The relationship between social capital and health and well-being of academics at a South African Higher Education Institution

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This was not a hundred meter race...this was a marathon..."

Dalene Vorster

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For Louis

For always

Soli Deo Gloria

DECLARATION

I, Dalene Vorster, declare that "The relationship between Social Capital and Health and Well-being of Academics at a South African Higher Education Institution" is my own unaided work both in content and execution. All the resources I used for this study are cited and referred to in the reference list by means of a comprehensive referencing system. Apart from the normal guidance from my supervisors, I have received no assistance, except as stated in the acknowledgements. I declare that the content of this thesis has never before been used for any qualification at any tertiary institution.

Dalene Vorster
11 September 2014

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ABSTRACT

The maintaining of health and well-being in the academic field of work is a widespread challenge. The increased interest in social capital provides an opportunity for public health coordinators in the academic field to advance their social agendas so that optimal development within the relationship between social capital and health and well-being can be constant that in turn enhance good working environments. This relationship between social capital and health and well-being is embedded in networks of trust which lead to coordination and cooperation in the academic field of work for mutual benefit. Provided by social capital, there is a great opportunity for health coordinators, to flex their theoretical muscles in coming to grips with the social elements of health determinants and health promotions within the academic field of work. To understand the more progressive interpretation of social capital, it calls for the creation of health promoting communities through a process of mutual reinforcement of the social and the economic sector (workplace). This study will distinguish between the micro, meso and macro levels of social capital within health and well-being, within the academic field of work, with the specific linking, bonding and bridging in their specific dimensions.

Keywords:

Social Capital, Workplace Dimensions, Family Life, Community, Well-being, Physical Ill-Health, Psychological Ill-Health, Academics

THE RELATIONSHIP BETWEEN SOCIAL CAPITAL AND HEALTH AND WELL-BEING OF ACADEMICS AT A SOUTH AFRICAN HIGHER EDUCATION INSTITUTION

Chapter 1: INTRODUCTION TO THE STUDY

1.1 INTRODUCTION

In this chapter, a presentation of a broad overview of the research project focusing on the relationship between social capital, health and well-being is given. The study is investigative in nature and focuses on determining whether there is a relationship existing between social capital, health and well-being. Also, the chapter provides the background to the study, gives the problem statement, and discusses the relationship that social capital has within the sanctions, norms and values of networks. Also covered are the research questions and objectives. Furthermore, the contribution of the study is outlined in the chapter. Finally, the chapter deals with an overview of the study, definitions of the key concepts and conclusion.

1.2 BACKGROUND

Economic issues had been at the top of policy agendas of governments around the world over decades. Higher education institutions in particular have a significant role to play in a nation's wealth with its hard-edged capacity to foster intellectual capital, economic growth, human development, stimulate development and innovation in a 'knowledge economy' (Barling cited in Barkhuizen, 2005). Moreover, a country's international competitiveness and growth of the knowledge community depends on its population having a strong and sustainable higher educational sector.

However, universities in sub-Saharan Africa continue to operate under conditions which are seriously under-resourced which poses significant challenges for the scholars concerned (Mouton, 2010). University teaching has traditionally been conceived as a relatively stress-free occupation, or at least has been seen in this way by outsiders.

Although not highly paid in comparison to professionals in the commercial sector, academics have been envied for their tenure, light workloads, flexibility "perks" such as overseas trips for study and/or conference purposes and the freedom to pursue their own research (Gillespie, Walsch, Winefield, Dua, & Stough, 2001).

