A COMPARATIVE STUDY INVESTIGATING THE ATTITUDES OF SUBJECTIVE HEALTH OF UNDERGRADUATE NATURAL MEDICINCE STUDENTS AND PSYCHOLOGY STUDENTS AT THE UNIVERSITY OF THE WESTERN CAPE.

Stacy Norman

A mini-thesis submitted in partial fulfillment of the requirements for the degree of Masters in Psychology (Research Psychology) in the Faculty of Community and Health Sciences, University of the Western Cape, Bellville.

Supervisor: Mr. U Bawa

2008

A comparative study investigating the attitudes of subjective health of undergraduate natural medicine students and psychology students at the University of the Western Cape.

STACY NORMAN

KEY WORDS

ALTERNATIVE HEALING

COMPLEMENTARY HEALING

THEORY OF REASONED ACTION

INTENTIONALITY

MIND-BODY CONNECTION

ALLOPATHIC

BIO-MEDICAL MODEL

HEALTH CARE

SUBJECTIVE HEALTH

HEALING SYSTEMS

DECLARATION

The author (Stacy Norman) hereby declares that the following mini-thesis, '*A comparative study investigating the attitudes of subjective health of undergraduate natural medicine students and psychology students at the University of the Western Cape*', unless specifically indicated to the contrary in this text, is her own work.

S Norman

ACKNOWLEDGEMENTS

I would like to express my gratitude to the following people for their invaluable contributions to the completion of this mini-thesis:

- my husband and partner, Jason, for his patience, support and love. We have travelled an extremely long way together and still have a wonderful journey ahead of us.
- my mom, Colleen, for her support, encouragement and guidance throughout my academic years and for always being there when I needed some vitality and inspiration. Thank you.
- Carla and Maya, for their encouragement and support through the difficult times in my life; you were there when I needed an ear and more importantly when I needed to vent. You girls have consistently helped me through my cathartic process. Thank you!
- my family for having had the patience to support me all these years.
- my supervisor, Umesh Bawa. Thank you for all your assistance and guidance – I really appreciated all the help and the advice.
- the students at the University for partaking in the study; without your assistance this thesis would not have been completed and would not have been possible.
- the Psychology Department at UWC.

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ABSTRACT

The purpose of this study was to investigate the attitude of subjective health of natural medicine students and to compare this to the attitude of subjective health of psychology students. A descriptive, survey research design was utilised for this study. A qualitative and quantitative methodology was utilised. The sample consisted of 180 undergraduate students ranging between the ages of 18 to 25+. These undergraduate students were divided as follows: 80 per psychology group and 80 per natural medicine group. Data was collected by means of a generic health questionnaire (RAND 36-item General Health Questionnaire). The aim of this study was to investigate how students felt about their own subjective health since these students are in the industry or field of health.

Structured interviews were adopted for this component; the interviews were transcribed and a thematic analysis was used as a means of analysing the data.

The following hypotheses were tested for this study: 1) results suggest a significant difference between Natural medicine Students and Psychology students; 2) results suggest a significant difference between the demographic information between the 2 groups. Results showed that there was a significant difference for 30% of the questions in the questionnaire. Results also indicate that the psychology group scored higher mean scores compared to the natural medicine group across 8 health concepts. Limitations are discussed in the final chapter. Recommendations are suggested for future study.

CHAPTER 1

INTRODUCTION

Health can be described as a dynamic multifaceted phenomenon and incorporates the macro- and micro-social environment of the individual. The individual learns from his/her social environment what the construction of a healthy individual is. Individuals define the concept of health depending on their psychological, anthropological, and sociological makeup. Hence the belief around health is an important component in the behavioural construct of health, and equally important is the individual's attitude. An attitude can be described as emotive in its construction with either feelings of positivity or negativity toward an 'object' (Brannon & Feist, 2000). Hence, this posits a degree of favour or disfavour toward an issue/person/subject etc. Attitudes have their roots though in experiential learning and impact on human behaviour, raising the platform for psychologists to study this phenomenon in order to understand the mind and to be able to predict future behaviour.

1.1. BACKGROUND OF THE PROBLEM

Gordon Allport, the forefather of social psychology, introduced the concept of attitude to psychology in the 1930's (Oskamp, 1991). Attitudes are important to study because it gives an indication of how individuals perceive the world and make sense of it. The individual compartmentalises, constructs and places the world into easily accessible positive or negative and favourable or disfavourable constructs in order to easily access understanding of reality.

Hence all of these components interact congruently to create an unhealthy or healthy individual (Oskamp, 1991).

There also needs to be consideration for factors such as culture, race, socioeconomic status and gender (Naidoo, 2004). Such factors could be inhibitors or accelerators of better health practices and choices. The access to better health practices seems non-existent to a large percent of the South African population. A large percentage of the lower socio-economic group does not have the financial backing to adopt healthy behavioural practices; for example, practices such as vitamin intake or the simplest healthy dietary requirements per day. This makes defining the concept of health a challenging one. Naidoo (2004) writes on colonisation in the South African context: "...the lack of sustained economic growth has impacted on economic, social, educational and other important developments that build resources to help sustain a nation, promote health and enable citizens to enjoy a reasonable quality of life" (p. 5). This *reasonable quality of life* does not seem to be penetrating the lower socioeconomic group due to inequalities in health care practice.

The multifaceted approach to health impels the individual to think about health not simply as the absence of disease or illness but as a holistic phenomenon incorporating psychological, physical, spiritual, economic and cultural factors. This approach could then question whether the mainstream biomedical model of health has a space for incorporating alternative methodologies of healing which envelop a spiritual aspect of health, or vice versa and whether the alternative model has a space for the biomedical model.

1.2. THE PURPOSE OF THE STUDY

The academic aim of this research is primarily to investigate firstly, the comparison between attitudes of natural medicine students to psychology students in the Community and Health Sciences faculty with reference to general subjective health; and secondly, to investigate the attitude around the general health of those individuals who utilise an alternative healing methodology compared to those who do not. A third aim for this study is to explore the understanding or subjective thoughts around health.

The secondary aims within this study are to examine the relationship between demographics (i.e. gender, age, socio-economic status and religious background) and attitude to health.

Furthermore, the strategic aim of this investigation is to contribute to and improve the understanding around alternative healing for the development of an integrative approach with particular reference to South Africa.

The hypothesis for this study is comparing differences between groups – Group 1 (Natural medicine Students) and Group 2 (Psychology students). The Null hypothesis holds that there will be no significant differences between the 2 groups and the Alternate hypothesis holds that there will be a significant difference between the 2 groups.

$$H_1 : \mu = \mu$$

$$H_0 : \mu \neq \mu$$

The theoretical framework that will embody this study is healing systems. The framework will specifically look at the theory of reasoned action and the theory of intentionality. The next chapter discusses both theories and their relevance to the study.

1.3. RATIONALE AND SIGNIFICANCE OF THE STUDY

The rationale for conducting this research is to contribute to and expand the ever-growing body of knowledge about alternative healing as well as to bridge the gap between mainstream and alternative methodologies of healing.

With reference to the South African context, Dennison (2005) writes that the South African complementary medicines industry has been taken aback by a new draft regulation that may result in complementary medicines being classified in the same way as conventional medication. Furthermore he writes that: "...the draft regulation aims to amend the Medicines and Related Substances Act 1965 (Act 101) ...aside from concerns about classification, the industry has been shown to have excellent annual growth rates and the market is worth around $376 million (approximately R 3 billion with exchange rate of R8 to $1) per year and is growing in volume by 14 % year on year" (p. 22).

A sample from two groups was taken from students at the University of the Western Cape; each group representing one side of the continuum. The study will attempt to investigate the attitude of subjective health of undergraduate natural medicine students compared to the subjective health of undergraduate psychology students in the Community and Health

Sciences (CHS) faculty at the University of the Western Cape (UWC). In order to conceptualise alternative healing as well as an allopathic/biomedical model or western conceptualisations of health, terms used within this study need to be operationalised.

1.4. DEFINITIONS

1.4.1. Alternative Healing

In defining alternative or complementary healing, Fulder (1996, p. 10) gives the definition by the American Holistic Medical association and states that: "Holistic medicine is a system of health care which emphasizes personal responsibility, and fosters a co-operative relationship among all those involved leading toward optimal attunement of body, mind, emotions and spirit".

Williams (1998, p. 1195) defines holistic medicine "...as those healing practices and beliefs lying outside the formalised canon of scientific western biomedicine. Holistic medicine is understood herein as including alternative, complementary and traditional medical practices ..."

Micozzi (2001, p. 5) writes that: "The word alternative... complementary... alternative medicine, now seems to be culturally encoded in the English language. Workers at Harvard Medical School have provided a basis for a functional definition of the term, *'Alternative medicine refers to those practices explicitly used for the purpose of medical intervention, health promotion or disease prevention which are not routinely taught at U.S. medical*

schools nor routinely underwritten by third party payers within the existing U.S. health care system'."

Alternative healing incorporates both the body and the mind. All systems within the body need to be in alignment and working congruently to achieve optimal health. When one part of the system is not functioning effectively then this affects the whole system.

1.4.2. Biomedical model of healing

The biomedical model or mainstream medicine holds that an individual is healthy in the absence of any disease/disorder. For purposes of this study the operationalised term for alternative healing will include all modes, models or methodologies of healing (that fall outside the parameters of mainstream medicine) that assist in the well being (albeit physical, spiritual or mental) of the individual. In addition, the operationalised term for western medicine will include all modes of healing that fall within mainstream medicine.

1.5. SUMMARY AND OVERVIEW

The next chapter will outline a review of the literature and provide an overview of theoretical contributions regarding the theory of reasoned action (TRA) and healing systems. Chapter three gives an overview of the methodology utilised to conduct the current study and contains a description of the population, the sample, the research instruments and the data collection procedures. In chapter four the results are presented and a discussion with the implications of the results for theory around the research question ensues. Chapter five outlines the conclusions of the study and makes recommendations for future studies in the area of health undertaken in a university setting.

Chapter 2

Literature Review

2.1. Introduction

The background of health psychology, as explained by Ogden (2000), suggests that it was framed around the context of the biomedical model. However there is an interrelated relationship between the biology, psychology and social environment of the individual. Hence all these factors need to be inclusive in the definition and model of health. This is explained as the bio-psycho-social model of health. Ogden (2000) writes that: "...health psychology challenges the mind – body split by suggesting a role for the mind in both the cause and treatment of illness..." (p. 4). One simply looks at evidence from psycho-somatic illnesses to reinforce the notion that the mind influences the biological state of the individual and vice versa.

The background of alternative healing is outlined in the Oxford Reference Online (2001) and records how alternative healing was originally brought to the fore. During the 1960s the Western medical arena was under scrutiny and received criticism as being elitist. It was compared to natural and cultural healing practices such as those of the Native Americans. During the 1980s and 1990s, growing public fascination with so-called New Age healing (a mixture of naturopathy, homeopathy, Ayurvedic healing and other Eastern vitalist systems) gave rise to various alternative schools and numerous health-food stores and magazines. The

growing incidence of chronic diseases for which orthodox medicine offered no cure spurred interest in unorthodox treatments (Christianson, Rogers, Marks, Numbers and Warner, 2001).

Hence, there was a disgruntled and discontented feeling toward the western or biomedical model of healing and a large number of individuals felt a need to seek other (more inclusive and holistic) sources of healing. Jackson (1989, p.111) writes : "What we are seeing is a new perception of health not so much as absence of physical symptoms as enrichment of life through social interaction and a wide variety of meaningful forms... this changes the focus of healthful considerations from biology to psychology and religion, from survival to meaning and purpose". Hence there is a shift to a more meaningful definition of health, one that includes the individual's macro-context, social environment and state of mind.

Pinzon-Perez (2005) report that other major reasons for a shift to complementary and alternative medicine include; dissatisfaction with conventional medicinal practices, desire of patients to become 'active partners in their healing process' as well as a larger, readily available database of knowledge.

Jackson (1989) reiterates this notion when stating that: "...the conventional biomedical statement of approach asserts that health is the absence of disease. Sanitary conditions ought to be considered, but social, psychological and spiritual dimensions are rarely involved in ordinary intervention. But things have changed. We are in the midst of a health care revolution" (p. 1). This revolution has implications for a more holistic conceptualisation of health, not merely an 'absence of disease'.

The concept of health has shifted from being a unilateral construct to being a multifaceted one, amalgamating different components (mental, psychological, physical, religious, sociological etc) of the individual to create either a perceived healthy or unhealthy person. This can be aligned with a definition of health as described by Pinzon-Perez (2005, p. 175), "...holistic health encompasses the integration of the mind, the body, the spirit and the environment. Integrative healing refers to the health practices that are based on the understanding that individuals have their internal self-healing mechanisms, and that nature, time and patience are the best healers". The above definitions of holistic healing and integrative healing describe the philosophy of health behind healing systems of complementary and alternative medicine.

2.2. Theory

The following section outlines and explains the theoretical framework underpinning the study and delves into the literature around the framework. In addition, this section reviews the literature around allopathic medicine and alternative medicine. Finally, this section relates the context of health to the South African framework with reference to demographic information.

2.2.1. Healing Systems

The theoretical framework underpinning this study is that of healing systems and how healing systems inform the individual to act in accordance with healthy living practices.

This then conveys how individuals make sense of their own process of healing as well as their understanding of health. The conception of health is not only embedded in an individual's beliefs but also in the construction of an individual's identity, culture, background and the macrocosm of societal influence as well as socio-economic status. The specific theory that this study will utilise as the theoretical framework is the theory of reasoned action.

2.2.2. Theory of Reasoned Action

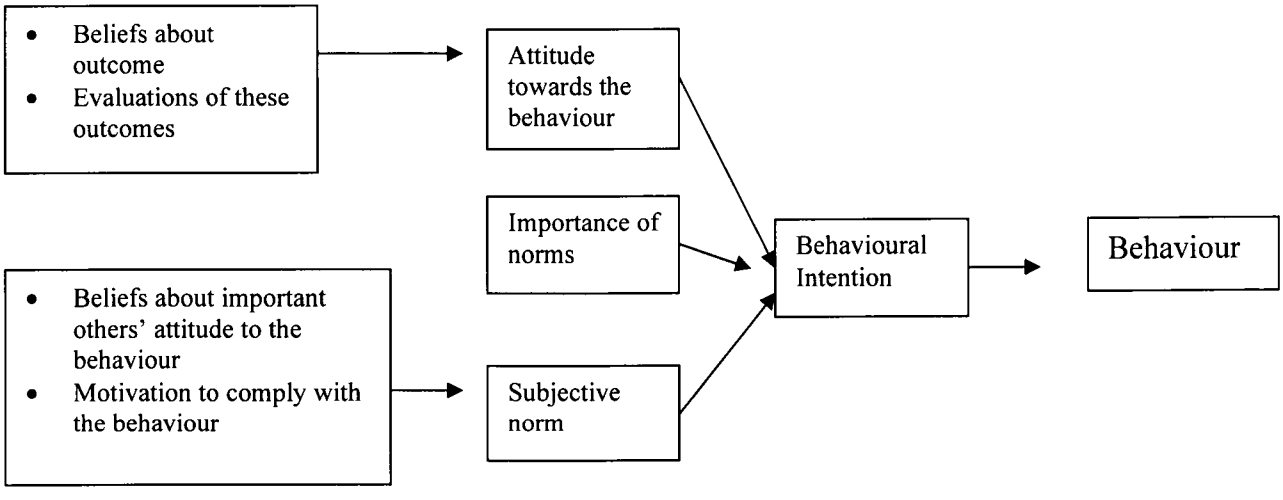
Researchers have combined aspects of the health belief model with concepts from other models such as that of 'the theory of reasoned action'. What this theory incorporates is behaviour that is directed toward an outcome and people freely choose whether to act or not. Brannon and Feist (2000) explain this more fully by saying:

> The immediate determinant of behaviour is the *intention* to act or not to act. Intentions, in turn, are shaped by two factors. The first is a personal evaluation of the behaviour – that is, one's *attitude toward the behaviour*. The second is one's perception of the social pressure to perform or not perform the action – that is, one's *subjective norm*. One's attitude to the behaviour is determined by beliefs that the behaviour will lead to positively or negatively valued outcomes. One's subjective norm is shaped by one's perception of the evaluation that a particular individual (or group of individuals) places on that behaviour and one's *motivation* to comply with the norms set by that individual (or group of individuals).

Park (2000) explains this by saying that: "According to the Theory of Reasoned Action (TRA), people intend to behave in ways that allow them to obtain favourable outcomes and meet the expectations of others" (p. 162). Hence there is a structural flow or process of thinking, acting and behaving that is followed. This is visually represented in the figure below.

Figure 1: Visual Representation of the Theory of Reasoned Action

[Taken from Ogden, 2000, p. 31]



The 3 most important concepts that need expounding on are *attitude* (together with subjective norm), *intention* and *behaviour*.

2.2.2.1. Attitude and subjective norm

Attitude can be defined in terms of an individual's beliefs and is generally acquired throughout one's life. Torabi, Seo and Jeng (2004) write that: "...attitudes are a complex,

multidimensional concept that is organised and reinforced through experiences... attitudes have become increasingly important because they are believed to play a prominent role in determining lifestyles or other health-related behaviours" (p. 166).

In attempting to make sense of the world, individuals generate patterns of thoughts that are compartmentalised into beliefs about reality. The brain processes thoughts and ideas that are structured and hence from external information as well as the individual's own generation of knowledge; sense is made of the world through the acquisition of holding certain truths. In an attempt to hold onto these truths, the individual develops reasoning through beliefs which are influenced by attitudes. Beliefs have an inherent thought process linked to it and thus are related to cognitive processes, whereas attitudes have an emotive link to it, thus related to feelings and affect.

Subjective norm indicates motivation to comply with the intention to act or not to act. This subjective norm can incorporate and can be compromised or confronted by concepts such as parental influence, repeated exposure to an object, incidents that could be described as traumatic, youthful chauvinism and idealization, peer pressure or conformity pressure, schools and media (Oskamp, 1991). All of the above can act as either a hindrance to the behaviour or can act as an enduring or persistent behaviour.

2.2.2.2. Intention

The intention to carry out behaviour or perform behaviour can be defined as the amalgamation of subjective norm and attitude. The subjective norm as described above indicates the specific individual's normative framework in which he/she operates on a normal day to day basis. This includes opinions of significant people in that specific individual's life, usually including mothers, fathers, sisters, brothers, boyfriends, girlfriends, close friends etc. The significant individual has to have a fair level of influence on the individual in order to affect the intention to carry out the behaviour. This along with the feelings and emotions of the attitude impacts on the intention to act.

Park (2000) writes: "An individual's attitudes to behaviour are personal because they are internally generated, based only on the individual's potential outcomes of certain behaviour and his/her evaluation of the behavioural outcomes. An individual's subjective norms are social in that they are based on information external to him/her (i.e., available only from people who surround an individual) and the individual's perceived social pressure to engage in a behaviour" (p. 163). The intention to act or behave is weighed up against the perceived outcome of the behaviour as well as the current social circumstances of the individual.

