrument

The data collection instrument used to collect information from the respondents is a self-administered questionnaire. As defined by Hair, *et al*., (2008), a questionnaire is a document consisting of a set of questions and scales to gather primary data. Leung (2001) defines a questionnaire as a booklet of standardised procedure, pre-coded and containing both closed-ended and open-ended questions; or it can be regarded as a data collection instrument that sets out questions to be asked in a formal way in order to produce desired information. The self-administered questionnaire involves a direct and a face to face meeting between the researcher and the respondent (Cooper & Schindler, 2003).

The researcher used a self–administered questionnaire for the following reasons:

- Self-administered questionnaires ensure anonymity and privacy of the respondents, thereby encouraging honest responses;
- The use of self-administered questionnaire allows collection of sensitive data related to issues such as age, and level of positions of respondents;
- Self-administered questionnaires are less expensive than other gathering techniques such as personal interviews where the respondents must be present with respondents at all times, and
- It is economical in terms of time and money.

3.5.2 Description of the Instrument

In designing the questionnaire, the research took consideration of the theoretical constructs that were identified during literature review as well as gaps in literature which needed to be filled with new knowledge and insights. The semi-structured questionnaire (*See Appendix A*) used in this study combined open-ended and close-ended questions and constituted the main source of obtaining primary data in this study. The majority of responses were presented in the form of a five point likert-scale. Open-ended questions required explanation, comments and personal opinions from the respondents. They helped to establish rapport, gather qualitative information, and expressions of personal opinions and feelings. The questionnaire was quasi-adopted from the Knowledge Attitude Practice Questionnaire; a guide to developing knowledge, attitude and practice surveys (WHO, 2008). It was then redesigned by the researcher and consisted of five sections A to E. Section A was concerned with the demographic information of

respondents, section B tested the respondents' knowledge of chronic illnesses, section C was concerned with whether or not the respondents had had personal contact (referred to in this study, as a condition of touching, meeting, communicating or being near individuals who have chronic illnesses) with a chronically ill individual, the fourth section (section D) dealt with the attitudes and finally Section E had open-ended questions to solicit comments and suggestions on what respondents felt should be done in their organisations.

The questions covered the facets of chronic illness and tried by all means to establish the selected respondents' perceptions and their attitudes towards sick co-employees in order to establish relationships being tested regardless of whether or not the respondents were suffering from any of the chronic illnesses. The questions in the questionnaire were carefully selected to ensure the inclusion of questions that only made meaningful contributions to the focus of the study. Careful consideration was taken to avoid "*nice to have"* questions without any relevance to achieving the objectives of this study. Each of the questions was checked for the following:

- whether or not it should be asked,
- if the question was of proper scope and coverage,
- if the respondents could adequately answer the question,
- if there was no ambiguous wording or wording that meant different things to different respondents,

- whether the respondents could be willing to answer the question, and
- If there would be no double meanings of the question, bias or that the respondent would not mistake the meaning of the question.

3.5.3 Pilot Testing the Questionnaire

During the pilot test, preliminarily questionnaires were given to ten (10) respondents. This was followed by a discussion with my supervisor/expert to (i) strengthen the validity of the questionnaire; (ii) to identify unclear or ambiguously formulated items; (iii) to detect flaws in measurement procedures as well as; (iv) to investigate the reliability of the utilised instrument (the questionnaire). This helped to check whether or not the data collection instrument and measurement questions met the need to achieve the research objectives. The questionnaire was then revised accordingly, taking particular attention to the flaws and problems identified during pilot testing. The revised instrument was then distributed to the respondents.

3.5.4 Questionnaire Administration and Response Rate

The recommended minimum sample size to be considered was 70 employees; however one hundred and twenty (120) questionnaires were personally distributed by the researcher to selected respondents. The selected employees were requested to complete the questionnaires and assistance was rendered by the researcher if need arose and if clarification was required from the researcher. Of the 120 questionnaires sent out, 80 were returned, fully completed hence there were no illegible and unusable questionnaires, giving a response rate of 66.7%.

3.6 Data Analysis

Collating, coding and processing of data forms the integral part of data analysis. In a quantitative research, data analysis is the conversion of meaningless data into valuable information that can be easily understood, it involves the reduction of accumulated data to a manageable size, developing summaries, looking for patterns and applying statistical techniques. It also includes the interpretation of research findings in the light of the research questions and determines if the results are consistent with the research hypotheses and theory (Cooper & Schindler, 2003). As the research at hand is quantitative in nature, the data was analysed initially using descriptive statistical analysis. Descriptive analysis provides a very useful initial examination of data and a means of presenting data in a transparent manner with tables and graphs, using the most fundamental techniques and the construction of frequency distributions or measures of variability. The data was coded in a spreadsheet (Microsoft Excel) to make it possible to collate and analyse the data using computer programmes.

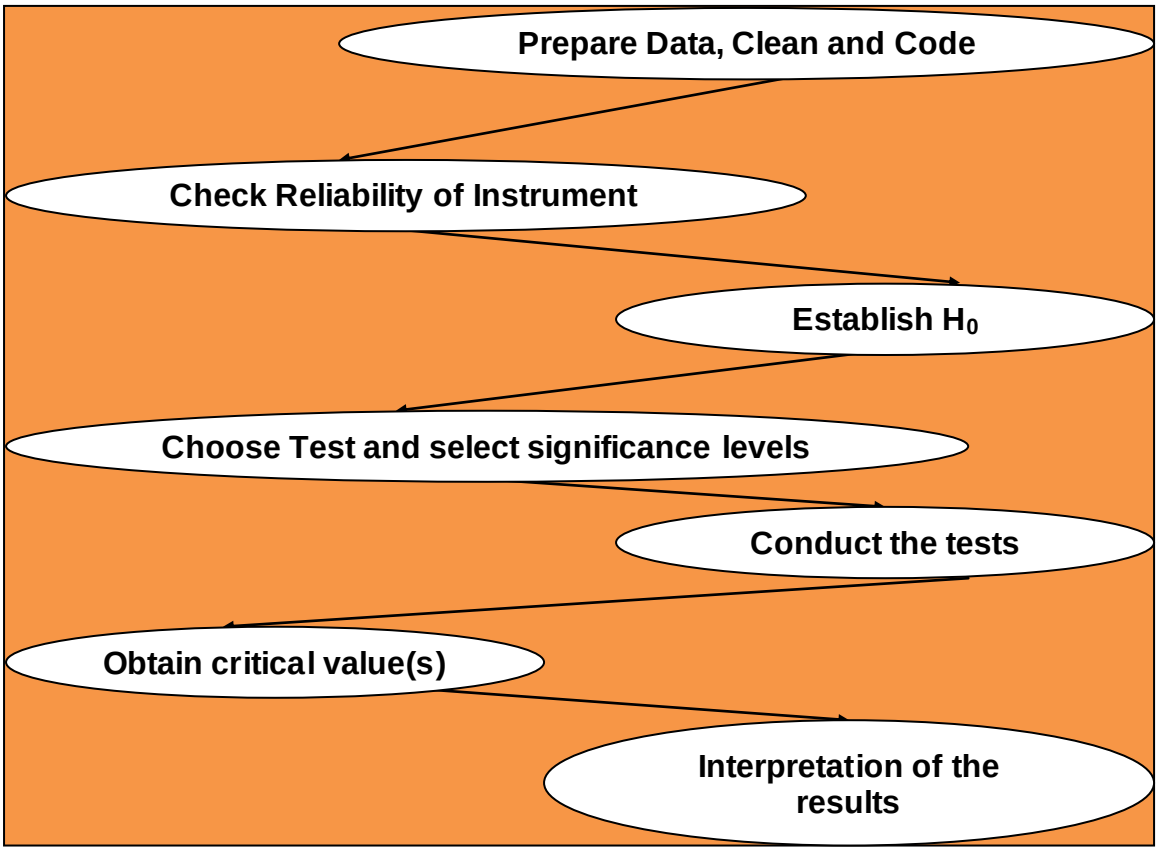
3.6.1 The Data Analysis Process

The data analysis process began with editing and coding of the data. The process entailed checking of questionnaires for omissions, legibility and consistency in classification as well as discarding of questionnaires with missing data, identifying potential errors in data collection and discussing its implications. The coding of data involves assigning numbers to similar sets of data for data capturing purposes.