Many of these attractions and advantages have been eroded over the past two decades (Barkhuizen, Rothmann & Van de Vijver, 2013; Mouton, 2010). As a result the work of academics thus become more emotionally demanding, fragmented and implies a loss of professional autonomy, scholar identity and psychological ownership (Bitzer, 2008; Guy & Meredith, 2008). This in turn can also have a negative impact on the health and well-being of academics (Barkhuizen, Rothmann & Tytherleigh, 2008; Mouton, 2010; Pienaar & Bester, 2008). More seriously academic careers can become less attractive and Higher Education Institutions (HEIs) not being preferred employers. Without well qualified and committed academic staff, no academic institution can ensure sustainability and quality over the long term (Pienaar & Bester, 2008). Finding a highly qualified pool of talented scholars is thus limited and is becoming a central management challenge in the 21st century. Very few institutions can therefore afford their most valued and talented employees to leave when it is difficult to find better replacements (Netswera, Rankhumise & Mavundla, 2005).

The primacy of the needs of the economy has not proved to be easy for health advocates. Social Capital, however, offers some hope. An opportunity for the public health community to advance their social agendas prolong due to interest that increased in social capital. Within the seizing of this opportunity epidemiological and theoretical thinking require development specifically in the linking between social capital, economic development and health (Kavanagh, Bentley, Turrell, Broom & Subramanian, 2006; Kavanagh, Turrell & Subramanian, 2006; Kim & Kawachi, 2006; Kim, Subramanian & Kawachi,2006, Sundquist Johansson, Yang & Sundquist 2006).

Studies worldwide have traditionally focused on social capital in either residential or geographical areas and it has been suggested now that social capital at work should also been focussed on (Baum & Ziersch, 2003). Civic engagement and social connectedness

can indeed be found inside the workplace, not only outside of it. Social capital research has been taking the analysis into account of the multilevel structure of data comprising individuals in social units. While considering these techniques which enable the inclusion of social indicators at multiple levels and provide a flexible framework to examine not only group level differences (within and between groups), attributable to either compositional effects or contextual differences, but also interaction between variables of different levels. Several studies, to date, have examined social capital and self-rated health among working age population in a multilevel setting. Many studies have documented a relationship between better self-rated health and higher social capital at either aggregated level or individual level (Browning & Cagney, 2002; Franzini, Caughy, Spears & Fernandez Esquer, 2005; Islam, Merlo, Kawachi, Lindström & Gerdtham, 2006; Kavanagh, Bentley, Turrell, Broom & Subramanian, 2006; Kavanagh, Turrell & Subramanian, 2006; Kawachi, Kennedy & Glass, 1999; Kim & Kawachi, 2006; Kim, Subramanian & Kawachi, 2006; Lindström, Moghaddassi & Merlo, 2004; Poortinga, 2006a, 2006b; Subramanian, Kawachi & Kennedy, 2001; Subramanian, Kim & Kawachi, 2002; Sundquist, et.al. 2006; Veenstra, 2005; Wen, Browning & Cagney, 2003)..

Against this background the main objective of this research is to determine the relationship between social capital and well-being (i.e. physical and psychological ill-health) of academics in South African Higher Education Institutions. It is motivated from the limited research that currently exists on the interactive relationship between the constructs of social capital and work wellness.

1.3 THE PROBLEM STATEMENT

Research has shown that the academic work context has become increasingly demanding without corresponding work resources. This in turn can have a debilitating effect on the health and well-being of academic staff. Due to the complexity of social capital within its sphere of linking, bonding and bridging in all factors of society, it is important for human and social sciences to determine the extent to which social capital has any form of linking, bonding and bridging with health and well-being of academic staff members. Research as a whole determines that health and well-being is a key factor in all dimensions in society.

The study will determine the aspects surrounding the linking, bonding and bridging within the relationship between social capital health and well-being. The micro-level (individual level) and meso-level (collective level) will be looked at with a magnified glass. The outcome of the study will then look at some correlations between social capital and health which will determine the specific influences between the in-dependent and dependent variables specifically in the workplace

1.4 HYPOTHESES

The following hypotheses were formulated for this research:

The point of departure of this study is that there is a significant relationship between social capital, health (i.e. workplace, family life and community and well-being and physical and psychological ill-health) of academics in HEIs of South Africa. This research proposes that the higher the level of social capital, the less the levels of physical and psychological ill-health academics will experience.