2.2.2.3. Behaviour

Behaviour is characterised as the end result of the above two constructs. First there exists an attitude or appraisal of a certain behaviour, after which the intention to behave or not behave (influenced by subjective norms) follows. All of this operates before a decision is made on

the resultant behaviour. Behavioural outcomes are not only personal they can be social as well since an individual's behaviour can have consequences on other people. As Park (2000) notes: "For some people, the personal outcomes that that behaviour brings about may be more important for the decision to engage in the behaviour in question. On the other hand, other people may pay more attention to behavioural outcomes that benefit others more than themselves" (p. 164). Thus there is an appraisal of the relationship between the individual and the external persons who influence the individual.

This then adds an element of moralistic thought processes that go into the construction or development of the cognitive thought process that eventually will lead to the individual behaving or not behaving. This view also then speaks of an individualistic view versus a collectivistic view, i.e. doing well based on the good of the group or alternatively just taking the self into account. All of the above need to be considered when theorising on Ajzen and Fishbein's theory of reasoned action (Park, 2000).

An example that illustrates the cognitive processes in operation of the theory of reasoned action follows:

Example:

Attitude – "I think that smoking is bad for my health"

Subjective norm – "My boyfriend keeps telling me that I should quit smoking"

Intention – "I would like to quit smoking"

Behaviour – "I am currently going to 'smoke-enders' to stop and have not smoked in 4 weeks"

Hence as can be seen from the example, the model operates in a structural manner to arrive at the resultant behaviour.

Park, Levine and Sharkey (1998) write: "The theory of reasoned action assumes that people make rational decisions, and that these decisions guide behaviour. Based on a person's evaluation of the behaviour and the opinions of others, an individual decides whether or not he/she will engage in a particular behaviour" (p. 196). The individual cognitively appraises whether the behaviour will lead to a positive or negative outcome. Individuals do not rationally engage in a specific behaviour that will lead to negative outcomes.

Madden, Ellen and Ajzen (1992) write: "The behavioural beliefs are postulated to be the underlying influence on an individual's attitude toward performing the behaviour whereas the normative beliefs influence the individual's subjective norm about performing the behaviour... information or salient beliefs affect intentions and subsequent behaviour either through attitudes and/or subjective norms" (p. 3). Salient beliefs are described as significant and important beliefs and hence affect how the individual will behave.

Oskamp (1991) further purports that a person's attitude toward the behaviour is comprised of behavioural beliefs, i.e. 'the beliefs about the consequences of performing a particular

behaviour, each of which is multiplied by the person's evaluation of that consequence, the attitude toward the behaviour is the sum of these products' (p. 91).

Madden, Ellen and Ajzen (1992) write: "In a recent meta-analysis, Sheppard, Hartwick, and Warshaw (1988) noted that the model predicts behavioural intentions and behaviour quite well and is useful for identifying where and how to target strategies for changing behaviour. The development and testing of the theory of reasoned action was predicated on the assumption that the behaviours being studied were under volitional control" (p. 3). This posits that the individual has a will or choice of his or her own. Thus the intention to act out the behaviour would need to be preceded by a desire to act. This, however, can be compromised by social or environmental predictors of the individual's salient beliefs and subjective norms.

Lane (1994) writes that: "...many psychologists (e.g., Ajzen, Fishbein, Calder) have struggled with the frequent finding that behaviour is not sensitive to attitudes or values and have adjusted their measures to include attitudes toward the implied means; others (e.g., Rokeach) have shown that values and attitudes, by themselves or with the help of a person's self-concept, do predict behaviour. As much in this valuable work hinges on the effect of values on behaviour, this problem deserved treatment" (p. 495). Values as mentioned by Oskamp (1991) are conceptually broad, i.e. they can include abstract notions such as freedom/love; although they can also be more tangible, including material possessions such as money or houses. Values can be conceived as an individual's personal goals or a standard by which one lives one's life.

Baker, Morrison, Carter & Verdon (1996) have succinctly summarised one of the strengths of the theory of reasoned action when stating: "The strength of the TRA model lies in the clear definition of variables, the use of well-supported measurement scales, a clear statement of the relationship between variables, the 'grounding' of the model in the beliefs of the population under study, and in its parsimony" (p. 529). Clearly defined boundaries which outline the constructs of the model make it easier to understand TRA as well as utilise the theory for intervention.

Cohen and Cod (2003) note that the strength of the theory is that it allows for multiple variables to be combined into two categories of attitude and subjective norms thereby simplifying the model and 'reducing the need to analyse complex interactions among numerous variables'.

For the researcher using the theory of reasoned action model the process of collecting data and analysing the data is not a complex one and the results are usually quite clear cut. Although inferences cannot really be made within this research model and there is not a cause – effect relationship with variables, there is however a descriptive component. The findings within the research can provide meaningful interpretations but must not be confused with cause and effect. In one of Fishbein and Ajzen's (1980) studies on intentions of students to engage in premarital sex during a semester at college, the findings indicated that the subjective norm component (what significant others considered important) carried all of the predictive power for men whereas the attitudinal component (summarizing likely consequences) was the major predictor of intentions for women. Chakravarti (1997) notes

that there is consensus around the literature that strong attitudes are very hard to change and extraneous variables that could impact on changing these attitudes moderate the struggle of persuasion.

Oskamp (1991) notes: "In cooperative types of interpersonal situations, the normative component is typically the main predictor of behavioural intentions, whereas in competitive situations the attitudinal component is much more important" (p. 45). Interpersonal relationships would follow a normative component, that is, individuals would follow a trend of behaviour that the rest of the group would follow. However, in a competitive scenario, an individual's attitude toward the behaviour and the outcome becomes more significant during decision making.

2.2.3. Intentionality

Zahourek (2004) posits that intentionality, used synonymously with intention, and defined as a "purposeful mental influence", has been an independent variable in studies evaluating the effects of distant healing including altering immune responses, changing the chemical and energetic properties of water, affecting disease process and recovery rates associated with responses to prayer and promoting pain relief and reduction of anxiety with Therapeutic touch.

Epstein (1996 in Zahourek, 2004) described intentionality as different from having a goal. It is more a mental process of "moving toward a desired result", it gives one a "directive", is an

"inner instruction to the body-mind organism to accomplish what it needs for healing, and it activates attention providing the basis for concentration and focus" (p. 45).

Searle (1983) notes that intentionality in the larger sense comprises intentional states, these being: "...representations of elements, roles and relations set up in conscious states of mind, under the psychological attitudes of belief, desire and feeling that we have toward them" (p.3). Searle's theory posits that intentional states may include but are not limited to goal-directed action, i.e. an intention to do something, to act, even to communicate. This then could be assimilated into TRA under the framework of behaviour and the belief and desire that the individual has toward that behaviour – the intention of the outcome of that behaviour.

Bloom (2000) explains goal-directedness or intention in the ordinary sense as just one part of what, for example, an infant might experience when reaching for a toy. He writes: "The reach is intended by the infant and directed toward a goal. But the infant's intentional state also includes, along with the representation of the toy, and the desire to have it, representations of feelings about having it or not having it, beliefs about what the object is and what might be done with it, awareness of whether another person might help to achieve it, perhaps a plan for doing something with it once it is achieved..." (p. 179). Therefore there is a spatial dimension involved in the perception of acquiring the toy, as well as thought processes regarding what can be done with the toy when in the infant's possession.

Zahourek (2004) furthermore explains that intentionality is developmental and occurs in unpredictable phases of progression and regression and as differentiation and integration. The

process is initially shaped by the individual's experiences of trauma and loss and a perceived need to restore balance. Culture, religion, life experience, and meaningful relationships all mediate how each person grows, discovers specific interests and copes with future needs and stress. The theory describes intentionality as a matrix meaning "something within or from which something else originates, develops or takes form". Intentionality is a conceptual framework that forms the unique environment in which personal healing happens.

2.3. Scholarship

The Oxford Reference Online (2004) adds that allopathic medicine (what we now describe as the forerunner of regular medicine) was just one medical philosophy or sect among many, equally credible medical sects, including homeopathy and herbalism (Clow, 2004). Dworkin (1998) reckons that alternative medicine takes healthcare back to basics, construing this as being preventive in nature and more gentle than drugs or surgery. Alternative medicine starts with the notion that the body is naturally inclined to be healthy and has a remarkable capacity to heal itself. The core philosophy Dworkin (1998) goes on to explain is that the most effective treatment firstly is tailored to the individual, secondly takes a whole-body approach and lastly strives to eliminate the cause of disease, not merely its symptoms.

According to Jonas, Chez, Duffy and Strand (2003) states that: "Healing is the dynamic process of recovery, repair, restoration, renewal and transformation that increases resilience, coherence and wholeness. Healing is an emergent process of the person's whole system,

physical, mental, social, spiritual and environmental" (p. 38). Hence health can be seen as encompassing multifaceted phenomenon, operational in all aspects of an individual's life. Philosophically, however, most doctors (allopathic) still differ from their alternative practitioner counterparts in that they tend to take a symptom-oriented approach to curing disease. Bass (2003) cites the growing popularity of alternative medicine in the West as an expression of the need for patients to exert some control over particular treatment options, even if sometimes these treatments are demonstrably ineffective (as is the case for many alternative treatments used in cancer patients). The patients who use these treatments seem less concerned that these treatments lack an evidence-base than those who prescribe them.

The focus of allopathic medicine is curative and the quality of life of the patient is secondary. The converse is applicable for alternative and complementary medicine, where the focus is on the individual's sense of well being as well as health promotion and disease prevention (Jonas, Chez, Duffy and Strand, 2003).

An important aspect of complementary and alternative medicine is that it is viewed as preventative in its approach to health care rather than treating an already existent disease or illness, although the latter is not precluded from this methodology.

During the early decades of the twentieth century, allopathic practitioners were able to assume the function of medical orthodoxy, but the distinctions between regular and alternative medicine remained blurred. In fact, there now is appreciation that various approaches to health and healing can be blended to the benefit of sufferers and the health care

system. 'Complementary medicines' may become a more meaningful label than either regular or alternative medicine (Clow, 2004).

The problem herein as Benn & Zick (2004) suggest, is that complementary and alternative medicine (CAM) providers typically have insufficient knowledge of scientific language or research methodology to develop rigorous proposals in order to be able to promote CAM in a scientific approach. Their ability to contribute meaningfully as advisors, teachers or research partners in academic settings is therefore limited. Benn & Zick (2004), using both a qualitative and quantitative study, developed and implemented a structured short course designed to teach CAM providers about the research process. The evaluation of the course was successful with regard to their goals and, specifically, the qualitative evaluation indicated that the goal of bringing CAM models and ideas to bear on the traditional scientific method and thus pave the way for new ways of formulating research was manifested. In addition, the traditional scientific method was found to be slow, expensive and reductionistic. It was also found that the very act of applying traditional methods of scientific research to CAM modalities could overlook the quintessence of the CAM therapy itself.

Fox & Alper (2004) assert that in addition to disseminating CAM information to conventional medical practitioners, CAM practitioners need to be aware of the latest conventional medical evidence in their area of expertise. This also speaks to an integrative healthcare system where CAM and conventional knowledge bases are integrated so that healthcare professionals involved in clinical care, education and research can create, refine,

identify and use the best available evidence regarding benefits, harms, and costs of all healthcare interventions and practices.

Pinzon-Perez (2005) reported that a study conducted with college students on complementary and alternative medicine use, found that 66% of the college students utilised CAM. Kellman (2000, p. 15) notes that: "Recent advances in various disciplines of science are more consistent with a medicine of meaning approach than with the framework on which modern medicine rests. In modern physics, for example, the boundary between subject and object is nebulous at best, shattering our belief in a mechanistic understanding of life and of the human body". Kellman (2000) proceeds to state that in the study of life systems as well, scientists now employ a non-linear model in which the parts of a living system contribute to, but do not define, a living system and the whole is more than the sum of its parts. Within many studies and writings of alternative and complementary medicine or healing there exist a few common themes that run through the viewpoint of this methodology of healing. Some of these include interconnectedness (Kellman, 2000); patient or client- provider or doctor interaction; belief or meaning associated with the specific model of healing; mind – body – spirit connection.

Coulehan (1999) postulates that the interaction between clinician and patient is a powerful instrument of healing regardless of the clinician being an allopathic practitioner or its alternative or complementary counterpart. The alternative medicine movement has been seen to have a pragmatic flavour without there necessarily being an underlying belief system. In other words, people can seek out remedies that work for them based on output. Coulehan

(1999, p. 1468) within his findings wrote: "People seek out acupuncture, chiropractic, homeopathy, megavitamins, and other forms of complementary therapies simply because they are looking for something that works. Someone might try homeopathy one month and megavitamins the next, even though the belief systems that underlie or underpin these therapies are totally different and perhaps incompatible. Many physicians find it surprising but patients are usually the best judges of what works for them ". Even though there is contradictory evidence with reference to the benefits of CAM practices on a scientific level, there exists a beneficial dynamic where the patient is concerned. This could be attributed to the psychology behind people's perception of their own health and conception of healing systems that they themselves adopt and practice.

Lewith, Hyland and Shaw (2002) show evidence to this confounding viewpoint when conducting a study on asthma patients who had a positive attitude toward complementary medicine and hypothesised whether this positive attitude had greater positive changes in health outcome. The results showed that even though the patients had a positive attitude to CAM there was no evidence that these positive beliefs were associated with positive or negative affect, quality of life, or in this specific case, respiratory functioning.

The majority of the studies are focused on patients' attitudes to CAM. Milden and Stokols (2004) postulated that physicians' attitudes could play a role in the results portrayed in these studies. Results showed that two thirds of the physicians participating in this study were reportedly insufficiently knowledgeable about CAM safety and efficacy and 81% of the

participants reported that they would like to receive more education on CAM modalities (Milden and Stokols, 2004).

2.4. Health and demographic information

One of the aims of this study is to look at the students' demographic variables and examine this in relation to their health state. Hence the purpose of this section is to have an idea of the overall health of South Africans and explore the individual's health in relation to the demographic variables. The South African health perspective cannot be investigated without delving into the history of apartheid and looking at the inequities that were borne from that era. Rajendra (1995) explained that during the apartheid years there were 14 departments that were responsible for the administration of healthcare of the different racial groups. White doctors would not practice in rural settings or townships (where they were desperately needed) but rather Rajendra (1995) reports that "...one doctor served 330 whites or 91 000 black people. The artificial paradox of the best of First World and the worst of Third World medicine within a few miles of each other resulted in extreme inequity in the health profile of the country" (p. 1119).

The consequence of this inequity is seen across the globe in HIV prevalence (which is still predominantly localised within the black racial group) as well as infant mortality rates and infectious diseases that should ordinarily be cured through a regime of medication. South Africa has a long way to go in terms of fair and equitable health policies in the new South

Africa. However this change is not easily attainable when there are still so many inequities in other spheres such as economics, gender, education and cultural practices.

The following sections that will be explored are household income, "race" (the term "race" is used contextually as used pre-1994 in classification during apartheid to segregate along colour lines and racial groups – used for purposes of research only), age & level of study, religious background and language.

2.4.1 Health and Income

A study conducted in South Africa on the impact of health on poverty revealed that households containing more unhealthy individuals are 60% more likely to be income poor than households containing fewer unhealthy individuals, and this finding according to Godlonton & Keswell (2005) appears invariant to the choice of poverty line. Lehohla (2004) writes: "Only 18, 5% of the population aged 20 and above was reported to have access to medical benefits. Access to medical benefits was more common among white people than among other population groups. Among whites, over two-thirds of the population were reported to have access to medical benefits. The health status of individuals with medical benefits was perceived as better than those without access to medical aid" (p. viii).

Mahomed and Bachman (1998) report that primary level community health centres have to contend with long queues or long patient waiting times, poor quality service, inadequate

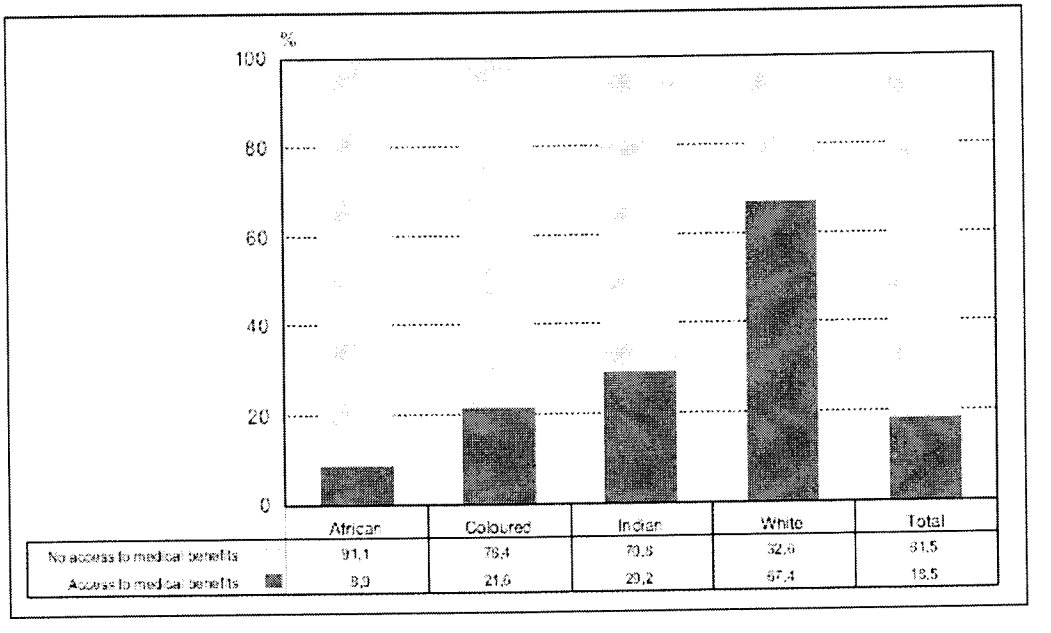
staffing, wasted time spent at the centre, overcrowding and overloaded primary care facilities. None of which the medical aid beneficiaries have to contend with.

(All racial terms in this study, for example, white, african, coloured etc, are used in accordance with the apartheid population registration act of 1950 and are used for purposes of research only).

The following table represents the differing racial groupings in relation to medical aid acquisition. In other words, some racial groups are reaping the health insurance benefits compared to other racial groups which are not.

Figure 2.4.1: Distribution of individuals aged 20 and above by access to medical aid or health insurance benefits and population group

(Source: Lehohla, 2004, p. 28)



The white racial group has a significant percent of access to medical benefits while the rest of the racial groupings fall short. More than 60% of the white racial group have access while a mere 29% of Indians, 21% of Coloureds and 8% of Africans have access to medical benefits. Thus the quality of healthcare is still largely occupied in the white racial grouping.

