

**Coping with ischaemic heart disease:
views and experiences of key participants,
their partners and medical practitioners**

BY

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Abstract

Ischaemic heart disease (IHD), which is a Chronic Disease of Lifestyle, has been rated as one of the key illnesses that have progressively materialised as a threat across the wide demographic spectrum of South Africa's population. Internationally, literature is relatively scarce on the psychosocial consequences of the disease for the ill person, but limited information does exist on these consequences as they affect South African individuals and their families. This study sought firstly to understand the experience of persons with IHD, their partners and medical practitioners and secondly how they coped with the illness. Participants were selected with the assistance of cardiologists at a private hospital in KwaZulu-Natal. Theoretical sampling determined the number of persons who participated in the study. Data was collected using in-depth interviews in accordance with the qualitative descriptive design and narrative inquiry that underpinned the research. Participants (13) were determined once data-saturation was reached. The data revealed that spousal support and religion/spirituality played important roles in helping people manage the illness. Genetics and lifestyle choices contributed to participants' IHD. Not recognising their symptoms, owing to misinformation by the medical fraternity, contributed to participants not realising they were having a heart attack. Religious/spiritual coping mechanisms were among those mentioned by participants, and depression (not clinically assessed), anxiety and sadness were noted among the consequences for them. Two of the cardiologists did not acknowledge depression; nevertheless research studies have linked depression with major cardiac attacks and to surgery following cardiac problems. The data points to the lack of communication between participants and their health practitioners and the belief held by participants that the medical personnel were not particularly interested in their psychosocial wellbeing. This seems to be borne out by the limited data obtained from health practitioners. Social workers can play important roles in the health team by ensuring that the psychosocial needs of persons experiencing IHD and their families are attended to. Social workers can publish in health journals to make the medical fraternity aware of the contribution that social workers skills can make to persons who are ill.

Acknowledgements

I would like to express my gratitude to the following persons for their support.

Rashid, for his calmness and understanding.

Nadira, Alia and Xavier for their patience with me.

Professor Vishanthie Sewpaul for her help and experience in walking this path with me.

Tasneem and Renee for listening to my tales of woe.

My friends who encouraged and distracted me.

My parents Ismail and Sakeena Limbada who instilled the love for others in me.

To everyone who helped and encouraged me.

Thank you all.

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Chapter 1

Introduction

South Africa is burdened by the high prevalence of key non-communicable diseases or chronic diseases of lifestyle (Steyn 2006a). Amongst several others, non-communicable chronic diseases of lifestyle include cardiovascular disease, (disease of the blood vessels), type 2 diabetes, cancer, chronic lung disease and depression which are reaching epidemic proportions in both rural and urban areas (Mayosi, Flisher, Lalloo, Sitas, Tollman and Bradshaw, (2009), Steyn (2006a), believe that if special measures are not put in place to stem the rise in non-communicable diseases, the consequences of such diseases will have far-reaching economic and societal effects in South Africa over the next decade. Because non-communicable, diseases are not notifiable to the Medical Research Council, official statistics of the number of people affected by the diseases are limited (Steyn, Fourie, & Temple, 2006)

Chronic diseases of lifestyle have grown to such an extent that the World Health Organisation estimates that in South Africa in 2004, they would be responsible for “28% of the total burden of non-communicable diseases which is measured by disability-adjusted life years (DALY)” (Mayosi et al., 2009, p. 935). Of this figure cardiovascular disease, diabetes mellitus, respiratory diseases and cancer make up 12% (Mayosi, et al., 2009).

In South Africa “[b]etween 1997 and 2004, 195 people died per day because of some form of heart and blood vessel disease” (Steyn, 2007, p.1) (Steyn, 2007, p. 1). Studies show that more than half of all deaths occurring before the age of 65 are attributable to chronic diseases (including heart disease), and these have a major impact not only on the economy and the workforce but also have serious social implications (Steyn, 2007).Coronary heart disease is very prevalent in South Africa (Steyn, 2007). It is also regarded as the most common cause of death worldwide, and advanced societies such as the United Kingdom and the United States have intensified their efforts to prevent, diagnose and treat the risk factors (Culic, 2007).

Internationally, there are no published statistics of the number of persons under investigation for cardiac disease, but there are mortality figures from studies conducted in countries such as the United Kingdom, the United States and India. In the United Kingdom, figures for 2001 show that over 7 million deaths were a result of coronary heart disease (Joeke, Maes, & Warrens, 2007). In 2004, the UK Department of Health recorded that annually in the United Kingdom approximately 275,000 people experienced a myocardial infarction and of this number 140 000 died (Hogg, Garratt, Shaw, & Tagney, 2007).

In the United States, cardiovascular disease is the foremost cause of deaths in both men and women and coronary artery disease is the most widely found origin of cardiovascular disease (General Illness, n.d.). In research conducted in 2005, the US Centre for Disease Control and Prevention found that seven out of ten individuals investigated died from chronic diseases, including cardiovascular disease (Heart Disease and Stroke Prevention, 2010)

Along with the United Kingdom and the United States, India faces a similar threat to the health of its population and to its economy because of the rise in cardiovascular disease (Kohn, 2008). The World Health Organisation, estimates that 60% of the population of India will have heart problems as a result of the change in their dietary lifestyle combined with physical inactivity (Kohn, 2008).

Research studies of the origins and spread of lifestyle diseases have identified that the probability of chronic heart disease is greater with increased exposure to certain risk factors, which are covered in the medical literature (Bradshaw, Schneider, Norman, & Bourne, 2005; Culic, 2007; Fullard, 1990). Factors not included in the study but are factors to be considered, are drugs, alcohol consumption and the association that weather has on diseases of lifestyle, which will not be covered in this study (Steyn, 2007). What is heartrending is that, according to Steyn (2007), chronic diseases such as heart disease, stroke, cancer, diabetes and arthritis are among the most

widespread, expensive and avoidable of all health problems (Centres for Disease Control and, 2011). They have accordingly put together a plan for the government to implement which will be discussed further on.

Rationale of the study

The rationale of the study is to address the scarcity of data on ischaemic heart disease in South Africa, with specific reference to the experience and coping strategies of persons with the illness and their partners, in the private health care sector. A further underlying objective is to examine the views of cardiologists to investigate whether there is congruence between the vision that the person with ischaemic heart disease and the cardiologist each have of the illness. Also investigated is whether psychosocial intervention is seen as a requirement by the cardiologist. While this study is restricted to the private health sector, lack of such information is applicable to both the private and public sectors. With increased knowledge over the years of the factors that can assist individuals with ischaemic heart diseases, such as treatment, interventions, lifestyle changes and how they can deal with the consequences of the disease, one can expect improvement in the psychological wellbeing of people experiencing ischaemic heart disease (Kristofferzon, Lofmark, Carlsson, 2003). This study was designed to explore lived experience of individuals living with ischaemic heart disease, including their thoughts, feelings and behaviour during the initial diagnosis and thereafter. Two members of my immediate family were diagnosed with ischaemic heart disease. While the practitioners administered excellent clinical care to the person with ischaemic heart disease, their psychological needs were not attended to. The psychosocial needs of my immediate family were also overlooked. I decided to use this personal experience as a springboard to understand the life experiences of other people who have gone through a similar incident.

Limited information of the individual's perspective of the psychosocial impact on persons with ischaemic heart disease and their partners/spouses in the private sector made this study significant. Knowledge obtained in this area will inform and improve services provided not only by the medical social worker

but also for the allied professions in the holistic management of persons with ischaemic heart disease. This study could serve to update research on psychosocial interventions with persons with ischaemic heart disease and help to advance social workers' skills in counselling and therapy in response to the psychosocial and emotional impact of ischaemic heart disease on individuals and their partners/spouses.

For the purposes of this research, the term 'patient' will not be used other than when quoting directly. Individuals who seek medical care or help from private practitioners will be referred to as key participants. The inequality of the relationship between the 'patient' and the cardiologist will be elucidated on in the analysis. In addition terminology associated with the diseases of the heart – *ischaemic heart disease* and *cardiovascular disease* – is used interchangeably.

Aims of the study

This study sought firstly to investigate the psychosocial consequences of ischaemic heart disease amongst individuals and their spouses/partners and secondly to examine the views of the health practitioners on the need for psychosocial intervention and care. By providing greater understanding of the experiences of key participants and their partners/spouses, the aim was to use the findings to make recommendations for the care of people experiencing ischaemic heart disease, for their families and for the allied professions.

Research objectives

Interviews were conducted with participants with the aim of achieving the following objectives:

1. To investigate the psychosocial consequences of ischaemic heart disease for the participants and their spouses/ partners.
2. To examine how persons and their spouses/ partners cope with ischaemic heart disease.
3. To gain an understanding of what helps the participants and their spouse/partners cope with ischaemic heart disease.

4. To examine the views of medical practitioners on the need for psychosocial intervention.
5. To investigate if there is congruence between the person with ischaemic heart disease, his/her partner and the medical practitioner about the need for psychosocial involvement.

Theoretical Framework

The research is positioned within the comprehensive biopsychosocial model (BPS) (Ross & Devereil, 2004). Dr. George Engel established this model in 1997, as he was critical of the biomedical model (Kumpfer, Trunnell, & Whiteside, 2012). This theory can be seen as a “paradigms integration” framework incorporating various theories including study of the multifaceted cause of illness (Kumpfer, et al., 2012). This model sees disease in terms of pathophysiology but also extends to include cellular, organ, family and societal systems. Ethnicity and group processes also have an influence on health and these socio-cultural factors too require consideration (Schlebusch, 1990)

This model is ideally suited to explore the experiences of persons with ischaemic heart disease on various levels (Vanker, et al., 1990). On a biological level it would provide insight into the individual’s response to medical treatment and whether this is similar to that of his physician. On a psychological level it would investigate the emotions that the person attaches to the illness and the coping strategies utilised. The social level will offer insight into the coping methods employed by the person with ischaemic heart disease and his or her partner, and how the illness might impact social relations (Schlebusch, 1990). In the context of the study, the experiences of the person with ischaemic heart disease will be explored on all levels, since the biopsychosocial approach can enhance understanding of issues and ways of dealing with them.

The biopsychosocial model is a general framework model rather than a precise theory. It includes a paradigm shift from reductionist models of

healthcare to a holistic, systems-based approach (Schlebusch, 1990). The theory emanates from the understanding that health and disease are established by a composite interaction of biological, psychological and sociological factors (Schlebusch, 1990). The attraction of this approach is that it is a philosophical appreciation of the way distress, disease and illness are affected on many levels, embracing the individual, the family, the community and the greater society (Borrell-Carrio, Suchman, & Epstein, 2004).

In keeping with the biopsychosocial research approach, persons with ischaemic heart disease will not be referred to as patients since an unequal relationship exists between “patient and health care practitioner” (Ross & Deverell, 2004, p. 53). Furthermore the technical knowledge that a practitioner has, together with the “traditional difference in status between patient and practitioner” and the fact that the “patient alone is suffering”, slants the relationship in the direction of inequality (Ross & Deverell, 2004, p. 53). Accordingly, for the purposes of this research, individuals who seek medical care or treatment from private practitioners will be referred to as *persons with ischaemic heart disease or key informants*.

Presentation of contents

The foregoing chapter provided an outline of the study and considered the background/context of the study; the rationale for the study; aim of the research, research objectives; concluding with the theoretical framework that guides this study.

Chapters two and three present the literature review in two sections. The first covers the medical aspects of ischaemic heart disease. This is necessary to understand the delicacy of the procedures that are carried out, and later, in analysing their responses to the procedure, we will reflect on the dismissive view that participants have of the procedures. The second literature review chapter covers the psychosocial consequences of ischaemic heart disease.

Chapter four discusses the research design and methodology; the research paradigm; sample/participants, data collection techniques, reliability and validity of the study, methods of data analysis, ethical considerations and the limitations of the study.

Chapter five covers the data analysis and discussion of the interviews of the participants, their spouses/partners and the medical team.

In Chapter Six, Part One of the chapter presents a discussion of the results; Part Two covers the implications of the study, recommendations emanating from the study, and recommendations for future research.

Chapter 2

Literature review: biomedical aspects of ischaemic heart disease

The research topic warranted investigation as a consequence of the unstudied large numbers of participants experiencing ischaemic heart disease, as well as the limited data on South Africans in relation to the psychosocial treatment of participants and their families in the private health care sector.

This chapter covers the medical aspects of ischaemic heart disease; the prevalence of heart disease, the manifestations of the disease and the medical treatment of the disease.

Medical terms frequently referred to in the study are listed below.

Treatment of ischaemic heart disease

The treatment of ischaemic heart disease is a non-invasive procedure in which an ultrasound of the chest displays detailed images of the function and structure of the heart (Type 2 diabetes: MedlinePlus Medical Encyclopedia). If any abnormalities are found the individual is treated with the appropriate procedure. These could be a cardiac catheterisation where the doctor views images of the inside of the coronary arteries. If cholesterol plaques in these arteries (coronary artery disease) have caused areas of narrowing, treatment options depend on various factors, including:

- Severity and extent of coronary artery disease
- Symptoms, such as chest pain and shortness of breath
- Overall heart function
- Other medical conditions, such as heart valve disease, diabetes, kidney disease, peripheral artery disease, or prior stroke or heart attack (Grogan, 2010).

The treatment that is chosen may be medication and/or lifestyle changes. Other choices, depending on the condition of the person, could result in “angioplasty ... to open the clogged arteries”, especially if blood flow to the heart is reduced while the person being examined is at rest. (Grogan, 2010) During angioplasty, a tiny balloon is inserted and expanded at the site of the blockage to widen the narrowed artery. Typically, a small metal coil called a stent is implanted in the clogged artery to help prop the artery open and reduce the risk of it narrowing again.

If the arteries are narrowed or blocked in multiple areas, coronary bypass surgery may be necessary. “During bypass surgery, a section of healthy blood vessel — often taken from inside the chest wall or the lower leg — is attached above and below the blocked artery. This allows blood to bypass the blocked area and flow to the heart muscle” (Grogan, 2010).

Understanding medical aspects

Cardiovascular disease.

Cardiovascular disease (CVD) refers to any disease of the heart and blood vessels. The most common ones are diseases of the heart muscle, strokes, heart attacks, heart failure and heart disease caused by high blood pressure. (Type 2 diabetes: MedlinePlus Medical Encyclopedia)

Heart attack

A heart attack is also known as a myocardial infarction (MI). When the diseased and roughened arteries of the heart become too narrow or a clot forms in the artery, blood flow to the heart muscle is restricted. The heart muscle is deprived of oxygen, causing segments of the muscle to die and leaving the heart unable to pump sufficient blood to the rest of the body. This is characterised by a sudden severe chest pain that may spread down one or both arms and to the neck (Atherosclerosis: MedlinePlus Medical Encyclopedia; Stroebe, 2000).

Heart failure

Heart failure is caused by the inability of the heart to pump blood efficiently around the body (Nordqvist, 2009). This results in the heart muscles being damaged. This condition could occur suddenly or over a period of time. It affects either the right or the left side of the heart or, more often, both sides of the heart (Type 2 diabetes: MedlinePlus Medical Encyclopedia).

The inability of the heart to pump the blood successfully from the heart to other areas of the body results in the blood backing up in the body resulting in odema in the bodies extremities (Ischemic Heart Disease, 2009).

Angioplasty (also called balloon angioplasty)

With coronary artery disease the arteries in the heart are narrowed or blocked by a sticky material called plaque. Angioplasty is a procedure to restore blood flow through the artery.

The doctor threads a thin tube through a blood vessel in the arm or groin up to the site in the artery. The tube has a small balloon at the end and when the tube is in place, the balloon is inflated to push the plaque outwards against the wall of the artery. This widens the artery and restores blood flow (Coronary Artery Bypass Surgery: MedlinePlus Medical Encyclopedia).

Cardiac catheterization

“Cardiac catheterization involves passing a thin flexible tube (catheter) into the right or left side of the heart, usually from the groin or the arm” (Type 2 diabetes: MedlinePlus Medical Encyclopedia). A contrast dye is injected into the heart. The dye allows the cardiologist to see any areas in the coronary arteries that are blocked (Coronary Artery Bypass Surgery: MedlinePlus Medical Encyclopedia). If there is a blockage, a stent could be inserted in the heart during the procedure (Atherosclerosis: MedlinePlus Medical Encyclopedia). This procedure is also referred to as an angiogram (Nordqvist, 2009).

Coronary artery bypass surgery

(Also referred to as: bypass surgery, or coronary artery bypass graft (CABG)).

With coronary artery disease the arteries that supply blood and oxygen to the heart muscle become hardened and narrowed. If lifestyle changes and medicines fail to correct the condition the doctor may recommend coronary artery bypass surgery.

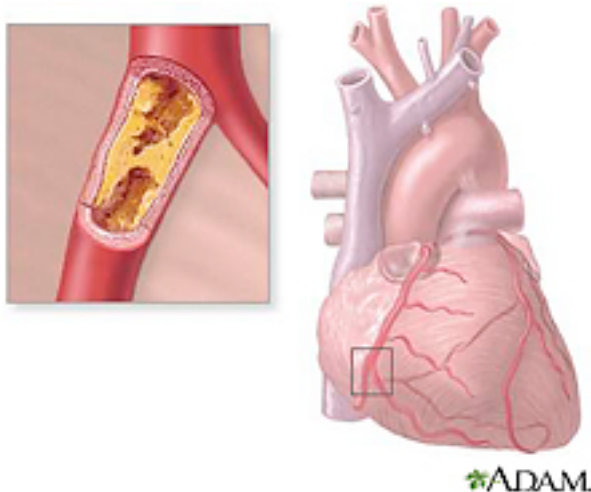
The surgeon uses a piece of a vein from the leg or artery from the chest or wrist and attaches this vein segment to the coronary artery above and below the narrowed area or blockage. This allows blood to bypass the blockage. Some people need more than one bypass and this is dependent on the number of arteries that are blocked (Coronary Artery Bypass Surgery: MedlinePlus Medical Encyclopedia).

Atherosclerosis

(also referred to as *arteriosclerosis*)

Atherosclerosis is a disease in which plaque builds up inside the arteries. Plaque is a sticky substance made up of fat, cholesterol, calcium, and other substances found in the blood. Over time, plaque hardens and narrows the arteries which limits the flow of oxygen-rich blood to the body and can lead to coronary artery disease: These arteries supply blood to the heart and when they are blocked there is a possibility of angina or a heart attack (Stroebe, 2000).

Atherosclerosis usually does not cause symptoms until it is severely narrows or totally blocks an artery (see Figure 1). People are often unaware that they have the disease until they have a medical emergency (Atherosclerosis: MedlinePlus Medical Encyclopedia).



(Atherosclerosis: MedlinePlus Medical Encyclopedia)

Figure 1: Plaque build-up in the arteries

Non-communicable diseases

Non-communicable diseases are legally defined as diseases which are not required to be reported to the Medical Research Council as they are not transferable virally (Steyn, 2006a). These diseases include cardiovascular disease, type 2 diabetes, cancer, chronic lung disease and depression (Steyn, 2006a). The South African Minister of health, Aaron Motsoaledi, reported, at a non-communicable disease summit that “the United Nations general assembly had identified NCDs as a global development crisis. It is estimated that non-communicable diseases would contribute to 75% of global deaths by 2030” (Many die from non-communicable diseases, 2011). This could have enormous repercussions globally even though it is an avoidable situation.

Prevalence of heart disease

“Cardiovascular disease is currently the leading cause of death worldwide” (Mungal-Singh, 2012). In South Africa, cardiovascular disease is charged with 80% of deaths, which could be prevented if healthy eating choices are selected as early as in-utero (Mungal-Singh, 2012; Steyn, et al., 2006). “When a fetus is exposed to risk factors such as an unhealthy diet, physical inactivity, smoking and excessive alcohol use” developing cardiovascular disease is set in motion before a child is born (Mungal-Singh, 2012).

Steyn (2007) reported that approximately “37 people die per day because of heart failure”. Chronic diseases are among the most widespread, expensive and avoidable of all health problems (Centres for Disease Control and, 2011).

The Center for Disease Control and Prevention has also pointed out that of “133 million Americans almost one out of every two adults had at least one chronic illness” (Centers for Disease Control and Prevention, 2005).

Twenty per cent of child deaths in South Africa are a result of obesity, which is a disease of lifestyle , with “one in three ...children and youth eat[ing] fast foods up to three times a week” (Mungal-Singh, 2012) .

India provides a further instance of the effects of chronic diseases. As with the United Kingdom and the United States, India has noted a significant increase in cardiovascular disease (Kohn, 2008), and it is seen as a serious threat to not only the health of the population, but also to the national economy (Kohn, 2008). The rising incidence of the disease in India is attributed to the remarkable and rapid economic growth in the country, which has influenced the eating habits of the middle-class population (Kohn, 2008). Over the past 15 years, according to Kohn (2008) has observed that the middle class population in India has grown and now number 300 million people. Research has shown that this group of people have passionately adopted an unhealthy lifestyle, eating mainly saturated fats and carbohydrates. They have also cut back on their level of physical activity,, leading to an increase of cardiovascular disease which in turn impacts on the economy (Kohn, 2008, Steyn, 2007).The WHO estimates that 60% of the population of India will have heart problems as a result of the change in their dietary habits together with relative physical inactivity (Kohn, 2008). In South Africa the growing threat to the general population of chronic diseases has prompted a national counterinitiative, covered in a later chapter which looks at early detection of cardiovascular disease.

Factors that lead to ischaemic heart disease

The exact origins of chronic heart disease are unknown (Culic, 2007; Fullard, 1990, Steyn, 2006a) (Culic, 2007; Fullard, 1990; Steyn, et al., 2006) blame

an unhealthy lifestyle, and the adoption of a western-based diet, which is high in salt, saturated fat and processed sugar and low in fibre and potassium. Concomitant with an unhealthy lifestyle is a range of risk factors linked to inherited cultural factors (Steyn, et al., 2006).

Although the South African National Burden of Disease study conducted in 2000 had difficulty determining causes of death, using a range of information sources the study was able to derive reliable information on national levels and sources of mortality in the country (Bradshaw et al., 2005). The study approximated the number of deaths at 500 000, and of this number “37% were as a result of chronic diseases of lifestyle”(Bradshaw, et al., 2005, p. 19).

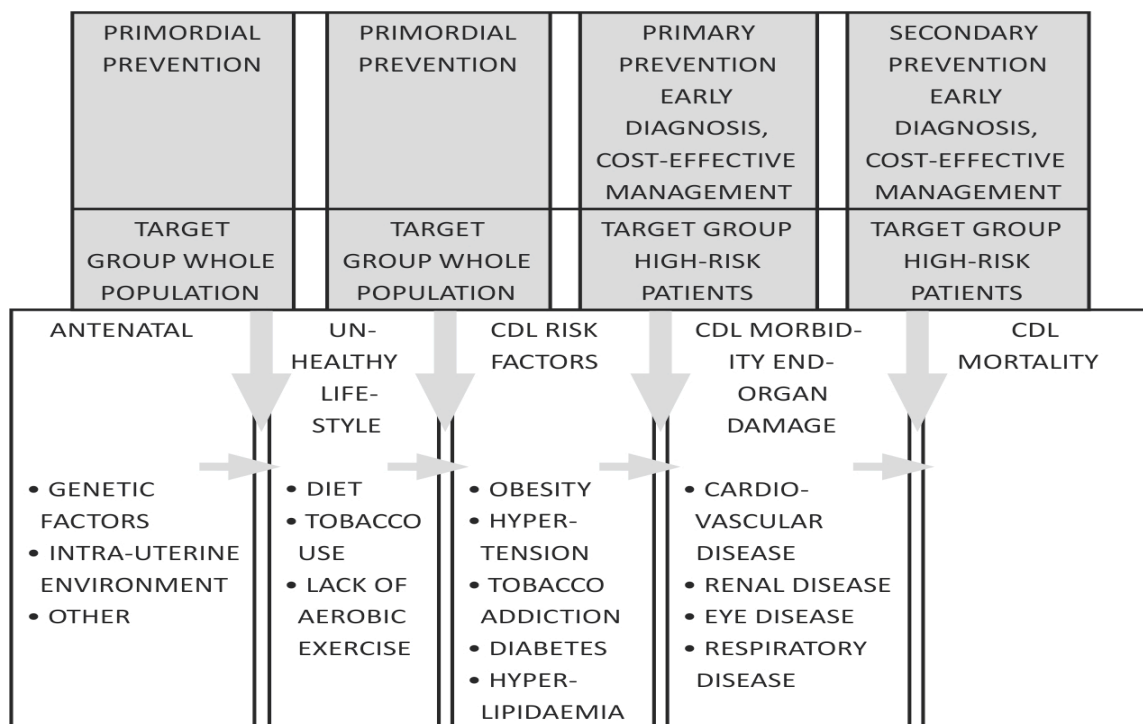
Unhealthy life style

Bradshaw et al. (2005) established that chronic diseases of lifestyle are common in middle-aged persons or persons in the latter stages of their lives, although the factors associated with chronic diseases of lifestyle were established much earlier in life. Chronic diseases of lifestyle are diseases that emanate from exposure over many years to an unhealthy diet, smoking and irregular exercise, and perhaps stress (Steyn, 2006b). In the interests of altering unhealthy lifestyles among its citizens legislation has been introduced against tobacco, along with measures aimed at “reducing trans-fat levels in food and tightening food labelling regulations” (Mungal-Singh, 2012). There have also been moves by the Minister of Health to reduce the salt content in processed food as this is directly linked to hypertension, which is on the increase in South Africa. Other concerns identified by the minister are “second-hand smoking and alcohol advertising”, and he is presently discussing measures to protect children and adults from these risk factors (Mungal-Singh, 2012).

The Medical Research Council has also drawn attention to these risks and sketched out a programme for the population which, they feel the government needs to implement (see Figure 1), (Bradshaw et al., 2005).

Diet

The report by Steyn et al. (2006) on the conceptual framework for chronic diseases of lifestyle in South Africa notes that South Africans have adopted a western diet and introduced fast foods into their diet. The accessibility and convenience of these foods have reduced the need to cook traditional South African foods which have higher nutritional value. People who adopt a western diet are found to consume a diet high in fat, particularly saturated fat, refined carbohydrates, and sugar. Insufficient amounts of healthy fruit and vegetables are eaten. This, coupled with high levels of sodium found in processed foods and low levels of vitamins and essential trace elements (calcium and magnesium), increases the prevalence of hypertension (Schlebusch, 1990; Steyn, 2006a). Unhealthy diet leads to a biological imbalance which might not be apparent immediately but could surface later as ill health (Bradshaw et al., 2005). If this state of imbalance is not diagnosed in its early stages, it could manifest as hypertension, obesity or abnormal glucose metabolism, increasing the risk of chronic lifestyle diseases such as ischaemic heart disease, stroke, diabetes and diseases of the lung (Bradshaw et al., 2005). It is for this reason that Steyn et al. (2006) suggested that steps be taken to encourage early detection.