1.5 RESEARCH QUESTION

Research questions act as guidelines in the search for answers to the questions

This study addresses the following key questions flowing from the research problems:

a. What is the relationship between social capital and health and well-being of academics in Higher Education Institutions (HEIs)?
b. To what extent are social capital and health and well-being related?
c. Do demographical variables moderate the relationship between social capital and well-being?

1.6 RESEARCH OBJECTIVES

The specific research objectives of this study, stemming from the research questions underlie the hypotheses in the quantitative study that are as follows;

a. To determine the relationship between social capital, health and well-being in Higher Education Institutions (HEIs) in South Africa.

b. To determine to what extent social capital and health and well-being are related?

c. To identify if there are any significant differences in the level of social capital of academics based on their demographic characteristics;

1.7 RESEARCH PROCEDURES AND TECHNIQUES

The research method that is followed considered the following research procedures and techniques;

- Research design and methodology
- Research paradigm
- Description of strategy of inquiry and broad research design
- Sampling
- Data Collection
- Data Analysis
- Ethical Consideration
- Research Hypotheses; and
- Reliability and Validity

1.8 DEFINITIONS OF KEY TERMS - CONCEPTUALIZATION

Concept	Definition
Social Capital	Social Capital refers to the institutions, relationships, and norms that shape the quality and quantity of a society's social interactions (Onyx & Bullen, 2000).
Micro level social capital	Micro level social capital refers to the individual interaction within a specific network of bonding like family relationship (Halpern, 2005).
Meso level social capital	Meso level of social capital refers to the community (collective) interaction within a specific network of bonding like the community or workplace (Halpern, 2005).
Macro level social capital	Macro level of social capital refers to the national level interaction within a specific network of bonding like government (Halpern, 2005).
Bonding social capital	Bonding that takes place within a specific network due to interaction (Putnam, 2000).
Bridging social capital	Bridging take place when specific groups form to encompass people across diverse social cleavages (Kawachi & Berkman, 2001).
Linking social capital	Linking social capital is interaction between sanctions, norms and networks in each level of social capital (Halpern, 2005).
Social cohesion	Social cohesion describes the relationship within social networks (Kawachi, 2000).

1.9 LIMITATIONS OF THE STUDY

The research had the following limitations:

- Cross-sectional design – The data was collected at one point in time. This means that the research is limited in terms of cause and effect relationships. More longitudinal studies are needed to address the above limitation.

- Sampling Method: The research used a probability convenience sample and did not include all higher education institutions. The results of this research can therefore not be generalised to other South African higher education institutions.

- Lack of Literature: Limited knowledge currently existed on the relationship between social capital and well-being. This limited the research in terms of interpreting the results.

- Self-report measures: The research's mainly made use of self-report measures. This means that the opinions of the respondents are based on subjectivity.

1.10 CHAPTER LAYOUT

Chapter 1: Introduction to the study

Chapter 1 gives an overview of social capital's relationship to health and well-being in the broader context by highlighting the problem statement, research questions, research objectives, the hypotheses and the expected contribution of the study.

Chapter 2: Theoretical and literature review

Chapter 2 defines social capital with its different levels and will look at the theoretical perspectives to social capital which is embedded in trust within social networks. The social cohesion of bonding, bridging and linking of social capital were explained. Within the literature review health and well-being are integrated and related to social capital.

Chapter 3: Research methodology

Chapter 3 presents the methodology that is used in the present study, which includes the research design, unit of analysis, the administering of the questionnaires, the data analysis, specific statistical techniques used and the quality and rigour of the research

design. The conclusion to this chapter proclaims to prepare the reader for the next chapter.

Chapter 4: Empirical results and findings

In Chapter 4 of the study the results and findings of the data gathered by the questionnaires, are discussed. The results and findings are related to the empirical research referred to in Chapter 3, as well as the theoretical and literature review in Chapter 2. The results and findings will then be interpreted, discussed and summarised for each research question.