Thereafter, the data was recorded into Ms Excel spreadsheets. The researcher together with a statistics expert from Rhodes University ran the statistical processes for this study. The SPSS package was used to compile descriptive and inferential statistics in the form of T-Tests and Pearson's Correlations when hypotheses were tested.

In this study, a data analysis process outlined by Cooper and Schindler (2008) was adopted. The process is diagrammatically illustrated in Figure 4 below:

Figure 3.2: The data analysis process



****Adopted from: Cooper and Schindler, (2008)*

3.7 Conclusion

A research design that is carefully chosen helps alleviate confusion and helps the researcher to focus on the appropriate body of methods to be used in conducting the overall research. The chapter has examined research methodology touching on the research instrument; the sampling method used; and the sampling technique. The following chapter entails data analysis whereby the findings of the research are discussed focusing on presentation and analysis of data gathered. Graphs, charts and tables are some of the ways in which the data is presented.

CHAPTER 4: RESULTS AND DISCUSSIONS

4.1 Introduction

Data analysis is the conversion of meaningless data into valuable information that can be easily understood, it involves the reduction of accumulated data to a manageable size, developing summaries, looking for patterns and applying statistical techniques. It also includes the interpretation of research findings in the light of the research questions and determines if the results are consistent with the research hypotheses and theory (Cooper & Schindler, 2003). The previous chapter entailed the board of research methods that were employed by the researcher to collect the relevant data. This chapter primarily focuses on data analysis, presentation of research findings and the discussions of the research findings.

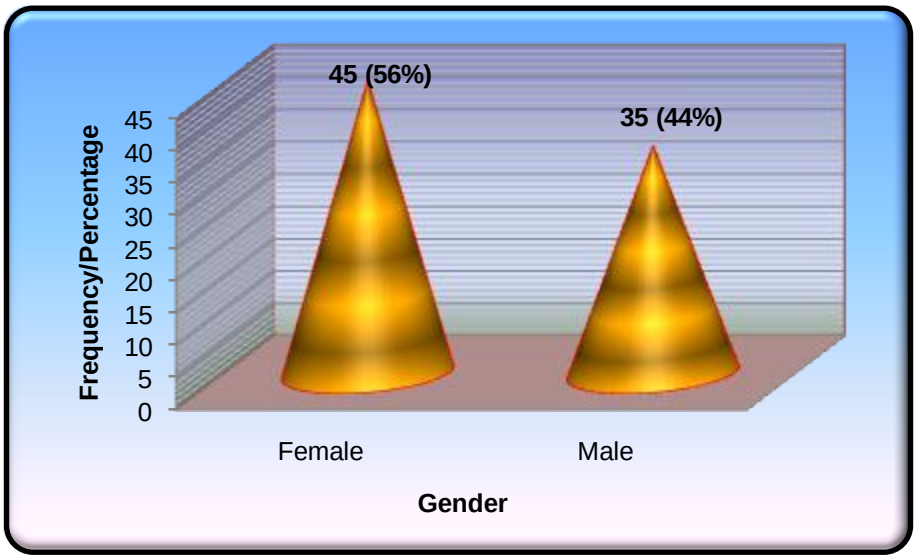
4.2 Empirical Findings

The research findings were analysed relating specifically to the research objectives, hypothesis and the research questionnaire. Tables and graphs were employed in this analysis. Descriptive statistics such as tables, pie charts and bar charts were used to aid the analysis of data because they are effective ways of depicting relations and trends. The following sections examine the analysis and interpretation of data obtained from the respondents through the questionnaire. The instrument was tested for reliability, specifically internal consistency and the following interesting findings were obtained: Cronbach's alpha; reliability co-efficient of 0.815920, a Standardised alpha of 0.78571, and an Average inter-item correlation coefficient of 0.089360.

4.3 Sample Description

4.3.1 Distribution of Respondents by Gender

Figure 4.1: Distribution of respondents by Gender

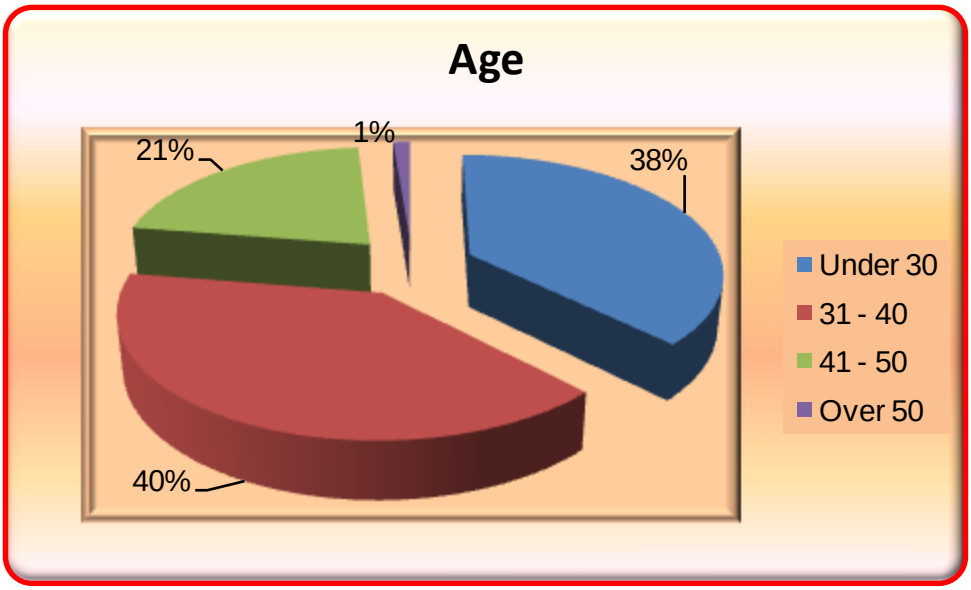


As highlighted in Figure 5 above, a total of 80 employees participated in the study, 45 employees who constituted 56% of the total number of respondents were in the female category and 35 (44%) males. It is clear that although most of the respondents were women, the male category was also well represented in this study.

4.3.2 Distribution of Respondents by Age

The age group with the highest frequency is the 31 to 40 year age group which comprised of 40% of the sample, and almost the same percentage (38%) of employees was under 30 years. The 41 to 50 year age group was represented by 21% of employees who were part of the study. This information is illustrated in Figure 6 below.