(Steyn, et al., 2006)

Figure 2: Lifetime perspective on development and management of CDL

Figure 2 sets out a proposed structure for early detection; the diagram suggests a strategy, which could alleviate the burden of chronic diseases if caught early. It is aimed at the entire population from the in utero stage of life through to the age group that has already adopted unhealthy eating habits (Bradshaw, et al., 2005). It further includes a portion of the community who reflect the consequences of harmful standards of living (Bradshaw et al. 2005). The second population group are people who are recognised as being at risk or have been diagnosed (Steyn, et al., 2006).

An added risk of chronic diseases of lifestyle is obesity and physical inactivity.

Obesity / physical inactivity

Populations in the Western hemisphere are said to be increasing in weight (McLeod, 2001). A 1997 health survey in the United Kingdom found that “17% of men and 20% of women in the UK were obese” (McLeod, 2001). Obesity shows a relationship with elevated mortality and a greater occurrence of chronic disease (McLeod, 2001). Obesity has been described as an excess of energy which is accumulated or stored in fat cells as a direct consequence of

a disproportion between energy intake and energy output, which results in the growth of the fat cells (Goedecke, Jennings, & Lambert, 2005).

The WHO reports that obesity is a global epidemic with approximately “1.3 billion people overweight” (Goedecke, et al., 2005, p. 73). Obesity is found not only in developed nations like the United States but also in developing nations like South Africa (Goedecke, et al., 2005). Mungal-Singh reports that “20% of children today are overweight or obese [in South Africa], and one in three of our children and youth eat fast foods up to three times a week” (2012). This raises the risk of obesity, which is related to higher mortality and a greater incidence of chronic disease (McLeod, 2001). An investigation into the “impact of overweight and obesity in health-related quality of life – a Swedish population study” which looked at 5633 men and women between the ages 16-64 years (Larsson, Karrisson, & Sullivan, 2002) concluded that in addition to affecting health-related quality of life obesity also fluctuates with age and sex (Larsson, et al., 2002)

Recognised originally as a medical problem, obesity also carries a societal stigma similar to the stigma associated with alcoholism (Stroebe, 2000). There is also a presumption that obesity is a consequence of overindulgence in food, but this is not true for all obesity (Stroebe, 2000).

Advertising of unhealthy foods is targeted at children on television programs, in magazines or on the World Wide Web and this encourages obesity (Weitz, 2004). The increased profitability of highly unrefined, unhealthy food as compared to the profits earned from the sales of healthy food is a great incentive to market these products (Weitz, 2004). Children are enticed with free gifts linked with characters that they recognise, and parents are pressured into buying these products. These products, containing high quantities of sugar, salt and saturated fat which make for obese children, establish a pattern of unhealthy eating which continues into adulthood (Weitz, 2004).

Numerous studies by organisations such as the Medical Research Council, confirming the correlation between physical inactivity and deleterious health

implications for children, reflect the necessity of preventing obesity from occurring (Lambert & Kolbe-Alexander, 2006). Although research by Lambert and Kolbe-Alexander (2006) was spread across socioeconomic groups, it was apparent that children who spent less time watching television were leaner; engaged in more physical activity and were therefore less likely to be obese (Lambert & Kolbe-Alexander, 2006). Their research highlighted the fact that children who did not have a healthy nutritional program at home became obese, less active, unhealthy children (Lambert & Kolbe-Alexander, 2006).

The connection between obesity and ill health has been discussed extensively by the medical fraternity and life insurance companies and cardiovascular disease, stroke and diabetes mellitus deaths have been linked to it (Goedecke, et al., 2005; Steyn, et al., 2006; Stroebe, 2000). Lambert and Kolbe-Alexander found that 25% of the youth spent more than 3 hours per day watching television (Lambert & Kolbe-Alexander, 2006). This indicates the early onset of inactivity and obesity, which is further associated with a reduced life expectancy (Poirier et al., 2006).

Concern about elevated levels of hypertension resulting from high salt content in food, has led the South African Minister of Health to propose measures to reduce the salt content in processed foods (Mungal-Singh, 2012). A further policy under discussion in South Africa is legislation to reduce the “trans-fat levels in food and tightening food labelling regulations” (Mungal-Singh, 2012).

Over the past two decades, a healthy lifestyle accompanied by physical activity has been recognised as linked to a reduction of disease and mortality levels for chronic diseases of lifestyle (Bradshaw, et al., 2005; Goedecke, et al., 2005; Lambert & Kolbe-Alexander, 2006). In South Africa these diseases of account for approximately 40% of adult deaths, where a at least one common factor is modifiable and could reduce the risk of succumbing to the disease (Lambert & Kolbe-Alexander, 2006)

Medical aid companies such as Discovery Vitality promote exercise by rewarding their clients with a point system that allows them certain benefits (Discovery Health, 2012). Their research has shown that exercise is beneficial

in that it ensures “overall fitness, increased lifespan, improved immunity and decreased cancer risk, improved cardiovascular health. Reduced risk of metabolic disorders, improved balance and strength, and less muscle pain, recovery quickly from surgery and better neurological function and psychological wellbeing” (Discovery Health, 2012).

Notwithstanding the commendable efforts by companies such as Discovery and by the Department of Health, adults need to take responsibility for inculcating healthy eating habits at an early age to break the cycle of obesity and inactivity.

A further risk of ischaemic heart disease is smoking.

Smoking

Smoking cigarettes is believed to be “the single largest avoidable environmental and behavioural cause of cardiovascular disease, and of course the cause of several forms of cancer” (McLeod, 2001).

The power of the media and the effect of globalisation on South Africa and other developing African countries have played a great part in promoting the popularity of smoking (Steyn, et al., 2006). This is evident in the aggressive marketing of tobacco to young smokers which links smoking with images of success (Saloojee, 2006). People in the developing world who aspire to westernised lifestyle take to tobacco (Saloojee, 2006). Statistics released by the US Centre for Disease Control and Prevention reveal that in the period 2000–2004, 128,497 of the smoking population died from cardiovascular disease (Saloojee, 2006).

Internationally, South Africa is regarded as a “world leader in tobacco control” (Yach, 2005, p. vii). The South African government banned advertising of tobacco in 2001. Surveys carried out before and after the banning, reflected a positive decline in the number of people smoking. However the drop in cigarette smoking cannot be credited to the ban alone (Saloojee, 2006), with additional impetus provided by the tobacco control framework that has been developed by the South African authorities in conjunction with the WHO

(Yach, 2005). Stringent tobacco control legislation was introduced when the new democratic administration came into power (Steyn, 2006a). South Africa has provided a guarantee that the document included the most efficient measures to reduce tobacco consumption in the country (Yach, 2005). This has resulted in a decline in the use of tobacco (Steyn, 2006). According to the South African Advertising and Research Foundation, in 2004 approximately 2.5 million people gave up smoking (Saloojee, 2006). Tobacco is powerfully addictive; McLeod (2001) found in his studies at drug addiction clinics, that abstaining from smoking cigarettes is far more difficult than giving up heroin.

Notwithstanding the positive steps to eradicate smoking, statistics reflect continued growth of smoking as can be seen in the number of premature deaths, with 4.83 million deaths worldwide attributed to smoking in 2000 (Yach, 2005). In a study undertaken between March 1972 and February 1978, in accordance with WHO standards, in Kaunas, Lithuania, 2392 men aged between 45 and 59 were examined for ischaemic heart disease (Misjavicene, Stanikas, & Glazunov, 1980). The group consisted of both ex-smokers and non-smokers, with ischaemic heart disease and without ischaemic heart disease. During the period, of the study 96 men died, and of these a greater number of smokers died from ischaemic heart disease than did ex-smokers. The study concluded that “smoking is the factor most increasing the risk of death of malignant tumours and considerably increasing the probability of death of ischaemic heart disease” (Misjavicene, et al., 1980, p. 409).

The foremost cause of death in South Africa is smoking which manifests as chronic obstructive pulmonary disease, tuberculosis, lung cancer and ischaemic heart disease (Yach, 2005). These diseases can be contracted from the effects of second-hand smoking, which South Africa policy makers are presently discussing (Mungal-Singh, 2012).

Behavioural antecedent (stress) and personality

The ancient Greek civilisation (C 300BC to C AD 400) was one of the first civilisations to consider that the mind and body were linked and worked as

one (Lyons & Chamberlin, 2006). René Descartes in the 1600s argued that although the mind and body were separate entities they were interrelated (Lyons & Chamberlin, 2006). This extreme perspective was not easily embraced and physicians over the next three hundred years retained the biomedical view of illness, which refuted the idea that the body is influenced by the mind, and that being ill stemmed from “disturbances in physiological processes, resulting from injury, biomedical imbalances, bacterial or viral infection and so on” (Lyons & Chamberlin, 2006, p. 9). A biomedical model of health was thus entrenched in the Western world (Lyons & Chamberlin, 2006). During the twentieth century, western society was critical of the biomedical view on health as it was not a holistic description of health. Health was viewed more broadly as fewer people were dying of infectious diseases such as tuberculosis and instead were dying from diseases that were associated with their lifestyle choices, such as heart disease and diabetes (Donaldson, 2006).

The WHO settled on a positive holistic definition of health which includes a person’s physical state, social wellbeing and mental status (Lyons & Chamberlin, 2006). This definition coincides with Schlebusch’s (1990) findings that people who met all the health specifications of the WHO, being fit (in a positive physical state), happy (in a positive mental state) and relaxed (in a state of social wellbeing), were inclined to be healthier than those who were unfit, anxious, depressed and unhappy. This finding substantiated Lyons and Chamberlain’s (2006) theory that there was a connection between the physical condition and the mental condition of individuals, which argues for a holistic understanding of the individual.

A further factor held responsible for illness in modern living is stress, which is a psychological and social factor (Marks et al., 2005). Stress is a reality of everyday living; living free of stress is considered an illusion, and everyone handles it in his or her own way (Schlebusch, 1990). In a study by McLeod (2001) interviewees who had had an attack, together with their families, attributed their coronary heart disease to stress.

Hans Selye conducted research into stress from 1930s until his death in 1982 (Lyons & Chamberlin, 2006). He found that there were two ways of looking at stress. One was “acute stress”, which is a short term reaction to demands made, and the body becomes accustomed to it as a result of the “Flight or fight” response and copes with it as the body returns to a state of normality once the danger has passed (Holmes, Krantz, Rogers, Gottdiener, & Contrada, 2006; Our Body's Reaction to Stress (General Adaptation Syndrome (GAS), 2012). The second way of viewing stress was “chronic stress”, which is long-lasting stress which is capable of causing damage (Our Body's Reaction to Stress (General Adaptation Syndrome (GAS), 2012). Selye came to this conclusion as a result of experiments with rats who were continuously exposed to stress, and their responses noted on various stress patterns was referred to as “The General Adaptation Syndrome (GAS) (General Adaptation Syndrome (GAS) - Theory of Stress, 2011).

There are three stages of GAS. These are firstly the “alarm reaction” (Unknown, 2011, p. 1). When an individual experiences stress, the brain responds by “initiating 1400 different responses including the dumping of a variety of chemicals to our blood stream” which allows the body to react in a way appropriate to the threat (Unknown, 2011, p. 1). The bodily effects are muscle tensing, accelerated heartbeat, an increase in breathing and perspiration, dilated eyes and tightening of the stomach (Lyons & Chamberlin, 2006). If the danger that the individual was exposed to has not passed, the second stage of GAS is initiated (Unknown, 2011).

The second stage of GAS is referred to as “resistance or adaptation” (Unknown, 2011). This stage is “the body’s response to long-term protection” or stress that is prolonged (Holistic, 2012). The body automatically secretes further hormones to maintain energy and increase the blood pressure, thus maintaining a state of hypervigilance. If this stage continues for a prolonged period without relaxing to reach a state of equilibrium in the body, the individual would succumb to fatigue and irritability and lethargy (Holistic, 2012).

The third stage of GAS is known as “exhaustion” (Holistic, 2012). This stage is reached when stress is prolonged. The body cannot restore itself to a level of homeostasis, which results in damage to the endocrine glands, wear and tear of the body’s tissues and enlargement of the adrenal glands (General Adaptation Syndrome (GAS) - Theory of Stress, 2011). This will manifest in “blood sugar levels decreas[ing] as the adrenals become depleted, leading to decreased stress tolerance, progressive mental and physical exhaustion, illness and collapse” (Holistic, 2012). A further result of prolonged stress is “clogging of the arteries by the fat and cholesterol released by the body during the attempt to fight stress. This may result in a heart attack” (Holistic, 2012).

Psychological factors, stemming from stress and negative emotions, affect chronic heart disease (Smith & Ruitz, 2006; Stroebe, 2000). Lyons and Chamberlain (2006) and Hogg et al. (2007), note that persons with cardiovascular disease are affected both at a psychological and a physical level. Stress affects the actions of individuals and the manner in which they conduct their life, and it manifests itself in harmful health options – irregularly taking exercise, eating badly and generally being neglectful of healthful options – all of which have an effect on the body’s immune system (Lyons & Chamberlin, 2006; Stroebe, 2000). The impact of stress on an individual’s ability to adapt to demands made by stressful decisions can be emotionally and physically detrimental to their health, (Schlebusch, 1990). Chronic stress is strongly associated with propensity to diseases that are infectious as “illness is the price the organism has to pay for the defence against extended exposure to stressor agents” (Stroebe, 2000, p. 208).

Posttraumatic stress disorder (PTSD) is one of the links to psychological stress (Schlebusch 1998). It is a form of prolonged stress. This is an internal emotion, which tests an individual’s response and tolerance in handling a situation or danger. The body responds physiologically, manifesting as dry mouth, sweaty palms, and galloping heartbeat (Lyons & Chamberlin, 2006). PTSD, is described psychologically as an internal feeling characterised by a lack of saliva in the mouth, sweaty palms and a racing heartbeat (Dimsdale, 2008). Dimsdal (2008) adds that individuals can function under stress for a

period of time, but when stress is prolonged the biological impact of PTSD puts the heart at risk. Stress therefore constitutes both a positive and a negative reaction to a situation – positive in that it allows the body to prepare itself (to flee from danger) when adrenalin is released into the body, and negative when the state of arousal is extended, resulting in harmful health repercussions (Lyons & Chamberlin, 2006). Selye observed these results in research studies on animals and named this syndrome “General Adaptation Syndrome” (Lyons & Chamberlin, 2006, p. 143).

Stress is regarded as a response to an outside threat, which is a stimulus that directs an individual to a reaction such as being in a high pressure job (Lyons & Chamberlin, 2006). This external factor is referred to as “stressors”, (Lyons & Chamberlin, 2006, p. 142). Stressors include incidents such as natural disasters, divorce or living in an overcrowded environment. The manifestations of stress resulting from stressors are lack of concentration, apprehension, bodily tension, weariness and sleeplessness (Marks, et al., 2005; Stroebe, 2000). The view that outside incidents puts an individual under stress are held by theorists like Marks et al. (2005) Lyons and Chamberlain (2006) Schlebusch (1990) and Wilkinson, (2003). Further evidence of the effect of stress on the body in both daily living and at work can be seen in research by Kang et al. (2004), who observed Korean men at their jobs to see if the demands of their work were linked to smoking, blood pressure, lipid levels and homocystein and whether the men were at risk for cardiovascular disease. Of the 152 eligible workers, they found that work was stressful and they were at risk for cardiovascular factors which could lead to cardiovascular disease (Kang et al., 2005).

The Whitehall 11 study in the UK which looked at the direct relationship between stress and chronic heart disease (CHD)(either “directly ... and/or indirectly through behavioural risk factors for CHD” (Chandola et al., 2008, p. 2) included 10,308 participants, and data was collected via questionnaires in seven phases over a period from 1989 to 2004. At the end of the study 9,692 participants remained. The study found that stress from increasing working conditions had an impact on CHD predominately amongst the younger work

force, and that 32% of these workers behaviour was as a result of poor dietary factors and physical activity (Chandola, et al., 2008). What was also revealed was that workers younger than 50 years of age had a greater link with CHD (Chandola, et al., 2008).

Lyons and Chamberlain (2006) investigated the significance of psychosocial factors in illness. Their research focused on what they termed *Type A Behaviour Patterns* (TABP) (Fullard, 1990). TABP research was pioneered by two psychologists, Friedman and Rosenman in the “Western Collaborative Group Study” which involved 3,154 participants (Lyons & Chamberlin, 2006, p. 156). The participants were predominantly non-manual workers aged between 39 and 59 (Lyons & Chamberlin, 2006). The participants did not have cardiovascular disease at inception of the study. Eight and a half years later, men with TABP were found to have a greater prevalence of cardiovascular disease than the other participants who were “more laid back than their counterparts” (Lyons & Chamberlin, 2006, p. 156).

The TABP person has been likened to a business person trying to forcefully and aggressively achieve more than is possible in a period of time (Lyons & Chamberlin, 2006; Scott, 2012). Cardiologists at the Herald Bruhn Institute in San Francisco held that behavioural patterns found in Type A personalities could contribute to coronary heart disease (Fullard, 1990). Although there is no direct connection between Type A personality behavioural characteristics and coronary heart disease, these characteristics are believed to have an impact on the health and wellbeing of an individual, although no precise explanation is given (Scott, 2012). What is unambiguous is that this personality type experiences great stress and this in turn has an adverse effect on their health (Scott, 2012).

In addition to internal factors that affect the health of an individual, there are external factors that trigger or are responsible for the onset of myocardial infarction (Culic, 2007; Stroebe, 2000). These are intense physical activity, stress, eating, exposure to extreme weather conditions, alcohol consumption, and use of drugs such as cocaine or marijuana (Culic, 2007).

Cultural factors

Traditionally, psychologists have identified a relationship between culture and health in colonial communities (MacLachlan, 2004). Western culture has influenced our perceptions of health and the manner in which we intrude in health behaviour (Lyons & Chamberlin, 2006). Culture is said to be an essential facet of health behaviours, with insight into health behaviours and choices informing changes in health behaviour (Lyons & Chamberlin, 2006).

However, in a large community as culturally diverse as South Africa it is understandable that social formations differ across cultures and should be taken into account when dealing with people who are ill. There are unique connections between culture and the way in which health is perceived. An individual's experience of illness and the connotation they give to illness are at the nucleus of their treatment (MacLachlan, 2004).

Being culturally sensitive to the views held by others gives authenticity to alternate views and places a value on peoples' cultural views (MacLachlan, 2004). It is therefore essential to consider culture in order to offer valid alternative views on health. We should not be critical of other views of health because of western ideologies on health (Lyons & Chamberlin, 2006).

An example of the diverse view of culture is the way in which body image is perceived. Clark et al., (1999) found that by western standards being overweight is considered unhealthy while to the black South African community it signifies that the person is healthy (free from HIV/AIDS) beautiful, happy and wealthy. This diversity has influenced body awareness, and although black women were not happy with carrying excessive weight for reasons of practicality, cultural attitudes dictated otherwise (Goedecke, et al., 2005; Mvo, Dick, Steyn, 1999). (Goedecke, et al., 2005; Mvo, Dick, & Steyn, 1999). This perception is not however held by young women of Caucasian descent, who favour a radically smaller size (Goedecke, et al., 2005). To address the problem of cultural influences with regard to what is healthy or unhealthy Goedecke et al. (2005) suggest that educational programs be instituted that are sensitive to the cultural needs of the people. It has been

acknowledged that the relationship between culture and health “are also played out in the renewed enthusiasm for cultural empowerment, especially amongst marginalized indigenous groups” (MacLachlan, 2004, p. 116).

Age and sex

In the past women’s health research centred mainly on their reproduction and fertility (Schiffrin, 2001). This resulted in women being treated according to diagnoses from research conducted on men. In 1993 however, the United States Congress passed legislation to rectify the way research was conducted, stipulating that clinical research should include women and minority communities (Schiffrin, 2001). Similar measures were put in place in other countries to include women in medical research. In the United Kingdom and the United States, coronary heart disease is reported to be the “number one killer of women”(Schiffrin, 2001, p. 263).

A 2004 study by the Department of Health and Social Services in Northern Ireland found that heart disease accounted for “1 in 3 deaths for males and 1 in 4 deaths in females” (Department of Health and Social Services and, 2004). Coronary heart disease in general was considered to be a male disease and women were therefore less likely to be tested for the disease by the medical fraternity (Schiffrin, 2001). The Northern Ireland study confirmed that women are uninformed of their vulnerability to heart disease and that the medical profession have a “low awareness amongst women” (Department of Health and Social Services and, 2004). In the United States clinical trials have found that the focus of research has always been on men, resulting in the medical profession lacking information on the treatment and management of women with heart conditions (Welty, 2001). According to Welty, women have been found to have factors which are unique to their sex. Women manifest 10 years later than men for cardiovascular disease as a result of the oestrogen hormone level, which is elevated before menopause and protects the females against heart attacks. Secondly, women who present with chest pains have been found by physicians not to have cardiovascular disease(Welty, 2001). They present in a different way to men.

A study by Correa da Silva, looking at mortality figures for 2002, established that of 179,514 people who died as a result of myocardial infarction in the United States 47.7% were women, and concluded that women with MI were prone to a greater occurrence of the risk factors diabetes and hypertension (Correa da Araujo, 2006). The study noted that women who exhibit symptoms of a heart attack were less likely to receive beta-blockers and/or aspirin, as it was assumed that they were not susceptible to heart attack.

Studies in Denmark found that women delayed longer than their male counterparts in seeking treatment (Herning, Hansen, Bygbjerg, & Lindhardt, 2010). They suggested that if the reasons for the delay could be identified then educational training programs targeted at women could be implemented (Herning, et al., 2010). It has been suggested by Mensah et al. (2002) that “aggressive efforts to address disparities in cardiovascular health are necessary” for women (p. 281).

With regard to the age at which heart conditions can be managed, Bradshaw et al. (2005) established that chronic diseases of lifestyle are common in middle-aged persons or persons in the latter stages of their lives, although the factors associated with chronic diseases of lifestyle were present much earlier. Since bad eating habits start early in life, Steyn (2006) has suggested steps to be implemented as early as the intra-uterine stage of antenatal care to correct an unhealthy eating pattern which could otherwise lead to chronic diseases of lifestyle.

Genetic factors

These are factors that are inherited and can only be dealt with medically once they have been identified. Some of these factors are: Family history and Dyslipidaemia.

Family History

“If a first degree male relative (e.g., father, brother) has suffered a heart attack before the age of 55, or if a first degree female relative has suffered one

before the age of 65, you are at greater risk of developing heart disease” (World Heart Federation, 2012, p. 1) The World Heart Federation further explains that an individual’s risk can increase by 50% compared to the population in general if both parents have suffered from heart disease before the age of 55 years (World Heart Federation, 2012).

Barrett-Connor and Khaw (1984) conducted research over a period of nine years. with 4014 men and women between the ages of 40 and 79 who had no known history of cardiovascular disease. The researchers found that the family history of an individual could be useful to identify “high risk younger men for risk factor intervention, and points to the need for investigation into other possible environmental or genetic determinants of cardiovascular disease in men” (p. 1065).

Friedlander et al. (1985) investigated 1044 randomly selected men aged 40–70 and a detailed in-depth personal history was taken. They found indications of coronary heart disease in 123 men. Evidence of heart disease was established in 29% of the 123 men “in relatives of the first degree” (Friedlander et al., 1985; p.387). The conclusion reached by the researchers was, that family members “in the first degree with chronic heart disease” is a significant connection (p. 387).

Low birth weight is another factor that has an impact on the body and it is linked to early onset of adult chronic diseases “such as hypertension, glucose intolerance, ischaemic heart disease and, more recently, osteoporosis” (Levitt, Lambert, & Norris, 2006, p. 58). Low birth weight can be attributed to “psychosocial stress” in a pregnant mother and having a smoking mother was one of the best forecasters for the weight of a baby (Newton & Hunt, 1984).

Dyslipidaemia

This is a disorder relating to the overproduction or deficiency in the blood of lipoprotein, more commonly known as blood cholesterol (Maritz, 2006). If there is an excess of lipoprotein, it is evident in a raised level of the “bad” low-density lipoprotein (LDL) and a decrease in the “good” lipoprotein (HDL) (Maritz, 2006). An ideal situation would be for a person to have low bad

cholesterol (LDL) and a higher level of the good cholesterol (HDL) (Maritz, 2006). A high level of LDL could lead to “atherosclerosis, heart attacks and strokes” (Steyn, 2007, p. 26).

Dyslipidemia is a key risk factor for cardiovascular disease. It has been linked to the adoption by populations of a western-style eating pattern, high in sodium and saturated fat, which results in obesity and diabetes and is referred to as “diabesity” (Maritz, 2006, p. 97). This is often regarded as a disease of affluence, which is mistaken since diabesity is a serious problem in South Africa where the majority of the population have a low to modest income (Maritz, 2006). In 2000, 5 million South African adults had high blood cholesterol (Norman, Bradshaw, Steyn, & Gaziano, 2007). Familial hypercholesterolemia is considered to be a “rare genetic disorder, characterised by very high LDL cholesterol and early CVD, which runs in families” (Steyn, 2007, p.25).

Hypertension or high blood pressure

Blood pressure (BP) is the force with which the blood moves against the walls of the arteries, the reading of which is taken with a blood pressure monitor. When the heart muscle contracts, blood pressure is at its highest as it pumps blood to the entire body, and this is referred to as systolic blood pressure (SBP) (Steyn, 2007). The blood pressure drops when the heart is at rest and this is called diastolic blood pressure (DBP). A BP reading is noted in the form X/Y where X is the SBP and Y is the DPB.

120/ 80 or lower is normal blood pressure

140/90 or higher is high blood pressure

Between 120 and 139 for the top number, or between 80 and 89 for the bottom number is prehypertension. (Medline n.d.)

Hypertension most often does not manifest any symptoms but it can be the source of stroke, heart failure, heart attack, and kidney failure (Medline n.d.). It is argued that in South Africa, hypertension is found most frequently in individuals who are overweight, have a high intake of salt and low potassium in their diet, together with consuming large quantities of alcohol (Steyn, 2007).