Chapter 5: Discussion of empirical results

Chapter 5 discusses the results and findings of Chapter 4. Each of the research questions is discussed and explained. The chapter concludes with an overview of the results as explained in Chapter 4.

Chapter 6: Limitations, Recommendations and Conclusions

Chapter 6 gives an overview of the research findings in relation to the literature review in chapter 2 and the statistical findings in chapter 4. Recommendations are made for further study in the field of social capital's relationship with health and well-being. The limitations to the study will be addressed and in conclusion, final comments made.

1.11 THE VALUE OF THE STUDY

The study makes a contribution on three levels: theoretical, methodological and practical. From a theoretical point of view this study contributes to the existing body of knowledge on social capital and its relation to well-being. Methodologically this study makes a contribution to the validation of an adapted version of social capital in the South African context. From a practical point of view this study will measure the relationship between social capital in the micro (individual level) and meso level (collective level) within their

social networks and in the end have a ripple effect on the macro level of social capital. The outcome of the study will help employers to determine to what extent social capital drive health and well-being in the social sphere of the workplace. This will enable employers to adapt new managerial skills, if need be, to address crucial health and well-being attitudes in the workplace which in the end will have an effect on macro social capital.

The sociological relevance, contribution and value of this study underlay the fact that information was described, analysed and explained from different theoretical viewpoints referring specifically to social capital and health and well-being of South African academics in HEIs. Attempts to clarify the research problem serve as contributions and recommendations for future studies and policy makers. A sociological investigation is essential to establish sustainable social capital HEI academics.

1.12 CONCLUSION

This chapter dealt with the introduction and background to the study. It discussed the research design that will be used. The objectives to the study and the definitions of key terms are discussed. The study will now follow further as discussed above. Chapter 2 will lay the theoretical foundation on which the study is based.

Chapter 2: LITERATURE AND THEORETICAL REVIEW

2.1 INTRODUCTION

The focus in this chapter is on the theoretical and literature review on the subject under investigation i.e. on the question of relationships between social capital, health and well-being. This is done in order to outline the current body of knowledge, the key arguments and any possible limitations, which would also later be considered in the analysis of the empirical data. Social capital is described followed by the theoretical perspectives on social capital by Pierre Bourdieu, James Coleman, Robert Putnam and Emile Durkheim. It is followed by the different levels of social capital within social networks. The research further looks at social capital that is embedded in trust within social networks. Furthermore the research addresses bonding, bridging and linking of social capital. The social capital of academics is discussed followed by the work life balance of academics, the community of academics and the well-being of academics. The research then focuses on the relation of social capital and well-being within its different levels and concludes with the meso-level: bonding, bridging and linking of social capital to health and well-being.

2.2 TOWARDS A CONCEPTUAL MODEL FOR THIS STUDY

In the light of the preceding background and problem statement, a conceptual model relating social capital, well-being and background variables is developed. The research hypotheses are also indicated in the model. The model is shown diagrammatically in Figure 2.1 below.