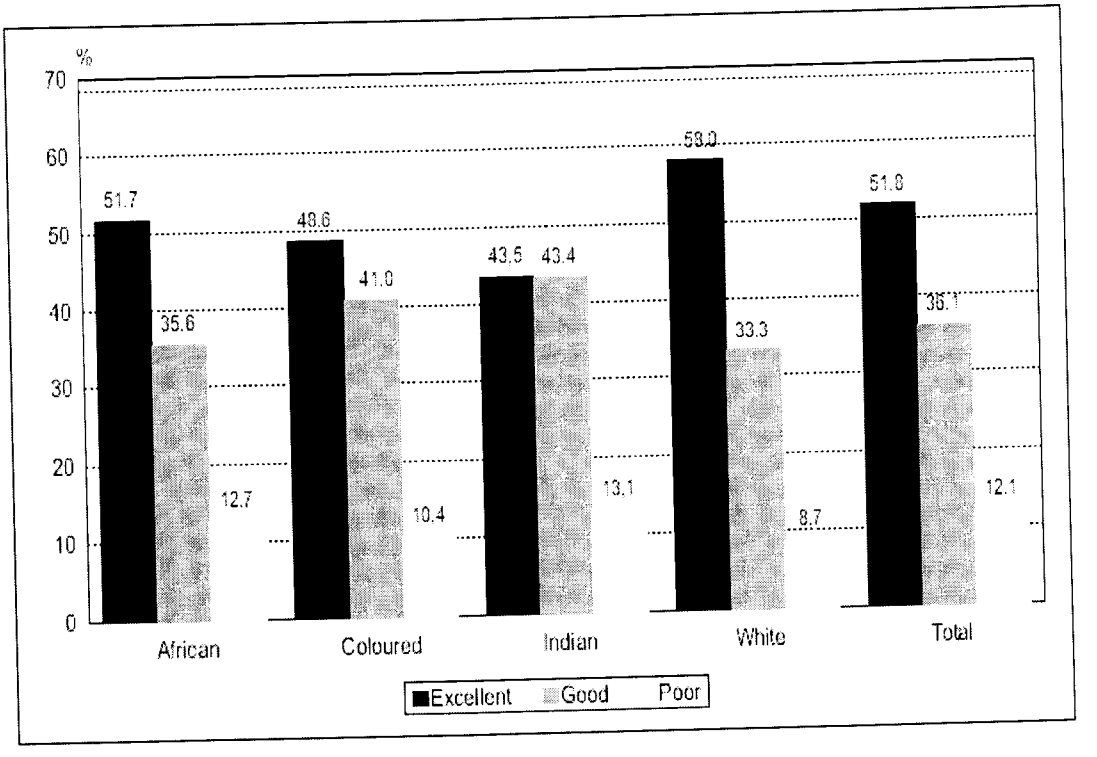
2.4.2. Race and health

Charasse-Pouele & Fournier (2006) write that: "Whites and Africans with different socio-economical characteristics have different health. Whites and Africans with similar socio-economical characteristics have different health. Unsurprisingly, we find a strong indirect racial effect in favour of Whites. However, our analysis tends to show that the issue of direct racial discrimination on health is more complex and closely linked with that of economical inequality and discrimination. Our results thus stress the necessity not only to open access for Africans to the more sophisticated sector of health care but also to provide them with the economical opportunity to use it" (p. 2897).

The following figure illustrates the health status of the different racial groupings in South Africa.

Figure 2.4.2: Perceived health status of individuals within population groups

(Source: Lehohla, 2004, p. 11)



Above is a visual representation of the South African public's perception of health status. Statistics South Africa (2004) used a household survey as the research design methodology. In comparison to other racial population groups, white people were perceived as having a better health status than the other three racial groups (African, Coloured and Indian).

In the context of South Africa's historical apartheid background, there is still a huge disparity for financial expanse from minority racial groups. The lower earning income bracket still seems to be the minority black, coloured and Indian. Even though there is a shift in equal employment opportunities, the acquisition of assets and resources for the minority group is still largely limited.

2.4.3. Age and Level of study

Lehohla (2004) found in their study that among those individuals aged 20 years and older, those with Matric or more as their highest level of education were reported as having a better health status than those with less education. The assumption here holds that individuals with higher levels of education will fall into the category of the higher earning bracket. Those within the higher earning bracket have better options in terms of healthcare. These individuals are more likely to ascribe to medical aid and have access to private doctors and hospitals with higher quality of care as opposed to those individuals who do not have access to these services. Individuals who are not in high earning income brackets would probably have to contend with a poorer quality of health care and barriers to health care including such things as: "... lack of water or adequate sanitation, contamination of water, poorly ventilated housing, over-crowding and improper waste disposal becoming breeding grounds for infectious and parasitic diseases" (Govender, 2005).

2.4.4. Religion, identity and health

To those individuals who adopt religion, its construct embeds itself in the social organisation and social life of that individual. Religion incorporates a belief system that 'codifies' and explains mystical and magical ideas that are not easily understood. Moore (2004) writes that: "...belief systems assumed important functions, helping to give structure and predictability to uncertain and dangerous contexts. Magico-religious healing and reference to deities provided systems of coping with illness and distress" (p. 124).

This magico-religious school of thought can be assimilated to all philosophies of religious healing. In South Africa, Traditional African healing is a huge alternative healing practice, where witchcraft and spirits (sangomas and nyangas) have a major role. Approximately 70% of the South African population prescribe to Traditional African healing and make up an industry of around R400 million (Nevin, 2006). Further evidence of the importance of this cultural practice is the South African governmental sanction to have laws changed to incorporate the Traditional Health Practitioners' Act. This act was gazetted last year February and recognises 300, 000 traditional healers (Nevin, 2006). Other religions that constitute a large percentage of the South African public include Christianity, Islam and Hinduism.

The belief in a supernatural entity that ultimately decides the acquisition of illness or the healing of illness is very existential and cannot be reconciled with the biomedical model of healing. Nevin (2006) however posited that in his research he found the distinction between natural and supernatural causes of illness was found to influence the method of treatment sought by the individual. Hence the choice to seek out a medical or traditional practitioner was based on the nature of the illness.

2.4.5. Gender and health

Gender refers not only to the distinction in biological differences between men and women; it also refers to distinctions in social, cultural, economical and legal differences. With this distinction come inequalities in healthcare practices due to the history of apartheid. South

Africa has very high rates of diseases, like TB, which are poverty-related and can be prevented but research shows that the rate of infection is on the rise. Poor women are affected the most since they are not only affected by their own ill-health, but also care for other household members when they are ill.

Baden, Hassim and Meintjes (1999) write that: "Women rely on health services more often than men, because they have needs related to childbearing in addition to health problems affecting both women and men. Approximately 58 of every 100 000 African women in South Africa die while giving birth, compared to three in every 100 000 white women. Approximately 54 in every 1 000 African babies die at birth, compared to seven in every 1 000 white babies. Women in all race groups usually live longer than men in the same group, but white men live longer on average than African women" (p. 58).

This can be linked to the politics of healthcare in relation to access and socioeconomic factors that act as inhibitors to a better quality of life for those impoverished groups. Men and women's health differ from society to society and cultural practices as well as traditions play a role in the conceptualisation of health for both sexes. Huber, Koch, Beisner, Zschocke and Ludtke (2004) studied experience and attitudes toward CAM and results showed that CAM users were mostly female, better educated, younger and were more critical toward conventional medicine.

2.5. Preventive Medicine

The notion behind preventive medicine is a really simple concept. However, when put into practice becomes more difficult. The philosophy is to eat foods that are enriching and will promote a healthier existence as opposed to eating fatty, high starch, high sugar, and processed foods. Lento (2003) developed the concept of the five basic activities for preventive health care; these are *breathing clean air, drinking clean water, eating according to the food mantra, exercising regularly, relaxing or positive thinking*, as opposed to the five basic errors, which include, *smoking, alcohol or coffee, high protein and fat or refined and non-fibre dominated food, sedentary lifestyle, anxiety or negative thinking*. Hyman (2004) proposes that the latter errors in lifestyle are the root of the western diseases that are acquired throughout life and that these diseases can be prevented by simple steps such as diet, exercise and vitamin supplements. Hyman (2004) writes: "Study of nutrients over long term have been complicated by the fact that the desired outcomes are the absence of problems...nutrients restore normal function and they do so by optimising normal biological functions mostly by their action as coenzymes in thousands of biochemical reactions" (p. 90).

Hence methodological difficulties would arise about the cause and effect of preventive medicine and specifically relating to the optimisation of health through vitamin intake and better health practices.

The next chapter will explore the methodology used within this study. The chapter includes the methodology of both the qualitative and quantitative sections.

Chapter 3

Methodology

3.1. Introduction

This study comprised of a qualitative component as well as a quantitative component. Although this is not a mixed methods study, the researcher thought it would be useful to incorporate a qualitative component into the study to ascertain how the participants perceived and defined their own health. Hence the methodology was separated into a qualitative component and a quantitative component. The RAND 36-item health survey was selected to generate information since this survey is widely used and is a generic instrument many researchers and clinicians employ (Wilson, Hutson and van Stry, 2005).

3.2 The Qualitative Component

The researcher conducted brief structured interviews with four participants, two participants from each group, i.e. two from the psychology group and two from the natural medicine group, based on their understanding and perception of health. (The interview schedule can be found in the appendix).

3.2.1 Sampling

During this phase of the study the researcher used snow-ball sampling. The reason for employing this method of sampling was based on the natural medicine group being a difficult group to penetrate due to the small size of the population. Hence the researcher employed this technique as an entry point into the population of the natural medicine group as well as the psychology group.

Snow ball sampling can be defined as a special non-probability method used when the desired sample characteristic is rare. It may be extremely difficult or costly to locate respondents in these situations. Snowball sampling relies on referrals from initial subjects to generate additional subjects (Walonick, 2007).

The study consisted of three females and one male, two females comprised of the natural medicine group while one male and one female comprised the psychology group.

3.2.2. Procedure

The participants were interviewed at UWC (at the Institute for Student Counselling) and all interviews were recorded. The recordings were transcribed and thematic analysis utilised to gain insight into the students' perceptions and understanding of health. Participants were requested to complete consent forms and all participants agreed to be recorded (a copy of the consent form can be found in the appendix). The researcher explained to the participants

what the study encompassed as well as the purpose of the research before the interview took place.

3.2.3. Data Collection Tools

The researcher used a structured interview schedule for the collection of data and recorded the interviews with a tape recorder. The interview took approximately fifteen minutes per participant. Questions that the researcher included in the study were:

1. How do you define health?
2. What does health encompass for you?
3. What is a healthy person?
4. What is an unhealthy person?

(An interview schedule is attached to the appendix). The purpose of these questions was to identify what the understanding of health was for these participants. In addition, the researcher wanted to ascertain what the participants identified as a healthy individual and an unhealthy individual.

3.2.4. Data Analysis

The interviews were recorded and transcribed. The thematic method of analysis was employed by the researcher. "Thematic analysis is a method for identifying, analysing and

reporting patterns (themes) within data. It minimally organises and describes your data set in (rich) detail" (Braun & Clarke, 2006, p. 79).

Thematic analysis is an approach to dealing with data that involves the creation and application of 'codes' to data. Coding refers to the creation of categories in relation to data. Thematic analysis can then be understood as the grouping together of different instances of data under an umbrella term that can enable them to be regarded as 'of the same type' (Huberman, 1994). Hence the researcher adopted this method of analysis to examine the participants' understanding of health.

3.3 The Quantitative Component

A quantitative methodology was utilised and specifically a survey design was employed in this study. The RAND 36-Item Health Survey (version 1.0) was administered to participants. The survey has been adapted from instruments completed by patients participating in the Medical Outcomes Study (MOS), an observational study of variations in physician practice styles and patient outcomes in different systems of health care delivery (Hays & Shapiro, 1992; Stewart, Sherbourne, Hays, et al., 1992).

The following areas of the quantitative component will now be discussed: sample; procedure; data collection tools; data analysis; ethical considerations and significance and value of the study.

3.3.1. Sample

The target population of this study was undergraduate university students aged between 18 and 25+ years. Equal amounts of psychology students and natural medicine students participated in this study. Students were recruited from the University of the Western Cape (UWC) at the psychology department and from the natural medicine department. The researcher approached lecturers requesting approximately 10 minutes of the class time and made contact with students during their course classes. Questionnaires were completed in the course classes after the lecturer had finished his/her lesson. The stratified sampling technique was used within this study. Stratified sampling is used when there are strata or subgroups within a population, hence the population of this study would comprise of university students and the substrata would be psychology students and natural medicine students.

Hunt and Tyrell (2001) suggest that in a stratified sample the sampling frame is divided into non-overlapping groups or strata; examples of these are geographical areas, age-groups and genders. A sample is taken from each stratum, and when this sample is a simple random sample it is referred to as stratified random sampling.

3.3.2. Procedure

Students were randomly selected and requested to answer a questionnaire on their general health. The RAND 36-item Health Survey was utilised. The study composed of 80 respondents per group requesting them to answer the questionnaire, taking into account the

age, language, religious background, sex/gender and socio-economic status (household income) of the sample. The answers on the questionnaire ranged from a variety of responses, including excellent health to poor health as well as 'yes' or 'no' responses.

The end of the questionnaire also comprised of a section where respondents could indicate what methodology of alternative healing as well as other healing methodologies they employed. This section was inserted to determine what kinds of healing practices the respondents employed, as well as determining whether there were differences between the groups in their choice of healing practices.

3.3.3. Data collection tools

Questionnaires were utilised for the collection of data. The RAND 36-item health survey (version 1.0) taps into eight health concepts: *physical functioning, bodily pain, role limitations due to physical health problems, role limitations due to personal or emotional health problems, emotional well being, social functioning, energy/fatigue,* and *general health perceptions.* It includes a single item that provides an indication of perceived change in health. The questionnaire has 36 questions based on an individual's self-assessed notion of his or her health. These questions include the individual's assessment of his or her health from one year ago.

3.3.4. Data Analysis

The data collected was analysed using a statistical software package known as SPSS (Statistical Software for the Social Sciences). This software makes allowances for a spreadsheet which is constructed for the purpose of being able to input the data received from the questionnaires. Once all questionnaires are captured the data is able to be analysed. In order to analyse the data, crosstabulations and chi-square were employed. Miller, Acton, Fullerton and Maltby (2002) write that: "Crosstabulation tables, or contingency tables, are frequently employed to examine the relationship between two variables (usually nominal or ordinal) that have a small number of categories" (p. 129). The crosstabulation tables allow the researcher to draw conclusions about the population from which the sample was taken, rather than the sample itself. Although the researcher would need to decipher what the real difference in the population as a whole is when determining whether there is a statistical significance between the groups. In order to do this, the chi-square test needs to be adopted.

The chi-square test, as described by Miller, Acton, Fullerton and Maltby (2002): "...allows us to determine whether or not there is a statistically significant association between two variables. As an inferential statistic it allows us to draw conclusions about the population on the basis of our sample results" (p. 130).

H_0 : Null hypothesis states that there will be no significant difference between the two groups.
H_1 : Alternate hypothesis states that there will be significant difference between the two groups.

Tapping into the eight levels of the RAND 36-item health survey meant that the questionnaire needed to be scored using a two step process:

1. Firstly, pre-coded numeric values were recoded per specific scoring key given, (where all items are scored so that a high score defines a more favourable health state);
2. Secondly, items in the same scale were averaged (together) to create the eight *scale scores* – which are representative of the average for all items in the scale that the respondents' answered.

3.3.4.1. Averaging items to form scales

Table 3.3.4.1: Scale, number and average of items in the RAND 36

Scale	Number of items	Average the following items
Physical functioning	10	3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Role limitations due to physical health	4	13, 14, 15, 16
Role limitations due to emotional problems	3	17, 18, 19
Energy/fatigue	4	23, 27, 29, 31
Emotional well-being	5	24, 25, 26, 28, 30
Social functioning	2	20, 32
Pain	2	21, 22
General health	5	1, 33, 34, 35, 36

The table represents the items that were averaged to produce the eight scales used for measurement of participants overall health. As stated before, the questionnaire tapped into eight scales, physical functioning; role limitations due to physical health, role limitations due to emotional problems, energy/fatigue, emotional well-being, social functioning, pain and general health.

3.4. Ethical considerations

Ethical issues are pertinent in research and need to be adhered to vigilantly. Participants need to be protected and hence there are rules and guidelines that need to be followed to ensure that no harm befalls the participants. Confidentiality was ensured throughout the study in both the qualitative and quantitative component. For purposes of the research, participants were requested to sign an informed consent form on which names and numbers were included for the purposes of marking and examination of the thesis.

Consent was gained from participants before advancing to the questionnaire and requirements of confidentiality were fulfilled. Respondents could also withdraw from the study at any point. Anonymity of respondents was ensured.

For the interviews, participants were requested to complete an informed consent form, the form described the research study and participants agreed to be recorded upon signing this form (a copy of this form is attached in the Appendix).

3.5. Significance of study

The importance and significance of researching this topic is mainly due to a shift or inclination in an ever-growing number of individuals to adopt a lifestyle that is more preserving and life enhancing. The research will contribute to knowledge, whether there is a wider shift or inclination to use these practices in a society dominated by Western thought and practices. In addition, to ascertain whether there is an inclination to utilise the alternative and complementary models of healing solely as singularly encumbering a health delineation or if there is an inclination towards an integrative approach.

With the increasingly widespread use of alternative healing practices in South African medicine, this study will contribute to a greater understanding of practices of utilisation, be they traditional biomedical, alternative, or an integration of these two models of healing. It may afford greater scientific knowledge to the practice of alternative and complementary medicine, which may be of relevance in the South African context with its multi-cultural and long history of the use of traditional medicine.

The next chapter will look at the results and will discuss the results in relation to the literature. Firstly, the qualitative section will be expounded on and thereafter the quantitative section will be examined.

Chapter 4

Results and Discussion

4.1. Introduction

This chapter focuses on the findings of the study and discusses the qualitative and quantitative results separately. This chapter focuses on what the differing attitudes are of the natural medicine group compared with the psychology group regarding their subjective health. In addition, this chapter focuses on how the participants define or conceptualise health. The following chapter will outline, firstly the qualitative component, in which a delineation of psychology and natural medicine students will be discussed. The qualitative component consisted of semi-structured interviews with 2 participants from each group. Secondly, the quantitative component will be discussed in terms of the statistically significant findings.

4.2. The results from the qualitative interview

As stated in the previous section, the qualitative component of this study comprised of structured interviews with four participants. Two participants from the natural medicine group were females and two participants from the psychology group, one being male and the other being female. All students were in the undergraduate phase of studying. Both the natural medicine students were in their first year and ranged between the ages of eighteen and nineteen. The psychology students participating in this study were both in their second year and ranged from nineteen to twenty. One psychology student was studying both social

work as well as psychology (female) and the other male psychology student majored only in psychology. All of the participants signed the informed consent form and thus agreed to be recorded (a copy of the informed consent form can be found in the appendix). The natural medicine group's findings will be discussed first, after which the psychology group's findings will be discussed leading to the common themes arising from both groups' findings.

In order to create a comfortable setting and safe space for the participants during the interview process, the first question the researcher asked was why the participant decided to enter their specific field of study. The second question related to how the participant defined health; the third question asked what health encompassed or incorporated for the participant. The fourth question enquired about the participants' own health, i.e. whether they thought that they were healthy and why they thought that. The final question related to the definition of being an unhealthy person (a copy of the interview schedule can be found in the appendix).

4.2.1. Natural medicine group findings

The following section will report on the findings from the natural medicine group.
Both participants in the natural medicine group responded that they were not studying natural medicine as their first choice. They were studying natural medicine because circumstantially they landed up there.