Diabetes mellitus

Diabetes mellitus is a “disease where the body stops making the hormone insulin” (Steyn, 2006a, p. 109). Sugar glucose is transported by insulin to the blood cells and it is utilised as energy (Steyn, 2006a). An over production of glucose in the blood can be detrimental if untreated. This imbalance can damage the kidneys and contribute to blindness, heart attack, stroke and amputation of the legs (Medline Plus n.d.). Diabetes is a disease that has materialised worldwide as an epidemic that affects over 220 million people (Karrim & McFarlane, 2011). The combination of an unhealthy eating plan and an inactive lifestyle is linked directly to diabetes (Karrim & McFarlane, 2011). Research has identified risk factors of diabetes mellitus that increase the likelihood of an individual having cardiovascular disease, which could lead to chronic heart disease. Notwithstanding this information, it is still not possible to predict the likelihood of an individual developing CHD, and this shortcoming has made researchers alert to behavioural factors such as personality types, which are coupled with CHD (Fullard, 1990).

Manifestation of ischaemic heart disease

Ischaemic heart disease manifests in several ways. A sudden and severe onset of chest pain can occur (Greenland & Lloyd, 2007; Stroebe, 2000), while other informants have documented pain or uneasiness in the region of the jaw, neck and back (Greenland & Lloyd, 2007). Further symptoms that are said to manifest themselves include light-headedness, nausea, dizziness, vomiting and cold sweats. An irregular pulse giving one the sensation of palpitations is a further symptom of an ischaemic attack (Medlineplus n.d.). There are also individuals who experience none of the listed symptoms and yet have a heart attack.

Heart disease in the United States is the foremost cause of death (Mensah, Keenan, & Giles, 2002). Research has shown that the medical fraternity experiences difficulty treating women for cardiovascular disease because their symptoms present a challenge and some women do not present in the same way as their male counterparts (Mensah, et al., 2002). Although the risk factors for a coronary for women are comparable to those for men, conditions

such as “diabetes mellitus and hypertension may be stronger in women compared with men” (Flavell 1994; Brett & Madans, 1995 cited in Kristofferzon et al. 2003, p. 361). In women it is apparent 10 to 20 years later than in men (Kristofferzon, Lofmark, & Carlsson, 2005; Schiffrin, 2001). The reason given for this is that women have the added protection of oestrogens, a reproductive hormone (Kristofferzon, Lofmark, & Carlsson, 2003).

Women often present with inexplicable tiredness, following some activity (Medlineplus n.d.). They also have physical disadvantages in that they are older when they present, and social disadvantages in that they are more likely to lack the support of a spouse or caregiver (Kristofferzon, et al., 2005). Their levels of stress induced by suppressed hostility and family responsibilities make them ignore their bodies ‘early warning’ signs. They therefore do not seek medical advice as early as men do. Furthermore, women seemed to be less informed than men about symptoms of coronary vascular disease (Kristofferzon, et al., 2003). In addition women’s role of caregiver makes them hide their symptoms and thus delay treatment (Kristofferzon et al. 2003). (Kristofferzon, et al., 2003). It is for these reasons that women’s conditions go unnoticed, causing immense damage.

General signs of heart failure more often than not develop slowly. However a sudden and severe onset can occur from time to time, (ischaemic cardiomyopathy n.d.). The more common symptoms are:

- Awakening from sleep after a couple of hours due to shortness of breath
- Cough
- Fatigue, weakness, faintness
- Loss of appetite
- Pulse may feel irregular or rapid, or there may be a sensation of feeling the heart beat (palpitations)
- Shortness of breath, especially with activity
- Shortness of breath that occurs after lying down
- Swelling of feet and ankles (in adults)
- Swelling of the abdomen (in adults)

(Ischaemic Cardiomyopathy n.d.).

Avoidance of recurrence

In seeking to stem the disease it was discovered that persons with coronary vascular disease, hypertension and type 2 diabetes mellitus showed considerable improvement when educated at primary health care centres (Sharaf, 2010). Kristofferzon et al. (2003) maintain that women should be informed that coronary heart disease “is as serious in women as in men”, so that they take heed of the warning signs and act on them (p. 371). However, information on the risk factors that lead to coronary heart disease is vast and insufficient and behavioural factors therefore need investigation to establish whether there is a link between them to make an individual fully aware (Fullard, 1990).

Conclusion

The large number of individuals affected by ischaemic heart disease, and the limited data on South Africans affected by the risk factors discussed, prompted this study. This section of the literature review covered the medical aspects of the disease.

The aetiology of ischaemic heart disease could be ascribed to any one factor discussed in this chapter. The risks could contribute to the disease or may increase the likelihood of developing ischaemic heart disease. Risk factors such as an unhealthy lifestyle, diet, obesity/ physical inactivity, smoking, and stress could, but may not, increase the likelihood of having a heart attack. Other factors to add to the mix of the origins of ischaemic heart disease are cultural roles and genetic factors, which could influence the onset of ischaemic heart disease.

A growing body of evidence suggests that successful management of chronic diseases of lifestyle health care necessitates that a person with any one of the diseases of lifestyle become vigorous in their awareness, as that choice of lifestyle will remain with them throughout their lives (Fullard, 1990; Newton & Hunt, 1984; Steyn, 2006a). Although the two literature chapters are separated for clarity and convenience into biomedical and psychosocial aspects of IHD,

in reality these are inextricably linked, and there are consequently overlaps in some of the discussion.

The significance of a psychosocial intervention, from diagnosis of CHD through to treatment and post treatment, cannot be underestimated. This will be explored in the next chapter

Chapter 3

Literature review: psychosocial aspects of ischaemic heart disease

Introduction

This chapter gives a historical overview of the various models of medicine. The difference between illness and disease is discussed, followed by the concept of what makes up illness, and disease identity. The consequences of ischaemic heart disease are examined biologically, psychologically and socially. Support of the participant and their spouse/partner is discussed. Finally, the relationship between cardiologist and the individual treated is examined.

Historical overview: biomedical and the biopsychosocial models of disease

Biomedical model

The biomedical framework has been the prevailing model for centuries and was practised by Descartes (Stroebe, 2000). This model presumes that the underlying cause for every disease that invades the body is caused by either an internal or an external injury only (Stroebe, 2000). Behavioural factors were not taken into account with the medical model when assessing a person with a disease, and behaviour was not considered to be a probable cause of the disease (Stroebe, 2000). Most importantly, the biomedical model totally disregards the symbiotic relationship between the biological, psychological and social systems proposed by George Engel (Borrell-Carrio, et al., 2004; Schlebusch, 1990). The manner in which physicians were diagnosing persons with diseases led Engel to conclude that the physicians were not interested in psychosocial issues as they fell “outside their responsibility and authority” (Stroebe, 2000, p. 8).

Biopsychosocial model of disease

Engel introduced the biopsychosocial model in 1977 (Vanker, Carlisle, & du Plessis, 1990). This general systems theory draws on the way all systems function, whether biological, psychological or social, and health care dilemmas are viewed in a holistic way (Stroebe, 2000; Vanker, et al., 1990). Stroebe (2000) believed that lifestyle issues and psychosocial stress are significant determinants of health and illness today.

The three factors that need to be addressed to understand the complexity of human functioning when health and illness need to be determined are: biological, psychological and social (Stroebe, 2000). Recognising the interconnectedness of these systems and their influence in the treatment of the individual leads to a holistic promotion of health. The perception of being 'well' is not merely a nonexistence of disease but rather founded on a state of good health together with good quality of life and healthy relationships (Schlebusch, 1990). In order to be healthy one therefore has to be in a "state of wellbeing with physical, cultural, psychosocial, economic and spiritual attributes, not simply the absence of illness" (Schlebusch, 1990, p. 4).

The WHO, acknowledging the interrelatedness of the biological, the psychological and the social and how they affect human performance, has revised the definition of health as "a state of complete physical, mental, and social wellbeing and not merely the absence of disease or infirmity" reflecting a holistic approach (Kugelmann, 2004, p. 53).

The appeal of the biopsychosocial approach is that it is a rational and sensitive way of viewing pain, suffering, disease and illness which affect a wide spectrum of society, from the individual to the greater community (Borrell-Carrio, et al., 2004). .

For the person who is ill, the biopsychosocial approach assists in understanding how their perception of their illness is influenced by their social perspective (Kok, 1990). The emotional wellbeing of the person who is ill can be compromised when their perception of illness is overlooked by a paternalistic cardiologist who dismisses the individual's view (Kok, 1990). It is

for these reasons that illness and disease should be defined holistically, with the individual who is ill giving the physician a complete holistic history so that the proper treatment can be dispensed (Vanker, et al., 1990).

Difference between illness and disease

The terms *illness* and *disease* are often used interchangeably (Budd, 2010; Kugelman, 2004; Marks, et al., 2005; Schlebusch, 1990). These terms are not separate bodies but rather theories that explain models which have some similarities (Helman, 1981). Therefore to avoid confusion the terms are defined individually.

Disease is seen as a “biomedical entity, a physiological dysfunction” (Kugelman, 2004, p. 49) while illness is seen as the behavioural response to the disease (Schlebusch, 1990). Disease has its origin only in a physical and/or mental cause, which affects the internal organs or systems of an individual and is associated with the medical model view (Helman, 1981). The symptoms for diseases and treatment for them would be the same for any individual, culture or community that they appear in (Fabrega, 1973; Eisenberg, 1977; Casel, 1978; Kleinman, 1980, in Helman, 1981). Consequently disease is viewed as a divergence from normality and comes with an abnormality in the way the body functions (Helman, 1981).

Illness is a personal outlook which is influenced by emotional, social, and cultural influences and connotations (Weitz, 2004; Helman, 1981; Schlebusch, 1990). Illness “is a social construction, something that exists in the world not as an objective condition but because we have defined it as existing” (Weitz, 2004, p. 119). Helman (1981) describes illness as “a patient’s perspective on his ill health, a perspective which is very different from that of the disease model” because it is one derived from their environment (p. 548). Therefore if two people had diabetes, and one of them lived in America and the second lived in the jungles on Borneo, they will each be treated in different ways according to the manner which their cultural understanding of the illness prescribes (Helman, 1981).

Marks et al. (2005) suggest that illness is a belief that is built up over time with the help of social interaction. Schlebusch (1990) sees illness as the behavioural response to the disease and sets it out in the diagram below which illustrates that illness stems from both social and behavioural factors and that explanation for illness is debatable, disease being clearly a physical, biological reaction to imbalance in the body that fits in with the medical model of Descartes.

Although illness and disease might appear to be similar, they are not. Illness stems from a psychological experience influenced by the individual's experience of life, and disease is an abnormality of a process in the body. Therefore for medical treatment to be most effective and tolerable to the person who is ill, the medical profession should simultaneously treat both the illness and the disease that they find in the people they are treating,.

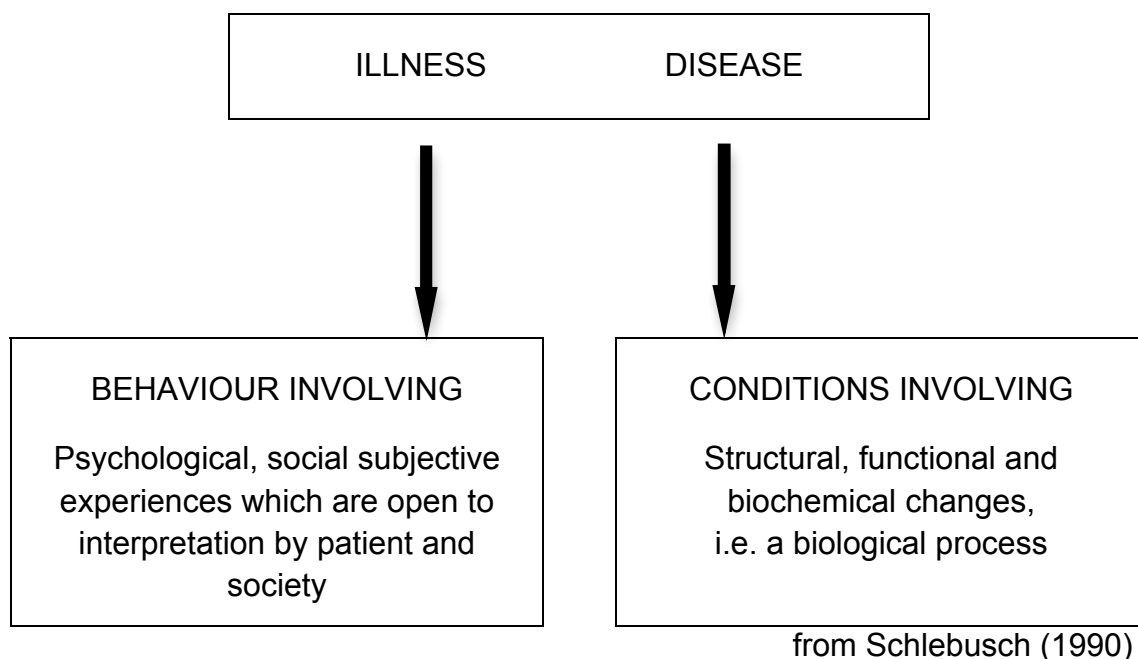


Figure 3: Differences between illness and disease

Illness and disease identity

Illness is constructed through social interaction, culture and learning from communities (Weitz, 2004). This is not to say that if a medical practitioner diagnosed someone with a measles virus, it does not exist or the

accompanying spike in temperature and rash is not visible. However, depending on who treats the person who is ill, the treatment will be different. A few hundred years ago the person with measles would have been labelled as an outcast as the virus was unknown. While today, although it would be undesirable, it would be treated according to medical protocol. Sociologically, illness is seen as “a form of deviance” and although medical knowledge has progressed over time, the explanation for illness is still one of irresponsible behaviour (Weitz, 2004, p. 120).

A belief held by many authors is that cultural and emotional development influences the way an individual sees illness (Lyons and Chamberlain, (2006); Wilkinson, (2003); Marks et al. (2005); Schlebusch, (1990); and Weitz, (2004). Therefore in order to treat an illness successfully, the medical profession should be cognizant of the way the person with the illness thinks about their illness. A further form of illness identity is discussed by Talcott Parsons.

The “sick role”

Parsons spoke about the sick role as having four elements to it.

First, sick people are allowed, and might even be required, to give up some of their normal activities and responsibilities, such as going to work or playing football. Second, they are regarded as being in need of care. These two expectations and privileges are, however, contingent on the sick person fulfilling the third obligation of wanting to get well as quickly as possible, and the fourth of seeking professional medical advice and, most importantly for the doctor-patient relationship, cooperating with the doctor. (Morgan, Calnan, & Manning, 1985, p. 62).

This role identified by Parsons is considered a “temporary social role” which was adopted by society with the intention of speedily re-establishing them back into society as healthy functioning members of society (Morgan, et al., 1985). This role is applicable, regardless, to anyone who is ill (Parsons 1951).

Parsons, in 1951, recognised that society viewed illness as unacceptable behaviour since people who were ill could not perform the tasks expected of

them and were therefore excused from them. This “threatened social stability” as people who were ill were not performing their social tasks and this would have a domino effect of destabilising society over time (Weitz, 2004, p. 140). This view still seems to be present today. In a study of people with cancer, Mark et al. (2005) found that while reworking their identities the people felt that they were “rejected by their peers because of the social and moral stigma still attached to cancer” (p. 229). But this rejection was felt not only by the people who had cancer but also by others who had cardiovascular disease (Lyons & Chamberlin, 2006). The reason for this was that illness is still measured as “dysfunctional as it threatens to undermine social stability” (Weitz, 2004, p. 141).

Consequently, being ill gives permission to society to label one as having a sick personality. Being diagnosed with a chronic disease challenges the individual by allowing society to label someone who is not productive in society, even though the disease is one that stems from a biological root. The stigma therefore attached to illness is a social construct, which the individual has to live with, and this view has changed little over the years.

It is difficult to understand what it is like to have a chronic illness unless one has experienced it. Not only does it present medical challenges for the individual but it also challenges his/her emotional and social abilities (Boutin-Foster, 2005).

Consequence of Ischaemic Heart Disease for the individual

Having a heart attack is rarely predicted. The incident is a crisis situation where the person is admitted to hospital as a matter of urgency. Disabling conditions can have far-reaching effects on the individual and their families. However, whichever way illness is viewed, what is undeniable is that it stirs up strong emotions (Ross and Devereil, 2004).

The entire situation of having a cardiac event generates stress (Ross et al., 2004). The stress could be related to the gravity of the situation. It could also be the realisation that the life of the individual experiencing the event, would change and would never be the same again.

Psychological consequences of ischaemic heart disease

The reaction to being told that one has a cardiovascular disease will depend on the person's understanding of the disease and the implication that disease has for him/her (Marks et al., 2005). The individual's view of illness is dependent on his or her belief and understanding and cognitive grasp of illness (Lyons and Chamberlain 2006). Some individuals embark on a "biographical disruption" which is a radical re-evaluation of their lives and at times a change in their view on life (Marks et al., p. 229). The knowledge of being ill is challenging and at times the individual can feel stigmatized and distanced from society (Weitz, 2004). The most momentous implication for the individual is realisation of the loss of privacy, dignity and independence, and the awareness of one's mortality.

Research supported by the Heart Foundation of Auckland New Zealand, examined whether 143 participants' perception, of "their first myocardial infarction ... would change over a period of three and six months" (Pietrie, Cameron, Ellis, & Weinman, 2002). The participants were under 65 years of age and were reviewed a few days after their first MI. The participants thought that their incident could have grave consequences at a later stage of their life (Pietrie, et al., 2002). The participants' negative belief in the consequences of their MI was seen when "these individuals developed other medical issues that affected their health and they were reluctant to return to work and 'normal' functions (Pietrie, et al., 2002). Similarly there were individuals who were ill with ischaemic heart disease and did not have faith in their control of their condition. As a result of their negative attitude towards their unlikely rehabilitation, they did not attend support groups to speed up their recovery (Pietrie, et al., 2002). Pietrie et al. (2002) were of the opinion that it is important that these "belief-behaviour(s)" be identified early in a person with a cardiac condition, while they are in hospital so that it can be attended to (p. 444). An early diagnosis of the negative emotions would improve the functioning of the person who is ill (Pietrie, et al., 2002).

Ross and Deverell (2004) believe that people who viewed their illness in a positive light re-examined their "existential values" (Ross & Deverell, 2004, p.

36). This resulted in a positive emotional and social attitude towards their illness and a balanced outlook towards their surroundings (Ross & Deverell, 2004).

One of the ways of dealing with the news that one has a chronic disease is through the expression of grief (Ross & Deverell, 2004)

Grief

Grief is a personal and individual experience. The manner in which grief is expressed is dependent on an individual's personality, coping style, spiritual/religious faith and life experience. Grief can be viewed as a negative emotion as it erodes an individual's self-esteem when their illness is viewed as a burden on others thus alienating them from their family and friends (Schlebusch 1990). Nonetheless if a person were not able to grieve they would not be able to disengage themselves from the loss.

Studies by Ross and Deverell (2004) and Kubler-Ross and Kessler (2005) point to emotions that are associated with illness and are likened to a state of bereavement. This realisation can lead to grieving (Ross & Deverell, 2004; Schlebusch, 1990). Grief is said to change the vision that the person diagnosed with an illness has of him/herself. Therefore practitioners schooled in the biopsychosocial approach model could help them through the emotional stages (Ross & Deverell, 2004; Schlebusch, 1990)

Kubler-Ross and Kessler (2005) introduced five stages of grief counselling to offer support to people who experience death and dying. Included are individuals who have suffered a trauma, such as a break-up with a partner, loss of a job, crime, disability or financial loss, who would also find comfort in understanding their pain by going through the process of grief (Kubler-Ross & Kessler, 2005). Trauma and emotional shock are regarded as comparative in the way they are viewed by the individual as the outlook on death and dying is experienced as the definitive pain, particularly if the event is something that is experienced for the first time (Kubler-Ross, 2011).

What should be borne in mind is that people experience trauma and grief in their own way. Some individuals might not be able to function at any psychological level and be totally incapacitated by their grief while others could handle the situation in their own way, therefore grief or trauma is relative (Kubler-Ross, 2011). This model of grief counselling is regarded as a valuable study as it is “actually a ‘change model’ for helping to understand and deal with (and counsel) personal reaction to trauma” (Kubler-Ross, 2011).

The various stages of grief support the individual to come to terms with the incident. Kubler-Ross and Kessler (2005) did not establish this process as a definitive response to grief but rather a guide to processing grief and trauma. Individuals experiencing grief might not go through each stage of grief, while there are others who would visit each stage, finally accepting the outcome of their situation.(Kubler-Ross, 2011). Other individuals could stay at one of the stages or revisit it often, while others could skip a stage completely (Kubler-Ross, 2011). People are not expected to follow each stage of grief, one after the other, as each experience is a unique experience to that individual, therefore they would deal with it in their own way (Kubler-Ross, 2011).

The stages of grief are denial, anger, bargaining, depression and acceptance (Kubler-Ross & Kessler, 2005). Denial is a natural process of defence, which blocks out information linked to the traumatic event. Kubler-Ross says that some people can get stuck in this stage if they experience a situation that can be overlooked. An example of this would be if a person is diagnosed with ischaemic heart disease but chooses not to change their eating habits because they cannot believe that they actually have a cardiac problem which requires change (Ross & Deverell, 2004). This stage is found to be the most annoying stage for the medical fraternity as early intervention has been revealed to be most effective, according to Ross and Deverell (2004).

A second stage is anger, which Ross and Deverell (2004) affirm is a fundamental stage of mourning. Anger can be dealt with in many ways. It can be self-inflicted or directed against others close to the individual (Kubler-Ross

& Kessler, 1969). People surrounding the person who is processing their grief need to understand that the anger is a process and not meant to be taken personally (Ross & Deverell, 2004).

Bargaining is the third stage and is customarily a stage that a person engages in to negotiate with a higher being or with another person to assist them with the hope that the outcome can be different (Kubler-Ross & Kessler, 1969)

Depression is the fourth stage, which Kubler-Ross refers to as “preparatory grieving” (2012). This form of depression should not be compared to a chemical imbalance in the body; it is a “reactive depression which is a normal response and grief reaction to a traumatic experience” (Ross & Deverell, 2004, p. 38). This phase is viewed as a form of “acceptance with emotional attachment” (Kubler-Ross, 2011). The emotions following this stage are sadness, disappointment, dread and hesitation about their situation (Kubler-Ross, 2011). The final stage of grieving is acceptance which is dealt with according to an individual’s understanding of what they accept. It is at this stage that the individual would take an interest in rehabilitation centres and ways in which they can make it easier to work on regaining their health and control (Ross & Deverell, 2004).

Without dismissing Kubler-Ross’s stages of grief and the benefits that they generated, Konigsberg (2011) in an article in the *Time* magazine reported that there have been changes in the way grief is viewed. She goes on to say that counsellors over the years have established their own theories on the way grief is dealt with. The process has been modified from the way in which Kubler-Ross dealt with it, and grief is now viewed as “a process or a journey to be completed, as well as an opportunity for a personal growth (Konigsberg, 2011). The manner in which Kubler-Ross approached grief and grieving was to make the process a cathartic one, where the person spoke of their loss. However, Konigsberg believes that “our modern, atomized society has been stripped of religious faith and ritual and no longer provided adequate support for the bereaved” (Konigsberg, 2011).

Konigsberg observed that as the “new belief system’ became recognised, counsellors were more concerned with the way an individual dealt with “his or her inner emotional state” (Karl, 2010; Konigsberg, 2011). The myth, as she calls it of speaking of a traumatic incident or death repeatedly does no good for the person recounting their tale, as Kubler-Ross advised (Karl, 2010). Bonanno’s theory was that a “strength-based approach” to facilitate coping with loss or any trauma is present in all and people have a survival instinct that is strong (Karl, 2010). Other myths have also been dismissed as newer methods of research have exposed. These are five in number.

The first myth which Konigsberg speaks about is that we grieve in stages. Kubler-Ross believed that “any natural, normal human being, when faced with any kind of loss, will go from shock all the way through to acceptance” (Konigsberg, 2011). To confirm that this need not be the situation, research was conducted at Yale University with 233 newly-bereaved individuals, and they were evaluated for display of grief (Konigsberg, 2011). In 2007 the *Journal of the American Medical Association* published the results that demonstrated that the respondents accepted the loss of the person they loved from the very beginning (Konigsberg, 2011). The participants reported that they hankered after their loved one rather than reverting to anger or depression (Karl, 2010). Concurring with this disclosure was Janice Genervro, a psychologist who was requested in 2003 to investigate and “report on the quality of grief services” (Konigsberg, 2011). She found that the services were skewed since the newest research showed that grief “is not a series of steps that ultimately deposit us at a psychological finish line but rather a grab bag of symptoms that come and go and, eventually, simply lift” (Konigsberg, 2011).

The second myth that Konigsberg disproves is that expressing anger is essential so that one can move on to heal, which Kubler-Ross felt was growth (Konigsberg, 2011). However the new way of viewing the expression of negative emotions is that it can draw out the feeling of anguish (Konigsberg, 2011). This was substantiated by the study conducted by Wolfgang and Margret Stroebe and Hansson (1988) with 60 widows, some of whom steered clear of acknowledging their grief. They were not more depressed than those

that explored their grief (Konigsberg, 2011). A further study, submitted to the *Journal of Consulting and Clinical Psychology* in 2008, which had 2000 participants, had the same results as the Stroebe study.

A third myth which Konigsberg wanted to disprove, was that women found it more difficult to cope with grief than their male counterparts, (2011). This was disproved in a study in 1967-1973, of 430 widows in Boston (Konigsberg, 2011). These were women who were both financially and emotionally dependant on their spouses. Phyllis Silverman, the psychologist who conducted the study, contended that the deaths of the men had an impact on the women because the women (who worked in the home) looked to their spouses to give them their identity and therefore required help (Konigsberg, 2011). However, those women who worked outside the home and continued working after the death of their spouse, did not require any assistance from Silverman (Konigsberg, 2011). Therefore those women who did not rely on affirmation from their spouses were strong enough to cope with their loss. What was a surprise was a study in 2001 by Stoebe, when they tried to demonstrate which of the sexes was more affected by the death of their spouses (Konigsberg, 2011). They found “relatively speaking, men suffer more from being bereaved”(Konigsberg, 2011). Therefore the myth that Kubler-Ross held that grief is more difficult for women than men is untrue.

The fourth myth that needs to be dispelled is Kubler-Ross’s idea that there was an end to grieving once the ‘acceptance’ stage was reached (Konigsberg, 2011). This myth was exposed in a study by Bonanno (2009) when 205 people whose partners had died were interviewed. The results were that approximately 45% of the participants did not display any signs of “shock, despair, anxiety or intrusive thoughts six months after their loss” (Konigsberg, 2011). They did reveal that they thought of their spouse, but did not lose any sleep or joy, or slide into depression because their loved one was not around. It was discovered that people were resilient in handling their loss.