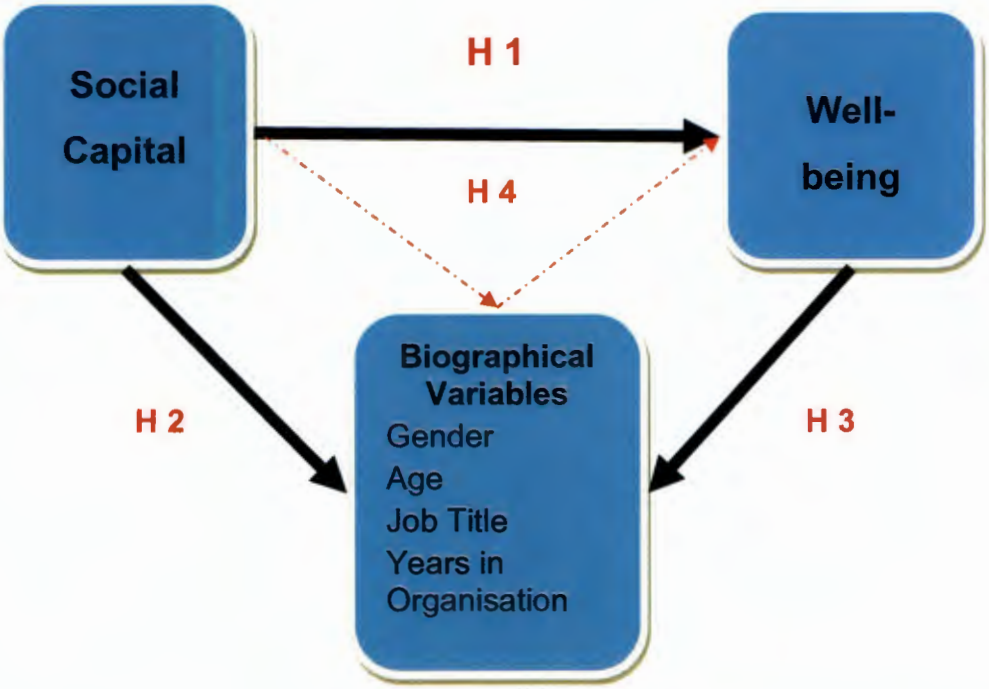

Figure 2-1: Diagrammatical presentation of the relationship between the variables in this study

This model is a structural illustration of the relationship between the key concepts and variables as hypothesised in this research. The model shows that Social Capital can lead to enhanced physical and psychological well-being (H1). The model also shows that perceived social capital can differ based on the demographic characteristics of the respondents (H2). Likewise, well-being can also differ based on the demographic characteristics of the respondents (H 3). Finally the model proposes that biographical variables such as gender, age, job title and years employed in the institution can moderate the relationship between social capital and well-being (H4).

2.3 SOCIAL CAPITAL DEFINED

Social capital can be described as a feature of social structure, for example a web of cooperative relationships between citizens, certain high levels of interpersonal trust, and strong norms of reciprocity and mutual aid. This all serve to facilitate action for shared benefit (Coleman: 1998; Putnam, Leonardi & Nanetti: 1993). These specific features of social structure, which is included in voluntary associated networks, may serve to benefit not only individuals but also act as a form of resource for social groups and communities

(Lin 2001). As a theoretical concept, social capital emerged from the sociological literature of (Bourdieu 1984, 1986; Coleman 1988; Putnam et al 1993).

According to Coleman (1988) "Social capital is defined by its function. It is not single entity but a variety of different entities, with two elements in common: they all consist of some aspect of social structures, and they facilitate certain actions of actors – whether persons or corporate actors – within that structure. Like other forms of capital, social capital is productive, making possible the achievement of certain ends that in its absence would be impossible". Similarly, Putnam (1995: 664-665) defines this as "Social capital, in short, having reference to social connections and the attendant norms and trust".

Social capital has increasingly been incorporated since the mid-1990s into health research as a form of bringing social theory into epidemiological studies, in such a way to link social or economic inequality and health (Hawe & Shiell 2000).

2.4 THEORETICAL PERSPECTIVES ON SOCIAL CAPITAL

The various schools of thought relating to social capital are summarised in Table 2.1 below.

Table 2.1

Pierre Bourdieu's thought	James Coleman's thought	Emile Durkheim's	Robert Putnam"s thought
Sees social capital as negative belonging only to the posh few within the middle and upper classes. You are powerless when born into the wrong class	Looked at social capital from two view points: One, from the individual within his cultural environment with given norms, rules and obligations. Two, economically with independent individual self-interest, seeking to shape and re-direct change	Theory of Durkheim relates to his thought on suicide within the health aspect of social capital and specific in his theory which relates to what influence social support may have in relation to health.	Establishes components (Networks, norms and sanctions) and the different levels of social capital, micro, meso and macro.