Figure 4.2: Distribution of respondents by Age



4.3.3 Distribution of Respondents by Ethnicity

Figure 4.3: Distribution of respondents by Ethnicity

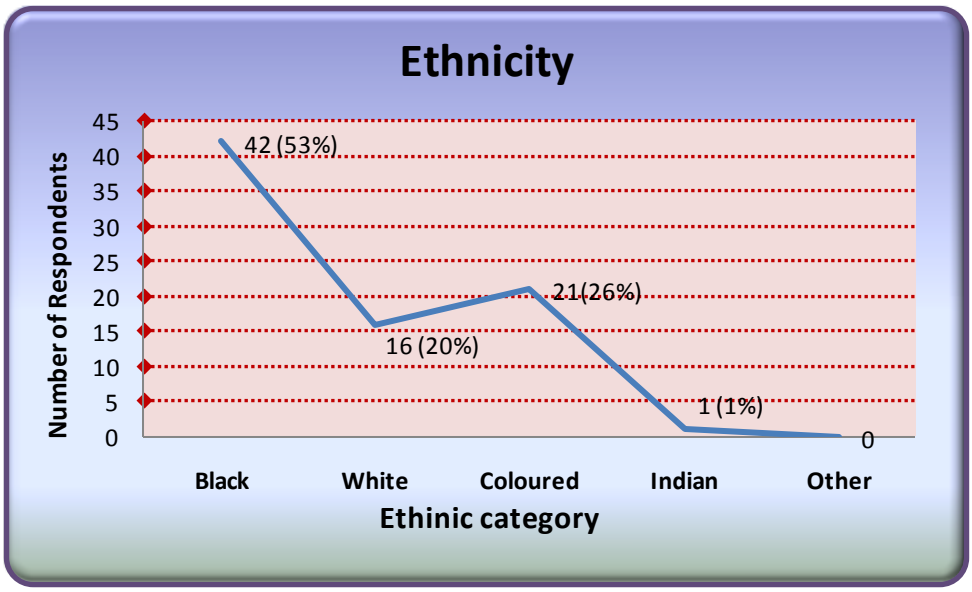
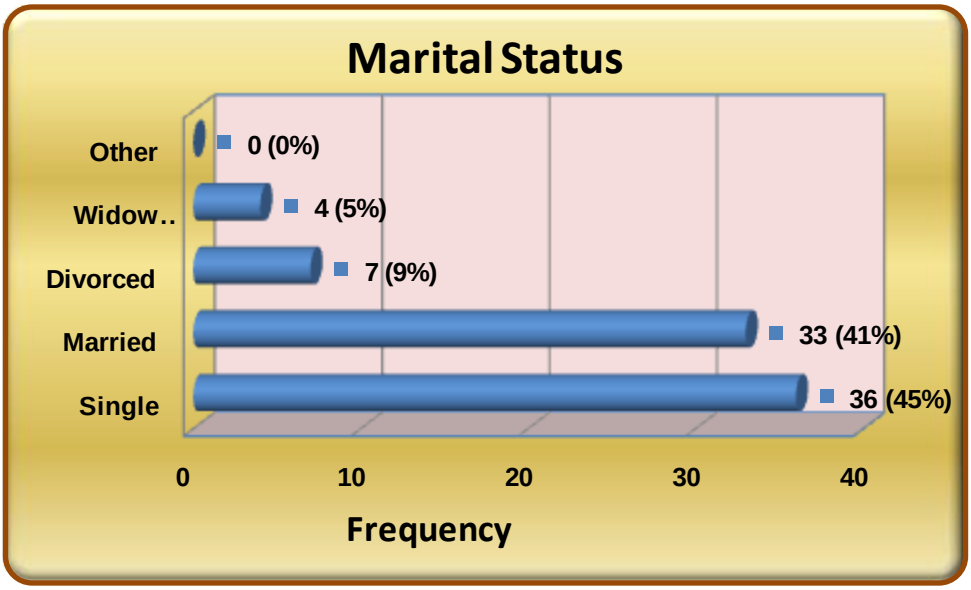


Figure 7 above depicts that exactly 42 of these respondents were Black, 16 employees were White and only 1 employee was Indian. About one quarter (21) of them were Coloured whilst there were no employees from the “other” category.

4.3.4 Distribution of Respondents by Marital Status

Figure 4.4: Distribution of respondents by Marital Status

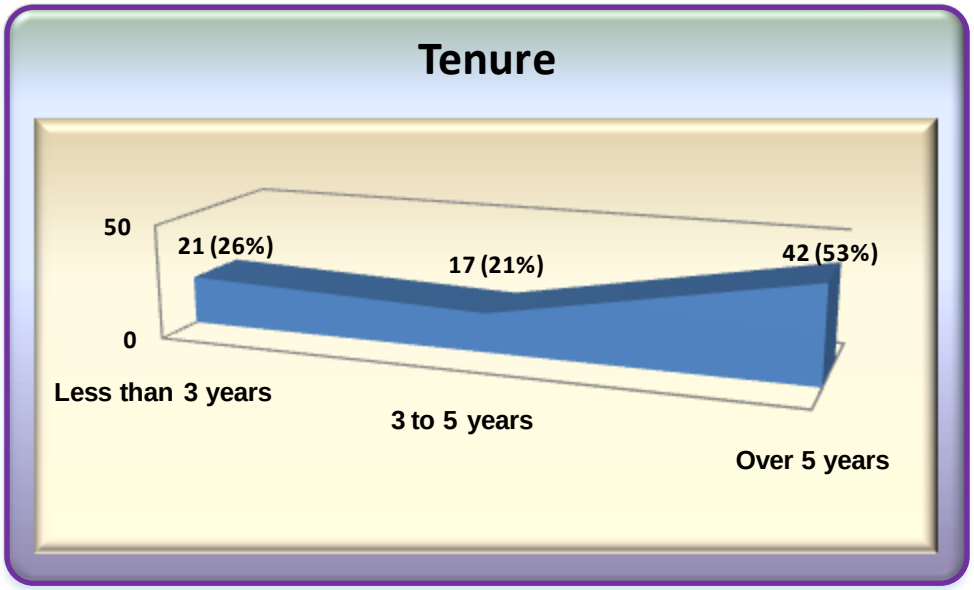


As illustrated in Figure 8 above, from the whole group of participants, about half (36) of the employees were singles and an almost similar number of employees thus 33, were married. Seven individuals were divorced and only 4 were widowed.

4.3.5 Distribution of Respondents by Tenure

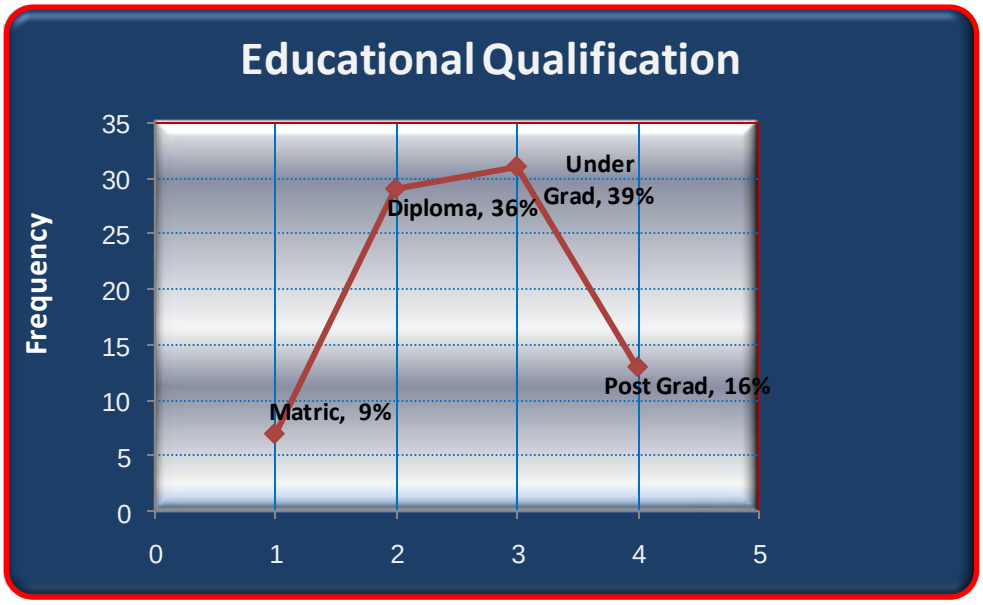
Figure 9 below diagrammatically indicates that 42 of the employees had stayed with their organisations for a period exceeding 5 years, but 17 of the participants were with their organisations for a period of 3 years or more but less than or equal to 5 years. Twenty one respondents indicated that they had stayed for less than 3 years with their respective current organisations.

Figure 4.5: Distribution of respondents by Tenure



4.3.6 Distribution of Respondents by Educational Qualification

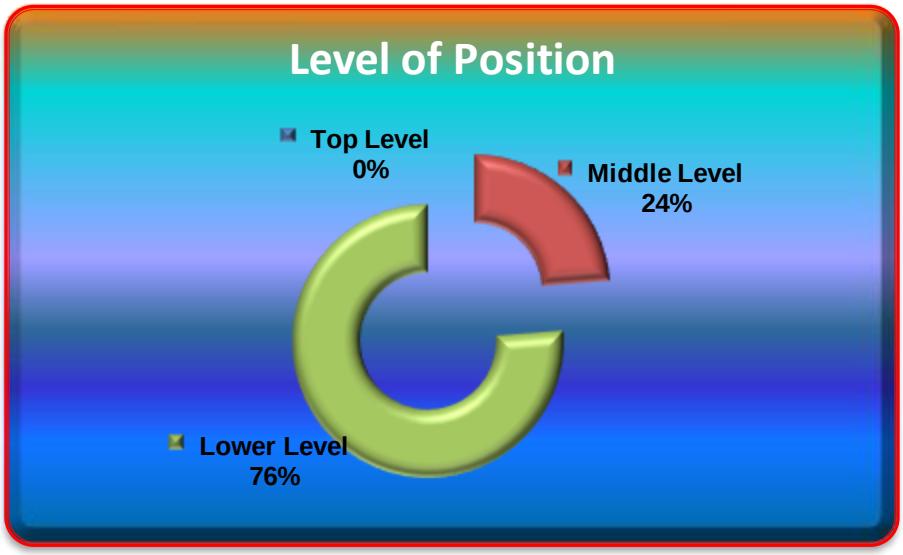
Figure 4.6: Distribution of respondents by Educational Qualification



Of all the respondents only 9% were in possession of a matric qualification, 9% had at least a post matric diploma and 39% had a first degree and the rest were post graduates. (*See Figure 10 on page 54*)

4.3.7 Distribution of Respondents by Level of Position

Figure 4.7: Distribution of respondents by Level of Position



The above illustration (*Figure 11*) shows that amongst the respondents, 24% occupied middle level positions and the other 76% of the respondents were in the lower level categories, such as clerks, tellers and receptionists. The researcher was not able to reach the top level personnel since most of them are found in regional headquarters. However, the distribution of respondents was enough to carry out the study.