The fifth myth to be dismissed is that counselling speeded up the process of coming to terms with your grief. Kubler-Ross felt very strongly about counselling to help an individual to move on. It was because of that, that

legislation was passed in 1982 in the United States that counselling was mandatory for anyone who needed it. However, when Joseph M. Currier and his colleague Robert Neimeyer, a professor in psychology at the University of Memphis, conducted a study in 2008, they found that whether or not an individual had counselling after experiencing a loss, their emotional status was the same, (Konigsberg, 2011). Therefore Kubler-Ross's idea that counselling helped an individual come to term with their loss does not hold water. This is not to say that counselling has not helped in any way at all. Counselling has its place.

The reason that these myths have been dispelled could be that the book that Kubler-Ross wrote was for individuals who were themselves dying, and not as a counselling guide. Counsellors used the book as something that was prescribed, as there were no other guidelines on ways to approach the topic of death and there was no data to challenge Kubler-Ross's theory, and so the book was adopted (Konigsberg, 2011). Tony Walter, a sociologist at the University of Bath, suggests that there is no need for people to suffer the long process of Kubler-Ross's "untested theories" to cope with grief (Konigsberg, 2011). He says it is unnecessary to add to the apprehension of an individual instead of lightening their burden (Konigsberg, 2011).

In conclusion, to deal with the grieving process one must be aware of the social context of the grief as well as the cultural, psychological understanding of grief and the way recovery should occur.

Social factors

Numerous factors are associated with adjustment to having a chronic disease that can be life threatening. Amongst these are social support, acknowledgment of coping strategies and gaining control of the situation.

A stay in hospital brings with it its own set of concerns. Marks et al. (2005) speak of an "illness narrative" (p. 228). Persons admitted to hospital have to acknowledge that they have a disease and this could imply that they could die. This might not be true yet they believe it to be true (Marks, et al., 2005). What was most revealing to Fullard (cited in Schlebusch, 1990) is that

persons who are in hospital with ischaemic heart disease, are struck by their vulnerability and lack of privacy. Added to this is their lack of self-esteem and possible alienation from friends, questioning of their mortality, and the unknown that is to follow their cardiac incident (Fullard, 1990). Schlebusch (1990) adds that “psychopathological symptoms such as anxiety, depression, resentment, loss of sense of social support, guilt and sadness” could also present themselves (p 71). If adjustments are not made to their belief, their outlook could be detrimental to their recovery.

Social support can be both positive and negative. Assistance in the form of showing affection and practical help provides a positive influence by removing any psychological or physical stress following a cardiac event (Boutin-Foster, 2005; Joeques, et al., 2007; Lyons & Chamberlin, 2006; Schlebusch, 1990).

Joeques et al. (2007) conducted research on 73 couples in the Netherlands, where participants were drawn from two cardiac rehabilitation programs. The aim of the research was to “identify how couples perceive a partner’s support style after myocardial infarction, and whether this predicts the patient’s health-related quality of life (HR-QoI) and self-management (C-M) 9 months later” (Joeques, et al., 2007, p. 473). The subjects in this program, of whom 86% were males, were interviewed and completed questionnaires at the inception of the study. A second questionnaire was administered after 3 months and a further one at 9 months (Joeques, et al., 2007). The participants found that their spouses’ conversing on the subject of their illness proved to have a very positive effect on their relationship and improved their HR-QoI (Joeques, et al., 2007). Hirani et al. (2006) found, in their study of 214 coronary artery disease participants, which measured illness perception, that participants developed a positive outlook and were proactive in solving their problems (Hirani, Pugsley, & Newman, 2006). They took certain measures to make positive adjustments to eating differently, stopped smoking, took to exercise, limiting their exposure to stress and releasing their feelings of guilt (Hirani, et al., 2006). The participants also sought information and solutions concerning their illness from their medical team and other sources to speed up their recovery (Hirani, et al., 2006).

In Joeques et al. (2007) the participants experienced a negative response when their spouses were overprotective and “intrusive or...restrictive” (p 476). The long-term effect of overprotection was discussed and the person who was ill felt that their illness made them feel vulnerable and “more sensitive” to their partners’ assistance (Joeques, et al., 2007). It has been suggested by Joeques et al. (2007) that partners could be advised against demonstrating an “over-caring attitude” (p 477).

Impact on spouse/significant other

Being diagnosed with cardiovascular disease has a ripple effect that influences not only the person with cardiovascular disease but also their partner, family, community and other relationships (Lyons & Chamberlin, 2006). Hogg, Garratt, Shaw and Tagney (2007) found that “most people are resilient and the adverse psychological consequences are transient, but for some the psychological consequences are persistent and disabling” (2007;p. 652). To deal with the incident the people who experienced ischaemic heart disease draw support from various quarters. There is spousal/partner support, religious/spiritual support and support from friends and extended family.

Support

The influence of stress on an individual’s health is related to the coping resources available to the individual challenged with the event. According to Stroebe (2000), support can be either extra-personal or intra-personal. Extra-personal coping resources refer to financial help or social support. Intra-personal coping resources refer to character, personality, proficiency and ability which make it possible for individuals to handle the stressful encounter (Stroebe, 2000).

Social support in the form of showing affection and practical help provides a positive influence by removing any psychological or physical stress following a cardiac event (Boutin-Foster 2005; Schlebusch 1990; Lyons and Chamberlain 2006). According to Lyon and Chamberlain (2006), social support has been

proven in several studies to facilitate recovery from a number of illnesses. A spouse or significant other most often provides this support. The encouraging actions of the significant other provides a stable environment to manage the treatment of the person who is ill and adds to the improvement of cardiac rehabilitation (Joeke, et al., 2007; Lyons & Chamberlin, 2006). Di Matteo (cited in Lyons and Chamberlain, 2006) found that support from partners who were married or in a stable relationship promoted “adherence to treatment” (p. 289), thus ensuring good health. These research findings reflect the advantages of persons who are ill being in stable relationships and the support that is enjoyed by them.

Upholding a good quality of life is important to persons who are ill with cardiac conditions. A study in which “14 men and six women with HF (mean age 58 ± 10 years)” were questioned “using semi-structured open-ended interviews” (Heo, Lennie, Okoli, & Moser, 2009, p. 100) investigated how persons with HF (heart failure) describe and recognise quality of life (Heo, et al., 2009). Bearing in mind that the QOL is subjective, the participants stated that if they were capable of carrying out particular “physical and social activities to meet their and their families’ needs, maintain happiness and engage in fulfilling relationships with others” their quality of life would be improved (Heo, et al., 2009, p. 100).

Coping

Being diagnosed with myocardial infarction is distressing and the knowledge could remain with the person for a considerable period of time if they don’t cope with their illness. In order to cope with difficult situations one has to be continually altering cognitive and behavioural attempts to deal with specific external and/or internal difficulties that are judged as demanding or are greater than the means available to the person who is ill (Lazarus, cited in Hogg, et al., 2007).

In research by Hogg et al. (2007) the aim was to gain insight into “middle-aged men’s personal experience of coping with MI and the meaning they ascribed to these experiences” (p. 651). When questioned on their coping

skills, the participants found difficulty in defining how they coped, as it was a skill that not much thought was given to (Hogg, et al., 2007). They deflected the question by saying what it was like being ill and that they were looking forward to getting back to work, to a 'normal life', using the coping skill of avoidance without realising it (Hogg, et al., 2007). The Department of Health as quoted in the study found that the psychological and physiological meaning of CHD which was lasting and immobilizing aroused great emotions (Hogg, et al., 2007). It was therefore important that persons going through CHD find skills to cope with the situation so that they can reach a state of normalcy (Alonzo & Reynolds, 1998, cited in Joeke, et al., 2007).

A study designed to observe whether a short stay in hospital, could modify a person's perceptions of MI arrived at comforting results (Petrie, Cameron, Ellis, Buick, & Weinman, 2002). A group of 65 persons who had experienced their first MI were "assigned to receive an intervention designed to alter their perceptions about their MI or usual care from rehabilitation nurses" (Petrie, et al., 2002, p. 434). The participants were less than 65 years of age. They were consecutive participants, of whom 12 refused to participate. The participants completed questionnaires and were assigned randomly to standard care, consisting of MI education which provided detailed, actual material on MI together with discussions on symptomology and misconceptions of the disease (Petrie, et al., 2002). The participants could also take three 30–40 minute sessions with a psychologist in addition to the educational information (Petrie, et al., 2002). The session with the psychologist allowed the participants to speak about their beliefs and factors that might have contributed to their illness, and also guided the participants in gaining control of their illness and minimising their future risk of the illness reoccurring (Petrie, et al., 2002). A control group was not provided with any of the interventions.

The results of the study revealed that the stay in hospital with the participants who received the interventions "had significantly modified their (participants') perceptions about how long their illness would last and the personal consequences of the MI on their life" (Petrie, et al., 2002, p. 443). Their level of optimism was greater than that of the participants in the control group. The

intervention participants felt comfortable and confident leaving the hospital to return to their homes, because they were armed with information. A further observation in the study was that because the participants were informed about their illness they were open to making changes in their behaviour (Petrie, et al., 2002). This study revealed that being armed with information on what MI represented to the participants, speaking to psychologists guiding them towards regaining control of their lives was significant in that it changed the participants' behaviour in a positive way, thus allowing them to recuperate faster (Petrie, et al., 2002)

Religious beliefs/spirituality

Among the definitions of spirituality are “a belief in a power operating in the universe that is greater than oneself, a sense of interconnectedness with all living creatures, and an awareness of the purposes and meaning of life and the development of personal, absolute values” (Ehrlich, 2011). Ehrlich states that early Western and traditional medicine conceded that there was definitely a relationship between the mind and the body, however with “the scientific revolution and the enlightenment ... these considerations were removed” (Ehrlich, 2011). In recent years there has been a renewed interest in the debate of whether spirituality/religious beliefs have an influence on the recuperative powers of people in hospital (Clark, Drain, & Malone, 2003; Lyons & Chamberlin, 2006). It is believed that spirituality could have a greater influence in the healing process than was formerly considered by the medical fraternity (Ehrlich, 2011).

Chang et al. (2010) are of the opinion that “spiritual wellbeing serves as a pathway of how relaxation response elicitation improves psychological outcomes. These findings might contribute to improved psychological care of cardiac patients” (Chang, Casey, Dusek, & Benson, 2010, p. 99). A study by Chang et al. “tested the hypothesis that increased spirituality wellbeing by eliciting the relaxation response in one pathway resulting in improved psychological outcomes” (Chang, et al., 2010, p. 93). The researchers

observed 845 participants who had undergone “a 13 week mind/body Cardiac Rehabilitation Program” (Chang, et al., 2010, p. 93). Responses to a questionnaire administered before and after the course on relaxation responses, spirituality and the participants’ psychological distresses were clinically measured (Chang, et al., 2010).and showed increased relaxation responses and a greater spiritual awareness which the researchers believe improved psychological outcomes, and “might contribute to improved psychological care of cardiac patients” (Chang, et al., 2010, p. 99).

Finally, Seeman and colleagues (cited in Lyons and Chamberlain, 2006) concluded that their evidence categorically supported an optimistic link “between religious belief/spirituality and physiological process that are related to health and disease, particularly cardiovascular system functioning, but also neuroendocrine and immune functioning” (p. 160).

Relationship between cardiologist and the person he/she is treating

The social dealings between the medical fraternity and an individual who is ill are very important in determining a successful outcome for both parties (Morgan, et al., 1985). This relationship should be one of mutual sharing, but unless both parties are socialised in their roles, the objective of the consultation will not be achieved.

The association between the medical practitioner and the person who is treated has conventionally been described as unequal (Morgan, et al., 1985; Roter, Stewart, & Putnam, 1997; Schlebusch, 1990) The inequality is perpetuated by the scientific advantage in the field of medicine that the cardiologist has over the person who is ill. This unequal relationship is evident in the dealings and communications between the two (Schlebusch, 1990). May (n.d.), in an article titled “The Clinical Encounter and the Problem of Context”, raises the concern that in the field of ‘medical’ sociology the topic of unequal relationship between the medical fraternity and persons who are ill is not commonly discussed (May, n.d.). May describes it as a “dyadic encounter,

defined by asymmetries of power, the negotiation of rational and authoritative scientific knowledge, and private, proximal, relations” (May, n.d., p. 1).

The Health Profession Council of South Africa, conscious of the perception of the health profession, has pre-empted this problem by prescribing guidelines for managing persons who are ill (Antman, 2004), and in the past few years there has been a shift from the traditionally severe Parson’s model where the “practitioner leads and the patient follows in a harmonious fashion” (Ross & Deverell, 2004, p. 54). Other allied professionals and educators have identified the need to review the interaction and have called for an adjustment to improve on what is diagnosed and the way the person who is ill is treated (Ross & Deverell, 2004) .

Parson’s consensus model, the first of the various models, presumed that the practitioner would diagnose and the person who was ill and the ill person would follow whatever was prescribed for him or her – the reason being that “[t]he practitioner’s role is characterised by high status and control. Essentially, the practitioner assumes a paternal role and acts in the patient’s best interests”. Ross and Deverall (2004) describe this model as medical paternalism, “an action taken by one person in the best interest of another without their consent” (p.53). A further explanation for medical paternalism is the belief that medical practitioners have a position of superiority based on their medical knowledge and communal status (Morgan, et al., 1985).

In contrast, “patient-centred” treatment of persons who are ill (Ross & Deverell, 2004, p. 55) is less controlling than Parson’s and instead persuades and assists people who are ill to participate in their consultation. This method of open communication promotes a bond of empathy between the person who is ill and the medical practitioner. The interviewing skills of the practitioner are attuned to answers that speak of feelings and emotions that make up what the ill person is going through. The practitioner is also much more responsive and attentive, picking up on clues and interpreting them into a diagnosis (Morgan, et al., 1985; Ross & Deverell, 2004).

Morgan (2101) has found that consulting doctors who include the ill person in their discussions are “flexible, showing the greatest ability to respond to differences in patient’s needs or the circumstances of the consultation” (p.10). These doctors fit well with the biopsychosocial aspect of this research as they aim to understand the person who is ill within their own illness understanding framework (Morgan, et al., 1985).

Conclusion

This second literature chapter reviewed the psychosocial consequences of ischaemic heart disease. I covered the historical overview of illness, the consequence of ischaemic heart disease, and the various types of support concluding with the relationship between the doctor and the participant.

Chapter 4

Research methodology

In this chapter the research methodology that shaped this study is discussed in two sections: first the research paradigm that guided the study, and second the methodology employed in the design of the research – sample, data collection techniques, research process, methods of data analysis, ethical considerations, reliability and validity of research, and finally limitations.

Research paradigm

A paradigm is “a framework of thought or beliefs through which one’s world or reality is interpreted” (Shrestha, 2009, p.1). It is seen as a structure of thoughts or a viewpoint which allows one to look at the world and decide for oneself what one sees (Shrestha, 2009). Williams (K. Williams, 1998) in his thesis explains that “how we perceive the world ... [is] reinforced by those around us” (p.1), and that a researcher’s views will thus imitate the way a research study is designed and how data is collected and reviewed.

Research methods fall into two broad categories: quantitative methods and qualitative methods. For the purpose of this study I have chosen qualitative research. There is an eagerness for qualitative research during the past ten years which now has a considerable influence in the health field (Yardley, 2000). Advantages of qualitative research are that the research is an in-depth probe into difficulties and procedures and explores experiences which have not been covered extensively. Qualitative research draws out unspoken information and personal insight and interpretations (Marshall & Rossman, 2006).

Qualitative research has a number of attractive properties which are not present in quantitative research (Yardley, 2000). Quantitative research focuses on distancing a researcher from reality, whereas qualitative research is close to the real world. The use of closed-ended questions is a further

example of quantitative research, whereas the experiences of individuals are better captured through open-ended or narrative methods in qualitative research (Terre Blanche, Durrheim, & Painter, 2006). Quantitative research utilises a scientific or statistical method of analysing research while qualitative research employs a naturalistic method (Terre Blanche & Kelly, 2002). It is for these reasons that the qualitative method of conducting research is best suited for the study.

A principal objective in qualitative research is seeking to understand social life. As seen by Marshall and Rossman (2006), the “value”, that qualitative research searches for is “cultural and ethnographic” (p.53). Qualitative research relies on personal, first-hand experiences of individuals who have come through the emotional upheaval that disease brings with it (Marshall & Rossman, 2006). Qualitative research is an open and flexible process which suits the study. It could be argued by policy makers that qualitative research does not provide functional findings and meaning and that participants, being aware of the researcher’s objectives, are influenced by the researcher to gain favour (Marshall & Rossman, 2006). However, it is the informal relationships formed during the research process and the environment it is set in, that provide information that reflects lived, rich experience (Yardley, 2000).

The qualitative approach to data collection and analysis has been employed as it allows the participants to speak of their lived experience. It also allows me to understand the participants’ experience, and together with my understanding of the topic, their narrative will provide rich material for analysis (Marshall & Rossman, 2006).

The objective in qualitative research is to gain knowledge of the participants in a situation or manner in which they deal with the experience, the connotation they place on it, and how they understand the experience (Joekes, et al., 2007). Flick (2004) and Murray and Chamberlain (1999), Marshall and Rossman (2006) favour qualitative research because it adopts a significant health psychology standpoint.

Flick (2004) suggests that when looking at a “critical health psychology perspective” he would choose the use of qualitative research design as:

- it gives voice to people in the health industry, professionals, consumers or users.
- it allows one a more in-depth view of the day-to-day realities of living with a specific illness.
- finally, qualitative research looks intensely at the distribution of social or health-related phenomena (p. 140).

Research design

The research design process should indicate how the research is conducted (Terre Blanche & Kelly, 2002). The design of this study is chiefly descriptive, conforming to a genre of research “that is exploratory or descriptive, that accepts the value of context and setting, and that searches for a deeper understanding of the participant’s lived experience of the phenomenon under study” (Marshall and Rossman, 2006, p. 55). The principal approach is to encapsulate the deep significance of the participants’ experiences in their own words (Marshall & Rossman, 2006).

I have also made use of narrative inquiry, an approach developed in 1990 by Clandinin and Connelly (Clandinin, Huber, Huber, Murphy, Murray, Pearce and Steeves, 2006) to encompass the way that in the telling of a story the narrator is bound by culture and by particular social demands. The story is the object for examination where the researcher can then decide on a methodology of choice. This is necessary because culture shapes an individual’s perception of the world and consequently influences their telling of their experience (Flick, 2004; Marshall and Rossman, 2006). Researchers concur that narrative is a practical approach which interrogates principles, basic assumptions and balance of power over a period of time and through the viewpoint of the participants in the changing process (Clandinin et al., 2006); Hogg, Garratt, Shaw and Tagney, 2007) .

The choice of a qualitative, descriptive design with narrative inquiry offered me a rich, flexible approach to the experience of participants and their

spouses/partners in dealing with ischaemic heart disease, rather than the more constricting linear approach of quantitative design (Hogg, et al., 2007)

Research sample

Marshall and Rossman (2006) point out that it is impossible to study the universe to select a sample. Instead the researcher makes the selection according to the criteria for the study. In this study 15 participants were contacted. Of this number only 13 finally agreed to be interviewed. The number of participants, or sample size, was determined once data saturation was reached, data saturation being the point at which the researcher finds that the information that is communicated is repetitive and no new useful information is forthcoming (Guest, Bunce, & Johnson, 2006). At that juncture the researcher can be reasonably confident that the inclusion of additional participants is unlikely to provide anything of meaningful use. It is difficult to determine the size of the sample at the outset, but once data saturation is reached the size of the sample follows automatically. In this study data saturation was achieved at 13 key participants.

Initially I met with the participants three days after their medical procedures. The second occasion we met was six to eight weeks after they were discharged, as this coincided with their medical schedule.

The secondary sampling strategies involved the cardiologists and the cardio-thoracic surgeons in private practice. My first contact was with five cardiologists and cardio-thoracic surgeons. However when I later approached them to be interviewed, only three agreed to be interviewed and they were not the best of interviews since my time with them at the interview was limited. This reinforces the assumption (and my prior experience) that health practitioners, particularly those in private practice as the study involved, were not open to integrating holistic services. It was extremely difficult to tie the medical practitioners to a day and time to be interviewed and access to the doctors was near to impossible. I was made sharply aware that they were running a business and that the time they spent with me was not profitable to them. It also reinforced the assumption that their intervention was based

primarily on biomedical models. They knew I was a social worker and that I was investigating the psychosocial intervention of ischaemic heart disease, yet their responses were inherently biomedical.

In keeping with the biopsychosocial approach to research, persons with ischaemic heart disease will not be referred in this study to as patients. An unequal relationship exists between “patient and health care practitioner” (Ross and Devereil 2004, p. 53). Furthermore the technical knowledge that a practitioner has, coupled with the “traditional difference in status between patient and practitioner” and the fact that the “patient alone is suffering” gives an inherently unequal tilt to the relationship (Ross and Devereil 2004, p. 53). Therefore for the purposes of this research, individuals who seek medical care or help from private practitioners will be referred to as persons with ischaemic heart disease or key participants.

Sampling

Yardley (2000) suggests that it is “preferable to employ ‘theoretical’ sampling of small numbers of people chosen for their special attributes” (p.218). The primary source of my sample was persons who had experienced ischaemic heart disease. The secondary sample source was cardiologists and cardio-thoracic surgeons who were known to me and in private practice, and who extended to me the courtesy of introducing participants who were:

- individuals who experienced ischaemic heart disease for the first time
- persons who had spouses or partners who would be caring for them
- English speaking
- living in the greater Durban area
- willing to participate in the study

The interviews

Qualitative studies combine several data collection methods (Marshall & Rossman, 2006). This study combined narrative inquiry with semi-structured interviews (Marshall & Rossman, 2006). Narrative inquiry allowed me to access information in a holistic manner (Terre Blanche, et al., 2006). This form of inquiry, according to Marshall and Rossman (2006), presupposes that

people build their identities through recounting their stories. I tape-recorded their stories. In an endeavour to lower barricades and limitations that make discussion around a traumatic incident difficult, I allowed and encouraged the participants to recount their experiences freely (Ellis & Boucher, 2000). The settings of the interviews were decided by the participants, as Marshall and Rossman (2006) advise that “human actions are significantly influenced by the setting in which they occur and that one should therefore study behaviour in those real-life situations” (p. 53).

Almost invariably, a free recount of experiences resulted in an incomplete picture of the emotional upheaval experienced by the participants, and clarification was required. To complete the picture a semi-structured interview was also used (see Appendix 1).

The cardiologists were the second sample to be interviewed. The interviews were tape-recorded in order to maintain accuracy. As time was a factor for the doctors, a semi-structured interview was faxed to them the day before so that they were aware of my questions.

Research participants:

The cardiologists and the cardio-thoracic surgeons introduced me to participants who met my identified research criteria. Bar one, all participants were in the hospital at the time of first introduction.

Initial meeting

At the hospital I met and introduced myself to all 13 of the participants. I was also introduced to a further two participants through common friends. I enquired after their health, introduced my topic and made polite conversation. I had an informal interview with those participants that I first met at the hospital, almost a social interaction, which concluded with me requesting a further interview at a later stage at their homes where we could speak further. At the same time I arranged to meet spouses/partners. The other two participants I met and interviewed on the same day. In total 15 participants

agreed to be interviewed in this study; however, two of the participants withdrew at a later stage. I was therefore left with 13 participants in total.

Most, of the initial interviews were between 45 minutes to an hour long.

Formal interview

As this was not the first meeting with the participant, the interviews were in most cases conducted at the participant's home. This was arranged telephonically to accommodate the participant and his/her spouse/partner.

Data collection

My initial encounter with the first participant I interviewed was not successful as I recounted my personal experience to the participant and then enquired from them about their incident. I had no idea, at the time why the interview did not continue as well as I expected. Subsequently, after discussions in supervision and guided by Terre Blanche et al. (2006) who warned that my approach might have introduced undue influence, I changed my approach. I no longer initiated the conversation by sharing my personal experience but instead asked the participants to talk about the origins of their illness/disease. My disclosure came at appropriate points in the conversation when I then described the area that I was investigating and the aims I hoped to achieve.

The aims of the study were:

- to investigate the psychosocial consequences of ischaemic heart disease for the participants and their spouse/partners
- to examine the coping mechanisms of the participants and their partners coped with ischaemic heart disease
- to gain an understanding of their methods of coping with the disease

The interview was conducted as casually and informally (Terre Blanche & Kelly, 2002) as possible. With the participants' permission a sound recording of the interview was made and later transcribed. The informal nature of the interview suggested to me that the sound recorder was never an issue and I found the participants' to be most informative (Terre Blanche & Kelly, 2002).

As both the participant and his/her spouse/partner were present, the key participant spoke first. At times the spouse/partner interjected with facts that the narrator was not clear about. Thereafter I consulted my interview guide and issues that were not covered in the narration story were put to the participant and his/her spouse.

The participants provided broad responses to the questions. At this time I was also given the opportunity to reflect on other issues that required clarity and elaboration. The entire process of the interview was conducted in a relaxed manner so that a rapport could be established (Marshall & Rossman, 2006). Each interview took approximately an hour (Marshall & Rossman, 2006).

Data collection of medical practitioners

The interview questionnaire was faxed to the cardiologists a day before I interviewed them, which gave them some insight into my line of enquiry (see Appendix 4). The cardiologists were relaxed, I presume because they knew what we would speak of. The interviews were approximately thirty minutes long.

Data storage

The data was recorded on a sound recorder and transcribed. The transcripts of the participant's interviews were stored on disc. The hard copies were labelled with the pseudonym of the participant. Both the discs and the hard copies of the transcripts are stored under lock and key and will be destroyed after a period of five years.

Reliability and validity

Reliability and validity are important in research as they assist in establishing the quality of any social research. However these terms are not favourably viewed in terms of qualitative research. As an alternative, there is an approach towards 'trustworthiness', which is a term that ensures rigor. This does not deflect from the heart of validity and reliability, which continue to be fundamental to the research process regardless of the distinctive language that has gained recognition (Corbin and Strauss, 2008).

Verification of qualitative research is embedded in the mechanisms used in the research process to guarantee the reliability of the study (Morse et al., 2002). These mechanisms, which operate to identify and correct inaccuracies before they are built into the research and which could be imminent in causing a failure of the analysis, are:

- methodological coherence
- sampling sufficiency
- developing a lively relationship between the data collection and the analysis
- thinking theoretically (Morse, BARret, Mayan, Olson, & Spiers, 2002).