Interview 1:

Participant 1 reported that she wanted to study medicine but was not accepted and opted for natural medicine as a second choice since there were overlapping courses. Therefore this participant reported that she could link her existent natural medicine courses with future medicine courses in order to attain her dream of being a doctor. Her definition of health encompassed "*a state of well being*". This definition describing a 'state of well being' included branches of diet, medication, exercise and a religious component. She described a holistic person as an individual with a soul, spirit and flesh, all coinciding to create a healthy person. The participant recognised that an unhealthy individual was someone who repeatedly contracted illnesses and reported that in addition to being unhealthy, the medication this individual would need to consume would have side effects exacerbating the unhealthy state of this individual.

Interview 2:

In the second interview, the researcher encountered problems with the equipment and hence the entire interview needed to be re-recorded. This would have implications for the results since relevant information could have been lost due to memory constraints of the participant, as well as familiarity with the interview schedule. This, however, will be discussed in the limitations section of the study.

The second natural medicine participant, similar to the first participant, aspires to be a doctor in the future. She did not want to study natural medicine as a first choice, but thought that there would be similar modules and would bridge her current year with the medicine programme in the following year. When asked whether she wanted to be in the stream that she was in, she responded with an emphatic:

"No, absolutely not! Serious!"

Participant 2 reported that her definition of health was 'being in a state of equilibrium' and that this equilibrium encompassed an emotional, physical, spiritual and social component. All of these need to be operating at an optimal point in order for the individual to be considered healthy. If any of these components are out of sync then this would impact negatively on the other components and could jeopardise the individual's complete health. Participant 2 stated:

"And, for example, if a person is sick physically his health is not complete, or if a person is sick emotionally then his or her health is not complete. A person has to be well in all those aspects, you know? His or her body has to be in equilibrium".

The participant was asked whether she viewed herself as a healthy person right now and she replied that on that day she considered herself healthy but on the previous day she did not. The participant reported that she was emotionally "sick", and this was further explained when she stated what this meant for her, *"...which didn't give me peace within..."*

Because of this unhealthy state, she felt repercussions in some of the other areas in her life. She reported that she could not concentrate on her academic work because she was not feeling emotionally well.

In terms of the definition of an unhealthy person, Participant 2 reported that an unhealthy individual is someone that is negatively affected by a disease or illness. In other words, the participant gave an example of a woman being diagnosed with breast cancer, and conceiving or allowing this diagnoses to be a death sentence. The participant stated that this woman does not necessarily have to be considered unhealthy simply because she has a physical disease; she could have a positive mind-set that would facilitate her health instead of inhibiting it. She stated:

"...it depends on how willing you are to help yourself in terms of accepting it. You know, of not letting it get into your mind. Just try to live as healthy as you can".

The participant emphasised that complete health was a balance between spiritual, physical, emotional and social health.

4.2.2. Psychology group findings

The following section will report on the findings from the psychology group. For the psychology students, the reasons reported for studying or being in their relevant profession were of a personal nature and both participants felt they wanted to be in the helping profession.

Interview 3:

Participant 3 stated that she wanted to study psychology because at school she was involved in programs that skilled her to enrich and uplift her community. Because of her participation in activities at school such as mentorship and working with the blind as well as the homeless, she discovered that there was a need to equip these individuals with relevant skills for them to help themselves. For this reason this participant went into the social work and psychology stream to achieve this goal.

Participant 3 defined health as incorporating the physical, mental, emotional and psychological components of an individual. This participant also felt that these components are fluid and affect the other components. The reason that this participant incorporates all of these aspects is reported below:

"...you can perhaps be physically healthy but if your mindset is not right for the health that you trying to improve, then physically you will also not be...in that status of health that you want to be in. For the emotional part, when you depressed then it impacts on your physical health because for me when I'm depressed I eat all the time!"

When asked whether she perceived herself as being healthy, Participant 3 reported that she did not see herself as a healthy person even though she tries to exercise regularly. She reported that her social circumstances inhibited her access to a healthier lifestyle because of the cost and resources involved in the upkeep of a healthy lifestyle. She stated that:

"...If I had the resources and the money and the finances then I would... use a balanced diet, I would exercise daily, I would try to eat the right foods, I would go for counselling. If I had that resources..."

When asked to define an unhealthy person, the participant responded with examples of negative behaviours of each of the components or spheres that she outlined in the health definition. This participant reported that a definition of an unhealthy individual was an individual having the knowledge of positive healthy behaviour but still enacting and engaging in negative practice; although, the participant agreed that an individual can be presented with an illness but can still live a healthy life. Similar to the previous participant, participant 3 reported that an individual can have a chronic disease and still enjoy a healthy lifestyle.

Interview 4:

Participant 4 stated that he wanted to study psychology because he wanted to work with people. The participant also felt that he wanted to learn more about psychology because of his mother who was '*mentally ill*' and the lack of understanding around her illness.

When asked what he defined as a healthy person, participant 4 reported a more biological perspective of health. For this participant, health encompassed having healthy internal organs as well as having effective and fully operational bodily functions. Evidence for this can be seen from the statement:

"...a healthy person is someone with all his bodily functions in check. He can use all his bodily functions...like your heart is all right...your lungs is ok...that is how I would define health...I place lots of emphasis on the internal organs"

The participant further reported that a healthy person was an individual who could strike a balance between the physical (i.e. '*exercise*') and the mental, as well as function normally in society (i.e. '*being able to interact with other people on a daily basis*').

An unhealthy individual, for this participant, stems from being overweight. He suggests that most diseases can be attributed to being overweight and having an apathetic attitude to health. This participant also reported that individuals living with a chronic disease could be considered healthy if they eat the right foods and had a positive mental attitude. Stigma was also alluded to but was not substantiated.

4.2.3. Interwoven Themes:

For all the participants in the study the common thread that existed was physical health and mental health. Participant 1, 2 and 3 evolved their definitions to incorporate a spiritual, social and psychological side but the third participant did not elaborate on this.

The following table illustrates the main themes arising from the participants' understanding and definition of health.

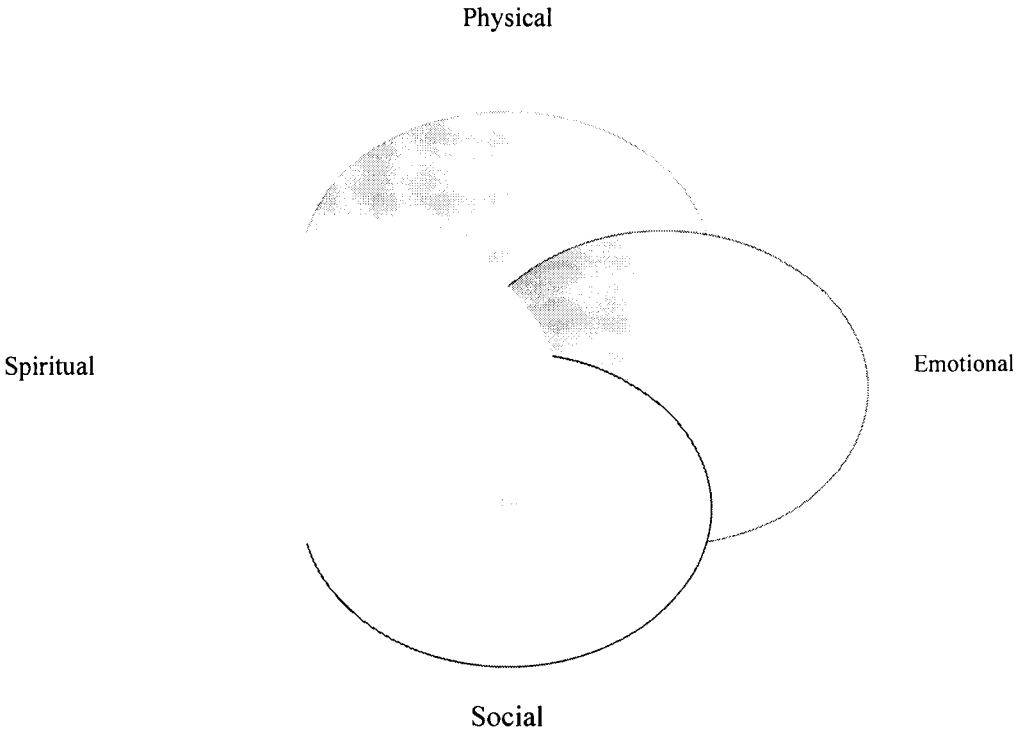
Table 4.2.3: Themes in the definition of health

Themes in the definition	Participant 1 Natural Medicine	Participant 2 Natural Medicine	Participant 3 Psychology	Participant 4 Psychology
Physical health	Y	Y	Y	Y
Mental/Emotional health	Y	Y	Y	Y
Psychological health			Y	
Spiritual health	Y	Y		
Social health		Y		

From the definitions outlined in the literature, there seemed to be a more congruent or an aligned understanding of health to the alternative or CAM definition by most of the participants. Participant 4 from the psychology group reported on a more biological definition than the other participants, attributing this understanding to a more allopathic or western conceptualisation of health. All of the participants' understandings were an amalgamation of their life situation as well as their backgrounds in developing their own definitions of health. For all the participants there seemed to be agreement that one aspect or sphere of an individual's life almost always affects another and therefore there needs to be a balance in order to attain a state of well-being.

A visual representation can outline this state of well-being or equilibrium (as posited by participant 2) in a bi-directional way.

Figure 4.2.3: A visual representation of the participant's theory of health and equilibrium:



At the core of the diagram is the equilibrium state that should encompass an ideal healthy state, with all the other components interacting and affecting one another. If there is inconsistency of a negative nature in one area, then this will affect the other areas in an equally negative way disrupting the balance and dislodging the equilibrium. This would then result in an unhealthy state since the individual no longer acts in accordance with healthy behavioural practices.

This chapter will now discuss the qualitative component of this study in more detail.

4.3 Discussion of Health concepts

The results from the participants, reinforce the notion that health is multifaceted and is not simply an absence of illness or disease. This definition, however, precludes important variables such as access to resources (including quality health care), financial resources as well as cultural practise that can all inhibit or accelerate better a quality of life. This multifaceted health concept, cited by both groups, is in accordance with the literature on alternative health/healing. All the participants agreed that health as a definition includes aspects relating to mental and physical wellness; three of the participants reported that spiritual wellness is important; two participants reported that social wellness is an important aspect of health. In addition, one participant reported that psychological wellness is an important factor in health. All of these concepts will now be looked at separately, considering the literature.

4.3.1. Physical health

Physical health is associated with the mainstream definition of health and connotations can be made to the biomedical model of health or allopathic medicine. MacIntosh (1999) writes that the term allopathic medicine "...was coined by Samuel Hahnemann MD, in the late 18th century in reference to the use of therapeutic modalities which are based on the assumption that symptoms need to be treated. The focus on treating symptoms appears to have developed as one of the guiding treatment principles in orthodox medicine" (p. 60). The term *orthodox*

medicine conveys a message of acceptable, credible and even authoritative medicine; hence this is located in mainstream medicine.

All the participants in the present study included the concept of *physical* health in their definition of health. According to Megill (2006), wellness is described by the condition of good physical and mental health, especially when maintained by good diet, exercise and habits; as well as incorporating decreased levels of stress and depression. Blaxter (1990) expands this concept further when describing a study done in England; a national health and lifestyle survey was administered to men and women over 18 years. This study found that among young people physical fitness was prominent. When asked to think about a healthy person, men in particular highlighted strength, athleticism and the ability to play sports. Men also described themselves in physical terms when asked about their subjective health status.

The existent study shows evidence of this. When the male psychology student was asked to describe his own health, he immediately made reference to the fact that he had not recently visited the gym:

> *"...lately I didn't go to the gym so I think that upset my fitness a bit but I am healthy..."*

When the female participants were asked this question, one participant made reference to her diet; another participant made reference to her emotional state; and the last participant referenced her health based on the absence of being ill. Even though all participants included

the concept of health as inclusive of physical well-being, the male participant made immediate reference to this, while the female participants placed emphasis on other concepts.

Physical health locates itself within the biomedical model, based on scientific and technical expertise. Dr Remen notes that mainstream medicine seeks to heal at the physiological level but seems to be lacking in the "human level" (Snyder & Gazella, 2006). She also commented that physicians report to have lost a sense of meaning and satisfaction in their work and would have preference to practise medicine in an alternate fashion with different sets of priorities than those they are bound to follow by rules and regulations. This is interesting to note since patients have reported that major reasons for the increased practice of alternative therapies is *dissatisfaction with conventional treatment as expensive, impersonal and ineffective; feeling empowered to make their own health care decisions and compatibility with users' own values and spiritual beliefs regarding the nature of the patients illness* (Synovitz, Gillan, Wood, Nordness & Kelly, 2006, p. 88). Thus there seems to be alignment of patient and doctor ideologies in seeking a more integrative health practice rather than just a biological understanding of the disease (MacIntosh, 1999).

It would be erroneous to assume that this form of health care is the most beneficial to the patient since there is such a massive inclination to use other modalities of health care in a dominant mainstream society. When looking at other definitions included by the participants, one can formulate a more holistic definition that does not simply look at health as an absence of illness.

4.3.2 Mental/Emotional Health

Mental health encompasses emotional well-being, positive cognitive functioning, psychological resilience and an absence of a mental disorder (Ness, 2005). All of the participants also highlighted mental health as a definitional concept in their understanding of health.

"Around 10-16% of South Africans will suffer from a mood, anxiety or substance use disorder at some stage in their life. However, due to the significant advances of our understanding of the role of different brain systems, specific brain circuits, particular genes in a range of mental disorders and in finding effective and cost-effective treatments, these disorders can now be diagnosed as reliably and accurately as most of the common physical disorders. Although effective treatments are available, nearly two-thirds of people with a known mental disorder never seek help from a health professional. Stigma, discrimination and neglect prevent care and treatment from reaching people with mental disorders" (2007, De Roover).

This suggests that approximately 7 million South Africans will suffer from some kind of mental disorder inclusive of mood, anxiety or substance use. However 4.7 million of these individuals do not seek professional health care. This is a staggering amount of patients suffering from a possible chronic disorder and not seeking health care.

De Roover (2007) writes that mental health is as important as physical health to the overall well-being of individuals, societies and countries. This is important to note since one can

formulate a macro concept of health incorporating the mental, physical and social context of the individual. According to the World Mental Health Survey (2004) common mental disorders (such as depression, anxiety disorders, and substance use disorders) are highly prevalent in Western and developing countries. Mental disorders are reported to be chronic and strongly impair quality of life. These disorders also cause excess mortality, and substantial societal costs, once again impacting on the macro context of the individual. Major depression is the second disorder worldwide in terms of illnesses with the highest disease burden, directly after HIV/AIDS. Four of the ten most disabling disorders are mental disorders. Worldwide about 150 million people currently suffer from a major depressive disorder, almost a million commit suicide each year, and 90 million people are currently addicted to a substance. The proportion of disability due to mental disorders is predicted to incline over the next several years (Demyttenaere, Bruffaerts, Posada-Villa, Gasquet, Kovess, Lepine, et al 2004).

Participant 3 reported that emotional health was important and inclusive in the definition of health which can be linked to mental health since the trigger to mental illness is almost always a fracture in the individuals' coping of emotional stressors. Hence for the purposes of this study the two concepts have been amalgamated. Participant 3 reported that:

"...ok, I see myself as a healthy person. Today I consider myself healthy but yesterday I was not healthy because I was sick emotionally, which didn't give me peace within, you see? So it affected me even socially because when I'm sick emotionally, I tend to ... I go and lock myself in a room and (.) I wouldn't want to speak to anyone. You know, so it affects me emotionally when I am sick physically..."

Hence, there is almost a spill-over effect here, when this participant is not feeling physically well, this affects her emotionally as well as socially since she is not able to socialise with friends and neither is she able to concentrate on work that needs completion.

The third reported concept included in the definition of health is that of psychological health which will now be reviewed.

4.3.3 Psychological Health

Psychological health relates to and is inclusive of healthy and unhealthy behaviour, beliefs, aetiology, prediction, targeting and prevention (Crossley, 2000).

Marks, Murray, Evans, Willig, Woodall and Sykes (2000) write that important psychological aspects to well being cannot be ignored or neglected in a meaningful definition of health - psychological processes are embedded in a social world, a world of interaction with others. Therefore it is helpful in certain contexts to describe and think of psychological processes as 'psycho-social' in nature. However, one cannot ignore the physical or biological components of the individual and hence this model expanded to a 'bio-psycho-social model' of health. Taylor (1990) writes that health psychology is the "...use of psychological principles to promote health and to prevent illness; it is also a part of clinical treatment for established illness. This approach considers the biological, cognitive, behavioural, emotional, social,

psychosomatic and environmental factors as they relate to health, illness and health care at the level of individuals. This approach has adopted what it calls the biopsychosocial model" (p. 42).

Half of the participants in the qualitative component of the study (one participant from the psychology group and the other participant from the natural medicine group) reported that *psychological health* formed part of their definition of health. The natural medicine participant associated psychological health with emotional health. When the students were asked about the definition of health the psychology participant reported that:

> *"...psychologically your mind-set has to be right and a person that (.) um with psychological problems, that goes through a lot of stress and emotions they also tend to... they either become anorexic or they become um, how do you say that again? ...obese..."*

This participant, albeit presumptuous of her to assume that stress would necessarily lead to anorexia or obesity, accurately conveys the notion that one's psychological state can affect and impact one's physical state. This has been a common theme conveyed by all the other participants, i.e. one aspect of health almost always impacts and affects one if not more of the other aspects of health. Because the individual exists in a social context, within an environment that is exposed to stressors consistent with emotional, psychological, biological and spiritual factors, these stressors impact on the social context and vice versa.

Another concept reported as important in the inclusion of the concept of health is spiritual health.

4.3.4 Spiritual Health

Spirituality is rarely based on the empirical and is usually borne from beliefs and subjective interpretations. Hence formulating a definition becomes a difficult task. However, McSherry & Cash (2003) suggest that the increased interest around the topic advocates for the notion of holistic health care. For some individuals spirituality will be expressed and shaped by religious customs and practices that provide meaning to their existence.

A study analysed the construct of being "at peace" using a sample of patients with advanced cancer, congestive heart failure, or chronic obstructive pulmonary disease. Descriptive statistics were used to compare response distributions among patient subgroups. It was eminent that patients' spirituality often influences treatment choices during a course of serious illness and a 'practical, evidence-based approach to discussing spiritual concerns in a scope suitable to a physician-patient relationship' was suggested to improve the quality of the clinical encounter. Results showed that feeling at peace was strongly correlated with emotional and spiritual well-being. It was equally correlated with faith and purpose subscales, indicating applicability to traditional and non-traditional definitions of spirituality (Steinhauser et al., 2006).

Spirituality, be it religious or not, is an important aspect for coping with life's stressors. When confronted with strain or pressure from the external, individuals need an internal barometer to establish the seriousness of the pressure and a strategic coping plan to deal effectively with a problem situation.

Spirituality can act as a meaningful process of contemplation on an existence that is higher than oneself and hence beliefs or notions around the problem situation become more manageable. Two of the participants included spiritual health in their definition of health.

Participant 1 reported:

"... I think religion fit under a healthy person because I believe that er (.) a person is a trinity. A person consists of a spirit, consists of a soul and consist of er (.) flesh. Then, so, I think that religion is part of a healthy person..."