2.4.1 PIERRE BOURDIEU'S PERSPECTIVE

Bourdieu (1992) defines "social capital as the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition" (Bourdieu & Wacquant: 1992). Here Bourdieu focused specifically on social inequality and that "It's not what you know, it is who you know." He explained that the elite jobs go to only the posh men who attended exclusive schools. He could well be right due to studies that show social mobility that continue within this social sphere. Bourdieu further argues that social capital is exclusive within the middle and upper classes. It operates differently from economic capital, but is also inseparable from it. He claims that the elite uses this in a way to ensure that the wrong kind of people do not enter their circles (Bourdieu 1986, 1992). Bourdieu (1986) sees social capital then as being exclusionary to the selected few belonging to a specific posh group of people. He liked to talk about people actively playing the game and saw them rather powerless. He claimed that the individual's subjective perspective (the habitus) and their relationship towards the outside world (the field) is rather powerless if you were born within the wrong class in relation to social capital (Gauntlett 2011).

Unfortunately, Bourdieu did not take into consideration that the human free will may intervene and determine its own future and growth within society without the influence of any middle or upper class spheres within their lives. Each human's destiny was in their own hands to do whatever they pleased. They may enable themselves to work hard, to obtain a position where they can be within the reach of what is acceptable for society, and in specific, social class.

Social change may bring along a totally new discourse on Bourdieu's perspective and would it not be fair to only look at this perspective. It does not have potential for more social growth and development.

2.4.2 JAMES COLEMAN'S PERSPECTIVE

With his broader vision within the discourse of social capital, James Coleman(1988), saw social capital not only as something possessed by the selected few within the middle or upper classes of society, but obtainable for all kinds of communities, even the powerless and marginalized (in Gauntlett, 2011). Coleman looked at two broad intellectual streams and explained and described it within social action. Firstly, he looked at social capital sociologically from the point of view of the individual within its cultural environment with given norms, values and obligations. Secondly, he looked at social capital economically, with independent individual self-interest, seeking to reach their goals (in Gauntlett 2011).

The problem with the first sociological point of view is that the actor is a product of his or her environment, and that they do not have the drive internally to better their circumstances. On the other hand, the economy and society are organized by constrain in social context, such as norms, interpersonal trust, social networks and social organization. So individuals' actions shape and redirect change (in Gauntlett 2011). Coleman developed a version that borrowed from both these streams of thought, but more so for the economist's idea. He used it not only for social organizational development but also to account for actions of individuals in a particular context (in Gauntlett 2011).

Social capital, according to Coleman, is not something that you can get to own, it is a resource that is available to you, for example, if you live in a neighborhood where you can rely on the neighbors to look after your children, then you have access to social capital because there is a sense of trust amongst the people within the neighborhood. So, well-bonded neighborhoods', have social capital, opposed to neighborhoods with no bonding (in Gauntlett 2011). Furthermore, Coleman stated, that due to the fact that social capital develops from the weaving-together of people within society and is resource based on trust and shared values, it could not be given to a friend or either sold to them (in Gauntlett 2011).

Coleman went on and highlighted the fact that social capital created human capital such as emotional intelligence, confidence in expressing your own opinions, secure sense of

self-identity and confidence in expressing one's own opinions, helps young people to become better learners and therefore are more successful in society and at school. Human capital thus emerges from social capital due to relationships within the family (Gauntlett 2011)

Coleman however, did not think of the fact that individuals within society can merely just tend to others' needs without expecting anything in return. They, for instance, do not have children and would not expect neighbors to look after children, even if they trusted them, but in return they still want to add value to the neighborhood (Gauntlett 2011). However, Coleman's contribution offer a broader view of social capital as he highlights the usefulness of social capital and is in comparison to Bourdieu's pessimistic description of the eternal self-reproduction of elites, a welcome perspective (Gauntlett 2011).

2.4.3 ROBERT PUTNAM'S PERSPECTIVE

Putnam (1993) identified three spheres in social capital, namely micro-level social capital, meso-level social capital and macro-level social capital. Embedded in each level are three basic components of social capital i.e. *networks, norms and sanctions*. The first component is social networks. Everybody, at least knows somebody in their neighborhood. These relationships may vary from deep friendship and relationships that involve frequent visits and the exchange of emotional and material support, to merely that of recognition by sight. The social network can be characterized by density (the proportion of people who know one another) and closure (the preponderance of intra- versus inter-community links).