4.4 Hypotheses Testing

4.4.1 Hypothesis one**:** *There is a relationship between employees' knowledge, and their attitudes towards co-employees diagnosed with chronic illnesses.*

The statistical method which was used to test the hypothesis is the Pearson's correlation method. It is method which tests the correlations in responses of respondents by calculating *p-values* to come out with a more objective correlation conclusion from the results. The correlations of the derived variables were tested for statistical significance and the results are shown in the correlation matrix presented in Table 4.1 below.

Table 4.1: Correlations between Knowledge and Attitudes

Correlations: Marked correlations are significant at p < .05000: N=80						
VARIABLE	EMBARRASSED	DISCLOSE	HELP	STAY AWAY	CANNOT GET	BURDEN
LONG HOURS	.0208 p=.854	-.3009 p=.007*	-.1089 p=.336	-.2728 p=.014*	.0645 p=.570	.4183 p=.001*
SYMPTOM	.0688 p=.544	.1096 p=.333	-.2464 p=.028*	.2603 p=.020*	.1657 p=.142	-.1113 p=.326
HANDSHAKE	.4129 p=.001*	-.2737 p=.011*	.0243 p=.181	.2250 p=.810	.5154 p=.045*	.0589 p=.068
WASHING	-.2595 p=.795	-.2748 p=.014*	.2039 p=.007*	.0469 p=.008*	.1342 p=.685	.1247 p=.105
ANYBODY	-.0957 p=.398	.1025 p=.365	.2128 p=.058	.0083 p=.942	-.3709 p=.001*	.0982 p=.002*
CURED	-.4577 p=.001*	.3090 p=.005*	.2215 p=.048*	.0192 p=.012*	.2128 p=.058	-.1296 p=.117
HEALTHY BEHAVIOR	-.0392 p=.730	.2410 p=.031*	.2764 p=.013*	.0447 p=.694	-.3037 p=.006*	.2737 p=.123
PAIN	.2086 p=.006*	-.0918 p=.418	-.0183 p=.872	.1529 p=.176	.2517 p=.024*	.1047 p=.005*

The researcher began examination of the relationships among employees' knowledge about and attitudes with individuals with chronic illnesses by computing zero-order correlations among these constructs using the Pearson's rank based correlation

method. From the results shown, these variables all have generally statistically significant pair wise relations except for correlations between handshake and help and also between washing hands and embarrassment. Therefore bearing this in mind the hypothesis stated above is not rejected based on these findings.

4.4.2 Relationship between employees' knowledge and attitudes

As can be seen in Table 4.1, employees who knew more about chronic illnesses were significantly more likely to exhibit positive general attitudes toward this population, and were also more likely to have positive attitudes toward working with individuals with these chronic illnesses. Note that 62% of the respondents indicated that they were well informed about chronic illnesses hence the results showed more statistically significant pair wise correlations. This entails that more individuals generally felt that the employees who suffer from these long term illnesses be they terminal or non terminal, they ought to receive adequate support from the co-employees and organisation as a whole. This is reflected by the marked p-values of selected items which are less than 0.05 ($p<0.05$) used in the analysis. (*See also, Table 4.2 on page 58*).

***4.4.3 Hypothesis two*:** *There is a relationship between the contact employees have with chronically ill individuals and their attitudes towards these individuals.*

As highlighted in Table 4.2, the mean scores of contact regarding employees' attitudes show that there are significant differences in their attitudes towards this population. In addition, it implies that both frequency and degree of contact with individuals with long

term illnesses are also significantly positively associated with employees' general attitudes toward this population, as well as their attitudes toward working with individuals with chronic illnesses. Based on the results presented in the Table 4.2 below, most *p-values* are below 0.05 ($p<0.05$) indicating a relationship between contact and attitudes, therefore the researcher did not reject hypothesis two stated above.

Table 4.2: Mean Scores of Contact regarding employees' attitudes towards chronically ill co-employees

	T-TESTS; GROUPING: CONTACT GROUP 1: YES	GROUP 2: NO				
VARIABLE	Mean - Yes	Mean - No	t-value	df	p	p - Variances
EMBARASSED	2.212766	2.161290	0.21410	76	0.831045	0.994172
DISCLOSE	3.148936	1.161290	2.04606	76	0.003387	0.256259**
HELP	4.234043	4.129032	0.74894	76	0.456206	0.816513
STAY AWAY	2.574468	2.154839	0.89977	76	0.047108	0.349422**
CANNOTGET	1.680851	1.209677	0.41898	76	0.027249	0.314769**
FEAR THEM	1.765957	1.374194	0.04687	76	0.962744	0.955817
NOT FEELING	2.042553	2.161290	-0.56768	76	0.571928	0.450204
TOLERATED	1.744681	2.258065	-2.26596	76	0.026300	0.368817**
HOPELESS	2.063830	2.225806	-0.21811	76	0.474893	0.867491
NOT ALLOWED	1.917021	1.474194	0.54892	76	0.045621	0.082017**
UNPRODUCTIVE	1.914894	1.903226	0.05567	76	0.955754	0.404804
TEAM	1.702128	2.000000	-1.77834	76	0.079347	0.179155
ACTUAL HOURS	1.744681	2.064516	-1.72494	76	0.048603	0.158625**
MEDICATION	2.340426	2.919355	-0.64547	76	0.030693	0.189840**
FLEXIBLE	3.468085	2.096774	1.23459	76	0.020785	0.439440**
BURDEN	2.468085	2.032258	1.42631	76	0.057805	0.009044

Such findings would seem to indicate the importance of exposing workers to information about chronic illnesses and direct practice experience with individuals who have these illnesses.

***4.4.4 Hypothesis three*:** *The relationship between employees' knowledge and attitudes towards chronically ill individuals is moderated by the amount of contact they have with them.*

After finding out that employees' attitudes were significantly related to both their knowledge about and contact with individuals with the illness, the researcher was further interested in finding out whether or not the amount of contact (both degree and frequency) directly moderated the relationship between knowledge and attitudes. This hypothesis was not tested statistically; however statistical data was used to support the qualitative analysis. As shown in Table 4.3 below, there was a significant interaction between the influence of knowledge on employees' attitudes toward working with this population and also between the degree of contact with persons with chronic illnesses and their attitudes towards working with this population (*Refer to Table 4.2 on page 58*). The direction of these interactions indicated that the closer contact employees had with this population, the more influence the knowledge had on their attitudes.

Table 4.3: Cross tabulations indicating relations between knowledge and attitudes

VARIABLE	EMBARRASSED	DISCLOSE	HELP	STAY AWAY	CANNOT GET	BURDEN
LONG HOURS	p=.854	p=.007*	p=.336	p=.014*	p=.570	p=.001*
SYMPTOM	p=.544	p=.333	p=.028*	p=.020*	p=.142	p=.326
HANDSHAKE	p=.001*	p=.011*	p=.181	p=.810	p=.045*	p=.068

As illustrated in Table 4.2 on page 58, for employees who had had no contact, knowledge bore little association because of lower mean values, to their attitudes toward individuals with chronic illnesses, compared to employees who had had contact.

Similarly, as depicted in Table 4.1 on page 56, knowledge was much more strongly related to employees' attitudes toward working with individuals with chronic illnesses.