Participant 2 reported:

"...Let's say, I am a Christian. I know that if I'm lacking this I will just pray and call upon God for help. Unlike ok... you have to belong somewhere in terms of a religion. You have to belong somewhere, whether you are Christian er you believe in (.) other Gods – but you have to belong somewhere in order to trust in someone. Let's say or trust in my God that I will get a scholarship at least that will make me emotionally healthy..."

Koenig, McCollough and Larson (2001) reported that there is wide acclaim for religiousness and spirituality impacting people's well-being as well as quality of life. Moreira-Almeida and Koenig (2006) conducted a cross-cultural study of spirituality, religion and personal beliefs as components of quality of life. The study found that the scales used within the study related to mental health rather than spirituality. Spirituality was defined by the authors as: "...the personal quest for understanding answers to ultimate questions about life, about meaning, and about relationship with the sacred or transcendent, which may (or may not) lead to or arise from the development of religious rituals and the formation of community" (p. 844).

Hence for these participants there exists an element of religiosity as well as spirituality that interplays with one's health in a positive or negative way. The cognition around health and a higher power could result in an attitudinal shift in which the individual either views his/her health status as having an internal or external locus of control. The individual could either think/feel that he or she will have control over the external stressor and hence can act in accordance; or because of the lack of control the individual will seek guidance from a higher power.

4.3.5 Social Health

For one of the participants, the natural medicine student, it was important to include social health into the definition of health. Blaxter (1990) notes how women are more likely to define health in terms of their relationship with other people. This relationship acts as a social support structure in which feelings and emotions can be released as a means of catharsis.

Health psychology incorporates this concept of health in the biopsychosocial model of health. One does not exist in a vacuum, there are always external factors within one's environment that affect the health of an individual, be it emotional or psychological.

4.4. Results from the quantitative component

As stated from the previous section, there were 160 individuals participating in this study, (N = 160) of which the psychology group comprised of 80; and the natural medicine group comprised of 80. Of the total number of respondents 114 were females (71.3%) and 46 were male (28.8%). Hence the larger majority of the students participating in this study were females.

This section will firstly detail the demographic results, after which the individual questions will be looked at, in relation to their chi-square significance. Lastly the values from the questions will be recoded as per the instructions given by the RAND 36-Item Health survey 1.0 (developer of the questionnaire). The relevant questions are grouped to indicate umbrella themes within the questionnaire.

The questionnaire taps into eight concepts; these include: physical functioning, bodily pain, role limitations due to physical health problems, role limitations due to personal or emotional problems, emotional well being, social functioning, energy/fatigue and general health

perceptions. The questionnaire also includes a question that indicates perceived health change. Scoring the RAND 36-Item Health Survey is a two-step process as described by the author. First, the pre-coded numeric values are recoded per the scoring key given.

This is shown as in the table below.

Table 4.4.1: Recoding the items

ITEM NUMBERS:	CHANGE ORIGINAL RESPONSE CATEGORY:	TO RECODED VALUE OF:
1, 2, 20, 22, 34, 36	1----------❁ 2----------❁ 3----------❁ 4----------❁ 5----------❁	100 75 50 25 0
3, 4, 5, 6, 7, 8, 9, 10, 11, 12	1----------❁ 2----------❁ 3----------❁	0 50 100
13, 14, 15, 16, 17, 18, 19	1----------❁ 2----------❁	0 100
21, 23, 26, 27, 30	1----------❁ 2----------❁ 3----------❁ 4----------❁ 5----------❁ 6----------❁	100 80 60 40 20 0
24, 25, 28, 29, 31	1----------❁ 2----------❁ 3----------❁ 4----------❁ 5----------❁ 6----------❁	0 20 40 60 80 100
32, 33, 35	1----------❁ 2----------❁ 3----------❁ 4----------❁ 5----------❁	0 25 50 75 100

Note that all items are scored so that a high score defines a more favourable health state. In addition, each item is scored on a 0 to 100 range so that the lowest and highest possible scores are set at 0 and 100, respectively. Scores represent the percentage of total possible score achieved.

In step 2, items in the same scale are averaged together to create the 8 scale scores. The following Table 4.4.2 lists the items averaged together to create each scale.

Table 4.4.2: Averaging the items to form scales

Scale	Number of items	After recoding per table 1; the following items are averaged
Physical functioning	10	3, 4, 5, 6, 7, 8, 9, 10, 11, 12
Role limitations due to physical health	4	13, 14, 15, 16
Role limitations due to emotional problems	3	17, 18, 19
Energy/Fatigue	4	23, 27, 29, 31
Emotional well-being	5	24, 25, 26, 28, 30
Social functioning	2	20, 32
Pain	2	21, 22
General Health	5	1, 33, 34, 35, 36

Items that are left blank (missing data) are not taken into account when calculating the scale scores. Hence, scale scores represent the average for all items in the scale that the respondent answered. The mean scores are hence taken from each group per scale and then discussed. The breakdown of the demographic results per group will now be presented and discussed.

4.4.1. The demographic results

A table representing all the relevant information regarding the participants is found below. The table includes all the results regarding participants' age, home language, religious background, sex, level of study and household or family income. Furthermore, the table distinguishes between the psychology group and the natural medicine group in relation to all the demographic information of the student population.

Table 4.4.3: Participants demographic information according to age, home language, religion, sex, level of study and household/family income

		Respondents Age			Total
		Under 18	18 - 24	25 +	
Respondents Course	Psychology	**2.5%**	**85.0%**	**12.5%**	**100**
	Nat. Medicine	**5.0%**	**52.5%**	**42.5%**	**100**
		Respondent's Home Language			Total
		English	Afrikaans	Xhosa	Zulu	Other	
	Psychology	**43.8%**	**26.3%**	**22.5%**	**2.5%**	**5.0%**	**100**
	Nat. Medicine	**58.6%**	**22.5%**	**15.0%**	**3.6%**	**0**	**100**
		Respondent's Religious Background					Total
		Christianity	Islam	Hindu	Traditional African	Other	
	Psychology	**83.8%**	**15.0%**	**0**	**1.3%**	**0**	**100**
	Nat. Medicine	**55.0%**	**21.3%**	**5.0%**	**18.8%**	**0**	**100**
		Respondent's Sex			Total
		Male	Female	
	Psychology	**27.5%**	**72.5%**	**100**
	Nat. Medicine	**30.0%**	**70.0%**	**100**
		Respondent's Level of Study			Total
		1st year	2nd year	3rd year	
	Psychology	**46.3%**	**7.5%**	**46.3%**	**100**
	Nat. Medicine	**33.8%**	**36.3%**	**30.0%**	**100**

		Household and Family Income (, 000)						Total
		Under R5,	R5, – R 10,	R10, – R15,	R15, - R20,	R20, - R25,	Not Indicated	
	Psychology	**35.0%**	**26.3%**	**13.8%**	**6.3%**	**6.3%**	**12.5%**	**100**
	Nat. Medicine	**17.5%**	**15.0%**	**17.5%**	**23.8%**	**17.5%**	**8.8%**	**100**

The table shows a representation of the demographic information of all the students in the study. The table, however, divides the natural medicine group from the psychology group and hence a comparison can be seen between the two groups. The results of each demographic category will be explored in relation to the specific group.

4.4.1.1. Age

The results indicate that the majority of the respondents participating in this study were aged between 18 and 24. As can be seen from the table, 85.0% of the psychology group and 52.5% of the Natural medicine group were aged between 18 and 24. There does, however, seem to be a split between the ages 18 – 24 and 25+ of the natural medicine group since 42.5% of the group ranged from 25+. Thus one can observe that the natural medicine age group seemed to be older than the psychology group.

4.4.1.2. Home language

The respondents' home languages ranged from English, Afrikaans, Xhosa, Zulu and Other. In both the natural medicine group (58.75%) and psychology (43.75%) group the dominant language spoken is English. However, the psychology group did not seem to have a

significant difference between Afrikaans (26.25%) and Xhosa (22.5%) speakers. There did not seem to be a high number of Zulu or *Other* speakers participating in this study in both groups. With reference to the Natural medicine group there was a small percentage of Xhosa speakers (15%) compared to the psychology group (22.5%). There was a higher number of Zulu speakers in this group though (3.75%). The questionnaire allocated space for respondents to complete their specific home language if they had answered *Other*. These answers included Chinese, Setswana, Tswana and Venda.

4.4.1.3. Religious background

The respondents' religious background ranged from Christianity, Islam, Hinduism, Traditional African Healing and a space for respondents to complete their religious background if *Other* (respondents would also need to specify to which religious affiliation they belonged). The majority of respondents who completed the questionnaire belonged to the Christian religious background from both the psychology group (83.75%) and the natural medicine group (55%). There was, however, more of a spread in the natural medicine group compared to the psychology group. Respondents in the natural medicine group who completed Islam as their religious background counted 21.25%; those who completed Hinduism as their religious background counted 5% and, lastly, those who completed Traditional African Healing counted 18.75%.

In the psychology group, respondents who completed Islam as their religious background counted 15%; respondents who completed Traditional African Healing as their religious

background counted 1.25%. In the psychology group none of the participants completed Hinduism as their religious background or affiliation. In both the psychology and natural medicine groups, none of the participants responded as *Other* on the questionnaire. However, it should be noted that some participants included that their affiliation to the religious background was by birth and some do not practise the religion that they ticked off on the questionnaire.

4.4.1.4. Sex

In both the psychology group and the natural medicine group, a higher number of females completed the questionnaire as opposed to males. In the psychology group, males comprised of 27.5% of the total population while females comprised of 72.5% of the total population. In the natural medicine group, males comprised of 30% and females comprised of 70% of the total population.

4.4.1.5. Level of study

The study was designed for undergraduate students and hence this ranges from first to third-year students. In the psychology group the results reflect an equal amount of first-year students (46.25%) and third-year students (46.25%) completing the questionnaire. There seemed to be a very small amount of second year psychology students (7.5%) completing the questionnaire. In the natural medicine group the results reflect a better spread of all the

undergraduate students; i.e. first-year students (33.75%), second-year students (36.25%) and lastly third-year students (30%).

4.4.1.6. Household and Family Income

Household and family income ranged from under R5000 to R25 000. The range contained the following breakdown:

Under R5 000	R5 – R10 000	R10 – R15 000	R15 – R20 000	R20 – R25 000

The results reflect more of spread in the natural medicines group while the majority of the psychology group seem to be located in the lower earning income bracket. The majority of respondents in the natural medicine group seemed to be located in the R15 - R20 000 income bracket (23.75%). The results reflect an equal amount of respondents in income ranges – Under R5 000; R10 – R15 000 and R20 – R25 000 (17.5%). The lowest percentage of the population is located in the R5 – R10 000 earning bracket (15%).

This was the only demographic variable that all respondents did not complete, 8.8% left this question blank. This could be attributed to the respondents not knowing their family's income or alternatively not wanting to disclose this information.

The majority of respondents in the psychology group seemed to be located in two specific income earning brackets; these being the Under R5 000 income brackets (35.0%) and the R5 – R10 000 income brackets (26.3%). The third income bracket relevant to the psychology

group is the range R10 – R15 000 (13.8%). The results reflect an equal amount of respondents in income ranges – R15 – R20 000 and R20 – R25 000 (6.3%). Results show a higher amount of psychology students did not complete this question (12.5%).

Hence the majority of respondents in the natural medicine group seemed to be in a higher household or family income earning bracket than the psychology group.

4.4.2. Healing methodologies results

The following table outlines all the alternative healing methodologies in the questionnaire and furthermore outlines the relevant percentages of participants utilising the specific healing methodology per psychology group and per natural medicine group.

The table also outlines the valid numbers and valid percentages of respondents completing the questionnaire hence giving an overall as well as a specific account of respondents' affiliation to alternative healing methodologies.

Table 4.4.4: Percentages of Alternative Healing practiced by students

Alternative Healing	Valid Numbers	Valid %	Missing Numbers	% Natural Medicine group	% Psychology group
Reiki	15	9 %	145	9%	-
Therapeutic touch	11	7 %	149	6%	0.6%
Acupressure	8	5%	152	5%	-
Vitamin Intake	**84**	**53 %**	**76**	**55%**	**50%**
Herbal remedies	**56**	**35%**	**104**	**50%**	**20%**
Ayurveda	6	4 %	154	4%	-
Traditional Chinese Medicine	16	10%	144	7%	3%
Meditation	37	23 %	123	16%	7%

Biofeedback	2	1 %	158	1%	-
Acupuncture	14	9 %	146	8%	0.6%
Massage Therapy	**49**	**31 %**	**111**	**24%**	**7%**
Relaxation Therapy	**40**	**25 %**	**120**	**14%**	**11%**
Spiritual Healing	32	20 %	128	14%	6%
Naturopathy	21	13 %	139	13%	0.6%
Yoga	30	19 %	130	17%	2%
Music Therapy	**64**	**40 %**	**96**	**41%**	**39%**
Traditional African Medicine	13	8 %	147	11%	5%
Aromatherapy	25	16 %	135	13%	3%
Homeopathy	17	11 %	143	10%	0.6%
Chiropractor	7	4 %	153	4%	-

Other methodologies utilised – Captured from self administered questionnaires	
Natural medicine group • Nutritional therapy; exercise • Healthy diet; anti-oxidant supplements • Cranio-sacral therapy; Kinesiology • Qi gong • Iridology, diet, mental attitude. I participate in very few organised healing methodologies = self help. • Kinesiology	*Psychology group* • Exercise or gym • Basic General Practitioner healing or pharmacological medication • Seeing a General Practitioner or praying • Talking about the problem ("Discuss with others makes me feel better") • Medication • Introspection • Modern medication

The table indicates that the most utilised healing methodology for both groups is *vitamin intake* (53% of the whole group; 55% of natural medicine students and 50% of psychology students) reported utilising this method of alternative healing. The second most utilised methodology is *music therapy* (40% of the whole group; 41% of natural medicine students and 39% of psychology students). The third most utilised methodology is *herbal remedies* (35% of the whole group; 50% of natural medicine students and 20% of psychology students).

The least utilised alternative healing methodology is *biofeedback* (1% of the whole group, 3% of natural medicine students and no psychology students reported utilising this method of alternative healing).

The natural medicine students overall use and practice of alternative medicines surpassed that of the psychology students. Although, as can be seen from the table, specific healing methodologies (such as music therapy, relaxation therapy and vitamin intake) showed minimal disparity between the two groups. Both groups indicated, in the section labelled other methodologies utilised, that *exercise* was a healing methodology.

Truter (2005) writes: "The progressive growth, for example, in the over the counter Complementary and Alternative health care market worldwide is reflected in South Africa with total annual sales of approximately R2 billion, R140 million of which is on herbals" (p. 13).

As Truter (2005) further acknowledges, almost every country has its own traditional medical system from which its alternative therapies originated. The Chinese, for example, initiated acupuncture, and in Africa, traditional African healing was born. Hence there is a sense of history and culture with all alternative healing therapies. But these therapies are not based on sound scientific investigation since most of the therapies stem from experiences and/or belief systems. This does not negate the practice/therapy or make it less valid than allopathic medicine. Neither is alternative medicine inferior to the mainstream medical practice; it simply does not meet the criteria for pure scientific deduction.

A study done by Chng, Neill and Fogle (2003) in California documented that 66% of college students reported using complementary and alternative medicine with higher use found among older students and female students.

4.5 Significant and Valid Chi Square results

This section presents the significant chi-square results from the overall RAND 36-Item health survey. Each valid question will be looked at separately and a discussion will follow the question in relation to the literature. The results show, firstly, the table of crosstabulations with the respondents' course and the item in the questionnaire. The valid chi-square test table is then presented to signify the valid results, after which a graph is presented to show a visual representation of the preceding tables.

Table 4.5.1: Crosstabulation output table of General Health and Respondents Course

Count

		General Health					
		Excellent	Very Good	Good	Fair	Poor	Total
Respondents Course	Psychology	17	26	28	9	0	80
	Natural Medicine	4	26	38	10	2	80
Total		21	52	66	19	2	160

All the questions are cross-tabulated with the course of each respondent. The first item measured the respondents' general health. The first question showed that more psychology students thought their health to be excellent, compared with natural medicine students. The majority of respondents from both, natural medicine and psychology groups, thought their

health to be *good*. However, 2.5% of natural medicine students reported that their health was poor. None of the psychology students reported that their health was poor.

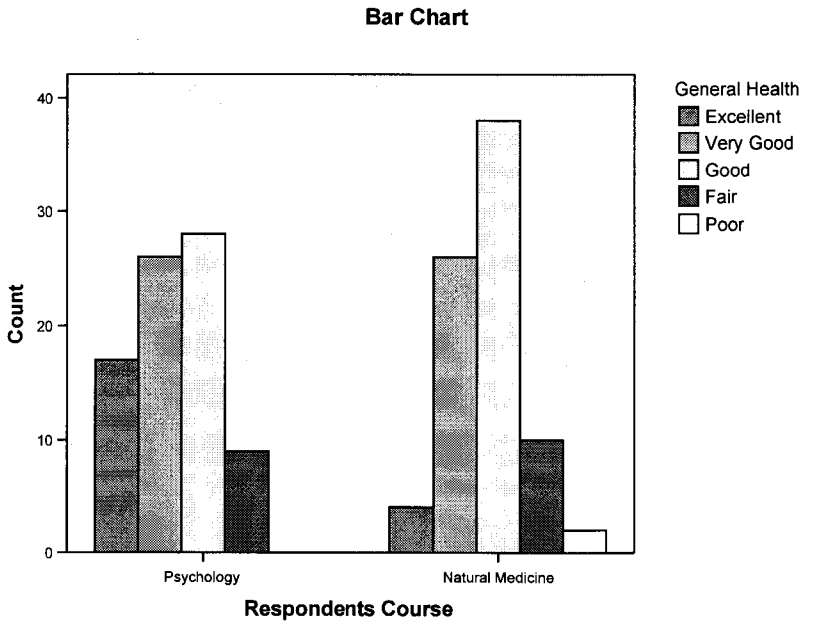
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	11.615[a]	4	.020	.015		
Likelihood Ratio	13.008	4	.011	.012		
Fisher's Exact Test	11.438			.015		
Linear-by-Linear Association	7.263[b]	1	.007	.009	.004	.002
N of Valid Cases	160					

a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 1.00.

b. The standardised statistic is 2.695.

As indicated by Table 4.5.1, of the valid total number of cases to this question (N = 160), 28 psychology students (35.0%) and 38 natural medicine students (47.5%) indicated that their health was good; this gives a prevalence of 41.3%. The difference between natural medicine students and psychology students are statistically significant at ($p > 0.05$). Hence more natural medicine students view their health as good compared to the psychology group.



As can be seen from the chart, more natural medicine students reported that their health was good, although more psychology students thought their health was excellent compared to natural medicine students.

Table 4.5.2: Crosstabulation output table of Respondents' Course and Health comparison to 1 year ago

Count

		Comparison to 1 year ago					
		Much better now	Somewhat better now	About the same	Somewhat worse now	Much worse now	Total
Respondents Course	Psychology	12	8	46	14	0	80
	Natural Medicine	14	18	41	5	2	80
Total		26	26	87	19	2	160

The second item that demonstrated significance was respondents' health compared to one year ago. Generally, respondents revealed that their health was *about the same* compared to

one year ago. The majority of the psychology and natural medicine students reported that their health was about the same compared to one year ago. However, more natural medicine students reported that their health was *somewhat better now* than it was one year ago. In addition, slightly more natural medicine students reported that their health was better now compared to one year ago.