Methodological coherence seeks to ensure that the research question is congruent with the method, the data and the process of analysis. This coherence is manifest in the present study in that the various aspects mutually verify one another and confirm the methodological assumptions as a whole.

Sample sufficiency was achieved once the participants were selected according to the criteria stipulated in the proposal. They were identified by the secondary sample, the cardiologists, and therefore represented that portion of the community who had experienced ischaemic heart disease.

The collection of the data and the observations were carried out concurrently. This was done timeously so that interaction of the interviews was monitored.

The aspect of thinking theoretically was observed in the study by continually substantiating and reconfirming ideas that were presented in order to put together a coherent analysis .

Reliability

The aspect of reliability in research requires that there be consistency in the research (Corbin & Strauss, 2008). This is necessary so that if the same research were conducted by others the outcomes arrived at would be similar. However, because this is a study constructed from my own experience –

because I have used myself as an instrument of analysis in interpreting the data – some bias might be expected in the analysis and the same results might thus not be arrived at by someone who has not been through exactly the same experience. Because qualitative research does not work according to the same set of rules as quantitative research, I was aware that my analysis and conclusions might be distorted by my bias. In an attempt to avert my biases, I engaged in reflective thinking and reflective dialogue with my supervisor and a colleague. I had a colleague read through my transcripts, a synopsis of the participant, and finally my results and conclusions. The thoroughness of her scrutiny helped me to set a norm of reliability which entailed thoroughly documenting the procedures pursued. I also endeavoured to not let my bias distort the results of the study. This thought made me vigilant in my interviewing the participants.

I ventured to preserve a chain of evidence that would permit someone who has not been through the experience of ischaemic heart disease to follow the data and the subsequent process. The relevant contacts of all persons involved were recorded and the steps were documented so that the study can be repeated and similar outcomes can be arrived at. Notes and observations were documented after each interview so that the outcome of the interview was clear to a third party.

Research process

Interview process

The interviews focused on the “individual lived experience”, which Marshall and Rossman (2006) characterise as probing descriptions that allow for a greater understanding of the experience that the participants have lived through (p. 55).

Firstly I interviewed participants as a couple, and only if this was not possible, individually. I began by asking the person with the disease to speak of their experience when they first encountered their disease. I started with an open-ended question: for example “tell me what were the reasons that brought you to hospital and could you please start at the beginning?” This form of

questioning allowed the participants to recount the events that led to them being in hospital. At the same time it was important for me not to interrupt the individual in the telling of their story, thus allowing them control of the events (Babbie, 1992). Flick (2004) recommends this as the ideal way for participants to recount what they value as their story. Flick suggests that when the narrator has reached the end of their tale, the researcher would then be permitted to ask questions in a stage known as “narrative stumps” (p. 144). These are details that were not clear in the narration and which I could clarify by asking further questions (Flick, 2004).

I was guided by a set of questions in an interview guide (see Appendix 1). This then gave the participants the opportunity to elaborate on issues that were not covered and also allowed further explanations of issues that were not clear. I used the combination of these two methods so that the interviews were not viewed as a ‘question and answer’ session but rather as an informal conversation.

Research directed at the individual’s ‘lived experience’ relies on the richness of an in-depth study (Marshall & Rossman, 2006, p. 53) and for that reason the interviews were sound recorded. The interviews were then transcribed to produce transcripts for analysis. Having transcribed the interviews myself, I had the opportunity to ascertain patterns and insert observable gestures and other non-verbal communications that occurred during the interview and which I had noted at the time. I transcribed the interview verbatim, which at times seems disjointed as the participants vacillated very often. At times during the course of the interviews participants spoke of intimate details during our second meeting. An example of this is a statement made by Mr Nick who spoke of being sexually “impotent”. This was an aspect that he had been struggling with and I felt that the relationship I had established with them allowed him the comfortable space to take me into his confidence. Other participants asked advice on their children’s behaviour, whether they were too lenient with them, and what should they do about it. This was pleasing for me.

Method of data analysis

Once the data has been collected and transcribed to hard copy, the process of analysis can commence. Data analysis is the key purpose of research. The nature of the research can dictate one of the several methods that can be used to analyse the data. Thematic analysis was chosen for this study. This method of analysis fits in well with the purpose of the research. Thematic analysis is regarded by Braun and Clarke (2006) as a “foundational” method for analysis in qualitative research. Some authors suggest that thematic analysis is “not real research” (Laubschagne, 2003), but Braun and Clarke (2006) point out that “it does provide methods of analysis that should be applied rigorously to the data” (p. 95).

Thematic analysis is recommended as the “first qualitative method of analysis that researchers should learn, as it provides core skills that will be useful for conducting many other forms of qualitative analysis” (Braun and Clarke, 2006, p. 78). It is for this reason that thematic analysis can be used for various dissimilar analysis such as case work analysis and individuals with a common experience (Braun & Clarke, 2006).

Braun and Clarke (2006) identify thematic analysis as “a method for identifying, analysing and reporting patterns (themes) within data” (p.79). With this form of analysis one is able to organise the data, describe the data sets and interpret aspects of the topic according to themes (Braun & Clarke, 2006).

A great many of the themes were noticed during the time consuming task of transcribing the data and were noted in the transcripts. As there is no one particular method in conducting thematic analysis, I chose to use Braun and Clarke’s (2006) guide to thematic analysis as they emphasise that their guide is a “recursive process” in engaging with the data and pointed out that the guidelines are flexible (p. 86). These guidelines are:

- familiarisation with the data
- generating codes
- searching for themes
- reviewing themes

- defining and naming themes
- producing the report

Themes were identified through the reading and re-reading of the transcripts. This allowed me to be familiarised with the data. I identified patterns and matched them with other data as this constitutes the foundation of the thematic analysis process.

The hard copies of participants' interviews were coded manually rather than with a computer program, as I was comfortable with this. Patterns were recognised as the data became more and more familiar. Common themes and sub themes were also identified within the various data collated. The themes were thus data-motivated and theory-driven.

As this study is based on a biopsychosocial model, I decided to code the themes using the criteria of this theory, viz. *biological*, *psychological* and *social* factors. Yardley, (2000) believes that “while theory can profoundly influence the interpretation, it is obviously integral to the rationale of empirical research that the analysis is manifestly sensitive to the data itself” (p. 220). This was a further reason for positioning the study within the comprehensive biopsychosocial model (Ross and Devereil, 2004). It is important to note that the analysis would not be clearly defined in the biological, psychological or social aspects at all times and themes can and will overlap in the analysis.

Ethical considerations

The South African Medical Research Council was one of the first organisations to publish an ethics guideline in 1977 (Wassenaar, 2006). Despite contention about what constitutes ethics in social research, certain key concepts need to prevail, since social research involves an intrusion into people's lives and emotions and hinges on the formation of a successful relationship between the participant and the researcher (Miller & Brewer, 2003).

Ethical manners are a fundamental principle of research practice. Researchers have to ensure that the research project and process does not

have a damaging impact on the participants they are investigating (Wassenaar, 2006). The combined ethical principles of voluntary consent, informed consent, anonymity in the reporting of the data, confidentiality and avoidance of harm to participants were ensured at all times (Miller & Brewer, 2003).

The participants were each handed a letter of informed consent (see Appendix 2) at our first meeting. Following Patton's recommendation of "full and complete disclosure" (in Marshall and Rossman, 2006, p. 73), I handed the participant a letter that explained the purpose of the study, the nature of the research, and my details such as the university, the department and the supervisors and my contact details. The letter further stated that their participation in the research was voluntary and that there would be no financial remuneration for them. The participants were also reminded that at any stage of the research process they were free to withdraw without any consequences. They were assured in writing that at no time would any portion of the interview or their identity be divulged to anyone. My counselling services as a social worker were volunteered if the narrating of their experiences became traumatic.

The letters were signed both by the participant and their spouse/partner. A further letter of consent was signed by the participant allowing the doctors to divulge information pertaining to the participant's condition. A copy of this was put into the participant's file at the doctor's rooms and they were assured that their privacy would be respected at all times by myself. Finally, permission to carry out the study was obtained from the University of KwaZulu-Natal Ethical Committee (for the ethical clearance document see Appendix 5). A copy of the proposal which motivated the study was presented to the Ethics Committee; this was well received and permission was granted for the study.

Over and above these prescribed ethical considerations I was also concerned about the interview process itself, being aware that there could be concerns about the balance of power in the research process. Yardly, (2000) maintains that it is important for the researcher to be sympathetic to the point of view of the participants. I was mindful of his view of "the 'expert' whose role as an

academic usually entails initiating, controlling and materially benefiting from the process of research” (p. 221), and being careful to avoid this helped to smooth the path for each interview.

Limitations

The nature of my study and the thematic method for analysis have meant that I had to rely on my own understanding of the subject to interpret the data. There are no set rules for the analysis of qualitative research, which is by its very nature messy since it deals with the real-life worlds of people. I have had to rely on my own perceptions to corroborate my findings as qualitative research, and thematic analysis is “flexible”, which leaves the door open for a considerable latitude of interpretation on my part (Braun and Clarke, 2003, p. 97). I did however discuss my findings with my supervisor in supervision and reviewed the themes with her. She was insightful on various issues which brought my thinking into line. Her input was most helpful.

A further limitation I encountered was that the sample was tilted towards Indian male participants who were willing and keen to converse on their illness and experiences. Two women, who originally volunteered to speak to me, opted out when contacted at a later stage. These participants (13) are therefore not a representation of the national sample afflicted with cardiovascular disease and the sample is therefore limited.

Because the sample was drawn from private hospitals, the participants had access to medical aid and could therefore receive the best care allowed by their medical aid. Here again, the sample I chose was not reflective of the wider population in that it effectively excluded participants who do not have the benefit of medical aid. However, the value of qualitative studies is that the analysis of data can take account of the particular contexts of the participants. It is not the intention of qualitative research to generalise the data to the general population.

Participants were interviewed between 6 and 8 weeks after their heart attack, bypass surgery or angiogram, which meant that the incident was fresh in their minds and adjustments to their lifestyle had not become firmly established.

The study was conducted within a limited time frame and the shorter interviews did not fully allow for the rich flow of information I had originally expected. This was more apparent in some of the restrained emotional feedback. In hindsight, I feel that if interviews had been conducted over several sessions they would have produced a deeper relationship between the participants and myself and the information would have been richer.

Ideally, I would have preferred to meet the participants a year later, firstly because I did not know the participants before they had their heart attacks and secondly because they would have settled down to some sort of routine in their lives and their responses to their situation could have changed with time. As a result of the limited time with the participants the subsequent pattern of their relationships could not be fully determined.

At times I found that participants showed signs of lethargy, and they mentioned that they could not understand why they should be feeling that way as they should be feeling energetic. When I asked if they had spoken to their medical practitioner, most responded negatively. The reason they gave was that they “did not want to bother doctor with this small thing”. This makes me wonder what other information they had not disclosed to their medical team which could be important to their recovery.

The participants and their spouse/partners should have been interviewed separately, at different times or in another room.

The cardiologists and the cardio-thoracic surgeons, when first approached, were eager to participate. However their participation did not materialise as promptly as I had envisaged and I ended up spending many hours in their rooms, awaiting referrals. I realise that their time is very valuable but I would have thought that the research findings would have assisted them in understanding the people they attend to. Finally, the closing interview I was given by the medical profession was, I felt, a perfunctory set of textbook responses.

Conclusion

This chapter discussed the methodology that was employed in this study covering the framework for the study, the method of collecting data, storage, research process, sampling, through interviews, form of data analysis, ethical considerations, limitations and conclusion .

The next chapter deals with the analysis of the data.

Chapter 5

Analysis of results

Introduction

This chapter presents the data results and Chapter Six extends the discussion and links the findings to the literature.

Themes were identified from the transcripts of the interviews. A thematic process was used to analyse the data, which were identified and selected predominantly according to the guidelines in the interview guide. They are sorted according to psychological, social and physical impact on the participant and his/her spouse/partner. It is important to note that the themes that were identified are not mutually exclusive and that there were overlaps of issues. All three factors were interrelated, and biological issues such as previous history of the disease or genetic disorders might well impact on psychological or social effects of the disease.. The chapter ends with a discussion with the cardiologists and the impact of their interaction with the participants.

Of the participants interviewed, 38% had a history of ischaemic heart disease in their family or had themselves had a previous heart attack; 23% of the participants were surprised that they had been diagnosed with a heart attack either because of an absence of the symptoms or the expected manifestation or because they were unable to believe it could happen to them since they lived their life “by the rules”.

Details of participants

Table 1: Participants and their demographic details

Name	Gender	Age	Age of Spouse	Children	Race
Mr Anthony	M	+ 60	+ 50	4	Indian
Mr Sony	M	58	50	3 – 1 living at home	White
Mr Price	M	62	50	2 – both at home	Indian
Mr Angus	M	55	51	3 children	Indian
Mr Mathew	M	Late 40's	Early 40's	3. 11yrs 8 yrs 4 yrs	Indian
Mr Nelson	M	Early 40's	Late 30's	One child	Indian
Mr Nick	M	58	+ 50	2 girls& 1 boy	Indian
Mr Hugh	M	66	+60	No children	White
Mrs Denise	F	61	70	2 adult children	White
Mr Paul	M	58	50	2 adult children	Indian
Ms Mary	F	+40's	N/A	2 girls	Black
Mr Reggie	M	Early 40's	Late 30's	2 girls	Indian
Mrs Rosy	F	+ 60's	Early 80's	2 adult children	White

As can be seen from the above table, the majority of the participants were Indian males. There were two white male participants and only one female black participant. One of the white participants was female. The age range of the participants was from the early 40s to 60.

The participants have been described using the 'apartheid era classifications' of race so that their physical attributes are reflected. These attributes are the skin colour, which differentiates whites, formerly Europeans, from Indians, who are South Africans of Indian descent and blacks or Africans, ethnic Africans. These category distinctions were established to entrench a political class of people and are categories that are socially constructed. This is not an officially used description. The reason for my using these descriptions was to ensure that a cross-section of the community was reflected in my study. Unfortunately this has not been achieved, as I had no control of my participant selection. I was also hoping to find out if people of different races view illness and disease in different ways.

Before the thematic analysis, I present brief profiles of each participant.

1. Mr Anthony

Mr Anthony was a slim, 59-year-old man of Indian descent. He was married with four children, two of whom lived with him and his wife. Mr Anthony was self-employed as a cook for weddings and other functions. One of the children living at home was unemployed during the time of the interviewed. He was a man who held onto old school values such as that the father is the head of the household and whatever he says must stand, even if you disagree with him.

This family lived in an area that was designated for the “Indian community” under the Group Areas Act. Mr Anthony had a cousin who lived across the road from him. Everybody was interested in everyone else and ready to give a helping hand when necessary. On the day of Mr Anthony’s operation all four children were there to support their mother and when they left the hospital the children stayed with their mother until the cardiologist called to confirm that Mr Anthony was well after the operation.

When Mr Anthony was ill the community rallied round and supported Mrs Anthony by transporting her and the children to the hospital to visit and also by keeping Mr Anthony company whenever Mrs Anthony had to leave her husband alone at home to go on an errand.

Mr Anthony appeared to be very frail and I did not think that he was coping with his recovery.

2. Mr Sony

This gentleman was 58 years old. His wife was 50 years old. This couple is of Caucasian descent. They have three children. One son lives and works in Cape Town while another lives and works in Dubai. The third son lives at home and is 18 years old and in school. Mr Sony was self-employed and his wife worked with him in the business.

The home is situated in a street that has a security guard access. There is a remote-controlled gate to the property and there are three dogs to safeguard the property. The family does not have much to do with the neighbours as their hours of working are long and they “keep to themselves” as Mrs Sony reported.

The family seems to be a very sporty family as I saw surfboards, canoes, and a large deep-sea boat. The family seemed very stable and secure in their relationship.

Mr and Mrs Sony were confident that although the process might seem slow, Mr Sony would recover and they were coping well with the situation.

3. Mr Price

Mr Price was a 62-year-old man of Indian origin. He was employed as a fireman. His wife was 50 years old and worked for a garment company. Mr Price’s mother lives next door and is a great source of support for the family. They have two adult children, a boy and girl. Both of the children were employed and lived at home. Mrs Price had a medical condition which, although it had not incapacitated her, had affected her from time to time.

The neighbours are part of the community support system, although Mr Price says that he “doesn’t mind their business and they mustn’t mind his”.

Mr Price had always been in charge of the household shopping and was very disciplined about what he does with the combined finances. He and his son were the only drivers at the home. He did not think that Mrs Price should be driving. He has not allowed her to do the household shopping either. The result was that when he was in hospital the family was not able to stock the pantry according to his standards. He thought that the family wasted money on frivolous things.

Mr Price was the patriarch and ran a rigid system in his home. He spoke of leaving the house to his son when he dies because that is the way it is in his

culture. His daughter would get money, the equivalent value of the house, so that she can do what she wanted.

Mr Price had clear ideas of what he will do with his time once he retires. He has set himself long-term goals, which will probably improve his recovery as they gave him something to look forward to. Although he had future goals, I did not feel that he was coping well with his illness.

4. Mr Angus

Mr Angus and his wife were interviewed at the cardiologist's rooms. They are an Indian couple who have been married for 31 years. Mr Angus is 55 years old and Mrs Angus is 51. They have three children and had lost a girl child. The death of the little girl has played a large role in the family's life. It seems that Mr Angus has never got over the death of his daughter and when his wife spoke of it, he seemed sad. In addition to his heart condition, Mr Angus is also a diabetic.

Mrs Angus was very supportive of Mr Angus and this came through when she spoke of his important job as foreman of a company that sells lounge suites and other furniture. She explained how "work came to a standstill if he was not at work". He also did not have confidence in the staff at work that they would do their job.

The couple mentioned that they were deeply religious. This came out when they delayed the operation that he was due to have so that he could attend a religious function that the family were having at their home before his operation.

The couple seems to have strong family support and this was seen when Mrs Angus spoke of the number of family members who called her when her husband was in hospital. Mr Angus throughout the interview appeared to be very sad. I do not think that he was coping well with his recovery.

5. Mrs Rosy

Mrs Rosy is a 74-year-old Caucasian woman. Her husband is 82. I interviewed her at the cardiologist's rooms, as she was going away the next day to stay with her daughter in Johannesburg. Mrs Rosy's speech and manner gave one the impression that she is lady with great class. I discovered that she had been a ballerina when she was younger, which accounted for her stature. She owned her own school of dancing and taught dancing to children aged between 5 and 15. She was affiliated to the dance academy and took her work very seriously. She thought that it was the stress of the business that resulted in her having a heart attack.

She had been having symptoms on and off for a long time but ignored them as she "had no time to see to it". Now that she has had a bypass she has to give up her work and that made her unhappy, although she knew that it was necessary.

She did not have any friends and she blamed her work for that, because she did not have the time to socialise. She had a live-in maid who had been in her employ for many years and whom she describes as her support system. She does not feel that her husband is able to cope on his own, but her daughter brought it to her attention that she was wrong on that score.

Throughout our interview, she seemed to be holding herself together, she seemed stoic. I felt that she was very fragile and emotional. She made a comment about her son who is not a very emotional person, like herself, but now that she has been ill, he has become very emotional. I think that this illness has been a wake-up call for the family who always took their mother's strength for granted.

I realised that her upbringing was very British "stiff upper lip" which accounted for her carriage and way of handling situations. She will have great difficulty letting go of the dance studio and relaxing.

Mrs Rosy was a determined woman who I think is coping well with her bypass surgery.

6. Mr Mathew

My first contact with Mr Mathew was telephonically, as he lived in Ladysmith. He was enthusiastic to speak to me about his experience. He also agreed to let his wife be interviewed. I spoke of my reservations about the distance and meeting, but he would not be deterred. My second conversation with Mr Mathew was in the cardiologist's rooms when I interviewed him. On the day of the interview, however, Mr Mathew's wife did not accompany him. He seemed agitated, and during our conversation he mentioned that he had spent a while waiting for the surgeon and I guessed that he was upset about this delay. His body language indicated that he was agitated and he would not sit during the interview. When I asked if I could wait for his wife, he was quite firm that he did not want her "*stressed any further*" and that she would not be joining us. From this reference I can only assume that either the incident with her husband was too emotional for her or that my interviewing her would delay their departure back to Ladysmith.

Mr Mathew was self-employed as an insurance broker. He has three children aged 11, 8 and 4 years. He made a point of saying that if he did not work there would be no money to run the household. Money was of great importance to him as he said that his brother had died of a heart attack because of having insufficient funds. I think that this has influenced him in his drive to get back to work. He appeared to me to be a man under great stress.

When I asked if his view of life had changed at all since his heart attack, he replied that it had not. The entire interview was strained and uncomfortable for me; I would have liked to convince Mr Mathew that I was there in my capacity as a social worker and a researcher and would have helped him in any way to alleviate his stress. I did not think that Mr Mathew was coping well with his illness.

Mr Mathew mentioned that he was upset that the extended family did not visit as often as he would like.

7. Mr Nelson

Mr Nelson was an Indian male in his late 30s. He has a wife who is a stay-at-home mother and a son aged 18. He was technician who was constantly on

the road calling on customers. He was very excited to speak to me about his condition. He had been having symptoms on and off for a long time but chose to ignore them. When he did attend to them he self-medicated. Unfortunately it took a collapse at home to get him to be attended to by a medical person. A cardiologist treated him and when he felt better he decided to play around with the dosage of his medication, which then led to his being re-admitted to the hospital for further surgery. When asked why he did not want to take the medication prescribed for him, he said that he did not want to look like a sick person like his mother. He realises that he should not have adjusted the dosage as he saw fit and is now taking his medication regularly. He and his wife and son are planning to go walking for exercise.

8. Mr Nick

This gentleman is a sprightly 58-year-old Indian man. His wife was 50. They have three children, two girls and a boy. Mr Nick had worked overseas for many years. He first had pain in his chest when he was 34 years old. At that time he was sent home with some medication and told not to worry. He was not bothered with pain after that, as he believed he was healed during a spiritual-healing prayer session at church.

At the age of 58 his pain recurred and following an angiogram he was diagnosed with four blocked arteries. However they chose to hold off on the procedure until the priest was consulted. The priest was away at the time and when he returned, he advised Mr Nick to have the angiogram.

While in hospital, Mr Nick was not happy with the care in the ICU. He felt that the staff were unprofessional and rude. He said the only time he was treated well was when his wife bribed one of the nurses to look after him.

What upset Mr Nick most was that the extended families were not frequent visitors. He feels that because he had moved to smaller accommodation at his daughter's home, he was not respected and therefore they did not visit. The image that Mr Nick has of himself, and also feels that the families have of him, is "a sick person" and he does not like the label.

Mr Nick ended our interview on a very sad note giving me the impression that he was not coping with his illness.

9. Mr Hugh

Mr and Mrs Hugh were both research academics. Mr Hugh is 66 years old and is a Caucasian male who had bypass surgery. Mrs Hugh is 60 and works with her husband from the residence. They have no children. They have been married for 30 years. Mr Hugh had an angina attack during their first year of marriage. He was given medication, which he had taken up until the second incident, which was a routine check-up in the course of which his general practitioner found that there was a problem with his heart. He expected to have an angiogram and be sent home, but they surprised him by saying that he needed a double bypass surgery. "This *sent my head spinning*, as it was not what I had expected" said Mr. Hugh. He said that they moved so fast getting him ready that he was not allowed to consider the consequences of the procedure. When he awoke he remembered very bad dreams that he had had and was very confused about where he was. However the staff made him very comfortable and he recovered well.

He was well-informed about bypass surgery. Out of interest he had read up on it before the procedure and he had also watched a television program on bypass surgery. Although he was well-informed before the procedure, he still felt afraid before he went in to theatre. When he thought he was going to have a routine angiogram and felt that he was 'spinning' with the pace that the nursing staff got him ready for theatre for the bypass surgery, that scared him. This operation has robbed Mr Hugh of his confidence, and he was advised to see a psychologist. Mrs Hugh sees him as a pessimist at the best of times and I therefore think that he would not cope well with his illness.

Both Mr and Mrs Hughes have good family and friend support systems.

10. Mrs Denise

Mrs Denise is a 61-year-old Caucasian businesswoman who has been married for 15 years. She was a very active woman and had been a South

African swimmer. She was a regular at the gym where she swam. She also plays tennis. She has two adult daughters from her previous marriage. Her husband is a jovial man in his late 60s. They work together in their business. Their home is a beautiful house in a private estate. They appear to live comfortably.

Mrs Denise did not know that she was having a heart attack because she was an active person. The symptoms were not familiar to her at all, so she treated herself with antacid medication. When she did see a cardiologist she was not given the best attention. It was only when her family GP arranged for her to seek a second opinion that she was attended to.

Mrs Denise had a few emotional family problems with her daughters and their children. This had caused quite a strain on her health without her realising it. She appears to be a woman who has a strong personality. She was not upset in the least when she was told that she had to have a stent put in as she was confident that the doctors would do a good job.

Post-operatively she had “slowed” down as she put it. She finds that she is not able to complete all the tasks that she sets out to do during the day. However, she feels that she is getting stronger every day.

Her husband was very upset when she was in hospital. He now spoils her whenever he can. She has good support from both her husband and her daughters and was determined to beat this illness. She would therefore cope well.

11. Mr Paul

Mr Paul was employed at a government hospital where he was in charge of the hospital maintenance. He is of Indian origin and is about 40 years old with a wife and two male children. He had been at his place of employment for the past 25 years.

When he first became ill, he did not recognise the signs of a heart attack. He arranged with one of his workers to take him to the sick bay because he was

perspiring. Unfortunately, he had two heart attacks before he was attended to properly. Both of the attacks were while he was in the care of the hospital staff.

The surgeon who operated on Mr Paul gave him a great deal of information about the procedure. His stay in hospital was comfortable and the nursing staff treated him well after the operation. What did make Mr Paul awkward was that he stood out wearing the 'hugger'. Although he knew that it was to support the stitches in his chest, he did not enjoy wearing it.

On his return home he felt that he had lost control of his life because his wife had to attend to his bathing and he said that it upset him that he had to rely on his wife. Mr Paul is very religious; he observes all the rituals that his religion calls for. He also felt that he was saved by the Almighty and felt very blessed when he his health returned. He was looking forward to going back to work as his staff and friends at the hospital would be very supportive.

Although Mr Paul has great support, the pressure of his work makes me (and him) doubt that he will be able to cope with his illness.