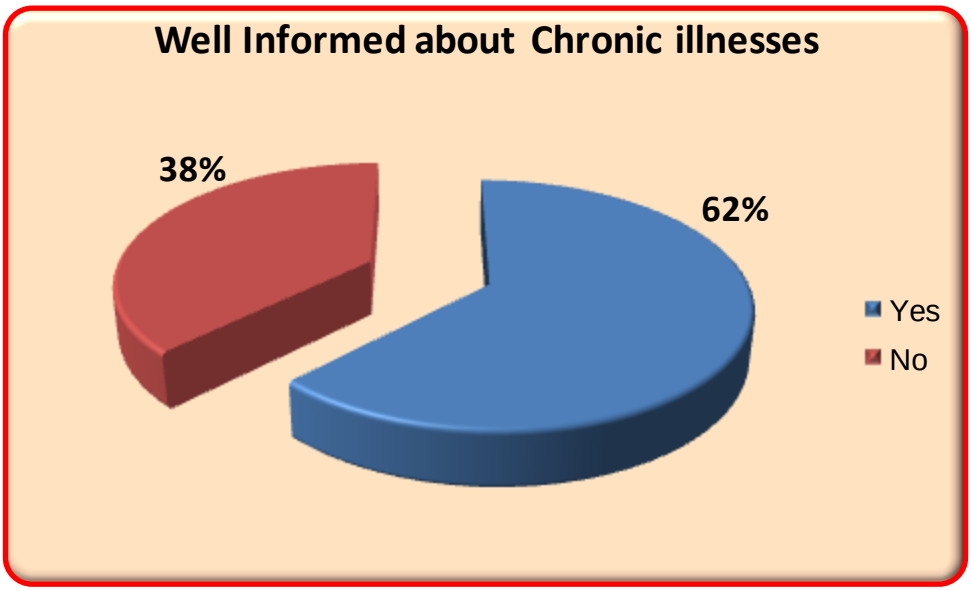
With regard to the moderating effects of the employees' contact with persons with chronic illnesses; the p-variances were differential between those who had had contact and those who had not *(Table 4.2; page, 58),* implying the influence of personal contact.

Therefore the relationship between knowledge and attitudes is affected differentially among employees with varying frequencies and degrees of contact with this population. The pattern of this interaction in Table 4.2 on page 58 was the same as the pattern observed in cross tabulations for the relationship between knowledge and attitudes (*Table 4.1; page 56*). Knowledge was significantly associated with employees' attitudes towards persons with chronic illnesses as was among employees who reported having had contact with this population.

Such findings seem to reinforce the fact that contact plays a moderating role in enhancing the knowledge about chronic illnesses and stresses the importance of providing employees with direct experience with individuals with chronic illnesses, in addition to providing them with "textbook" knowledge about the illness. Therefore researcher does not reject hypothesis three based on the above findings.

4.4.5 Hypothesis four: *Organisations do not have effective intervention programmes for employees suffering from chronic illnesses*.

Figure 4.8: Respondents well informed about chronic illnesses

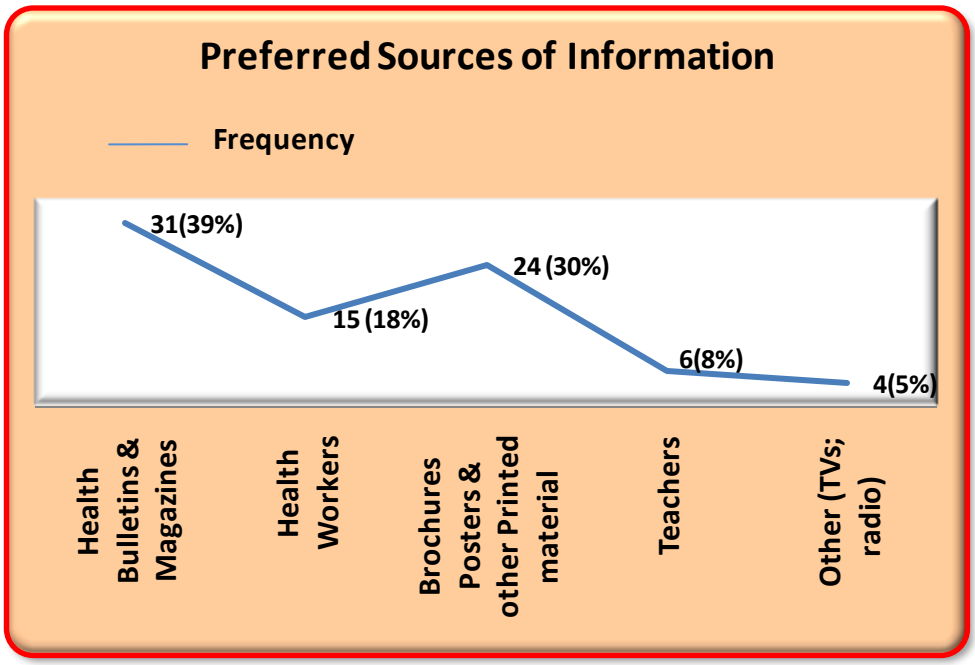


From the above illustration (*Figure 12*) the number (62%) of individuals who indicated that they are well informed about chronic illnesses was significantly higher than that (38%) of the individuals who said that they were not well informed about chronic illnesses. This is a sign that some of the organisations in which this study was conducted might be having interventions and these interventions may not be effectively reaching the intended individuals. Taking into consideration the figure of 38% of individuals who were not well informed about these diseases, the figure is significantly higher to justify that most of these organisations do not have effective intervention programmes or they do not have any at all. However since this study was carried across

branches of different organisations, this distorted the actual indications per branch because the statistical sample was treated as if it was from a single organisation. This therefore means that the researcher does not reject the null hypothesis stated on page 61 based on the findings illustrated in Figure 12 on page 61.

4.5 Preferred Sources of Information on Chronic Illnesses

Figure 4.9: Preferred Sources of Information



From Figure 13 above, the illustration portrays the preferred sources of information that were highlighted by the respondents. Section E of the questionnaire required the respondents to mention the sources of information they preferred in their organisation in order to increase employees awareness on the issue of chronic illnesses. As shown in Figure 13, 39% of the respondents preferred to be exposed to health bulletins and

magazines. Organisations are able to obtain these sources because they are cheap and in most cases released by the Government department of Health. 18% of the respondents said that they preferred the help of health workers. Thirty percent (30%) highlighted that they wanted brochures, posters and printed materials such as flyers. Quite smaller numbers that is 8% and 5% preferred Teachers and Other sources such as television and radio respectively. However, other sources mentioned by respondents are very difficult for the organisations to utilize them because they do not have control over them and may not be very specific to a target population.

4.6 Conclusion

The chapter focused on analysis of collected data which was personally analysed by the researcher with the help of a statistics expert from Rhodes University and the SPSS package was used to obtain the empirical inferential statistics used in this study. Empirical results which were obtained from data analysis indicated direct relationships between both employees' knowledge about and personal contact with, and attitudes towards co-employees diagnosed with chronic illnesses. There were significant differences on the responses that were provided by employees who had had contact and those who had not had contact with individuals suffering from chronic illnesses. The study also found out that contact had had a significant influence on the relationship between knowledge and attitudes because individuals become aware through contact and this influences their attitudes.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The attitudes employees hold towards individuals with chronic illnesses have consistently been shown to be related to their knowledge and degree and frequency of contact they have with this population although both social, psychological and research on long term illnesses suggest that negative attitudes may stem largely from knowledge deficiencies (Penn, Kohlmaier, & Corrigan, 2000). To the best of the researcher's knowledge, little or no research has been conducted to examine employees' knowledge and contact and relations to their attitudes toward employees diagnosed with long-term illnesses within Eastern Cape banking sector. The previous chapter focused on the analysis of the data which was collected from the field and the discussion of the results from descriptive and inferential statistical analysis. This chapter focuses on the conclusions, recommendations as well as the limitations of the study and direction for future research.

5.2 Conclusions

Given that the number of items employees answered correctly on the knowledge section of the questionnaire and their various attitudes were positively related, the research at hand suggests that knowledge may have a significant influence on employees' attitudes. Furthermore, consistent with the second hypothesis, personal contact with individuals with chronic illnesses was positively related to employees' attitudes and the third hypothesis proved that personal contact may also be an important moderator to the

relationship between employees' knowledge and attitudes. Most important, however, consistent with the third hypothesis is that although both contact and knowledge were positively related to attitudes, the influence of knowledge about chronic illnesses on employees' attitudes exists only when employees have frequent and high degrees of contact with this population.