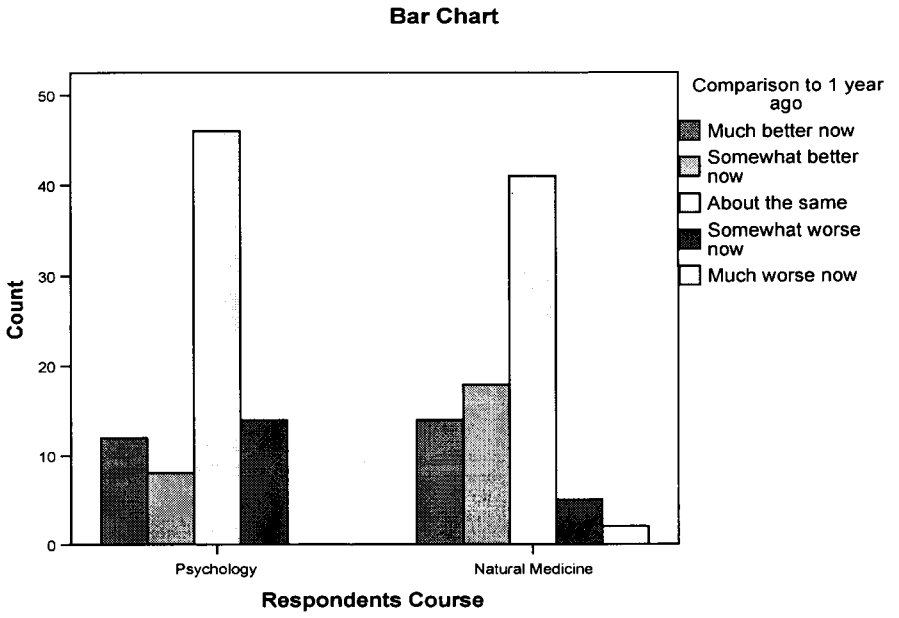
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	10.551[a]	4	.032	.024		
Likelihood Ratio	11.600	4	.021	.023		
Fisher's Exact Test	10.114			.027		
Linear-by-Linear Association	2.598[b]	1	.107	.127	.063	.019
N of Valid Cases	160					

a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 1.00.

b. The standardised statistic is -1.612.

As indicated by Table 4.5.2, of the valid total number of cases to this question (N = 160), 46 psychology students (57.5%) and 41 natural medicine students (51.3%) indicated that their health was about the same compared to one year ago; this gives a prevalence of 54.4%. The difference between natural medicine students and psychology students are statistically significant at ($p > 0.05$). More psychology students reported that their health was approximately the same one year ago.



As can be seen from the chart, approximately an equal amount of natural medicine students and psychology students reported that their health was about the same. More psychology students, however, reveal that their health is worse now compared to one year ago in relation to less response from the natural medicine students. Natural medicine students report that their health is much worse now compared to one year ago; there is no admission of this from the psychology group.

Table 4.5.3: Crosstabulation output table of Respondents Course and Limiting Health – Moderate Activities

Count

		Limiting Health - Moderate Activities			
		Yes, Limited a lot	Yes, Limited a little	No, Not limited at all	Total
Respondents Course	Psychology	5	14	61	80
	Natural Medicine	1	5	74	80
Total		6	19	135	160

This item inquired whether respondents felt that their health was limited when doing moderate activities. Respondents were requested to report whether they felt very limited, a little limited or not limited at all. The majority of respondents reported that they did not feel limited at all by moderate activities.

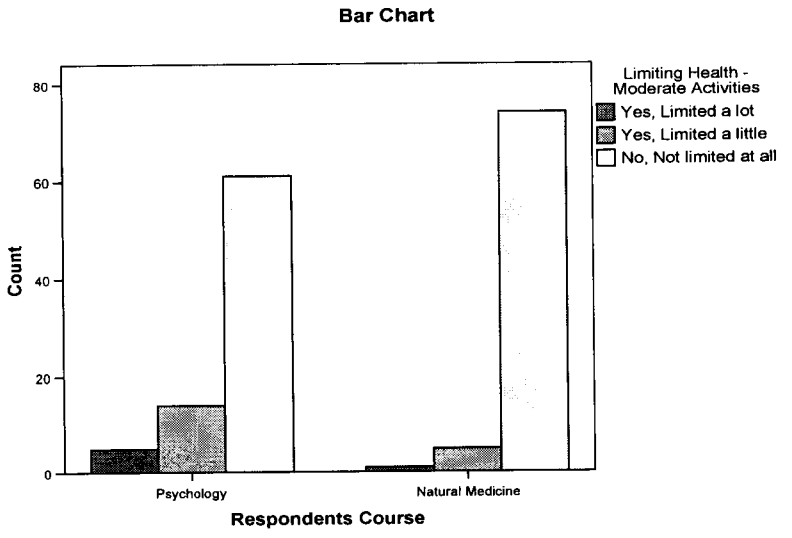
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	8.182[a]	2	.017	.015		
Likelihood Ratio	8.604	2	.014	.032		
Fisher's Exact Test	7.957			.015		
Linear-by-Linear Association	7.763[b]	1	.005	.007	.004	.002
N of Valid Cases	160					

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 3.00.

b. The standardised statistic is 2.786.

As indicated by Table 4.5.3, out of the valid total number of cases to this question (N = 160), 61 psychology students (76.3%) and 74 natural medicine students (92.5%) indicated that moderate activities did not limit their health at all; this gives a prevalence of 84.4%. The difference between natural medicine students and psychology students are statistically significant at ($p > 0.05$).



As can be seen from the chart, more natural medicine students reported not feeling limited at all compared to psychology students. More psychology students reported feeling limited by moderate activities, a little and a lot of the time, compared to natural medicine students.

Table 4.5.4: Crosstabulation output table of Respondents Course and Limiting Health – Lifting or carrying groceries

Count

		Limiting Health - Lifting or carrying groceries			
		Yes, Limited a lot	Yes, Limited a little	No, Not limited at all	Total
Respondents Course	Psychology	4	13	63	80
	Natural Medicine	2	4	74	80
Total		6	17	137	160

Respondents were asked whether they felt that their health was limited during lifting or carrying groceries. The majority of respondents reported that their health was not limited at all. However, more psychology students reported that their health was limited a little compared to fewer natural medicine students.

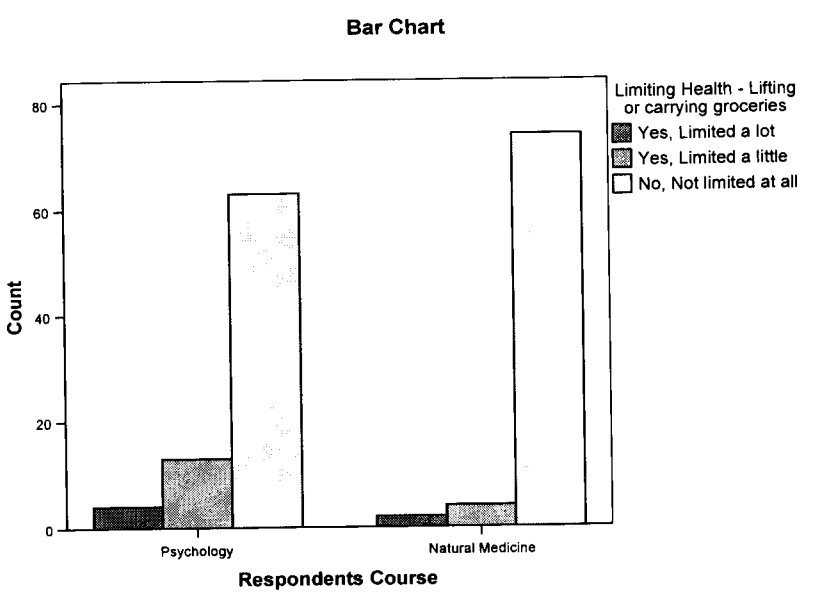
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	6.315[a]	2	.043	.048		
Likelihood Ratio	6.581	2	.037	.054		
Fisher's Exact Test	6.269			.048		
Linear-by-Linear Association	4.699[b]	1	.030	.043	.022	.013
N of Valid Cases	160					

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 3.00.

b. The standardised statistic is 2.168.

As indicated by Table 4.5.4, of the valid total number of cases to this question (N = 160), 63 psychology students (78.8%) and 74 natural medicine students (92.5%) indicated that lifting or carrying groceries did not limit their health at all; this gives a prevalence of 85.6%. The difference between natural medicine students and psychology students are statistically significant at ($p > 0.05$).



As can be seen from the chart the natural medicine group reported less limited health when lifting or carrying groceries compared to their psychology counterpart. More psychology students reported that their health was limited a little by carrying or lifting groceries compared to natural medicine students.

Table 4.5.5: Crosstabulation output table of Respondents Course and Limiting Health - Climbing several stairs

Count

		Limiting Health - Climbing several stairs			
		Yes, Limited a lot	Yes, Limited a little	No, Not limited at all	Total
Respondents Course	Psychology	8	24	48	80
	Natural Medicine	2	13	65	80
Total		10	37	113	160

Respondents reported on climbing several stairs and whether they felt that this limited their health. The majority of natural medicine and psychology students reported that their health was not limited at all by climbing several stairs. More psychology students, however, reported that their health was limited a little by climbing stairs compared to natural medicine students.

Chi-Square Tests

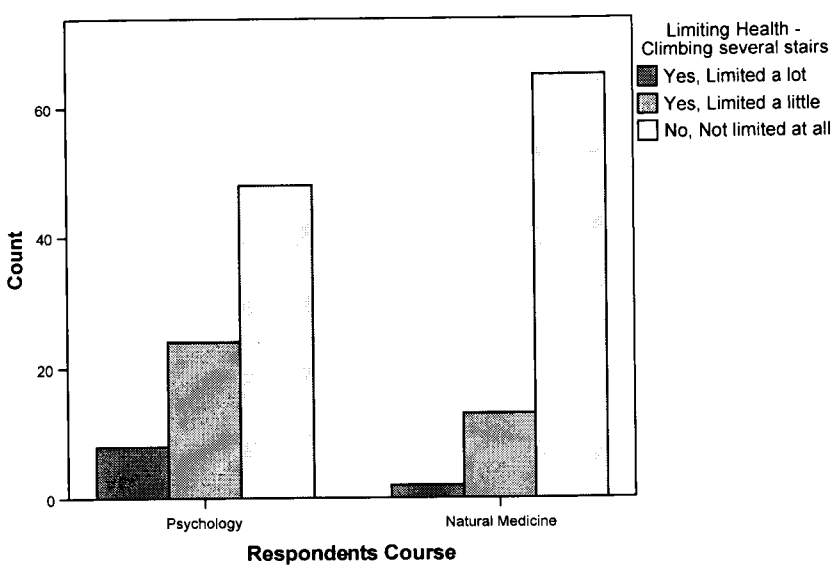
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	9.428[a]	2	.009	.008		
Likelihood Ratio	9.742	2	.008	.008		
Fisher's Exact Test	9.284			.008		
Linear-by-Linear Association	9.273[b]	1	.002	.003	.002	.001
N of Valid Cases	160					

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.00.

b. The standardised statistic is 3.045.

As indicated by Table 4.5.4, of the valid total number of cases to this question (N = 160), 48 psychology students (60.0%) and 65 natural medicine students (81.3%) indicated that their health was not limited at all when climbing several flights of stairs; this gives a prevalence of 70.6%. The difference between natural medicine students and psychology students are statistically significant at ($p > 0.05$).

Bar Chart



As can be seen from the chart, more natural medicine students compared to psychology students reported not being limited to climbing several stairs. More psychology students reported feeling a little limited as well as being limited quite a bit by climbing several stairs. The natural medicine students do not really feel limited by climbing stairs.

Table 4.5.6: Crosstabulation output table of Respondents Course and Limiting Health - Walking 1.5km +

Count

		Limiting Health - Walk 1.5km +			
		Yes, Limited a lot	Yes, Limited a little	No, Not limited at all	Total
Respondents Course	Psychology	8	22	50	80
	Natural Medicine	4	9	67	80
Total		12	31	117	160

The majority of both groups of students report that they do not feel limited by walking more than 1.5 km, although more natural medicine students reported not being limited at all compared to psychology students. More psychology students reported feeling a little limited when walking more than 1.5 km as well as feeling very limited compared to the natural medicine group.

Chi-Square Tests

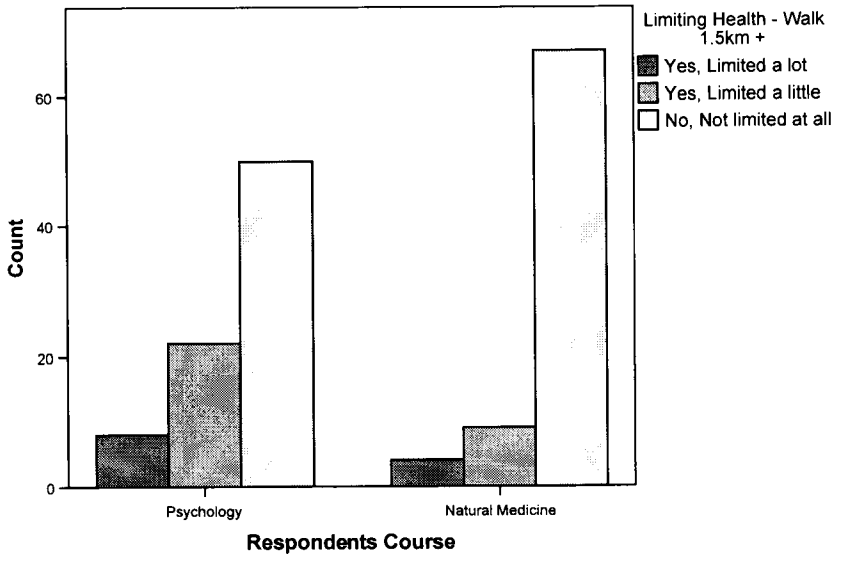
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	9.255[a]	2	.010	.010		
Likelihood Ratio	9.462	2	.009	.012		
Fisher's Exact Test	9.200			.012		
Linear-by-Linear Association	7.293[b]	1	.007	.009	.005	.003
N of Valid Cases	160					

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.00.

b. The standardised statistic is 2.700.

As indicated by Table 4.5.6, out of the valid total number of cases to this question (N = 160), 50 psychology students (60.0%) and 67 natural medicine students (81.3%) indicated that their health was not limited at all when walking further than 1.5 km; this gives a prevalence of 73.1%. The difference between natural medicine students and psychology students are statistically significant at ($p > 0.05$).

Bar Chart



As can be seen from the chart, natural medicine students reported a better health status compared to the psychology group since there are fewer students reporting limiting health when walking over 1.5 km. More psychology students report that their health is limited compared to the natural medicine group.

Table 4.5.7: Crosstabulation output table of Respondents Course and Limiting Health - Walking one block

Count

		Limiting Health - Walk one block			
		Yes, Limited a lot	Yes, Limited a little	No, Not limited at all	Total
Respondents Course	Psychology	6	9	65	80
	Natural Medicine	1	2	77	80
Total		7	11	142	160

The majority of respondents reported that their health was not limited at all by walking one block. However, more psychology students report feeling limited *a little* and *a lot* by walking one block.

Chi-Square Tests

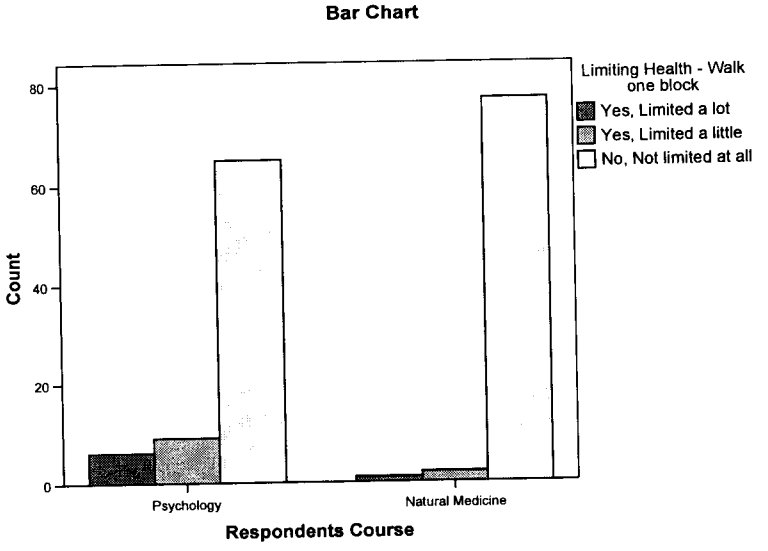
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	9.040[a]	2	.011	.008		
Likelihood Ratio	9.796	2	.007	.020		
Fisher's Exact Test	8.808			.011		
Linear-by-Linear Association	8.184[b]	1	.004	.005	.003	.002
N of Valid Cases	160					

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 3.50.

b. The standardised statistic is 2.861.

As indicated by Table 4.5.7, out of the valid total number of cases to this question (N = 160), 65 psychology students (81.3%) and 77 natural medicine students (96.3%) indicated that

their health was not limited at all when walking one block; this gives a prevalence of 88.8%. The difference between natural medicine students and psychology students are statistically significant at ($p > 0.05$).



As can be seen from the chart, the natural medicine group seemed to report a slightly better health status than the psychology students. But the majority of students from both of the courses report that they do not feel limited by walking one block.

Table 4.5.8: Crosstabulation output table of Respondents Course and Limiting Health – Bathing or dressing self

Count

		Limiting Health - Bathing or dressing self			
		Yes, Limited a lot	Yes, Limited a little	No, Not limited at all	Total
Respondents Course	Psychology	6	8	66	80
	Natural Medicine	3	0	77	80
Total		9	8	143	160

With reference to respondents feeling limited when bathing or dressing themselves, the majority of students from both courses report that they do not feel limited at all. However, as with the preceding questions, there seemed to be limitations experienced from the psychology group than from the natural medicine group. The psychology group reported feeling *a little* limited when bathing or dressing.