12. Ms Mary

Ms Mary is in her early forties and worked as an administrator for a medical aid group. She was not married and has two adult daughters who are at university. She lives in a modest home in a secure complex. The house was well furnished and very comfortable. Her 20-year-old daughter is her caregiver. She has an extended family living in Newcastle.

Although Ms Mary did not have a bypass or a stent inserted, she met the criteria as she had a damaged heart valve replaced. She was diagnosed with bronchitis which did not clear up and she remained in hospital for a week. When she got home she had a stroke on the right side of her body at the age of 23. She was diagnosed with faulty valves because of a birth defect (rheumatic fever), which was not treated. She was told that she would have to have the valves replaced sometime in the future. She lived with this condition for 3 years when she suffered from severe exhaustion due to a lack of

oxygen. She refused to let her medical condition have the better of her as she said that her job was very important. Her children were very young and she had no spousal/partner support except the church members. Her general practitioner told her that she should see a specialist, but she put it off until she became so ill that she could not move at all.

She eventually went to a cardiologist who replaced two valves and she was fitted with a 'hugger'. Some of the symptoms, like coughing, were not explained to her and she felt upset that she was overlooked. She felt that she was not given sufficient information to deal with the symptoms that occurred when she left the hospital and this upset her greatly. She is not ready to go back to work as she has pain which the cardiologists says she should not have. She was resentful, indicating that as the doctors have not been through the procedure they cannot have all the answers. She did seem to be a woman who was extremely frustrated that she has no control over her body, something she had been accustomed to for many years before the operation.

Her younger daughter stays at home with her mother and she has been very supportive. The older child lives away from home at university residence. The members of the local church that they attend have been coming around to the house, but the daughter says they are more of a hindrance than help. Therefore, the only support that this mother has is her 20-year-old daughter who is petrified that her mother will die on her watch.

With the anger and pain that Ms Mary showed in our interview, I doubt that she would cope well with her illness.

13. Mr Reggie

Mr Reggie worked for a welfare organisation that cares for abandoned children. He is married with two minor daughters. They live in a comfortable part of Overport. He is a trained counsellor and his wife has been working at a coffee shop to supplement their income.

When Mr Reggie first felt sick, he ignored the symptoms. The symptoms continued and he sought help from his local doctor. The doctor thought that

he should see a cardiologist as he thought that he had had a heart attack in the previous three days. Following an angiogram, the cardiologist found two arteries blocked and they inserted a stent. He was then sent home after three days. He then became ill with flu and it took him a month to recover from this. While off from work Mr Reggie became upset as he realised that he could have died and that no one has understood the pain he experienced. His wife suggested that he see a psychologist and the psychologist recommended that as it was close to the end of the year, he (Mr Reggie) should take the rest of the month off and resume work in the new year. He was glad to stay at home.

There were marked difficulties in this marriage. Mrs Reggie spoke of her difficulties in having a conversation with her husband without either one of them losing their temper and shouting at each other. She also said that they did not share a bedroom because she was an insomniac and wanted to read in bed and Mr Reggie found it disturbing to fall asleep with the lights on. They therefore chose to sleep in separate rooms. Mrs Reggie also confided in me that she thinks that Mr Reggie is a hypochondriac and that puts a strain on their marriage. Mrs Reggie also told me that she was diagnosed as being bipolar and this affected their relationship because of her mood swings, which Mr Reggie was not able to put up with. The couple have read up on their illnesses and are very comfortable speaking about them. A further strain on their family relationship is their 13-year-old daughter, a teenager going through some issues of her own.

Mr and Mrs Reggie have the support of their families but don't rely on them much as they are afraid of 'come backs' later on. They also have a church group, which provides prayer gatherings to pray for the sick.

The complicated marital relationship that this couple has will make it difficult for Mr Reggie to cope with his illness.

Participants 14 and 15. Mrs M. and Mrs J.

Both these women were introduced to me in the hospital by the cardiologist. They were willing at that stage to take part in the research. However when I called them back a week later Mrs M's daughter said that her mother did not

want to participate. Mrs J also had her husband inform me that she was unwilling to speak to me.

Corbin and Strauss (2008) say that it is not unusual to have people back out of an interview. It could be that they do not want to expose themselves as they find the incident too traumatic or they could be uncomfortable with the process of being interviewed.

Initial symptoms and responses to them

At times people are unaware of what leads to their being ill. The accounts of the interviewed participants' experience of ischaemic heart disease reflected that 38% of the participants had a past history of the disease. Their narratives spoke of their family history and the members of the family who had died as a consequence of cardiac failure (heart attack). They did not expect that that would influence their health in any way. Those who thought about it did not believe that it could happen to them.

Among the participants were people who thrived on working under great stress, which at times was self-created. There were also participants who had genetic limitations of which they were not aware (such as diabetes, high cholesterol or physical defects such as a defective heart valve) until they had a heart attack. Of the 13 participants, 10 were surprised to hear that they had had a heart attack as it occurred so unexpectedly. Some of their beliefs were that they were living a healthy lifestyle or that they were not of 'that age' when heart attacks occur. The suddenness of the attack is what surprised almost all of them and they did not have time to prepare for it.

Ms Mary was diagnosed with bronchitis in 1990. On the day of her discharge she had a mild stroke and once tests were carried out, she was diagnosed with a clot on her brain and prescribed medication which she stopped taking when she felt fine. When I asked her if this was on a doctor's recommendation she replied, *"I stopped warfarin, I hate tablets"*. As a result, the quality of her life was lessened but she ignored the symptoms as she felt as she had responsibilities as a single parent of two daughters and could not allow herself the luxury of taking time to have an operation and the time it would take to

recover after an operation. She therefore put her health on hold. The job she held was a top management position and being a woman in that position made her work that much harder. She calculated her options of being put off work and not having a full salary as opposed to seeing her children through university financially and running a home. Although she was not 100% healthy she chose to continue working as she was drawing a full salary. She remained in denial although she knew that she had a defective heart valve, because she had the responsibility of her two children.

A second participant, Mr Anthony, had experienced pains in his chest but ignored them and put the pain down to 'gastric ulcers'. He treated himself with medication that he purchased over the counter at a pharmacy and did not tell his family how he was feeling. His reason for this was "*I never used to complain to anyone because I did not want to give stress to the family*". This participant was a conscientious worker. He believed that if he were not able to run his department many people would be upset. His personal life had been marked by several family tragedies (the death of three family members, his youngest daughter at three years of age, the wife's mother, and a brother who was ill for a short while) and although these emotional incidents affected him he preserved a strong façade to maintain his position as head of the household and not cause further stress to his wife.

Mr Price was an avid reader. He says that in his spare time (which is often) he reads the Readers Digest books, which are very informative about health issues. He has read articles about heart attacks in these books. Despite being so well informed about health issues, he stopped taking his medication for a condition of the heart. This he did because "*... I just didn't bother about the cardiacor*". He felt better and thought that the medication was unnecessary. His general practitioner insisted that he should continue his medication because of his diabetic condition but he felt that it was not necessary. "*I also had a sugar problem, which I didn't care much about and it started escalating. I had the problem and wasn't taking medication ... but I was also wasn't looking after my eating habits. Then I was eating sweet things that I like*". This then resulted in a second incident which occurred when he went for a walk: "*I had*

pain so I said you know what – so I started to walk - stopped and it eased up”. He did not visit a doctor because the pain subsided and he did not think that he could be having a heart attack. A third incident occurred when he was on a training course and he had to walk a distance up a hill. *“No, cause when I was in the Sterkfontein dam I walked up the mountain, and my chest was busting.”* Mr Price must have realised that there was something physically not right with his body yet once again he did not speak to a doctor. He mentioned several times that *“[He] hated to go see the doctor.”* A fourth incident was the one that had him admitted into the intensive care unit at the hospital. He was at a training course and had to park his car some distance from the venue and walk a distance.

“And recently I went for a complete course in Pinetown at Nousa. You know the Spar in Pinetown, so they said that we got to park our car by Spar cause they don’t allow cars at the building. So from there I used to walk up and felt my chest bust. No I said I’ll finish the course and then go see my doctor. Then about 2 to 3 days I parked nearby, and then I saw my doctor on Saturday and then he (Doctor) still didn’t feel I had a heart problem, because there’s no history of heart problem”.

However Mr Price knew that what he felt on all the occasions was not a sign of a ‘healthy’ body. He finally saw a cardiologist and was told following an angiogram that he had five blocked arteries. When I asked him why he had waited all that time before he visited the cardiologist he said that he didn’t think he was ill, he just had ‘reflux’. He also said that if he had to go to hospital he could not trust any one member of his family to shop for the family and run the daily errands as he thought they all were incompetent.

A fourth participant, Mr Angus, is a diabetic and when he vomited while at work he said he *“was more concerned about my sugar. I was thinking the sugar went down and then I started spewing heavily. The guys gave me some sugar water and all that, and it came back to normal and then the paramedics came, they gave me an injection to cool off and then I told them that I want to go home”.*

Mr Angus was prepared to write off the incident as a 'diabetic' reaction. However it was at the insistence of his children that he was taken to see the cardiologist, who diagnosed that he needed surgery to correct his situation. He also was in denial about his condition.

Mrs Rosy is a ballet teacher and therefore exercised every day with her students. She is slim and ate very sparingly. She did this because of the hours she kept and she would not eat a heavy meal at night. She was very active and a perfectionist and therefore did not find her symptoms congruent with a heart attack. Mrs Rosy was shopping when she had the first signs of pain.

"I had my first uncomfortable feeling at five in the afternoon. I was shopping, finished that as fast as I could, and drove slowly home. I joked with my secretary when she phoned to see if I had found my car keys saying that I think I'm having a heart attack. I went home, it disappeared. I cooked, ate and went to bed. No further signs".

It was not until two o'clock that morning that she was woken with severe pain and she was transported to hospital. She was diagnosed with a damaged heart and needed bypass surgery. She did joke about having a heart attack but dismissed the thought. She could not believe that with her physical fitness and clean medical history a heart attack was possible even though she knew full well that her need for perfection and her demeanour were signs that one reads about.

The only reason Mr Mathew went to the doctor was at the insistence of his family. He said *"Oh well I had this pain in my chest and the family forced me to go to the cardiologist. My GP said that it was okay, but the family insisted"*

He was well informed about heart attacks as his brother recently died of a heart attack, yet when he had the 'typical symptoms', he was in denial. He did not pursue the matter any further than what his GP had told him.

Participant Mr Nick worked in Kuwait for many years. He made regular visits home over the years to visit the family and have a physical. During one of those visits he says;

"In 1985 I had a bit of a problem with my chest and Dr. T,[cardiologist] did an angiogram and found that there was a bit of bruising in the heart. He put me on TNT [tablet] and few other tablets and he said to me there were a few things I could do and couldn't do. It was traumatizing at that age to be restricted. I was 34 years old and I was worried about my children they were young then, I have 2 girls and a boy. And I thought that life was never going to be the same again. But what happened about a year ago (after the incident), I had a spiritual experience. In my sleep I was healed by God".

Although Mr Nick felt that he was healed, in 2004 he presented with dizzy spells and ignored them because *"He was healed"*.

In 2007 Mr Nick then visited a doctor because he was vomiting and complained of being dizzy. *"I was getting short of breath, I became totally impotent it was a bit of a problem for me. So we decided to go to Dr S"*. The doctor then found that Mr Nick had a heart condition and referred him to a cardiologist. It was only as a result of his sexual condition that Mr Nick went back to the doctor. If he hadn't he might have had a fatal heart attack. The cardiologist diagnosed that he needed to have bypass surgery. He believed that he *"was healed"* and nothing could go wrong with his heart condition.

Participant Mr Nelson had pain in his chest for some time but avoided telling anyone of it. *"Yes I wasn't taking it serious at all"*. He was extremely tired and lethargic. He had severe back pain and thought that he would treat himself for a kidney infection.

A month and a half after his first symptom of pain, his wife was unable to rouse him from sleep. She was concerned but he played down the incident. Finally his wife took matters into her own hands and called on a neighbour to help her husband, as he could not walk unassisted, and get him to the local hospital where he was treated accordingly. Mr Nelson would not believe that

he was ill until his wife took it upon herself to make him see a doctor. He had a stent put into his blocked arteries to relieve the blockage.

Mr and Mrs Hugh are both research academics. Mr Hugh had an angina attack during their first year of marriage when they lived in England. He was given medication, which he had taken until the second incident which was discovered at a routine check-up. His general practitioner found that there was a problem with his heart and sent him to a cardiologist where he expected to have an angiogram and be sent home. However, they surprised him by saying that he needed double bypass surgery. This sent his “*head spinning*”, as he was not expecting this news. He said that they moved so fast getting him ready that he was not allowed to consider the consequences of the procedure.

Participant Mrs Denise woke one Sunday morning with ‘bad indigestion’ not realising that it was a heart attack?

“I told Joe I’ve just got indigestion, like high up in my chest, and I think I must go to the chemist and get some Gaviscon. So I drove my car and I promise you, when I walked into the chemist I felt like death. I said to Joe in the shopping centre at Waterfall, I got the most horrendous pain across here (pointing to her heart), like someone had put a knife in and out of my heart, quick. I bent over and I said to Joe, that was horrible. And with that, I vomited, vomited and vomited. So that was on the Sunday morning. Then I said to Joe, I came home had a shower and I said I actually feel a bit better, now that I’ve vomited. Monday night I didn’t sleep cause I kept getting these niggly pains here (pointing to her chest). I said to Joe, its indigestion again because it was here (chest). Tuesday I went to work and I said to my daughter about 9:00 o’clock, I said my arms feel funny. I think I’m going to drive to Hillcrest hospital and ask them to do an ECG cause my arm doesn’t feel right”.

Mrs Denise was seen by a cardiologist who told her that she needed to be taken by ambulance to another hospital as she had had a heart attack. All through her experience, Mrs Denise never for one moment thought that she was having a heart attack. She says that she was not aware that nausea was

a symptom and because of her physical condition (she was a health-conscious eater and swam for the South African swimming team) she would not have considered it. Research has shown that women present for a heart attack slightly differently from men and the media don't spend time writing about it (Winn & Dellsperger, 2006).

Mr Paul is employed at a government hospital where he is in charge of the hospital maintenance.

All the participants knew there was something 'not quite right' with their health but chose to ignore it for whatever reason.

Psychological impact on participants after the onset of ischaemic heart disease.

Returning home after a cardiac incident can cause extreme stress. While the person is in hospital, caring for them is the responsibility of the nursing staff and the cardiologist and/or cardio-thoracic surgeon, but once they are sent home they are responsible for themselves. To prevent a recurrence, certain adjustments have to be made, there has to be a mind shift, and this involves emotional and cognitive processes.

The participants spoke of the psychological impact of their disease, identifying factors such as guilt, stress/pressure, depression, withdrawal from society, an unwillingness to confide in either their family or their cardiologist, or both, as a way to controlling their situation.

Guilt

Guilt is an insidious emotion, which is experienced by persons who have undergone some surgery to restore their bodies to a healthy state. Guilt can be manifested in three ways (Ross & Deverell, 2004). An example of the first manifestation of guilt is when a person who is ill believes that he or she had a heart attack because of not eating correctly or not taking their vitamins,. The second type of guilt is where the ill person considers that their illness is justified because of their having committing an "offence" of some kind. The third form of guilt is manifested in the belief that "good things happen to good

people and bad things happen to bad people” – what Ross and Devereil call the “just world hypothesis” (Ross & Devereil, 2004, p. 38). This last hypothesis, Ross and Devereil comment, seems to allow the ill person to have a degree of control over their illness.

Two of the participants complained of feeling guilty about their illness. Mr Price spoke of being a health conscious individual at the onset of our interview, yet a few minutes into the interview he confessed to feeling guilty that he had an angina attack which he says was brought on because *“I wasn’t looking after my eating habits. Then I was eating sweet things that I like”*. He knew that sweet foods were not allowed because he was a diabetic and so felt guilty when he had the heart attack. He felt that if he had looked after his health and controlled his diabetes he would not have required the bypass surgery.

Mrs Rosy was concerned that she spent a large portion of her day at her studio. She often skipped meals, as she did not have the time to eat. *“You see I worked very hard I worked long hours and there is a degree of pressure. I don’t like to use stress. Cause that means people are not in control and they allow themselves and I don’t believe in that one. But there is a pressure to complete a certain amount in that amount of time”*.

She created the “*pressure*” under which she worked. She also lived with the guilt of not spending sufficient time with her husband and the rest of her family. She expressed the view that the pressure of the school, her feelings of guilt and bad nutrition caused her great anxiety.

Stress

Mr Sony, Mr Paul and Mrs Rosy spoke of their stress, which they believed was self-created. Participant Mr Sony enjoyed life to the fullest before his heart attack. His great passion was deep-sea diving until he had his heart attack. Because of his stent, he was not allowed to dive for a least a year after his operation. Although this was a temporary situation it seemed to annoy him. When I asked Mr Sony if he worked under pressure and at times lost his temper he replied in the affirmative. He explained that the business world was

very 'cut throat' and he loses his temper now and then. However, his wife agreed that since his operation he lost his temper more often.

"R: are you quick tempered?"

Sony: Very quick tempered...no worse I think". His wife puts it down to him not being able to exercise and release the pressure.

Mrs Rosy worked under great "pressure", which was self-induced. She admitted that she knew of no other way to work other than at great pace. She felt that if she allowed herself to take a break from her work every now and then, she might not have needed bypass surgery and caused her family to be so upset. She was not adjusting to her sabbatical from her work and was resentful that she had to give up her job. She would not give in and try and relax which she found very difficult.

Depression

Ross and Deverell (2004) define depression in two ways. These are "endogenous depression which is usually internally generated and related to some sort of chemical imbalance, and reactive depression which is a normal response and grief reaction to a traumatic experience" (p 38). This is a term which two of the spouses and some of the participants used very loosely. Taking into consideration the definition by Ross and Deverell (2004), it is understandable that the participants would feel emotional and sad about their medical condition and call it "depression". But when I spoke of the "fast pace" of their work and their feeling of being "anxious" about not meeting deadlines, they agreed that that description fitted the way they felt. Three of the participants spoke of their "depression" and four of the participants complained of being anxious at times. They also expressed some emotion when they spoke of their children and the passing of their loved ones.

Except for Mr Price, Mr Hugh and Mr Reggie, none of the other participants were seen or diagnosed by a psychologist or a psychiatrist as being depressed. Mr Price said that he was diagnosed as being depressed and was prescribed medication by his general practitioner. Mr Reggie and Mr Hugh

each attended one session with a psychologist and each felt that it gave him direction.

Participant Mr Anthony was a professional chef and the sole provider for his family. With his diagnosed cardiac condition and following his operation, he was not allowed to stir the large pots of food that he cooks as it was regarded as heavy work soon after the operation. This left him feeling very frustrated and he said, "*Yah, I think it's too much. I think why I went*" (he regrets having the surgery) as he is continually in pain. The pain emanates from the area on his leg where a vein was harvested. He has been to a specialist to investigate this problem and is constantly in pain, which could account for his despondency.

Mr Anthony sees not having the strength to stir the large pots of food as a failing. He thinks of his illness as a weakness and he regards himself as failure in not providing for his family. Although he has not been clinically diagnosed with depression, his wife says that at times she watched him carefully as he appeared very "*depressed*", which caused her great concern. However she has not spoken to her cardiologist about it.

Mr Price's profession as a fireman gave him a relatively large amount of free time which he spent reading the *Reader Digest* magazine. His reading had made him aware of signs of depression and panic attacks. He spoke to his general practitioner about having the symptoms of panic attacks and the doctor prescribed medication for his condition.

I immediately identified Mr Angus as someone who was very sad at the interview. His body language was suggestive of despondency. He has not discussed his feelings of being anxious or sad with anyone. Once his interview was over, his wife spoke of the loss that the family has been through in a short space of time. He had lost a daughter, a brother-in-law and a mother-in-law and he was told that he would need a heart transplant in the near future. These incidents would account for his sadness.

Mr Nick was one of the participants who spoke very matter-of-factly about his emotions. He called it his depression. When asked if he ever felt low or out of

sorts, he replied, *“Yes, often, quite a lot. I get depressed because, when relatives don’t come and see, especially that I’m at home now, certain relatives they don’t come, it depresses me”*. He has eight siblings and they did not visit him as often as he would have liked. He says not having his family visit upsets him greatly. He has also changed the way he interacts with people. He says that before the incident he would take great pleasure in making people laugh: *“I like to make people laugh, I think now that I’m out [of hospital] it won’t happen anymore because I’m an old man and I’m an embarrassment to people around me”*. Mr Nicks illness seems to have changed his character.

Chung, Moser, Lennie and Rayens (2009) suggests that “to reduce depression and anxiety and to improve patients’ quality of life” early intervention should be instituted for both the person who has had ischaemic heart disease and their spouses (Chung, Moser, Lennie, & Rayens, 2009, p. 30).

Social withdrawal

Mrs Rosy was the only participant who mentioned that she withdrew from her friends long before her heart attack. The reason for this was that she was too busy to spend time with them when they invited her out. When she was ready to reacquaint herself with her friends they had ‘moved on’. She therefore spent her time with her students, husband and children, in that order. She found that when she was discharged from hospital there were no friends that she could call on, only her family. This she puts down to her maintaining long hours at work. Her withdrawal from her friends made her sad that there was no one outside the family that she could speak to, as she did not want to worry the family.

Unwilling to confide in family

Eight of the participants indicated that they were unable or reluctant to reveal their feelings to their family. Being at home brought with it anxiety that they felt they could not express to their family.

Mr Paul worked at a hospital where his son and his brother also worked. However when Mr Paul felt the pain in his chest, he did not tell his family about it because "*I did not want to worry them*". It was only after he was admitted to hospital that his son and brother found out about it and called his wife, who was at home.

Mr Reggie spoke to his wife when he had pains in his chest. However because she was wrapped up in her own issues she made light of it. She thought that because he was less than 40 years old it was unlikely that he was having a heart attack. Neither the husband nor the wife were well-read on the signs of ischaemic heart disease.

Ms Mary did not want to trouble her daughter. She felt that she should be taking care of her daughter and not the other way around. Therefore she did not usually tell her when she had any concerns.

Other participants like Mr Nelson, Mr Nick, Mrs Rosy and Mr Anthony kept their concerns to themselves because they felt that their families had enough to deal with taking care of them. Participants felt comfortable speaking to me about some of their concerns but did not "*want to trouble their family*".

Unwilling to confide in cardiologists

Many of the participants had questions for me about their aches and pains and medication. Although I told them that I was not medically qualified to answer them, they continued to ask questions. I of course referred them to their cardiologist. There seemed to be an underlying resistance to communicating with their medical team. The participants said that they accepted the cardiologists' expert knowledge and did not feel comfortable speaking to them as it could be seen as 'questioning' their decisions.

Mr Price's general practitioner prescribed medication for his 'panic attacks', but he did not disclose this to his cardiologist. When asked why, he said he did not want to bother him with the information. Not only did he decide to withhold the fact that he was diagnosed with panic attacks but he also chose not to ask several questions which he thought I might be able to clarify. I

informed him that his questions needed to be answered by the cardiologist or the cardio-thoracic surgeon treating him. Mr Price thought that he should have written down all his concerns while in hospital, but when I interviewed him eight weeks later, he still had not done so or spoken to the medical team.

When I asked Mr Angus why he did not speak to his cardiologist about the sadness he was feeling he replied that he could not. He seemed to be out of touch with his feelings or embarrassed to admit what he felt.

Although only one participant was diagnosed according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) and prescribed medication, a layperson could see that most of the participants showed some form of depression. If they were tested, I am sure that those who presented with 'anxiety, stress, bad temper, loss of control issues' might have been found to be clinically depressed. The cardiologists who answered questions on the connection between depression and ischaemic heart disease found that "depression is caused by a reaction to sustained emotional stress and is more likely to be expressed in individuals with genetic or other predispositions to depression. Being in a stressful situation - having an acute myocardial infarction, experiencing marital problems, losing a job – may predispose a person with genetic vulnerability to depression. Therefore 'depression' may be a manifestation of an inability to cope with stress" (Friedewald et al., 2007).⁵²¹). Dr. Sheps, as a member of the panel, believes that doctors "[miss] many cases of depression after acute myocardial infarction" (Friedewald, et al., 2007, p. 521). Sheps believes that the situation can be remedied if measures are put in place such as a survey completed by the person who is in hospital which would enable depression to be monitored in the same way as other signs of heart failure (Friedewald, et al., 2007). If a healthier relationship was established between the ill person and the cardiologist, they could communicate and the feelings of stress, anger, and 'depression' could be dealt with.

Social isolation

Five of the 13 participants mentioned that they felt isolated from their extended family. Two of the five chose to isolate themselves from their family and friends. There was an increased awareness that they had had a heart attack when they would rather forget it. Twenty-three per cent of the participants mentioned that the extended family and sometimes their immediate family did not visit. They felt that rather than being known as the husband, father, brother or uncle, they were regarded as the “*sick*” husband, father, brother or uncle “*who had a heart attack*”. The withdrawal from the ‘*healthy*’ people made them feel very isolated and alone.

Fear of a recurrence

Having had a heart attack usually leaves one feeling vulnerable, with the probability that it could happen again sometime remaining uppermost in one’s mind.

Mr Sony spoke of his nervousness when he felt a twinge of pain after being discharged from hospital: “*you start to imagine things... is that a pain or is not a pain. But you don’t, ja. I suppose it’s ... a concern*”. The operation had made him unsure what his body is saying and he felt vulnerable. Similarly, Mrs Denise was never sure if a pain in her legs was because she had been walking or if it was a sign of an oncoming heart attack. This kept the participants continuously hyper alert.

Participants were given the opportunity to speak freely about social issues that bothered them. These included stress, getting back to a normal life, diet, reasons for the onset of their ischaemic heart disease, and fear of a recurrence.

In accordance with the objectives of the study, participants were asked how they saw their support structures and how they coped with their new situation.

The participants manifested psychological factors such as guilt, stress, “depression”, social isolation and fear of recurrence, and these are difficulties which produce “increased vulnerability to coronary heart diseases” (E. D. Williams, Kooner, Steptoe, & Kooner, 2007, p. 559). They are also consequences of experiencing ischaemic heart disease.

Social factors related to adjusting to ischaemic heart disease.

Because of the various medical episodes that the participants had undergone, adjustments to their lifestyle were required. Almost all the participants had to adjust their diets, include exercise in their daily routines and control their levels of stress and anxiety. Some had more difficulty than others in making these recommended adjustments.

Stress and work adjustment

Definitions of stress tend to differ, but, broadly considered, stress means being subjected to repeated demands from ones surroundings, which would include major life events such as trauma or a heart attack. Six participants spoke of stress they were experiencing for one reason or another.