In summary, the conclusions of the study are presented below as follows:

- From the total number of respondents, 62% indicated that they were well informed about chronic diseases as compared to their counterparts who constituted 38%.
- Knowledge influences the employees attitudes towards their co-employees diagnosed with chronic illness.
- There is a direct positive relationship between personal contact and attitudes towards employees suffering from chronic illnesses.
- The amount and degree of frequency of contact that people may have with individuals diagnosed with degenerative diseases influences the relationship between their knowledge and attitudes.
- Organisations do not have effective intervention and supportive programmes for employees suffering from non-communicable diseases.

5.3 Recommendations

There are various recommendations and managerial implications that are very crucial to these organisations. The findings of this study point to the critical importance of

exposing employees, not only to textbook knowledge about chronic illnesses, but also the need for direct employee contact with individuals suffering from these illnesses. This could ultimately lead to the development of curriculum guidelines, as Farmer, Walsh, and Bentley (2006) have suggested with regard to employee training in issues such as primary care giving. The second important implication of this research is that although it appears to be important to educate employees through classroom training sessions, it appears to be equally, if not more important, to ensure that employees who work directly with chronically ill co-workers have some first-hand exposure to information on these illnesses. The results also indicate that although knowledge is related to attitudes, information about the illnesses is related to the attitudes of employees who had more contact with individuals with chronic diseases.

In addition, it is particularly useful to encourage contact with persons with chronic diseases within work situations, which can be directed by the line managers. This can be done by asking individuals with these illnesses to be guest speakers to talk about living with the illnesses and how they have achieved recovery, as well as inviting their family members to speak to employees. Another approach, suggested by employees is to incorporate structured dialogs between employees with and without these illnesses in the meetings which is also a promising avenue for increasing personal contact in the form of being near, touching and/or communicating with chronically ill workers.

Although it will be important to first see if the findings of this research generalise to other employees, given the results of this study, such methods may provide employees with

the exposure they need to persons with CI and that optimises their attitudes towards these individuals. In summary, this research found significant relationships between employees' knowledge about chronic illnesses and their attitudes towards this population. However, this relationship was present among those employees who had had contact with individuals with the illnesses. Although replication studies employing larger sample sizes and longitudinal designs will be important to verify these results, such findings tentatively point to the importance of not only textbook learning about chronic diseases, but also direct and consistent contact with individuals suffering from CI as a method of ensuring employees have the attitudes they need to help such individuals manage both their social and professional lives.

Also to note is that, larger experimental investigations are needed to confirm these findings. In addition, longitudinal studies could be helpful for identifying potential mediators of the relationship between knowledge and attitudes to identify the mechanisms by which improved knowledge affects attitudes. Such findings could provide strong support to improving education on chronic illnesses to employees and potentially positive effects on their attitudes and eventually improve services to the clients they serve.

5.5 Limitations and Future Research Direction

It should be recognised that this research contains several important limitations that will need to be addressed in future studies. First, although seemingly unlikely, it may be the case that individuals who have more positive attitudes about chronic illnesses are more

likely to actively seek out information about the diseases, thus indicating that attitudes influence knowledge development, not vice versa. For future studies it might be necessary to examine and clarify the strength and causal direction of the relationship between these constructs overtime. Second, it is important to remember that, because this was not a longitudinal investigation, the researcher was not able to assess whether changes in the period of employees' exposure to knowledge about CIs and contact with sick individuals were related to changes in attitudes.

Future research might benefit from examining experimental strategies to improve employees' knowledge about CI, and self improvements in attitudes. Finally, the study suffers from the disadvantage of being a small questionnaire-based study, but it is designed to add to the body of literature on the topic in a way which will be useful for those refining future research in the area. As such, the findings from this research may not be generalised beyond our study population. Larger multi-site investigations are needed to confirm these results before firm conclusions can be made regarding the general relationships of both knowledge and contact on employees' attitudes towards individuals with chronic diseases.

5.6 Conclusion

Despite these limitations and considerable need for further research to clarify the generalisability of these findings, the results of this study point to two important implications as they pertain to this study population. First, given that knowledge was significantly related to attitudes among the sample, it may be of utmost importance to ensure that employees are receiving the knowledge and mastering the skills they need

to work appropriately and effectively with individuals with chronic diseases. The need for employees who have adequate knowledge about the population they work with is necessary at all costs and the results of this study continue to underscore this necessity. Finally, organisations should take primary missions of enhancing human capital's well being and help meet the basic human needs of all people, paying particular attention to the needs and improvement of people who are vulnerable such as those living with chronic diseases.

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APPENDICES

APPENDIX A: RESEARCH QUESTIONNAIRE

APPENDIX A: RESEARCH QUESTIONNAIRE

I am **Herbert Kanengoni,** currently registered with the University of Fort Hare, for a Masters degree in Industrial Psychology. As part of the requirements for completion of my studies, I am conducting a study on *"The relationship between employee knowledge, personal contact and attitudes towards chronically ill co-workers within the Banking sector".* The information you provide will be used to improve working life, relationships and chronic illness management in organisations. The aim of this research is to learn about your knowledge, attitudes and practices regarding chronic illnesses and understand your needs, best way to bring information to you, as well as unveiling barriers to a better working environment. You are kindly requested to answer each statement carefully and honestly. You are also welcome to add any comments you may have in the allocated spaces.

Executive Summary

A chronic illness is defined as one that has a long-term course, that does not resolve spontaneously, and for which a complete cure is rarely achieved. Examples of most common chronic illnesses in South Africa include: *heart disease, hypertension (BP), diabetes, arthritis, cancers, chronic lung diseases, chronic disorders, asthma, back pain, depression, anxiety, sleeping sickness, HIV/AIDS and obesity among others*. These cause various disease processes such as strokes, heart attacks, chronic bronchitis, emphysema and many others that lead to high death rates.

The symptoms may include difficulties in concentration, reduced mobility, extreme fatigue, sensitivity to pressure, and pain among others. Managing these symptoms can make full-time work very difficult for most employees as they may also experience difficulties travelling to work or using public transport, climbing stairs or lifting objects, working for long periods of time and multi-tasking.

All information collected will be highly confidential

SECTION A: Demographic Information

1. Instructions: *Indicate your choice by marking with an **(X)** in the box of your choice.*

1.1 Gender:

1.Male		2.Female	

1.2 Age in Years:

1.Under 30		2.(31 - 40)		3.(41 - 50)		4.Over 50	

1.3 Ethnicity:

1.Black		2.White		3.Coloured		4.Indian		5. Other*(state)*

1.4 Marital status:

1. Single		2.Married		3.Divorced		4.Widowed		5. Other*(state)*

1.5 How long have you been working for the organisation?

1.Less than 2years		2. 3 to 5yrs		3.Over 5years	

1.6 Educational Qualification

1.Matric		2.Diploma		3. Degree		4.Post grad		5. Other *(state)*……

1.7 The level of position within the organisation:

1.Top level		2. Middle Level		3. Lower Level	

SECTION B: Knowledge (Awareness, Familiarity or Understanding)

2. *Indicate your choice by placing an **(X)** in the block that best describes your understanding of chronic diseases.*

2.1 Are you well informed about chronic diseases?

1.Yes		2.No	

2.2 Are chronic illnesses a problem in our organisation?

1.Yes		2.No	

Instruction: *Mark with an **(X)** in the box that best describes your **level of agreement.***

Common Chronic Illnesses in South Africa include: Cancers, Asthma, BP, Back pain, HIV/AIDS, Diabetes,	1 Strongly Disagree	2 Disagree	3 Not Sure	4 Agree	5 Strongly Agree
2.3 Chronically ill employees have a problem with working long hours.					
2.4 All symptoms of chronic illnesses can be seen.					
2.5 A person can get cancer or asthma through handshakes.					
2.6 Chronic illnesses can be prevented by washing hands after touching items in other peoples' offices (such as pen, paper or chairs).					
2.7 Anybody can be infected with chronic illness.					
2.8 Chronic diseases can be completely cured.					
2.9 Healthy behaviour (e.g. physical activity, healthy diet, not smoking) plays a key role in preventing chronic illness.					
2.10 Chronically ill employees have difficulties in concentration.					
2.11 Chronically ill employees can work under pressure					
2.12 Individuals with asthma always experience a lot of pain.					