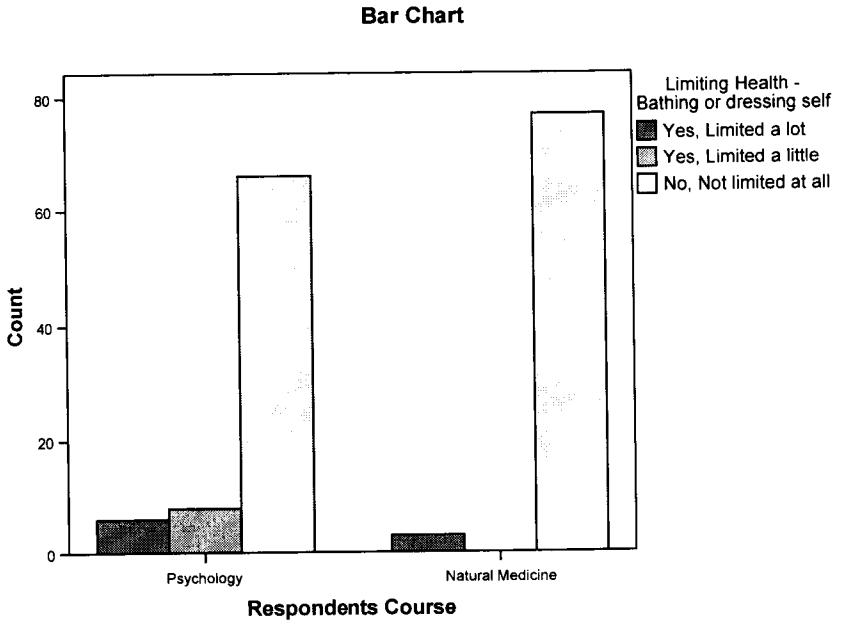
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	9.846[a]	2	.007	.005		
Likelihood Ratio	12.957	2	.002	.005		
Fisher's Exact Test	10.367			.006		
Linear-by-Linear Association	4.897[b]	1	.027	.038	.019	.011
N of Valid Cases	160					

a. 4 cells (66.7%) have expected count less than 5. The minimum expected count is 4.00.

b. The standardised statistic is 2.213.

As indicated by Table 4.5.8, out of the valid total number of cases to this question (N = 160), 66 psychology students (82.5%) and 77 natural medicine students (96.3%) indicated that their health was not limited at all when walking one block; this gives a prevalence of 89.4%. The difference between natural medicine students and psychology students are statistically significant at ($p > 0.05$).



As can be seen from the chart, natural medicine students report less limiting health than psychology students. Fewer students report that they were limited a lot compared with the psychology group. In addition, none of the natural medicine students reported being limited a little compared to 10% of psychology students reporting that bathing or dressing limited their health.

Table 4.5.9: Crosstabulation output table of Respondents Course and Happiness during the Past 4 weeks

Count

		Past 4 weeks - happy						
		All of the time	Most of the time	A good bit of the time	Some of the time	A little of the time	None of the time	Total
Respondents Course	Psychology	9	21	21	15	9	5	80
	Natural Medicine	6	42	16	11	5	0	80
Total		15	63	37	26	14	5	160

The following question inquired about respondents' emotional health and asked whether the students felt happy in the past month. Respondents were given 6 options to choose from ranging from feeling happy *all of the time, most of the time, a good bit of the time, some of the time, a little of the time* and *none of the time.* From the psychology group, an equal amount of learners reported that in the last month they felt happy *most of the time* as well as *a good bit of the time.* The majority of natural medicine students, however, reported that they felt happy *most of the time.*

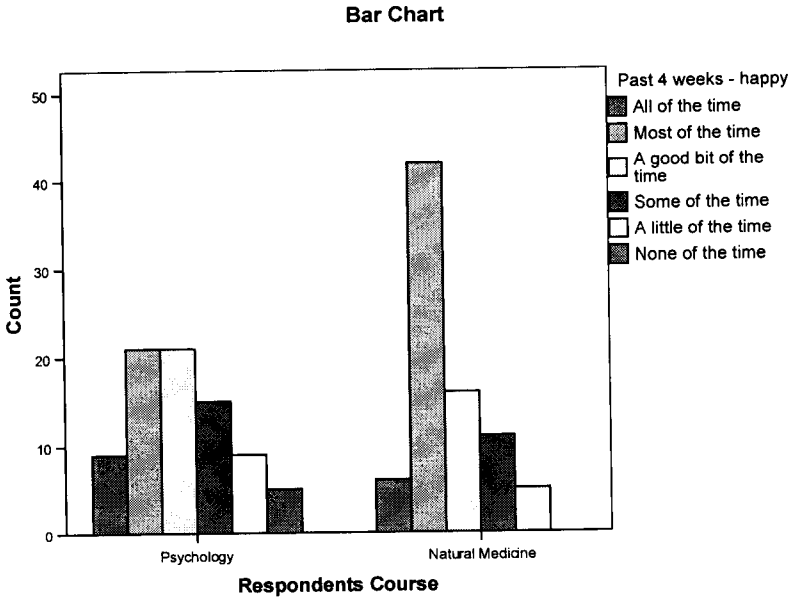
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	15.034[a]	5	.010	.008		
Likelihood Ratio	17.126	5	.004	.006		
Fisher's Exact Test	14.894			.009		
Linear-by-Linear Association	7.114[b]	1	.008	.009	.004	.001
N of Valid Cases	160					

a. 2 cells (16.7%) have expected count less than 5. The minimum expected count is 2.50.

b. The standardised statistic is -2.667.

As indicated by Table 4.5.9, out of the valid total number of cases to this question (N = 160), 21 psychology students (26.3%) and 42 natural medicine students (52.5%) indicated that they felt happy most of the time during the past 4 weeks, this gives a prevalence of 39.4%. The difference between natural medicine students and psychology students are statistically significant at ($p > 0.05$).



As can be seen from the chart, a higher percent of natural medicine students report being happy in the last month compared to the psychology group. Slightly more students from the psychology group report being happy *all of the time* compared to the natural medicine group. However, more psychology students also report to not being happy at all in the past month, whereas none of the natural medicine students agreed to that statement. Hence this chart indicated more natural medicine students reporting to being happy in the last month.

Table 4.5.10: Crosstabulation output table of Respondents Course and True or False statements regarding being as healthy as anybody else

Count

		T or F - healthy as anybody else					
		Definitely true	Mostly True	Don't Know	Mostly False	Definitely False	Total
Respondents Course	Psychology	16	28	20	13	3	80
	Natural Medicine	11	27	28	9	5	80
Total		27	55	48	22	8	160

The following question inquired whether the students thought their health was as good as anyone else's. The students were requested to state "definitely true", "mostly true"; "don't know", "mostly false" or "definitely false". The majority of respondents seemed to indicate that this statement was "mostly true".

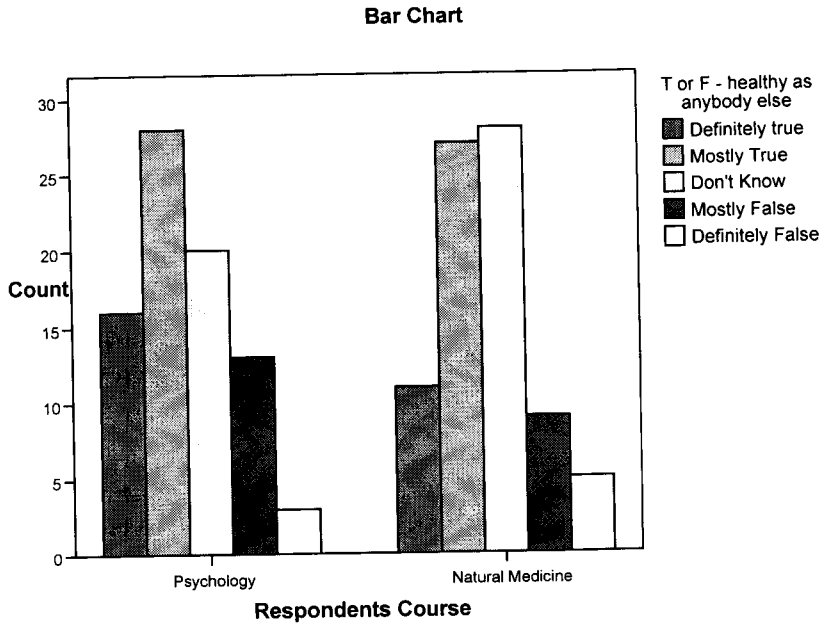
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	3.505[a]	4	.477	.484		
Likelihood Ratio	3.526	4	.474	.487		
Fisher's Exact Test	3.492			.483		
Linear-by-Linear Association	.648[b]	1	.421	.465	.233	.042
N of Valid Cases	160					

a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 4.00.

b. The standardised statistic is .805.

As indicated by Table 4.5.10, out of the valid total number of cases to this question (N = 160), 28 psychology students (35.0%) and 27 natural medicine students (33.8%) indicated that they felt mostly true to being as healthy as anybody else, this gives a prevalence of 34.4%. The difference between natural medicine students and psychology students are statistically significant at ($p > 0.05$).



As can be seen from the chart, both groups reported that their health was as good as anybody else's. The students from both groups perceived that the statement "I am as healthy as anybody I know" was *mostly true*. More students from the natural medicine group reported that they *did not know* whether this statement was true or not. Similarly more psychology students reported that this statement was *definitely true* compared to their natural medicine counterparts. Although more psychology students also reported that the statement relating to health being as good/bad as anybody else was *mostly false* compared to natural medicine students. Hence, overall, slightly more psychology students thought that their health was on par with anybody else they knew.

Table 4.5.11: Crosstabulation output table of Respondents Course and True or False statements regarding the expectation of health to worsen

Count

		T or F - expecting health to worsen					
		Definitely true	Mostly True	Don't Know	Mostly False	Definitely False	Total
Respondents Course	Psychology	1	14	20	14	31	80
	Natural Medicine	1	2	28	19	30	80
Total		2	16	48	33	61	160

The table shows that both psychology students and natural medicine students were not expecting their health to worsen. The students were required to answer true or false to the statement: "I expect my health to worsen". The majority of students reported this statement to be *definitely false*, although there were also many students that reported they *do not know* whether their health will worsen or not. More psychology students reported this to be true, more so than the natural medicine students.

Chi-Square Tests

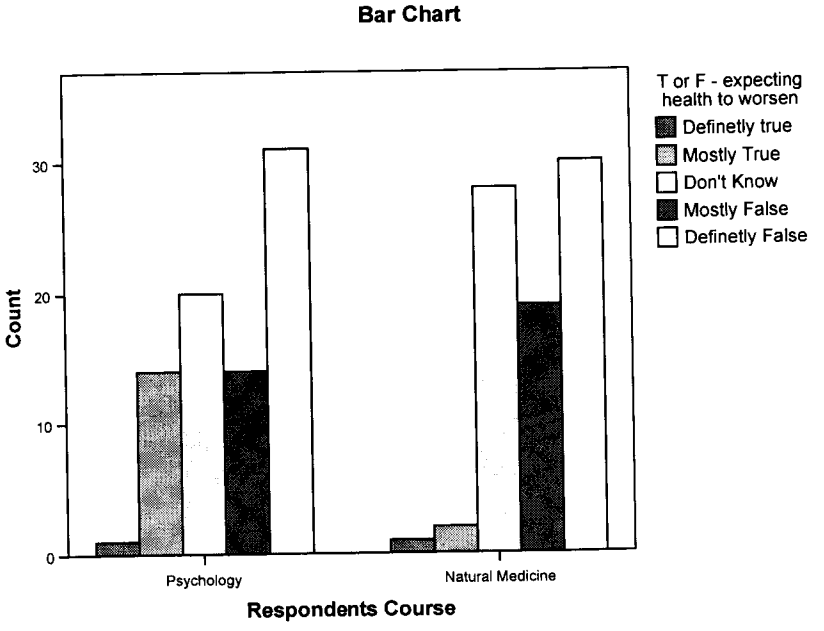
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	11.107[a]	4	.025	.019		
Likelihood Ratio	12.241	4	.016	.017		
Fisher's Exact Test	11.719			.013		
Linear-by-Linear Association	1.195[b]	1	.274	.308	.154	.032
N of Valid Cases	160					

a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 1.00.

b. The standardised statistic is 1.093.

As indicated by Table 4.5.11, out of the valid total number of cases to this question (N = 160), 31 psychology students (38.8%) and 30 natural medicine students (37.5%) indicated that they definitely did not expect their health to worsen; this gives a prevalence of 38.1%.

The difference between natural medicine students and psychology students are statistically significant at ($p > 0.05$).



As can be seen from the chart, more of the natural medicine students report that they do not expect their health to worsen, however, there were some psychology students reporting the opposite. More psychology students revealed that they do expect their health to worsen.

4.6. Mean Values for the recoded values

The following table indicates the values derived after recoding the items in the questionnaire as per the guidelines.

Table 4.6.1: Mean score and standard deviation of students after recoding

PHYSICAL FUNCTIONING		
	Mean Score	**Standard Deviation**
Psychology students	**91.3**	**22.6**
Natural Medicine students	**81.4**	**31.5**
ROLE LIMITATIONS DUE TO PHYSICAL HEALTH		
Psychology students	**72.5**	**44.7**
Natural Medicine students	**68.4**	**46.5**
ROLE LIMITATIONS DUE TO EMOTIONAL HEALTH		
Psychology students	**52.1**	**50.1**
Natural Medicine students	**47.9**	**50.1**
ENERGY / FATIGUE		
Psychology students	**61.4**	**25.4**
Natural Medicine students	**58.7**	**27.6**
EMOTIONAL WELL-BEING		
Psychology students	**64.9**	**24.2**
Natural Medicine students	**62.4**	**26.8**
SOCIAL FUNCTIONING		
Psychology students	**65.1**	**26.0**
Natural Medicine students	**62.1**	**27.6**
PAIN		
Psychology students	**80.1**	**22.0**
Natural Medicine students	**75.3**	**23.6**
GENERAL HEALTH		
Psychology students	**71.8**	**33.0**
Natural Medicine students	**67.2**	**35.1**

The mean score indicates the average score of the group as well as indicating the majority score of the specific population. The two groups will be looked at and compared in relation to the results.

From the table, the scores indicate that the psychology group reported a higher incidence of *not being limited at all* with regard to physical functioning. This group also reported that they do not experience role limitations due to physical health. There seemed to be less agreement from both groups to experiencing role limitations due to emotional health. The scale indicates that 0 = Yes and 100 = No in terms of the choice of responses. The psychology group scored 52.1 and the natural medicine group scored 48.0. Hence the psychology group experiences a minimal increase in role limitations due to emotional health compared to the natural medicine group.

The psychology group also reported a higher incidence of experiencing mild energy or fatigue some of the time, more so than the natural medicine group.

There was a small difference between emotional well-being from both groups. Both groups reported experiencing emotional well-being some of the time. The psychology group reported a slightly higher score than the natural medicine group.

Similarly, the psychology group reported a slightly higher score in relation to social functioning. Both groups reported that their experience of social functioning was very good; however, the psychology group scored 65.1, whereas the natural medicine group scored 62.1.

Both groups experienced mild pain, although again, the psychology group reported a higher score than the natural medicine group. The psychology group scored 80.1 and the natural medicine group scored 75.3. Hence the psychology group experience more mild pain than the natural medicine group.

With reference to the last scale, i.e. general health, the psychology group once again reported that they experienced very good health more so than the natural medicine group. The psychology group scored 71.8 whereas the natural medicine group scored 67.2. Hence the psychology group reported better general health than the natural medicine group.

The overall results indicate that one third of the survey was reported as being significant for all of the participants. The psychology group reported a higher mean score for all of the health concepts.

4.7 SUMMARY OF FINDINGS

In summary, the quantitative results suggest that there was a significant difference for the enquiry on, general health; health compared to one year ago; limiting health caused by - *a) moderate activities, b) lifting or carrying groceries, c) climbing several stairs, d) walking more than 1.5 km, e) walking one block, f) bathing or dressing;* happiness experienced during the past 4 weeks; true or false statements related to – *a) perception of being as healthy as anybody else, b)expectation of worsening health.*

Hence the alternate hypothesis is accepted since there is a significant difference between the two groups. Therefore, the null hypothesis is rejected and the alternate hypothesis is accepted.

In summarising the results, the researcher looked at the core findings and in relation to *General health*, there was a higher percent of natural medicine students who reported their general health to be *good* although it is interesting to note that a small percentage of natural medicine students reported that their health was *poor*. None of the psychology students reported a perception of *poor* health, and a higher percent reported that their health was excellent compared to the natural medicine group. Hence the psychology group reported more favourably in relation to general health than natural medicine students.

In relation to health comparison to one year ago, both groups reported being 'about the same'. Although, a small percent of natural medicine students reported that their health was 'much worse now' compared to one year ago, whereas none of the psychology students reported on this. Conversely, fewer psychology students reported being 'somewhat better' than one year ago compared to the natural medicine students. In addition, more psychology students reported being 'much worse' now than one year ago. Hence the natural medicine group reported more favourably in relation to health comparison to one year compared to the psychology group.

When comparing "limiting health" between the 2 groups, looking at *moderate activities, lifting or carrying groceries, climbing several steps, walking one block, bathing or dressing;*

the higher percent of students from the natural medicine group reported 'not being limited at all' compared to the psychology group. With reference to all of the above constructs, the natural medicine group reported more favourably than the psychology group.

When comparing happiness during the past 4 weeks (taken at the time of the administration of the questionnaire), the natural medicine group reported a higher incidence of being happy 'most of the time' compared to the psychology group. In addition, a small percent of the psychology group reported being happy 'none of the time' during the past 4 weeks. Once more, the natural medicine group reported more favourably than the psychology group.

In relation to the 'true or false statements' and the perception of being as healthy as anybody else, a higher percent of psychology students reported on this statement being definitely' and 'mostly' true whereas a higher percent of natural medicine students reported 'not knowing' whether this statement was true or not. Thus the psychology group reported more favourably than the natural medicine group. With regard to the statement of the expectation of health to worsen, a higher incidence of psychology students reported that this statement was 'mostly' true compared to a rather small percent of natural medicine students agreeing to this statement. More natural medicine students reported not knowing as well as reported that this statement was mostly false compared to the psychology group. Hence the natural medicine group reported more favourably than the psychology group.

Results suggest that when comparing psychology and natural medicine students, the psychology students scored less favourably than the natural medicine students. Theory

suggests that because of the holistic conceptualisation of health, alternative healing practitioners and their students adopt a viewpoint that is consistent with treating the body as an interconnected entity in which all parts affect the whole.

The investigation around the use of alternative healing methodologies by all students showed results consistent with all natural medicine students utilising at least one of the models of alternative healing when compared to the psychology group. The psychology group did not utilise the majority of the suggested models of alternative healing and neither did the students report on additional alternative healing approaches. The prevalent alternative healing practised by both groups (although a higher incidence of reporting by the natural medicine group) is vitamin intake, herbal remedies, massage therapy, relaxation therapy and music therapy.

It is not surprising that the natural medicine students scored higher than the psychology group in relation to alternative healing use. However, the conservation of health is fundamental to both health faculties. The literature reports that alternative practice is being utilised by the majority of college students (Chng, Neill and Fogle, 2003).

The space for an integrative approach to medicine is growing and soon health will encompass both constructs working congruently to optimise health in a more effective way.

The following chapter looks at the recommendations and limitations of the study.

Chapter 5

RECOMMENDATIONS, LIMITATIONS & CONCLUSION

This chapter will suggest recommendations for future study and will furthermore explore limitations of the theory and the study. Finally, the research will conclude with some of the highlights of the study.

5.1. Recommendations for future study

The methodology utilised within this study was effective and proved to be fairly uncomplicated. Future research may consider using a comparative study to elaborate on the richness of data. This study utilised groups that were similar in output but different in approach, .i.e. both groups facilitate learning around health albeit using different approaches and directives. The psychology faculty focuses on mental health of patients and natural medicine practitioners focus on the holistic composition of the individual. Natural medicine students should have some of the same ideologies of psychology students and hence there was not too large a difference in their answers; although, it should be noted that the natural medicine group was a difficult group to penetrate due to the size of the natural medicine department.

The researcher recommends that further study be invested in clarifying whether better health status increases as alternative healing practices within the individual's life increases.