Mr Mathews and I had arranged for both him and his wife to be interviewed. However on the day we met his wife was not with him. I said that I could wait for her and he felt that I shouldn't, as he did not want to “*stress her any further*”. Respecting his wishes, I let the matter drop and chose not to interview her. In this case the participant spoke of the heart attack being stressful not to him but to his wife. He did not attach any personal emotion to his heart attack *per se*, but was concerned (was agitated) about returning to his desk, since he was the major breadwinner. He was not adjusting to the sedentary life that had been forced on him since his heart attack.

Mr Sony, Mr Nelson, Mr Paul and Mr Angus all said that their jobs required them to work under continual pressure to meet deadlines for their customers. This was evidently a matter of concern for them, but they did not explicitly speak of stress.

Mrs Rosy did not trust anyone but herself to teach her 'girls' and prepare them for their exams. She willingly subjected herself to pressure, and when I asked whether her view of life had changed she replied, "*My heart says pick yourself up, dust yourself off and start all over again*". So passionate was her commitment that she was prepared to put herself in danger by going back to work sooner than she had been advised. She chose to put herself under stress. Once her students were over with their exams, she would spend time recuperating with her daughter in Johannesburg.

"Getting back to a normal life"

The theme of getting "back to normal" emerged strongly from each of the participants. They regarded leaving hospital as a hurdle to be overcome, and each had his or her own reason for wanting to get back to normal life. It seemed that rejoining the workforce would give them back their identity.

Some participants thought that being back home would be a relief. They could sleep in their own beds and have the peace and quiet that is impossible in hospital. They felt that being home would give them a sense of '*normality*' where they would no longer be invalids. Some felt that being treated as they were "*before the cardiac incident*" would make them "*normal*". Not being regarded as an invalid would make Mr Nick feel "*normal*". Many of the participants expressed a sense of frustration at being confined to a hospital bed, but there were also those who were filled with trepidation at the prospect of not having the medical team around them should something go wrong.

Mrs Denise could not wait to start driving again and shopping under her own steam. She felt that this would give her control over her life. She also looked forward to swimming and socialising with her friends at the gym. At the time of the interview all she was allowed to do was walk around the estate she lived in. She found this very wearisome as she was a very active woman.

Mr Anthony felt that his identity was bound up with his profession as a chef and that once he was back in his kitchen his recovery would be complete.

Although a certain amount exercise was permissible, some of the participants were frustrated that they could not return to their usual levels of exercise. Mr Sony was a deep-sea diver and was frustrated at having to wait a year before he could resume this activity, which would make him feel that his life was back to normal.

Mr Reggie, a counsellor at a place of safety, was in charge of boys between the ages of 6 and 15. He often spent time with the boys playing soccer, but after his heart attack he found it embarrassing to explain to them that he couldn't kick a ball while he was still recovering. He felt that they would lose respect for him if he told them and he couldn't wait for his cardiologist to tell him that it was safe to play around with the boys. That would make him once again 'one of the boys' and help to get his life back into balance.

Mr Nelson mentioned that before he was married running had been his form of exercise. Now he does not find the time to run, but he promises to walk with his wife around the neighbourhood, as both he and his wife need the exercise.

Eating

The participants were well aware of the link between food and heart disease (as discussed in in the previous chapter) but nonetheless said it was difficult to adjust to new, healthy eating habits.

Mr Price understood that his eating habits had to change, yet while I was interviewing him he asked his wife to "*spread nice margarine on a muffin and one glass of milk, put some honey and give me*". He knew that muffins were not a healthy option because of the high sugar and salt content, but didn't allow this to stop him from eating one. He said, "*I'm eating a muffin because I'm a glutton for sugar*". He also complained that his wife didn't put enough oil in the curry when she was cooking, and declared that the only "*good food*" was food with lots of oil. This could be interpreted as being in denial of his condition or wanting control of his life or simply as plain bad eating habits.

Mr Nick said he loved his food. During our initial interview he was told by both the cardiologist and the surgeon that "*he was an excellent patient and I must*

go home and do exactly what they were doing in the hospital and I will be all right, and I am going to cut the red meat out, I will exercise, I play more with my grandchildren and I will do the right things. I gave up cigarettes”.

Six weeks later however, when I asked him if he had made any adjustments to his eating habits, he replied: *“Well I haven’t eaten red meat as yet. I also get very angry if I don’t get to what I want to eat. I feel that I’m being victimized and starved out”*. Mr Nick was not adjusting to his new eating plan. This could cause friction between husband and wife if his wife did not cook what he wanted to eat.

Six weeks after her heart attack Mrs Denise had gone back to smoking. She said her cardiologist advised her that the stress of not smoking was doing her more harm than the actual smoking. So he had given her permission to smoke up to four cigarettes a day. This has calmed her down and she now paces herself during the day, giving her peace of mind in the knowledge that she has her doctor’s permission.

Mrs Angus said as long as she was cooking, the entire family would be eating healthy meals.

The spouses spoke of following a prescribed eating plan which four of them had been given when their spouses were discharged. Others read up on what someone who had a cardiac attack should eat. Mr Nick and Mr Price were having difficulty in maintaining their eating plan and this was a challenge for their spouses.

Social support structures

Participants’ perspective of social support structures and coping

The participants’ perspective of social support seems to be important to their general wellbeing. Support from immediate family and friends has a direct impact on them and speeds their healing, since the need for human touch and consolation surpasses all medication (Schlebusch, 1990).

Support was derived from the participant's relationship with his/her religious beliefs, from the immediate family, and in some cases from the extended family.

Spiritual support

An awareness of one's own mortality when one is in pain leads some individuals to consider the meaning and the purpose of their lives. This is a fundamental aspect of spirituality, since the source of pain is often obscure and the individual feels alone in the experience. Religion and spirituality have been known to "have a significant bearing on patients' beliefs about pain, strategies for coping with pain, and approaches to pain management" (Büssing et al., 2009, p. 328). Four of the participants found solace in their spirituality. They felt that it helped them get through their darkest time.

Mr Price when asked if he knew how his wife coped with his operation, answered *"my wife I know she was concerned, I don't know what went through her mind but the children were very concerned as well, but then again we are very close to God"*.

R. *You put your faith in God.*

Mr P *I just gave thanksgiving in September 10th and I think the next day I had a slight heart attack.*

There was an emphasis on "slight", meaning that if it were not for his "thanks giving" it could have been more serious.

I mentioned to Mr Price that he should join a walking group with people who have experienced what he has, and I commented that speaking to other people would show him that he is not alone in what he is going through. He replied:

"I don't feel alone. I know it can bring on depression. I know exactly what you are talking about because now that I'm closer to God I don't ever feel lonely".

He felt that his closeness to God has assisted him with his 'depression' and he therefore did not need people to help him deal with it.

So great is the presence of faith that Mr Angus said that he postponed a medical procedure so that he could first attend a religious blessing ceremony at his home and had his angiogram two days later. Mr Nick would not have the surgery that was recommended by the cardiologist until he could speak to his pastor. This reflected the faith that these men had in a Higher Being.

Mr Nick and his family believe very strongly in a higher power. When he had his first heart attack in 1985, he was told that there was some bruising around the heart. He attended a prayer session for his condition and was convinced that with spiritual healing the condition had disappeared. It was not until 2007 that he was told that he had to have a bypass. He refused to have the operation until he had spoken to his spiritual advisor at the church, who was out of the country at the time. Mr Nick waited till he was back, asked his advice and only when the pastor confirmed that he should have the operation, did he consent to the surgery.

Mr Paul was admitted to hospital and while he was in the ICU felt unable to breathe because of an asthma condition. He said, however, that he thought “*God was there*”, and that this was why his breathing became easier. It was his faith that helped him through a difficult period in hospital.

Corresponding with Bussing’s (2009) findings, 30% of the participants in this study felt that their spirituality/religiosity connection had helped them cope with their heart attack. Mr Reggie, Mr Hugh and Ms Mary did not regard themselves as deeply religious but were grateful to the members of their church groups who visited them at home and provided meals at one time or another.

Immediate family/extended family

Participants indicated that support can sometimes be construed as negative if spouses/partners try too hard to ‘help out’ and thereby exacerbate the participants’ sense of helplessness, making them feel like invalids. It could also be construed in a positive light, where the participant feels loved and cared for.

Mr Mathews says that he had great support from his wife and mother. While he was in hospital the extended family visited frequently. I got the impression however that he expected them to be more visible after he was discharged, since he commented that *"the family come now and then, not much support"*. They came, but their visits were sporadic and this seem to upset him.

Mrs Rosy was supported by her husband. She felt that he was not really up to the task of taking care of both her and himself. Her daughter who lived in Johannesburg was with her at the interview and told her in no uncertain terms that Mr Rosy was very capable if Mrs Rosy gave him the opportunity to play his part. Mrs Rosy was taken aback as this was something she had not previously appreciated. She also had the emotional support of her daughter; although the daughter lived in Johannesburg she called her mother frequently.

Ms Mary said that her immediate family, coming from the African culture, was not very helpful because they attributed her condition to her having moved to the city, being away from her family and not performing the expected rituals of performing certain prayers. Ms Mary did not comply with these rituals as she felt that there was not necessary to appease the ancestors as her illness was a biological condition. This caused a falling out between her and her extended family. However, her two daughters were immensely helpful and so were the members of the church she attended.

Mrs Denise had great support from her husband. She felt that his calm personality helped her cope well with her heart attack, and he was able to take care of her. She also has a daughter who lived close enough to help the family. She said her network of friends provided further support and stepped in when one of her family members was unable to do something for her.

Feeling unsupported

Mr Nick was surprised that on his discharge from hospital his extended family did not visit him. There had been no family fallout and he could not understand why they did not visit.

Well I don't know what is going wrong with my family. It seem they need personal invitations to come and visit sick people. Especially my brother, I don't know if my mother and father told them anything, but my father did say to me "Derrick, of all my children in the family you brought up the best set of children, the best home in the family". I don't know if it got into other people's ears, cause I did not tell anybody. But someone or the other they come to distance themselves from us.

This seemed to upset him greatly. He has the support of his daughter who lives next door to him, and of his wife who does not work.

Mr Mathew also commented that the extended family did not visit him and this left him feeling unsupported. Mrs Rosy said that she did not have any friends that she could count on, as she had not cultivated her friendships over the years. This made her feel very sad as it was self-inflicted.

Household chores.

Since Mr Price spent a lot of time at home, he took over many of the household chores before his heart attack. His wife was employed full time and he felt that it made sense for him to take on the chores. He also mentioned that he thought no one else was capable of doing what he did. Because he had been advised to slow down after his heart attack he cut back on some of the household chores, but he did do some light exercise to regain his fitness and his morning rituals contributed in this.

"You see, what I do in the morning, when I wake up seven or eight o' clock depends, then I make my own bed, cause I tell my wife that I got to get my mobility into my body cause it tells you, you got to.

R. *But this is only week five after your operation, did you feel you were ready?*

P. *... the physio tells you that you've got to exercise this, this (pointing to his legs and arms). You have to walk 1-2 km. a day. So I don't walk outside cause I don't want to pick up any infection, I walk in the passage and ...Ya but some days I don't walk, then I come in the morning, I have my porridge, then I make my bed cause I've got to get movement. Slowly I dust the bed, cause of*

all the crap you read about. They want to make my porridge but I like to make it myself”.

Taking charge of his morning chores gave him a sense of control and independence. He did not want the family to pander to him, and he needed to be recognised as still being a ‘man’ in control of his life. Mr Price enjoyed being in control of his household finances and the supermarket shopping. He complained that his wife and children didn’t know how to shop for bargains and this gave him a sense of pride.

Mr Reggie complained of not being able to help his wife with household chores such as carrying groceries from the car to the house, and this made him feel useless and less of a man . He did however assist the children with their homework, leaving his wife free to cook supper.

Social image factors related to ischaemic heart disease

Sick personality

Some of the participants spoke of the discomfort and embarrassment of wearing “the hugger”, which is a brace that has to be worn like a waistcoat post-operatively, to hold the stitches on the chest in place and help the wound to heal.

The participants felt that wearing the hugger displayed their condition to the public and highlighted the fact that they were ‘*ill*’. People avoided making eye contact with them and sometimes wouldn’t mention the hugger at all. Mr Nick initially said that his personality had changed since his operation. He previously enjoyed making people laugh, but after the operation he regarded himself as an old man and no longer tried to make people laugh. He chose to see himself as a sick person. He felt that having had the bypass surgery he could no longer be the fun person that he was before the operation. He saw himself as “*old and an embarrassment to people*”. He mentioned this twice in our interview, emphasising how strongly he felt on the matter and the impact that the surgery had on his way of thinking and his personality.

A few of the participants felt that having open-heart surgery or taking continuous medication labelled them as 'sick people' and that family members and people in general were reluctant to speak to them because of it. This was one of the reasons that Mr Nelson put forward for stopping his medication. He said that it made him sad to see his mother sit at the table with her container of tablets every day. He did not want his family and friends to see him in the same way. The consequence was that having stopped his medication he caused greater damage to his heart and ended up being re-admitted to hospital.

What all these participants failed to recognise was that although this was how they felt at the time, very soon after their heart attack (6-8 weeks post-operatively), their situation would improve and they would revert to the way they lived before the incident, but without the pain and discomfort, and would probably discover that they had a new lease on life. They did all agree that they felt a great deal better than before their heart attack.

Coping

The participants were asked how they coped with the knowledge that they had been diagnosed with ischaemic heart disease and had to have immediate treatment. All replied that they accepted the decision of the cardiologist or the cardio-thoracic surgeon. Some of the participants required angiograms and others needed bypass surgery.

When I pushed the question as to how they coped, they found this difficult to say and tended to change the subject. Mr Anthony responded by putting his hands out, palms turned up and facing the sky implying that God saw him through it.

Mr Sony said, “ *No, I was not scared... no, not at all. No I just, I just thought well maybe this is it you know, Ja but I was fine. There was no sort of emotion about it, I just thought well ... I'm a bit of a fatalist. I'm not a ...*” I am not sure whether the subject upset him, shrugging his shoulders as he did, or if he was being macho about it. The impression was that he did not cope but was refusing to admit this.

Many of the participants had accepted that they simply had to cope, and that was that. The acute nature of the problem and the immediate intervention procedures that it required meant that they simply followed the advice of medical practitioners and did what needed to be done. The suddenness and shock of the situation meant that they had no time to ruminate about their initial coping strategies.

Spouse/partner's coping mechanisms

All the spouses/partners, together with their children, were shocked by the participant's heart attack, which they had not been prepared for. They could not believe that their spouse was in hospital needing immediate attention. The spouses kept themselves occupied at home or out shopping while the operation was in progress, I assume to take their minds off what was happening at the hospital. When the cardiologist or cardio-thoracic surgeon informed them that the operation was successful, some let their guard down and cried while others had their children to support them through it.

When I asked if their home life had changed in any way, most spoke of making their spouses comfortable and cooking much healthier food for the entire family, as they did not want to go through the same emotional upheaval again, but they did not mention any change in their day-to-day habits. The reason for them not speaking about how they were coping with their spouse/partner's heart attack could be because they had not come to terms with it. When I interviewed the participants and their spouses/partners, it was only six to eight weeks after the various procedures – too soon for them to have settled into any routine and too little time since initial diagnosis and completed hospitalisation for the partners to have taken stock of possible long-term adjustments and coping.

Some of the wives insisted that their husbands start taking some form of exercise, in which they would join them by way of support. Across the board, all the participants' spouses/partners seemed to have their emotions in check and I speculated that it might be because their spouses were present in the

room when I spoke to them. It could also be that they had not developed a routine to cope with their new circumstances.

Medical personnel interaction

Three of the 13 participants felt that the hospital staff were not professional and did not show empathy towards them or towards other people in the ward. Ms Mary requested that she be discharged earlier than required because she was unhappy with the hospital and uncomfortable in the hospital surroundings. Mr Peters also found his stay in the intensive care unit and the high care unit claustrophobic and asked to be moved to a general ward where he could move around more freely. The rest of the participants had no complaints of the staff or the hospital, and their satisfaction with the care they received is probably accounted for by the good ratios of ill people to nursing staff in private hospitals.

When interviewed, I asked if the participants were happy with the way their cardiologist and cardio-thoracic surgeons communicated with them and they all agreed that they were very professional. But what was lacking in the case of one or two of the cardiologists was a degree of empathy that the participants had hoped for, with better bedside manners. Almost all participants complained of inadequate information on discharge.

They also felt that they could not speak to the cardiologists telephonically when they felt that something was 'not right' with them. They were not instructed that they could not speak to the cardiologist, but they preferred to speak to their general practitioner with whom they had a better relationship. Most of the participants were not told what to expect in the weeks following their operation and this left them feeling unprepared for what followed. Mr Sony felt frustrated at the lack of medical information as to why he had blocked arteries. His cardiologist put it down to his race and age. This he felt was not good enough, as he lived a healthy lifestyle and there was no history of cardiac conditions in his family. Mr Nelson said the take-home instruction for the administration of his medication was not clear and he therefore did not refill his prescription when he completed his first course.

Ms Mary was upset that no-one told her she would have coughing spells after she was discharged. She was very alarmed when she was unable to stop coughing: *“I thought I was dying... I started coughing, I was coughing like crazy and I coughed and I was sweating and at one stage I started crying cause I didn’t know what was happening”*. She felt that if the cardiologists had been through this kind of experience they would believe the person they were treating when he or she spoke of pain. She felt that, being an intelligent woman after all, if she had been provided with better information she would have known what to expect.

Having covered participants’ responses in the interviews, the chapter now turns to the interviews with the cardiologists and the cardio-thoracic surgeons, and what they felt was important for the participants and their families to know in respect of their treatment.

Responses from interviews with cardiologists

The final set of interviews was with the cardiologists. Of the five cardiologist and cardio-thoracic surgeons who responded positively in helping to procure participants for the study, three cardiologists were particularly helpful and agreed to be interviewed.

A brief set of questions was sent ahead to the doctors to indicate that I valued the time they would grant me and would not overstay my welcome. The set of questions is attached as Annexure 2.

Communication

All the cardiologists agreed that it was important for the participants to know all the facts relating to their condition and their treatment. If the participants’ condition was critical, information would be communicated in stages so as not to overwhelm him/her. The cardiologists preferred to have just one member of the family that they speak to, since having to answer to more members of the family can be too time consuming.

All the cardiologists felt that it was important for a family member, spouse/partner or friend to accompany the participant. Cardiologist T. said,

“Usually I try and work with one member of the family as the spokesperson otherwise and often I get the sister (nurse) in the ward, when I’m talking to the patients so the sister then can answer to the family as well. So when the patient’s family phones in, the nursing staff can answer questions of why this and that”. A further reason was that the information given to the participant can be overwhelming, and too much to absorb if he/she is in a state of anxiety. The cardiologists were also of the same mind about simplifying the information for the participants.

One of the cardiologists said that he would furnish information on a need to know basis because too much information could overwhelm the participant and the accompanying family member. A second cardiologist furnished information as and when a particular stage was reached in the treatment. For instance, *“it depends if you are seeing him in the rooms or in the hospital. In hospital you first go through the acute phase in the ward, then when he is going home, speak about the future”.*

Take-home instructions

Each of the three cardiologists had different ‘take-home instructions’. Dr B. said *“You counsel them the next day, explain the good and bads and then they go home and then they come back for a routine visit four to six weeks after the intervention”.* At this point, further information is given to the participant and the accompanying spouse/partner.

Dr T felt that the *“first visit, is often the most important that the emphasis is put in. If you don’t make an impression on the first visit of the long-term plan, of your last visit the patient has forgotten everything. When he comes back on the last visit, we rehash quite a bit, but often, if you have done it correctly, he then knows where he is heading to, in terms of medication taking, exercising, decreasing stress, all that”.*

Dr. P was the only cardiologist of the three who had the participants come in for a check-up every six months.

“Follow up is with me every six months for the rest of their lives. But obviously keep close and we communicate with the GP and we ask them to see their GP first if there are small pains. But for me to make sure that the grafts are open, I have to see them every six months, that is the bottom-line. It becomes my responsibility to prevent further catastrophic events, that is what is your main aim to minimise the patient’s risk. So I’m the gatekeeper, I have to make sure that you are well. You have to have blood tests every time I see you and we look at your risk factors like smoking, my responsibility is to make sure that I minimise your risk. After your event, I’m not there to check how things are going; I’m minimising your risk. And keeping a close watch on this because this is a progressive disease”.

The cardiologists felt strongly that the information that was provided to the participants was sufficient. Whilst the participants felt that the depth of information was not sufficient and this made them feel insecure. There was therefore a discrepancy that the cardiologists were not aware of.

Denial

All the cardiologists agreed that most of the people they see in their rooms are in denial about their condition since the information is traumatic for anyone. The participants do not ask many questions. Most wanted to have the procedure carried out as quickly as possible. All this points to them not coping with the traumatic news.

Depression

The cardiologists expressed the view that most of the participants are depressed. Dr P put it like this:

“Lots. Especially post bypass. I think its two-fold. I think the whole – how can I put it. The death of an ideal, when you have to come to terms with your own mortality, when that sinks in, then you have to go through those stages of grief. So that yes. I think the physical thing of coming off bypass, the pathological thing, I think it’s been described that there can be behaviour changes. But yes, it’s very relevant, it’s very common. More men than women”.

When asked if the participants recognise what they feel, he replied,

“No, I think that they don’t really know, they can’t give it a name. They say they are tired and down. In fact no one wants to admit they have depression. It has a very bad stigma to it. I often get psychologist involved from the very beginning, cause you can very quickly pick up if things are not right. And that they are battling, or they will phone and say, I’m not getting out of the woods. This guy is strong but he is not walking, he is just sitting. He is too scared to walk. Scared something is going to happen and that is what you really, really have to sort out”.

Dr. B and Dr. T both said that they observed very little depression, but if they did, they would refer the person to a psychologist or psychiatrist. They did not seem to want to concern themselves with that part of the treatment. Their focus was only on the biological procedure. The emotional aspect of an individual’s rehabilitation played a small part and because people avoided speaking about it, it was ignored.

To conclude, the cardiologists spoke to individuals who were ill, informing them what needed to be done for them to be healed. Although they saw evidence of what they referred to as “depression”, most of them did not want to venture into that terrain and preferred to ignore it until it was brought to their notice.

The cardiologists were very rushed for time when I conducted the interviews and I think that the answers they gave me were meant to appease me. The only one that I felt was very passionate about what he did was Dr P. Given the cursory manner in which the cardiologists dealt with the psychosocial aspects of IHD, it is not surprising that the majority of the participants in this study were reluctant to discuss these issues with them. Running a private practice is like running a business, and taking time off to deal with the psychosocial aspects might be considered a waste of time and unprofitable for cardiologists and cardio-thoracic surgeons. Despite the growing calls in the literature to adopt a holistic biopsychosocial approach in IHD, the results of this study would suggest that this is not really being translated into practice. It must,

however, be noted that these emerging impressions from this small-scale study cannot be generalised. The data can only be analysed in context (Schlebusch, 1990).

Conclusion

This chapter covered the biological causes and consequences of ischaemic heart disease from the participants' perspective. The theme of distress and disbelief emerged strongly with most of the participants. This could be because, as Mr Reggie put it, *"I never thought for one minute that this could happen to me"*. The impact of bad news can be traumatic to the recipient of that news. The participants' initial reaction could be regarded as falling in line with one of five stages of grief in Kubler-Ross's model, namely denial (Kubler-Ross, 2011). But because of the rapidity with which treatment is handled, participants' reactions could also be shock and disbelief: factors in Folkman's description of coping. The impact could also be in line with Bonanno's theory insofar as the participants and their spouse/partners showed resilience in dealing with the trauma (Karl, 2010). Whatever the reason for the distress, participants and the spouse/partner had to make an ongoing psychological adjustment to their new situation (Fullard, 1990)..

I covered the predominant psychological factors that influenced participants' recovery after the onset of ischaemic heart disease, such as guilt, social withdrawal and social isolation. This was followed by discussion of the situations that impacted on the participants post-onset of ischaemic heart disease. The third section of the chapter covered social factors related to the consequences of ischaemic heart disease. The fourth section dealt with spiritual and emotional support for the participants. The fifth section considered the medical personnel, covering the interviews with the cardiologists and their perspective of what happens when they are treating an individual with ischaemic heart disease.

Chapter 6

Part 1: Discussion of results

Introduction

The aim of this study was to understand the coping experiences of persons who have been diagnosed with ischaemic heart diseases by conducting in-depth interviews. An analysis of these interviews follows.

Psychological consequences of IHD for participants and their partners

The experience of having an angiogram, a stent or bypass surgery causes immense emotional upheaval in an individual's life. This is true not only for the person undergoing any of the procedures but also for their family. Their approach to dealing with their illness and its repercussions on their ability to adapt to life afterwards is influenced by the manner in which they cope with the situation. The interviews provided insights into the experiences and responses of the participants.

The main findings in this study revealed that the participants fell into two broad groups. There were those who did not cope with their illness (69%) and a minority who did. Several researchers have stated that in order to cope with a challenging situation, there has to be flexibility in an individual's mindset and behaviour, enabling him to be in control of the demands made upon him (Fullard, 1990; Hogg, et al., 2007; Lazarus & al., 1991). This often involves a decision (not necessarily conscious) as to whether the individual has the capacity to cope with the situation (Hogg, et al., 2007). Not coping with a traumatic situation, at the time of the event, is likely to cause physical and emotional damage to the individual's health at a later stage (Bennet, Lowe, Mayfield, & Morgan, 1999). Miller (1998), cited in Hogg et al. (2007) found that people who coped with situations on a purely emotional level, rather than processing the information and adapting psychologically to their new situation, more often reacted negatively to their cardiac illness (Hogg, et al., 2007).

Bonanno (2009) views coping in a somewhat different light. In various studies carried out over the years, he points out that bad things happen which it cannot be easy for the sufferer to deal with. He feels, nevertheless, that on the whole people adapt to their new situation (Bonanno, 2009). He has found in his study that people accept the trauma and move on, though human as we are, we “don’t want to believe the empirical reality” that a life-threatening illness is possible (Bonanno, 2009, p. 1). There are people who have protracted periods of grief lasting a few years and then there are those who suffer for a shorter time and then revert to their former selves. These two groups of people account for a third of the research subjects (Bonanno, 2009).

Bonanno (2009) has found that the most widespread response to have surfaced is a “pattern ... call[ed] resilience” (Bonanno, 2009, p. 2). This pattern was noticed in practically all of his studies, where participants grieved and then moved on, largely reverting to their former mode of life (Bonanno, 2009). One then needs to know if initially these participants did not cope or if they were moving through one of the two stages that Bonanno describes.