SECTION C: Personal contact (Touching, Meeting, Being Near, Communicating)

3. **Instructions:** *Indicate your response by marking with an **(X)** in the box of your choice*

3.1 Did you have any personal contact with people with chronic disease in your organisation?

1.Yes		2.No	

*If **yes** continue to **3.2**.* *If **no** skip to **section D***

3.2 State the chronic disease……

3.3 Rate severity of the symptoms of the chronic disease?

1.Not very serious		2.Somewhat serious		3.Very serious	

3.4 What is your relationship with the person(s)?

1.Relative		2.Co-worker		3.Close friend		4.Other: Specify	

3.5 Does the person require assistance at all times.

1.Yes		2.No	

3.6 Do you stay together with the person(s) suffering from a chronic disease?

1.Yes		2.No	

3.7 How much time do you spent with the individual(s) suffering from chronic illness?

1. Weekends only		2. At work only		3.We live together	

SECTION D: Attitudes (Opinion, Feeling or Behaviour)

4. Instruction: *Mark with an **(X)** a response that best describes your **level of agreement.***

STATEMENT	1 Strongly Disagree	2 Disagree	3 Not Sure	4 Agree	5 Strongly Agree
4.1 I would be embarrassed if I have chronic illness.					
4.2 If I had a chronic illness I would disclose it to anyone.					
4.3 I am compassionate to help people with chronic illnesses.					
4.4 I am compassionate but tend to stay away from these people.					
4.5 It is their problem and I cannot get a chronic illness.					
4.6 I fear them because they may infect me.					
4.7 I have no particular feeling.					
4.8 Chronically ill workers should not be tolerated when they come late to work.					
4.9 If I had a chronic illness I would feel sad and hopeless.					
4.10 Workers with chronic illnesses should not be allowed to work.					
4.11 Chronically ill employees are unproductive.					
4.12 I do not like to be in a team consisting of the chronically ill.					
4.13 Chronically ill workers should be paid only for actual hours worked.					
4.14 Chronically ill workers spend more time taking medication than doing their job.					
4.15 The chronically ill should be awarded flexible hours.					
4.16 The chronically ill are a burden to other employees.					

SECTION E: Intervention and way forward

5.1 What are the sources of information that you think can most effectively reach people like you with information on chronic illnesses? *(Please choose your three most effective sources.)*

1. Health Bulletins & Magazines		2. Health workers	
3. Brochures Posters & other Printed material		4. Teachers	
5. Other (please specify)			

5.2 Any comment or suggestion on the ways in which chronically ill employees can be accommodated in your organisation. (*Use the space provided below)*

_____

_____

_____

_____

_____

_____

-End-

Your participation is highly appreciated.

APPENDIX B: CORRELATIONS

Correlations (Spreadsheet1.sta) Marked correlations are significant at p < .05000 N=80 (Knowledge vs. Attitudes)

	Embarass	disclose	help	stay away	cannotget	fear them	Not feeling	Tolerated	Hopeless	Not allowed	unproductive	Team	actual hours	medication	Flexible	burden
informed	.0215	-.1749	-.0707	.0187	-.0464	.0338	-.0183	.0996	-.2663	.1562	.0538	.2188	-.1569	.1717	.0933	.0098
	p=.850	p=.121	p=.533	p=.869	p=.683	p=.766	p=.872	p=.379	p=.017	p=.167	p=.635	p=.051	p=.165	p=.128	p=.411	p=.931
probing	-.0355	.1531	-.1809	-.2506	.1472	.0829	.2586	.0000	-.0736	.1915	.2260	.1784	.0235	.1556	-.1329	-.2607
	p=.755	p=.175	p=.108	p=.025	p=.193	p=.464	p=.021	p=1.00	p=.516	p=.089	p=.044	p=.113	p=.836	p=.168	p=.240	p=.020
long hours	.0208	-.3009	-.1089	-.2728	.0645	-.0114	-.1336	.0525	-.0685	-.1646	-.2868	-.1281	-.0829	.0365	.2587	-.4183
	p=.854	p=.007	p=.336	p=.014	p=.570	p=.920	p=.237	p=.644	p=.546	p=.145	p=.010	p=.257	p=.465	p=.748	p=.020	p=.000
symptom	.0688	.1096	-.2464	-.2603	.1657	.0979	.1418	-.2451	.0097	.0988	.1534	.1784	.1548	.2301	.1612	-.1113
	p=.544	p=.333	p=.028	p=.020	p=.142	p=.388	p=.210	p=.028	p=.932	p=.383	p=.174	p=.113	p=.170	p=.040	p=.153	p=.326
handshake	.4129	-.2837	-.1512	.0273	.2250	.5154	.2859	.0589	.2458	.1397	.0786	.3501	.0795	.1300	-.1208	-.2049
	p=.000	p=.011	p=.181	p=.810	p=.045	p=.000	p=.010	p=.604	p=.028	p=.217	p=.488	p=.001	p=.483	p=.250	p=.286	p=.068
washing	-.0295	-.2748	-.2036	-.0598	-.0461	.1342	.1247	.1485	.0971	.1625	-.0059	-.0779	.1346	-.0676	-.0326	-.1826
	p=.795	p=.014	p=.070	p=.598	p=.685	p=.235	p=.270	p=.189	p=.392	p=.150	p=.958	p=.492	p=.234	p=.551	p=.774	p=.105
anybody	-.0957	.1025	.2128	.0083	-.3709	-.0982	.0567	.0852	-.0467	-.2742	-.2310	-.1057	.0690	.1770	.0437	.0595
	p=.398	p=.365	p=.058	p=.942	p=.001	p=.386	p=.617	p=.452	p=.681	p=.014	p=.039	p=.351	p=.543	p=.116	p=.701	p=.600
Cured	-.4577	.3090	.2215	-.0192	-.2128	-.1296	-.0510	.0233	-.1920	-.0833	-.1025	-.2011	-.0539	-.1368	-.1499	.1768
	p=.000	p=.005	p=.048	p=.865	p=.058	p=.252	p=.653	p=.837	p=.088	p=.463	p=.366	p=.074	p=.635	p=.226	p=.185	p=.117
healthy behavior	-.0392	.2410	.2764	.0447	-.3037	-.2737	-.0422	-.0777	-.1578	-.2775	-.0549	-.1643	-.2999	.1263	.0165	.1739
	p=.730	p=.031	p=.01	p=.694	p=.006	p=.014	p=.710	p=.493	p=.162	p=.013	p=.629	p=.145	p=.007	p=.264	p=.884	p=.12

			3													3
contrntng	.1180	-.0977	-.0553	-.2812	.2219	-.0780	-.1835	-.0822	.1186	.0030	.0543	-.0379	.0064	.0843	.2752	-.3760
	p=.297	p=.388	p=.626	p=.012	p=.048	p=.492	p=.103	p=.469	p=.295	p=.979	p=.632	p=.739	p=.955	p=.457	p=.014	p=.001
pressure	.0708	-.0428	.1266	.0264	.1043	.3038	.1325	-.0130	.0404	-.0447	-.0028	.0784	.0234	-.0022	-.1062	-.2121
	p=.533	p=.706	p=.263	p=.816	p=.357	p=.006	p=.241	p=.909	p=.722	p=.694	p=.980	p=.489	p=.837	p=.985	p=.349	p=.059
Pain	.2086	-.0918	-.0183	.1529	.2517	.1047	-.1407	-.2446	.0619	.1004	.1178	.0984	-.0988	.0779	.0033	-.3143
	p=.063	p=.418	p=.872	p=.176	p=.024	p=.355	p=.213	p=.029	p=.585	p=.375	p=.298	p=.385	p=.383	p=.492	p=.977	p=.005