Additionally, further research could investigate whether there is a significant change to health without the incorporation of alternative healing practices.

5.2. Limitations of the study

Within all studies problems and issues arise that affect the validity of studies. Even though a pilot study had been conducted within this study, language problems arose. Some participants did not understanding questions and were not able to express their viewpoint effectively. Fortunately this did not affect the entire study, but a small area within the qualitative research.

In addition, recording equipment failed during an interview (unknown to the interviewer) and the interview needed to be re-recorded. This has implications for the validity and reliability of those results since the participant has a level of familiarity with the questions as well as interview setup. The participant might have also included statements in the previous interview that she did not include in the final interview. Hence there are issues of memory retention and familiarity with questions.

When considering the research implications for such a theory and what the theory is hypothesizing, immediately consideration should be given to the fact that most of the data that is usually collected when researching attitudes is through self-reports. A limitation of this method of data collection is that individuals respond to these questionnaires based on what they think the right answer should be and not how they honestly feel. Hence an

individual's truthful attitudes are not always captured and this can flaw research results especially when content is of a prejudicial nature. Smith and Stones (1999) conducted research on identities and racial attitudes in South Africa and compared this with American adolescents, or rather a cross-cultural examination. In this study there were inconsistencies and contradictory findings within the research. There was a strong contradiction "...of seemingly acknowledging the justice of majority rule while remaining separate and somewhat resentful. A second contradictory result of this study was that groups that scored high on cultural identity scored lower on racial membership identification... the finding may be explained if individuals were reluctant to identify with other group members if their group is not valued by society" (p. 28).

Attitudes are not the only variable that is pertinent to an individual behaving in a specific way. There are many reasons contradicting in nature that motivate individuals to act or behave. For example, if a family was staunch Christian and went to church every Sunday, just because a behaviour of not going to church one Sunday because of a sick child at home does not mean they are no longer Christian. Hence there are extraneous variables that could impact on contradictory results of attitude and behaviour.

Attitudes also shift over time. One's attitudes and beliefs change as one grows older and what an individual believes now does not necessarily predispose that belief at a later stage in life. If an individual learns about a contrasting belief through life experience then this could influence the individual to change his/her current belief, thus attitudes are not constant or consistent with time.

5.3. Limitations of the theory of reasoned action

The theory of reasoned action purports that people are rational (Ajzen & Fishbein, 1975) and this is not always the case, especially when dealing with abstract concepts. Rationality asserts a positivistic stance in that there is only one truth or a notion of right and wrong. When dealing with affect or the emotive dynamic there is no such stance. The two seem contradictory at the very core. As Sailor and Paul (2004) assert: "Positivist researchers are interested in praxis and believe the methods of positivist science have been and should continue to be used in understanding a lawful universe. It is only when we understand the generalisable regularities of behaviour, for example, and empirically validate our interventions that we can have a science of education" (p. 43).

As Henerson, Morris and Fitz-Gibbon (1987) posit, an attitude is not something that can be examined and measured in the same way that the water pressure in a container can be calculated and measured. There can only be an inference that the attitude that an individual purports to possess is described or voiced by virtue of their language or by their actions. However, there are many different kinds of attitudes, ones that are simple and others that are more complex. Sometimes attitudes can be fluctuating and do not always have consistency; they can be quite volatile depending on the situation or environment in which they are manifested.

"Specifically, theory of reasoned action theorists' assumes that people critically analyze available information regarding the consequences of their behaviour before deciding whether

to engage in a given behaviour, and posit that all behaviour is under volitional control. Thus, it is assumed that a person's intention to engage in behaviour is highly predictive of whether that person actually engages in that behaviour. Therefore, according to the theory of reasoned action theorists', the best predictor of behaviour is to ascertain the person's intent to engage in that behaviour" (Cod and Cohen 2003, p. 169).

There exists an overlap between the constructs of the theory of reasoned action as posited by Park (2000): "...the attitudinal and normative components of the theory are often highly correlated, and the influences of personal and social elements on behavioural intentions are not easily differentiated" (p. 164).

Park (2000) further suggests that the outcome of behaviour has implications for other people and hence for some people this awareness impacts the decision making process for that individual.

One can argue against the concept of volition in the theory of reasoned action since the value of significant 'others' may carry more weight in performing behaviour than the individual's choice. For example, one's choice to perform or behave in an action that you yourself would like to engage in but your parents would not like you to engage in would cause much inner conflict. Depending then on the extraneous variables surrounding the behaviour one could be inclined not to act simply because of the reaction of one's parents, even though one really would like to perform the behaviour. This then brings into question whether will and choice are valid constructs in this theory, or whether salient beliefs hold more value.

Ajzen and Fishbein's theory of reasoned action does not contain assumptions about the internal organisation of the beliefs that are assumed to determine one's attitude about a behaviour (Duran & Trafimow, 2000). "Thus, this theory suggests that, to form an intention about a behaviour a person presumably accesses and tallies the weight of a belief, accesses and tallies the weight of another belief (not previously accessed) and continues in this vein until he or she has accessed all beliefs about the behaviour in question. At the same time the person must retain the weights of the beliefs in memory long enough to form an intention" (Duran & Trafimow, 2000, p. 180).

One can argue that this is not the case. The assessment or tallying of beliefs around issues are rather complex and individuals rarely engage in such assessments in daily practice, rather people engage in behaviour that can be easily described as having a positive outcome or a negative outcome. The process of tallying beliefs implies that an individual engages in a process of weighing up first what is good and then weighing up what is bad and through eliminating all beliefs that are bad one eventually reaches a resultant good / positive belief after which an intention is formed. This seems like an implausible assessment since the mind simply processes good and bad based on what the consequence of the behaviour will entail.

Oskamp (1991) notes that "...little is known about the comparability of differing methods of measurement and the confusion of noncomparable dependent variable measures may account for many of the conflicting findings in the attitude research" (p. 207).

A theory based on attitudes and beliefs is a theory fraught with methodological research flaws because sometimes these constructs are not even closely related because of inconsistencies of individuals' rationality. Individuals who have an attitude toward an object sometimes do not mean that they necessarily believe the truth consistent with that attitude; this could simply mean that an individual is experiencing some kind of peer pressure from the outside world. For example, just because I am a Christian and the Bible says it is a sin for homosexual relationships to exist; even my parents believing it does not mean that I have to negate same-sex marriages. The individual might experience a fair level of conflict with his/her environment for having an attitude different from those significant or salient individuals. Although it should be noted that in a meta-analysis of 26 studies conducted by Farley, Lehman and Ryan (1981) they found that an attitude value dominates subjective norm. As stated by Vallerand et al (1992): "It is not clear why attitudes generally play a more important role than subjective norms in the prediction of behavioural intention. One potential explanation deals with the fact that attitudes focus directly on the consequences of action (attitudes toward the act) whereas the subjective norms deal with a more remote element namely perceptions of what significant others think one should do" (p. 111).

5.4. Highlights of the study / Implications

The thesis highlighted the alternative and allopathic healing practice of both psychology and natural medicine students. Application of the alternative healing methodology was widely practised by both the natural medicine group and the allopathic/psychology group (albeit at different levels of utilisation). The psychology students utilised alternative healing as a

means of a preventative process and included practices such as vitamin intake and physical exercise as a means of improving health. The natural medicine students utilised the methodology on both a preventative and a curative basis. This utilisation of alternative healing demonstrates the inclusion of the previously peripheral mode of healing into a more inclusive and integrative approach.

The study also highlighted a shift in perception toward an inclusion of spiritual assessment in health conceptualisation. In other words, the majority of the students viewed their own health as incorporating a spiritual aspect which lent itself to changing the definition of an exclusively allopathic/medical definition. This has further implications for a merging, or an amalgamation, of these dichotomous healing practices into a more integrative or complementary practice. Because of the increased numbers of people utilising natural medicine and the existent South African community utilising Traditional healing, the benefits of combining these practices are insurmountable. This would affect not only the social but the economic structure of the South African healthcare system. The literature suggests that the higher income groups have more access to healthcare compared to the lower socio-economic groups and hence this negates 'quality' healthcare to the majority of South Africans.

Changes have already been made with regard to including Traditional healing as mainstream medicine with the Traditional Health Practitioners Bill (2003) which was approved by parliament and this bill regulates the practice of this healing methodology. Healers are formally recognized and, in addition, will be incorporated into the Medical Schemes Act for

patients to utilise services and derive benefits on medical aid. As previously reported almost three quarters of the South African population utilise this healing methodology; thus traditional healers/practitioners as well as their clients will benefit from this legislation. A council has been formed to facilitate the process of integration and traditional healers will be barred from diagnosing or treating HIV/AIDS and cancer patients. This has implications for a spiritual component within this healing practice, which as the study suggests, include individuals as part of the definition of health. An important aspect of health is not only the physical capability of the body to heal itself, there is a spiritual and attitudinal component for the individual to believe and 'want' to be healed. This study suggests that all of these components act congruently in every individual to facilitate or hinder health and, furthermore, suggests that there is a shift or inclination to adopt a lifestyle more enhancing and preserving of life.

5.5. Conclusion

This study explored health in relation to a self-administered questionnaire and took social circumstances (including, income, race, age, level of study, religion and gender) into consideration. Results showed that psychology students reported a higher score on both positive behavioural and negative behavioural traits. Results also suggest that both groups showed an understanding and an inclination to utilisation of CAM practices and all students utilised at least one alternative healing therapy.

In the light of South Africa's multi-cultural society, it would be beneficial to adopt an integrative approach to healthcare. Acceptance and understanding of culture/religiosity, social conditions, age, education, gender, income and race affect aspects of a healthy or unhealthy individual and these factors can inhibit as well as accelerate health. South Africa's health-care system should strive to incorporate CAM into the existing system to facilitate a larger audience.

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APPENDIX

PROPERTIES OF THE QUESTIONNAIRE

The properties of the questionnaire with reference to reliability, central tendency and variability of scales in the Medical Outcomes Study are as follows:

SCALE	ITEMS	ALPHA	MEAN	SD
Physical functioning	10	0.83	70.61	27.42
Role functioning	4	0.84	52.97	40.78
Emotional functioning	3	0.83	65.78	40.71
Energy / fatigue	4	0.86	52.15	22.39
Emotional well being	5	0.90	70.38	21.97
Social functioning	2	0.85	78.77	25.43
Pain	2	0.78	70.77	25.46
General Health	5	0.78	56.99	21.11
Health change	1	---	59.14	23.12

Note: Data is taken from the Baseline of the Medical Outcomes Study (N = 2471), except for Health Change, which was obtained one year later.

(Retrieved from site: http://www.rand.org/health/surveys/ sf36items/scoring.html)

GENERAL HEALTH QUESTIONNAIRE:

Dear participant,

I am conducting a survey of attitudes around health and healing. Your input will be used for a master's research thesis project. Your responses will be anonymous and confidential and never associated with information that could identify you personally. Only aggregated data from this survey will be reported in the study. As there are no right or wrong answers to any item in this questionnaire please respond to each item according to how you feel at this point in time. Participation in this study is voluntary. You may decide not to complete this survey at any time.

Thank you.

PLEASE NOTE: Completion of this survey indicates your consent to participate.

1. In general, would you say your health is:

EXCELLENT (1)	VERY GOOD (2)	GOOD (3)	FAIR (4)	POOR (5)

2. **Compared to one year ago**, how would you rate your health in general **now**?

MUCH BETTER NOW THAN 1 YEAR AGO	1
SOMEWHAT BETTER NOW THAN 1 YEAR AGO	2
ABOUT THE SAME	3
SOMEWHAT WORSE NOW THAN 1 YEAR AGO	4
MUCH WORSE NOW THAN 1 YEAR AGO	5

The following items are about activities you might do during a typical day. Does **your health now limit you** in these activities? If so, how much?
(Circle One Number on Each Line)

	YES, LIMITED A LOT	YES, LIMITED A LITTLE	NO, NOT LIMITED AT ALL
3. Vigorous activities such as running lifting heavy objects participating in strenuous sports	[1]	[2]	[3]
4. Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling or playing golf	[1]	[2]	[3]
5. Lifting or carrying groceries	[1]	[2]	[3]
6. Climbing several flights of stairs	[1]	[2]	[3]
7. Climbing one flight of stairs	[1]	[2]	[3]
8. Bending, kneeling, or stooping	[1]	[2]	[3]

9. Walking more than 1.5 km	[1]	[2]	[3]
10. Walking several blocks	[1]	[2]	[3]
11. Walking one block	[1]	[2]	[3]
12. Bathing or dressing yourself	[1]	[2]	[3]

During the **past 4 weeks**, have you had any of the following problems with your work or other regular daily activities **as a result of your physical health**?

(Circle one Number on Each Line)

	YES	NO
13. Cut down the amount of time you spent on work or other activities	1	2
14. Accomplished less than you would like	1	2
15. Were limited in the kind of work or other activities	1	2
16. Had difficulty performing the work or other activities (for example it took extra effort)	1	2

During the **past 4 weeks**, have you had any of the following problems with your work or other regular daily activities **as a result of any emotional problems** (such as feeling depressed or anxious)?

(Circle one Number on Each Line)

	YES	NO
17. Cut down the amount of time you spent on work or other activities	1	2
18. Accomplished less than you would like	1	2
19. Didn't do work or other activities as carefully as usual	1	2

20. During the **past 4 weeks**, to what extent has your physical health or emotional problems interfered with your normal social activities with family friends, neighbours or groups?
(Circle one Number)

NOT AT ALL (1)	**SLIGHTLY (2)**	**MODERATELY (3)**	**QUITE A BIT (4)**	**EXTREMELY (5)**

21. How much **bodily** pain have you had during the **past 4 weeks**?
(Circle one Number)

NOT AT ALL (1)	**SLIGHTLY (2)**	**MODERATELY (3)**	**QUITE A BIT (4)**	**EXTREMELY (5)**

22. During the **past 4 weeks**, how much did **pain** interfere with your normal work (including both work outside the home and housework)?
(Circle one Number)

NOT AT ALL (1)	SLIGHTLY (2)	MODERATELY (3)	QUITE A BIT (4)	EXTREMELY (5)

These questions are about how you feel and how things have been with you **during the past 4 weeks**. For each question, please give the one answer that comes closest to the way you have been feeling.
How much of the time during the **past 4 weeks...**

(Circle One Number on Each Line)

	ALL OF THE TIME	MOST OF THE TIME	A GOOD BIT OF THE TIME	SOME OF THE TIME	A LITTLE OF THE TIME	NONE OF THE TIME
23. Did you feel full of pep?	1	2	3	4	5	6
24. Have you been a very nervous person?	1	2	3	4	5	6
25. Have you felt so down in the dumps that nothing could cheer you up?	1	2	3	4	5	6
26. Have you felt calm and peaceful?	1	2	3	4	5	6
27. Did you have a lot of energy?	1	2	3	4	5	6
28. Have you felt downhearted and blue?	1	2	3	4	5	6
29. Did you feel worn out?	1	2	3	4	5	6
30. Have you been a happy person?	1	2	3	4	5	6
31. Did you feel tired?	1	2	3	4	5	6

32. During the **past 4 weeks**, how much of the time has your **physical health or emotional problems** interfered with your social activities (like visiting with friends, relatives, etc)?
(Circle one Number)

ALL OF THE TIME (1)	MOST OF THE TIME (2)	SOME OF THE TIME (3)	A LITTLE OF THE TIME (4)	NONE OF THE TIME (5)

How TRUE or FALSE is <u>each</u> of the following statements for you?
(Circle one Number on Each Line)

	Definitely TRUE	Mostly TRUE	DON'T KNOW	Mostly FALSE	Definitely FALSE
33. I seem to get sick a little easier than other people	1	2	3	4	5
34. I am as healthy as anybody I know	1	2	3	4	5
35. I expect my health to get worse	1	2	3	4	5
36. My health is excellent	1	2	3	4	5

DEMOGRAPHICS:

AGE:

Under 18 (1)	**18 – 24** (2)	**25 +** (3)

LANGUAGE:

English (1)	**Afrikaans** (2)	**Xhosa** (3)	**Zulu** (4)	**Other** (5)

Other (specify): _____

RELIGIOUS BACKGROUND (Please tick):

Christian (1)	**Islam** (2)	**Hindu** (3)	**Other** (4)

Other (specify): _____

SEX (Please tick):

Male (2)	**Female** (1)

COURSE (Please tick):

Natural Medicine (2)	**Psychology** (1)

LEVEL OF STUDY (Please tick):

1st year (1)	**2nd year** (2)	**3rd year** (3)

HOUSEHOLD OR FAMILY INCOME (Please tick appropriate box):

Under R 5000 (1)	R5 000 – R10 000 (2)	R 10 000 – R 15 000 (3)	R15 000 – R 20 000 (4)	R20 000 (and over) (5)

Alternative healing Methodology (Please include all utilised):

Reiki	(1)	Ayurveda	(6)	Massage Therapy	(11)	Music Therapy	(16)
Therapeutic Touch	(2)	Traditional Chinese Medicine	(7)	Relaxation therapy	(12)	Traditional African Healing	(17)
Acupressure	(3)	Meditation	(8)	Spiritual Healing	(13)	Aromatherapy	(18)
Vitamin intake	(4)	Biofeedback	(9)	Naturopathy	(14)	Homeopathy	(19)
Herbal remedies	(5)	Acupuncture	(10)	Yoga	(15)	Chiropractor	(20)

If other, please specify (Include all):

_____

_____

Thank you again for your participation.

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Qualitative Interview schedule

1. How do you define health?

2. What does health encompass for you? In other words, what does it incorporate?

3. Would you consider yourself as being a healthy person? If so, why? If not, why not?

4. What does it mean to be an unhealthy person?

Thank you for participating in this study.

Informed Consent form

Researcher: Stacy Norman

Participant's Name:

Contact Details:

Thank you for agreeing to participate in this study. This form outlines the intent of the study and outlines a description of your involvement and rights as a participant.
The purposes of the study are:

- To complete the thesis portion of an MA degree at the University of the Western Cape (UWC).
- To gain insight and experience in the topic of alternative healing and allopathic healing in relation to students at UWC.

The methods to be used to collect information for this study are as follows:

- A quantitative component with self administered questionnaires
- In addition, interviewing 2 psychology students and 2 natural medicine students at UWC. I will ask the participants to describe their understanding of health, how they define health and what the concept of health encompasses.

I will use the information from the study to write a report about the responses to the questions. The participant (if you choose), my thesis supervisor (s),external examiners (for marking purposes) and the appropriate UWC faculty charged with granting the Masters degree may read this report.

I guarantee that the following conditions will be met:

- The participant's real name will not be used at any point of information collection, or in the written thesis. Instead, the participant and any other person and places names involved in that case will be given pseudonyms that will be used in all verbal and written records/reports.
- If permission is granted for taping, no audio tapes will be used for any purpose other than to this study, and will not be played for any reason other than to do this study. At the participants' discretion these tapes will either be destroyed or returned to him/her.
- Participation in this research is voluntary; the participant has the right to withdraw at any point of the study, for any reason, and without prejudice.

Do you grant permission to be directly quoted?

Yes ☐ No ☐

I agree to the terms:

Signature of respondent: _____ Date: _____

Signature of researcher: _____ Date: _____