Factors involved in coping or not coping

Guilt

Of the participants in this study, 54% were burdened with feelings of guilt related to not exercising or not eating correctly, and experienced stress related to their work or family commitments (accepting responsibility) (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). The participants felt that their ill health was related to unhealthy diets and, for example, smoking, which accounted for their heart attacks. Reflecting on the management of their health seemed to cause the participants anxiety and stress. All these factors - anxiety, stress, guilt, unhealthy eating and smoking - collectively referred to as “Chronic Diseases of Lifestyle”, are known to play a role in ischaemic heart disease (Steyn, 2006a).

Feelings of guilt, according to Freud (Nautert, 2012), are linked to clinical depression. In research by Zahn cited in Nautert (2012), it was found that

people who respond badly to stress are prone to depression. Although depression was not the norm amongst the participants, a psychologist saw Mr. Hugh while Mr. Price stated that he was prone to 'anxiety attacks' and was on medication for the condition. Research studies of coronary conditions indicate that, "depressive symptoms in patients with HF [heart failure] are more prevalent than among healthy individuals or among those with other chronic diseases including other forms of heart disease"(Chung, et al., 2009,pp. 34; Friedewald, et al., 2007; Konstam, Moser, & De Jong, 2005). The spouses of participants Mr. Angus and Mr. Anthony claimed that their husbands were 'sad' at times. Whether this was a form of depression was not investigated. It has however been reported that "in a 25 bed ward [a cardiologist] sees four patients with major depression and five with a minor form of depression" (Lesperance & Frasure-Smith, 2000,pp. 329). The research studies show that depression has been noted in persons with cardiac conditions and account should be taken of this. So, for example, a facility designed to address the challenges confronting both the sufferer and his/her family would go some way towards meeting the psychosocial needs of everyone (Callahan, 2003).

Genetic Inheritance

Five of the eight participants had a family history of either diabetes or cardiovascular problems but they were not aware that they had inherited these disadvantageous characteristics. Consequently, they could not have been aware of their genetic predisposition had played in their illness. But once they became aware of the connection, they felt both guilty and angry. The assumption is that if they had known their genetic inheritance rendered them prone to a heart attack, they might have changed their lifestyle, taking measures to eat healthily and to exercise.

Dissemination of information

Sixty-two percent of the participants were surprised when told that they had been diagnosed with a heart attack. The suddenness of the event left them feeling vulnerable and confused. Dr. P., when interviewed, spoke of the reaction he saw in the people he examined. He said that when he gave the

unwelcome news to a family member or the person who was ill, they were at times not able to absorb it. He continued:

“The patient is so stressed they don’t listen to half of what I’m saying, I have seen that. You told them exactly what you are going to do, spend half an hour at the bed and someone will phone you at night and say, *‘I went to see my husband, but what are you actually going to do to my husband’*”.

Dr. B. said that to alleviate stress “We just generally explain to them with the help of diagrams and charts, next door [in the doctors rooms] and models generally ..., initially to give basic detail and the following day we give more detail, or if there is nothing wrong then we tell them straight away, if it’s good news”.

Dr. T. spoke of imparting information in stages: *“In hospital you first go through the acute phase, then once in the ward, [the second phase] then when he is going home, for the future”*.

There is inconsistency between the cardiologists’ accounts of the information they imparted to the participants and the information that the participants said they received.

Misleading information

Underlying the participants’ belief that they were not at risk of ischaemic heart disease and lending support to their mistaken perception of being in good health was an absence of symptoms or the presence of unfamiliar symptoms that they did not associate with ischaemic heart disease or ill-health. The root cause of participants’ not believing that they had had a heart attack was misleading information furnished to the general public. This is consistent with the findings of Greenland and Lloyd-Jones (2007), who believe that incorrect messages sent out by the medical fraternity are in no small measure responsible for people being unaware of the risks of ischaemic heart disease. The public should be told clearly that the “major causes of IHD are...adverse levels of blood pressure, LDL cholesterol, diabetes, being overweight and obesity and cigarette smoking” (Bradshaw, et al., 2005; Culic, 2007;

Greenland & Lloyd, 2007,pp.2134). Greenland and Lloyd-Jones (2007) maintain that the public is given misleading and, at times, contradictory information regarding the causes and treatment of cardiovascular disease. What should be emphasised is that the causes of cardiovascular disease that are lifestyle-related are preventable, and the proof of this is seen in a decline in mortality figures in various countries from 1965 to 2000 where preventative measures such as quitting smoking, dietary changes and various other health-promoting initiatives were followed, as opposed to merely prescribing medication (Greenland & Lloyd, 2007)

A further reason why some participants did not believe that they were having a heart attack was their assumption that bad things don't happen to good people, or to people who take care and exercise - as did Mrs. Denise, Mr. Sony and Mr. Reggie (Karl, 2010).

Spirituality/Religion

While research has acknowledged the connection between mind and body, giving rise ultimately to the claim that religion/spirituality provides a holistic approach to healing, the cardiologists who were interviewed, shied away from the topic (Clark, et al., 2003; Kennedy, Abbott, & Rosenberg, 2002). Black et al., (2006), Kennedy, (2002) and McConnell et al., (2011), however, recognise the importance of religion as a coping tool.

The present study revealed that of the nine participants who were not coping well, six had a strong tie to religion. This was seen particularly when Mr. Angus delayed treatment to attend a religious ceremony and Mr. Nick put off treatment in order to consult with a pastor who was away at the time of his diagnosis. On the other hand, Bekelman et al., (2007) argue that in research done on outpatients at a hospital at the New York Heart Association, "greater spiritual well-being, particularly meaning/peace, was strongly associated with less depression" (Bekelman et al., 2007,p.475). The effect of a religious belief – or the absence of one - was difficult to gauge in the nine participants. The reason for this could be that spirituality, according to Ehrlich (2011), can also have a negative effect when it "encourages excessive guilt, fear, and lowered

self-worth". This I found to be the case with Mr. Paul, Mr. Reggie and Mr. Angus who felt guilty about the pressures in their lives. Ehrlich (2011) further argues that there is a danger that individuals could substitute prayer for medical attention or could delay the required medical treatment. With regard to the six participants who avowed a belief in a higher being, I will never know whether or not they would have been better off without religious leanings.

Spousal support

All the participants were grateful to their spouses or children who provided them with support. They spoke of them with great emotion. Ehrlich (2011) believes that a solid spousal support system should have the effect of making the ill person feel "less anxious and depressed, have a lower blood pressure, and cope better with chronic illnesses". On the basis of the present study, I cannot say for certain, however, that spousal support had the effect that Ehrlich speaks about.

Interestingly, the removal to hospital or incapacity of a spouse had the effect sometimes of bringing to the surface unsuspected strengths or talents in the healthy partner. Thus, Mr. Denise noted that he had improved his cooking skills after his wife's removal to hospital, while Mrs Rosie's daughter pointed out that her father proved equal to the challenges of household management after his wife fell ill. These observations tie in with Eriksson's (2009) research, which reflected on the resources spouses discovered within themselves after their partner suffered an acute myocardial infarction.

Security

The person returning home after a heart attack should ideally gain a sense of emotional security. My interviewees, however, confessed to a sense of vulnerability and insecurity brought about mainly by the fear of suffering another heart attack. The feeling that they no longer had control over what was happening in – and to – their bodies left them feeling unsafe. A further reason given for their feeling of insecurity was that they were only in the early

stages of recovery; there was, however, an expectation that with the passage of time they would start feeling less unsafe.

A further cause of insecurity and anxiety – and a major impediment to Mr. Mathew's, Ms Mary's and Mr. Sony's ability to cope - was the financial implications of their illness, the effect of which was to prevent them from returning to their jobs.

Having read *Thriving in the Face of Trauma* by George Bonanno (2009), where he states that “most people cope quite well with loss or potentially traumatic life events” (p.1), I am now inclined to question the conclusion I have arrived at, that the participants were left traumatised after their medical procedures. I have discovered that the participants have been more resilient and coped better than I have given them credit for.

Communication

The participants felt that they were not given sufficient information while they were in hospital, nor when they were discharged. The cardiologists explained that information was given to the participants and their families from time to time. The participants felt uncomfortable speaking to the cardiologists about their issues while the cardiologists could not understand why this was so.

Parsons has recognised the physician's “position of authority in relation to the patient” and so did the participants (Morgan, et al., 1985,p2). With reference to Parsons' analysis, Morgan (2012) has noted that while the relationship between doctors and the people they treat is officially of a “consensual nature ..., in reality, tensions and strains often exist” (p.2). These tensions exist as a result of “institutionalised roles with socially prescribed patterns of behaviour” (Morgan, et al., 1985). Parsons believed that people behave in particular ways when filling particular roles - say, that of the all-knowing doctor - while those they interact with (the poorly informed and anxious patient, for example) do the same. So it is little wonder that most of the participants, when interviewed, spoke with awe of the medical fraternity. This was evident from the way they referred to the cardiologists in hushed tones. “*These are busy people*” said Mr. Nick. Because of the unequal relationship obtaining between

the participants and their physicians, the former felt that they were not competent to question (much less challenge) the latter. To quote Mr Price: *"I did not want to bother them"*.

From the physicians' side, Dr. T. said that he preferred to speak to one member of the family as the spokesperson. If other questions need to be answered, *"I often get the sister in the ward, when I'm talking to the patients, so the sister then can answer to the family as well. So when the patient's family phone in, the nursing staff can answer questions of why this and that"*. So it could be that some participants did not speak directly to their cardiologists because they were primed to address queries to, and receive information from, the nursing staff.

Involvement of other professions

The cardiologists were asked whether any of the people they treated were prone to 'depression' (or, as the participants put it, *"anxiety, sadness, not up to anything, down"*), and, if they were, did they probe further or refer them to a psychologist. Dr. B replied: *"We do on occasions, we do pick it up. Generally, we offer to them to see a psychologist or psychiatrist, they, a lot of patients decline it and just go for the operation and go back home. Patients are in a state of flux, aggravated, upset, we even make it worse"*. Dr. B felt that if the participant did not complain of feeling "more out of sorts than usual", he was not inclined to investigate further.

A second cardiologist, Dr. P., said that many of the people he treated showed signs of 'depression'. They don't use the term but rather say, *"They are tired and down. In fact no one wants to admit they have depression. It has a very bad stigma to it. I often get a psychologist involved from the very beginning, because you can very quickly pick up if things are not right, and that they are battling, or they phone and say, 'I'm not getting out of the woods' or 'This guy is strong but he is not walking, he is just sitting. He is scared to walk'"*.

The cardiologist who notices a change in a person's personality and is able to draw out from that person the reason for the change and then initiate the

appropriate interventions, is a perceptive practitioner, one who is aware that for full recovery a holistic approach is important.

Participants who coped well

The general outlook of the participants who coped well with their illness was positive and healthy; their expectations of recovery were high, their attitude optimistic (positive reappraisal). This group made up 30% of the participants. They made a concerted effort to eat well and to exercise. Their positive attitude following their operation was a spur to getting their life back to normal. Hogg et al. (2007) noted that returning to a state of normalcy signalled a significant step forward for both the ill person and their family. They did not want to be viewed, or to be treated, as invalids. Mr. Reggie mentioned that it upset him, as the man of the house, not to be able to help his wife carry parcels from the car into their home. (Other participants, by contrast, felt that their being ill caused family members to view them in a different light, as a sick person. Although this perception of how others viewed them was purely speculative, there was the risk of its leading to “illness behaviour”, a condition shaped by societal expectations of how ill people should comport themselves (Wilkinson, 2003)).

Mrs. Denise pointed out that though she was frustrated at not having the energy that she had before her stent was inserted, she was sure it would return. The strong motivation these participants had to get their lives back to normal can be viewed as a coping mechanism in its own right (Eriksson, 2009; Hogg, et al., 2007), while the actual return to normalcy would signal that the situation was being coped with (Eriksson 2009).

Mr. Nick, a keen deep-sea diver, was looking forward to getting back into the sea. Although Mrs. Rosie’s initial reaction to being told that she needed an operation was one of annoyance, she very quickly realised that she was being given a second chance: having perforce to change the pace of her life would permit her to spend more time with her husband and family – something she had previously neglected.

The positive attitudes of the participants extended to their feelings towards the medical and nursing staff during their stay in hospital whose effect was to enhance their sense of being in competent hands; and this boosted their motivation to make the lifestyle changes necessitated by their new situation – changes such as eating healthily, quitting smoking and embarking on an exercise regime prescribed by the cardiologist.

Having cardiovascular disease changed the life of Mr. Nelson who stated that he had not played any sport since he married eighteen years previously. But having a heart attack changed his mind: *“ Life , yes I value it a lot more, I don't make it look cheap any more. I will start walking with my wife. She wants to join me”*.

One of the lifestyle changes participants viewed as critical to their future health was a change in the pace and pressure of their lives. Mrs. Rosy, Mr. Sony, Mr. Angus and Mr. Paul all expressed the belief that their heart attacks occurred as a result of the stress they worked under. Chandola et al. (2008) studied 102,308 men and women in London over a twelve year period and concluded that “stress at work can lead to coronary heart disease through direct activation of neuroendocrine stress pathways and indirectly through health behaviours” (Chandola, et al., 2008,pp.13).

What helped them cope?

The four participants who coped well with their illness had a strong positive belief in their recovery, which bears out Folkman's notion of “positive reappraisal” (Folkman, et al., 1986). They knew that the work of recuperating would have to start with them, with the effort they were going to make, and they expected its reward to be a state of health better than the one they were in before their operation.

The participants were in agreement that they felt better almost immediately after they were back in comfortable, familiar surroundings, with the people who loved and cared for them. Research has shown that stable, loving relationships afford a measure of protection against cardiovascular disease,

or facilitate a more rapid recovery, as was the case in the present study (Figueredo, 2009).

Financial implications

Of the four participants who coped well with their illness and recuperation, only one made mention of financial concerns. The others did not seem unduly perturbed about the financial implications of their illness, in part, perhaps, because they could look for support not only to family members but also to friends. Four participants spoke of having a large circle of friends.

Summary

This chapter has covered the manner in which the participants in the study either coped with ischaemic heart disease or failed to do so. Reasons for participants' ability to cope, as well as for their failure to do so, have been suggested. Of the thirteen participants in the study, nine did not cope well while the remaining 4 did.

Part 2: Conclusions and Recommendations

This study was aimed at exploring the psychosocial experiences of people with ischaemic heart disease and, to a lesser extent, those of their spouse/partner. A further aim was to offer recommendations for the prevention and better treatment of the condition. To this end, a semi-structured interview schedule was compiled using the literature review and the biopsychosocial model as guidelines for the questions. This model, which distinguishes, and then links, the organic and contextual levels of influence in illness, proceeds from the supposition that ill health and disease stem from the interaction of physical or biological causes with psychological and social factors in various combinations. Hence, in the diagnosis of illness and in

decisions on treatment, cognisance has to be taken not only of organic and physical factors but also of psychological and social ones.

The major conclusion to be drawn from this study is that biological, psychological and social factors all play a significant role in the onset and course of ischaemic heart disease. Stress (particularly as it affects certain personality types), ill-judged lifestyle choices such as bad eating habits, smoking, and lack of exercise all contribute to ischaemic heart disease. So does genetic inheritance, yet most people are unaware that they may harbour a predisposition to heart disease. This was certainly true of the participants in the study who were amazed to learn that they were having a heart attack. The lay public is in general poorly informed regarding the causes of ischaemic heart disease, and part of the blame for this must be borne by the medical fraternity.

Conclusions

It was clear that all participants had good immediate spousal/family support. Across all thirteen participants there were different positive coping outcomes. However, factors that impacted on the ability to cope were not common in all those that did not cope.

Of those that coped (46%), Messrs Reggie, Paul, Nick, Angus, Price and Adam, spirituality had a positive influence on their coping strategy. Religion formed an anchor in their lives, providing the support they needed. The remaining six participants had no significant religious leanings and this did not have a negative effect on them. Therefore all thirteen participants coped well.

The participants who were concerned about financial matters were M/s Mary, and Messrs Hugh, Mathew, Price and Adam. This weighed heavily with them, impacting upon their ability to cope. There were others who were not particularly stressed during their recuperation period. For example, Mr. Sony was comfortable with his wife working in their business. She supervised its

day to day running. Mrs Rosy was also not concerned about her financial situation. Instead, the responsibility she felt towards the students she supervised for examinations, concerned her.

There were participants (Messrs Adam, Price, Angus, Hugh and Reggie) who showed signs of 'depression' and were not coping with their illness. Mr. Price, however, appeared to make a concerted effort to move away from the negative emotions that demoralised him. The remaining five participants found overcame their 'depression' in differing ways, sport (Mr. Sony), grandchildren (Mr. Nick), art projects for friends (Mrs Denise), gardening (Mrs Rosy), and reading (M/s Mary).

Isolation was a further emotion that was experienced by five of the participants. Mr. Sony, although on 'light exercise' regime was upset that he could not join his friends to go deep sea diving. Mr. Price, although working on his 'depression', mentioned that at times he felt isolated. The entire family were out at work and he was at home alone. He was not able to do his chores such as shopping outside the home. He enjoyed shopping as he felt that his family were not capable of "*finding the bargains*". Although as a fireman he previously spent much time at home on his own, he was then not housebound. The extended family's visits were important to Mr. Nick however the family did not visit him after his hospitalisation "*as if it [the heart attack] is a contagious disease*". The isolation contributed to the participants emotions negatively and therefore they did not cope with their illness.

In the latter instances there were minor overlaps with the positive influence of spirituality which, to some extent, ameliorated the negatives of either financial stress or 'depression', or both.

A lack of communication with cardiologists and the cardio thoracic surgeons was most evident. Whilst the participants felt that in most cases the medical fraternity were qualified and "*knew what they were doing*", and whilst they had implicit "*faith*" in the ability of the cardiologists, very little meaningful or helpful information was exchanged. No one appeared to have "interrogated" his/her doctor about his/her particular condition to any great length. The lack of

communication or having communicated did not have an impact on the participants ability to cope.

A few of the participants discussed their heart attack and their post-operative experiences with friends, family or colleagues, whilst others simply acquiesced in their post-operative condition. None of the participants appeared to have taken the time to conduct any kind of research on the internet, although all had access to computer facilities with internet connectivity.

All the participants believed that they were not given sufficiently adequate “take home” instructions and directions. None of the participants mentioned joining support groups, and it appeared that recommendations of this sort were significantly lacking. However, Mr. Price was aware of a support group but did not want to interact with other people who had had a heart attack.

The cardiologists felt that sufficient information had been furnished to the participants as well as a member of their family.

The immediate conclusion that is apparent from the conflicting views of the participants and the cardiologists, is that there is possibly a breakdown in communication between them. The intervention of a social worker at some stage prior to discharge from hospital would greatly assist in bridging the communication gap. A series of follow up sessions thereafter, where participants’ failure to cope with their illness and its aftermath is not medically or surgically related, the opportunity exists for social workers to intervene helpfully by imparting both short-term and longer-term coping skills. The biopsychosocial model that enjoys the backing of the social work profession both promotes client empowerment and provides an understanding of the multiple layers of society that are affected by illness and suffering (Borrell-Carrio, et al., 2004). As a social worker, one understands the experience of the person who is ill and how illness impacts on the inter-personal and intra-personal aspects of relationships. That being so, the biopsychosocial model caters well to the holistic needs of persons stricken by ischaemic heart disease.

Recommendations

There needs to be a more effective dissemination of information regarding the causes of ischaemic heart disease. The risk factors for this illness need to be clearly explained and widely disseminated, perhaps by being imprinted on commercial packaging (milk cartons ?) that is highly visible to, and widely used by, the general public. To start off with, brief, forceful warnings, similar to those on the packaging of tobacco products, are envisaged, but innovative ways of imparting greater quantities of essential information can surely be developed over time. And in this regard there needs to be a focus on the importance of reducing stress, with tips provided on how to do so. The better informed the general public is, the more aware it will be, and public awareness lies at the heart of any successful public health endeavour.

The discussion of depression in the present study points to an urgent need for more education and heightened public awareness of this debilitating condition. While depression does not form the focus of this enquiry, the link between it and ischaemic heart disease cannot be too much emphasised. This is an issue to which health professionals need to pay more attention than they do at present. Similarly, they need to pay more attention to the role of religion and spirituality in the holistic treatment of the ill person, rather than shying away from the issue on the grounds that it is a purely private matter.

The doctor-patient relationship has been shown to be of critical importance in the diagnosis, treatment and trust scenarios. With that in mind, an open dialogue between medical practitioner and patient needs to be fostered and promoted.

Persons who are ill need to be made aware of the importance of knowing their personal and family medical histories and they need to be taught how to communicate this information to doctors who for their part also need to be taught how to extract it in a non-threatening manner.

One of the key indications in the study is the need to promote social support structures for persons with cardiac conditions newly discharged from hospital. While this has undoubted benefits for the convalescent during the recovery

phase, it can also significantly lessen the burden on doctors in the post-intervention period. Moreover, training family members in Cardiac Pulmonary Resuscitation and the appropriate interventions/actions needed in cardiac emergencies would help the convalescent to feel safe and secure at home during the recovery phase, countering an understandable proneness at this time to anxiety, stress and depression.

Social workers can intervene effectually and beneficially in the provision of support to ill persons, and the medical fraternity should be made more aware than it is of the benefits flowing from social workers' holistic approach to the treatment of ill people. The positive results brought about by social workers' empowerment of ill persons are clearly identifiable . Taking cognisance of this, doctors and social workers ought to form closer working relationships, and there is an urgent need for doctors to be better informed about the positive role that social workers can play in the treatment and management of ischaemic heart disease – and of disease generally. Coverage of this subject in the medical journals has been limited, probably because articles by social workers are seldom published in them. It is up to social workers, therefore, using all available means, to bring forcefully to the attention of health-care professionals the contribution they are able - and willing - to make to the fight against disease, and hence to the attainment of the goal of better health for all (Kubler-Ross, 2011).

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Appendix 1: Participant interview guide

Biographical details

Marital status

Length of time married.

Religion.

Interview guide for the person with IHD

When were you diagnosed with IHD?

Who informed you?

What was said to you?

How did you react when you found out?

How did you feel about IHD before you were diagnosed?

How has your view changed since then?

What information were you given about the condition?

Did you make any enquires on your own?

How did you feel when you were told that you had to have surgery?

What was your experience with the nursing staff?

What was your experience with the medical team?

What other services would you see as necessary that you would like offered at the hospital?

What type of support would you like to receive from the medical team?

What were the greatest challenges in dealing with the illness?

How did family members react to you after you diagnosis?

Has there been behavioural/lifestyle changes since the illness?

What helps you maintain the changes/what are the possible obstacles to maintaining the changes?

What suggestions do you have to ensure a more effective service delivery to 'patients' and their partners?

Areas of exploration for partners.

What was your reaction to the news that your partner was diagnosed with IHD?

Were you aware of the condition prior to this incident?

Did you read up on the condition?

Were you aware what to expect?

Were you told what the procedure of the surgery and given the various medical scenarios?

Were you told what to expect when your partner was discharged?

Were you told of the emotional effect that the diagnosis would have on your partner and you and how to cope with it?

How did you prepare for your partners return to the family home

Appendix 2: Informed consent letter (participants)

Roxana Vahed (Mrs)

Dear Sir/Madam

I am pursuing a course of study towards a Master's Degree in social work at the University of KwaZulu-Natal. I shall be conducting research on the following topic:

Coping with Ischaemic Heart Disease: Views and experiences of key participants, their partners and Medical practitioners.

The study is necessary to understand the experiences of persons who have experienced a heart condition (IHD). The study might help contribute to the holistic management of IHD and recommendations for further research and practice in social work and medical care will be made.

Your participation in this study is voluntary and should you decide to participate and at any point in the interview you decide not to continue you are free to withdraw.

The researcher will at no point in the study provide any details of any participant.

There will be no payment for participation in the study.

Should you wish any further information or clarity on any of the above information kindly contact me?

Kindly complete the consent paragraph below.

Thank you for your co-operation

Yours faithfully

Roxana Vahed (Mrs) (Cell No: 0835 - 777 - 778)

Researcher Supervisor: Prof. Vishanthie Sewpaul. 031 – 260 1241

INFORMED CONSENT: (Participant)

Name:

Address:

Telephone Nos:

I, _____, the undersigned, understand the contents and condition of the study and further understand that my rights will be protected at all times.

I hereby agree to participate in the study under the conditions mentioned above.

I hereby agree that my medical practitioner Dr
.....is free to discuss my treatment with the researcher.

Signature of participant

INFORMED CONSENT: (Partner)

Ihereby agree to participate in the study
and to answer questions about my partner's health.

.....
Signature of partner.

Appendix 3: Informed consent letter (practitioners)

Dear Dr

I am pursuing a course of study towards a Master's Degree in social work at the University of KwaZulu-Natal. I shall be conducting research on the following topic:

Coping with Ischaemic Heart Disease: Views and experiences of key participants, their partners and Medical practitioners.

The study is necessary to understand the experiences of persons who have experienced a heart condition (IHD). The study might help contribute to the holistic management of IHD and recommendations for further research and practice in social work and medical care will be made.

Your participation is voluntary and should you decide to participate and at any point in the interview you decide not to continue, you are free to withdraw. The researcher will at no point in the study provide any identifying details of any participant.

There will be no payment for participation in the study.

Should you wish any further information or clarity on any of the above information kindly contact me?

Kindly complete the consent paragraph below and return to me.

Thank you for your co-operation

Yours faithfully

Roxana Vahed (Mrs)

Mobile No. 083 5 777 778

Researcher Supervisor: Prof. Vishanthi Sewpaul.

University of KwaZulu-Natal.

031 – 260 1241

INFORMED CONSENT: (Practitioner)

I, _____, the undersigned, currently practising as
a

_____ at

_____ understand
the contents and condition of the study and further understand that my rights
will be protected at all times.

I hereby agree/do not agree (delete not applicable) to participate in the study
under the conditions mentioned above.

Signature of Practitioner

Date

Appendix 4: Cardiologist interview guide

I assume that you tell the patient about his illness. How do you communicate and in what detail?

In addition to patient, who else do you communicate with?

What is your approach to the patient post intervention (Stent etc.)

Is there any interaction with people other than patient? Who, How Why

Do you recommend follow up by any other medical profession? Who, How, Why?

If, time and money were irrelevant, is there anything that you would do differently from first visit to last?

Appendix 5: Ethical clearance