Correlations (Spreadsheet1.sta) Marked correlations are significant at p < .05000 N=80 (Case wise deletion of missing data)													
	Embaras	**disclose**	**help**	**stay away**	**cannotget**	**fear them**	**Not feeling**	**Tolerated**	**Hopeless**	**unproductive**	**Team**	**actual hours**	**medication**
Pain	.1543	-.2481	-.1826	-.0135	.3151	.1484	-.1629	-.1802	.1835	.2064	.1281	-.0076	.0458
	p=.290	p=.086	p=.209	p=.927	p=.027	p=.309	p=.264	p=.215	p=.207	p=.155	p=.380	p=.959	p=.755
contact	.3308	-.1895	-.0797	-.1044	.1165	.3155	-.0101	.4476	-.2150	.2508	.5815	-.0623	.3193
	p=.020	p=.192	p=.586	p=.475	p=.426	p=.027	p=.945	p=.001	p=.138	p=.082	p=.000	p=.670	p=.025
severity	-.3380	.0566	.0809	.1747	-.0086	-.1064	-.2475	.1420	-.2938	.0413	-.1736	.2778	-.0124
	p=.018	p=.699	p=.581	p=.230	p=.953	p=.467	p=.086	p=.331	p=.040	p=.778	p=.233	p=.053	p=.933
stay2ged	-.1142	-.0307	-.1884	-.1912	.0286	-.0125	-.2002	.3352	-.0851	.3054	.0334	-.0723	-.0047
	p=.435	p=.834	p=.195	p=.188	p=.845	p=.932	p=.168	p=.019	p=.561	p=.033	p=.820	p=.621	p=.974
times spend	-.1075	.1511	.1327	-.0131	-.2290	-.2047	-.1398	.1510	-.2201	.0133	.0283	-.0395	.1610
	p=.462	p=.300	p=.363	p=.929	p=.114	p=.158	p=.338	p=.300	p=.129	p=.928	p=.847	p=.788	p=.269

APPENDIX C: T – TESTS

T-tests; Grouping: Ethnicity (Spreadsheet1.sta) Group 1: black Group 2: coulored							
	Mean - black	**Mean - coulored**	**t-value**	**df**	**p**	**Valid N - black**	**Valid N - coulored**
INFORMED	1.309524	1.666667	-2.82565	61	0.006369	42	21
PROBINOG	1.452381	1.238095	1.66096	61	0.101853	42	21
LONG HOURS	3.500000	3.238095	0.93991	61	0.350973	42	21
SYMPTOM	2.738095	2.571429	0.69394	61	0.490354	42	21
HANDSHAKE	1.785714	2.333333	-2.67696	61	0.009530	42	21
WASHING	1.928571	2.285714	-1.81487	61	0.074462	42	21
ANYBODY	3.380952	4.047619	-2.45731	61	0.016857	42	21
CURED	2.690476	2.666667	0.08722	61	0.930784	42	21
HEALTHY BEHAVIOUR	4.285714	4.047619	1.16740	61	0.247592	42	21
CONTRNTNG	3.547619	3.523810	0.10532	61	0.916465	42	21
PRESSURE	2.571429	2.761905	-0.77121	61	0.443562	42	21
PAIN	3.214286	3.142857	0.31597	61	0.753105	42	21

T-tests; Grouping: Contact (Spreadsheet1.sta) Group 1: Females Group 2: Males							
	Mean - Females	**Mean - Males**	**t-value**	**df**	**p**	**Valid N - Females**	**Valid N - Males**
INFORMED	1.377778	1.371429	0.05746	78	0.954325	45	35
PROBING	1.422222	1.228571	1.83248	78	0.070696	45	35
LONG HOURS	3.333333	3.171429	0.61925	78	0.537556	45	35
SYMPTOM	2.733333	2.571429	0.76175	78	0.448507	45	35
HANDSHAKE	2.022222	1.800000	1.20096	78	0.233401	45	35
WASHING	2.022222	1.828571	1.17166	78	0.244902	45	35
ANYBODY	3.666667	3.600000	0.25817	78	0.796958	45	35
CURED	2.800000	2.514286	1.22203	78	0.225376	45	35
HEALTHY BEHAVIOR	4.111111	4.285714	-0.99186	78	0.324334	45	35
CONTRNTNG	3.400000	3.600000	-1.00184	78	0.319520	45	35
PRESSURE	2.711111	2.828571	-0.55730	78	0.578917	45	35
PAIN	3.155556	3.228571	-0.34179	78	0.733431	45	35

	T-TESTS; GROUPING: CONTACT					
	GROUP 1: YES	GROUP 2: NO				
VARIABLE	Mean - Yes	Mean - No	t-value	df	p	p - Variances
EMBARASSED	2.212766	2.161290	0.21410	76	0.831045	0.994172
DISCLOSE	3.148936	1.161290	2.04606	76	0.003387	0.256259**
HELP	4.234043	4.129032	0.74894	76	0.456206	0.816513
STAY AWAY	2.574468	2.154839	0.89977	76	0.047108	0.349422**
CANNOTGET	1.680851	1.209677	0.41898	76	0.027249	0.314769**
FEAR THEM	1.765957	1.374194	0.04687	76	0.962744	0.955817
NOT FEELING	2.042553	2.161290	-0.56768	76	0.571928	0.450204
TOLERATED	1.744681	2.258065	-2.26596	76	0.026300	0.368817**
HOPELESS	2.063830	2.225806	-0.21811	76	0.474893	0.867491
NOT ALLOWED	1.917021	1.474194	0.54892	76	0.045621	0.082017**
UNPRODUCTIVE	1.914894	1.903226	0.05567	76	0.955754	0.404804
TEAM	1.702128	2.000000	-1.77834	76	0.079347	0.179155
ACTUAL HOURS	1.744681	2.064516	-1.72494	76	0.048603	0.158625**
MEDICATION	2.340426	2.919355	-0.64547	76	0.030693	0.189840**
FLEXIBLE	3.468085	2.096774	1.23459	76	0.020785	0.439440**
BURDEN	2.468085	2.032258	1.42631	76	0.057805	0.009044

APPENDIX D: INTERNAL CONSISTANCE

Summary for scale: Mean=80.0408 Std. Dv.=5.99291 Valid N:49 (Spreadsheet1.sta) Cronbach alpha: .815920 Standardized alpha: .785711 Average inter-item corr.: .089360

	Mean if - deleted	Var. if - deleted	StDv. if - deleted	Itm-Totl - Correl.	Alpha if - deleted
informed	78.63265	34.64057	5.885624	0.051832	0.271563
long hours	76.73470	35.01125	5.917030	-0.092421	0.317219
symptom	77.28571	31.02041	5.569597	0.325941	0.202733
handshake	78.04082	31.63099	5.624143	0.269086	0.218020
washing	78.14286	34.73470	5.893615	-0.001460	0.280076
anybody	76.55102	34.16576	5.845149	-0.034674	0.299449
Cured	77.42857	38.00000	6.164414	-0.315127	0.357442
healthy behavior	75.73470	35.33778	5.944559	-0.077927	0.294039
contrntng	76.61224	33.50270	5.788152	0.061070	0.268479
pressure	77.38776	33.38026	5.777565	0.097241	0.260071
Pain	76.75510	32.42982	5.694719	0.157248	0.243244
contact	78.95918	33.54935	5.792181	0.321982	0.244242
severity	77.91837	35.34028	5.944769	-0.078933	0.294601
relationship	78.10204	33.56102	5.793187	0.188256	0.250249
assistance	78.42857	35.63265	5.969309	-0.118283	0.292594
stay2ged	78.28571	34.89796	5.907449	0.019510	0.275492
times spend	77.87755	35.16868	5.930319	-0.047287	0.285878
Embaras	77.75510	30.83799	5.553196	0.269612	0.208027
disclose	76.93877	37.52686	6.125917	-0.257465	0.362887
help	75.81633	35.53769	5.961350	-0.100078	0.293521
stay away	77.48980	37.67847	6.138279	-0.275428	0.358668
cannotget	78.34694	34.02249	5.832880	0.136815	0.259353
fear them	78.22449	31.76593	5.636127	0.322937	0.214417
Not feeling	78.00000	31.75510	5.635167	0.291644	0.217168
Tolerated	78.20408	33.42774	5.781672	0.065976	0.267205
Hopeless	78.02041	33.48938	5.787001	0.064755	0.267534
Not allowed	78.40816	32.15993	5.670973	0.275778	0.224451
unproductive	78.08163	32.48313	5.699398	0.201433	0.236709
Team	78.24490	29.49104	5.430566	0.598113	0.151845
actual hours	78.30612	33.47771	5.785993	0.122539	0.256311
medication	77.63265	30.10995	5.487254	0.355622	0.185212
Flexible	76.59184	32.89463	5.735384	0.034837	0.278769
burden	77.59184	38.69054	6.220172	-0.343649	0.377349