The second component is social norms. Within a neighborhood there is certain unwritten set of rules, values and expectancies. These rules, values and expectancies require us to do certain things or affectively determine how we feel about the community or group. Within modern day neighborhood it might include helping neighbors with certain aspects or being considerate towards our neighbors, like avoiding loud noise. It can also include more specific habits of reciprocity like for instance looking out for each other's children or keeping an eye on one another's property when we are away.

The third component is sanctions – it can be both formal and informal. This is the unspoken form of "discipline" within the neighborhood that let people within the neighborhood not step out of line, like for instance holding of frequent loud parties, selling drugs from your home, or putting a twenty-foot Christmas tree on the roof of your house. These sanctions can be implemented by being directly told that it is not approved of or through a disapproving glance, a threat of taking action or by an angry exchange of words.

Within these networks and norms occur individual linking, bonding and bridging as individuals constantly move or interact between networks. Within each level sanctions are used to maintain social networks and norms, as explained in figure 2-1 (see Putnam 1993).

The three components can be used in analyzing any society or network. For instance, in the field of academics, you could fairly easily identify who is in your department working with you, as well as the clusters within it (network) and more or less have a common understanding about what everyone is up to and whether they have a reasonable amount of goodwill concerning matters, such as sharing the workload, like teaching different classes (shared norms). From time to time some academics step out of line and do not accord to the certain shared understandings, and then their reputation may suffer from this. They may get spoken to or even be disciplined or even get asked to leave the department all together (sanctions).

The social capital concept can be drawn very wide within these three components ranging from very intimate, like the family (micro level) through to super-communities, such as nation state (macro level). These components can then be largely defined as the social structure within social capital (Halpern 2005).

In networks, strong and weak ties need to be distinguished within the functional sub-types of social capital. Strong bonds of reciprocity and care that are found inside families and small communities, on the micro level of social networks, are contrasted with self-

interested norms that tend to pre-dominate between relative strangers. However, recent research has shown that bridging and bonding social capital has different empirical qualities, reinforcing the importance of the distinction. Bridging social capital has for example been found to decay at a much faster rate than bonding social capital (Burt 2002.)

2.4.4 EMILE DURKHEIM'S PERSPECTIVE

Over a century back, Emile Durkheim's (1951) study on suicide already focused on the relationship between social capital, health and well-being. Through careful analysis of many statistics that will put present day research to shame, Durkheim found lower rates of suicide among the married rather than the divorced or widowed and more in winter than in summer. He argued:

"...all these manifestations, however independent of one another they seem, must surely actually result from a single cause or single group of causes, which dominate individuals. Otherwise how could we explain that all these individual wills, ignorant of one another's existence, annually achieve the same end in the same numbers? At least for the most part they have no effect upon one another; they are in no way conjoined; yet everything takes place as if they were obeying a single order. There must then be some force in their common environment inclining them all in the same direction, whose greater or lesser strength causes the greater or less number of individual suicides. Now the effects revealing this force vary not according to organic and cosmic environments, but solely according to the state of the social environment." (Durkheim [1897] 1951 304-305).

Durkheim's work was remarkable in its early use of statistics blended with his theory for the now claimed ecological effects. It was only in the 1960s that psychologists' emerged interest in what part "social support" may have within elation to health, and especially mental health. The role played in the individuals' social network, which buffered them from life's adversities was looked at. Medical researchers also recently entered this field and broadened attention to the impact of individual's social networks on physical health.

Literature done on Durkheim's thought in the medical and psychological fields focused on the individual, looking at links between their personal relationships and their health (a micro level analysis.) Despite Durkheim's early influence in this field, rather less research is available documenting meso- and macro-level effects. There however, are some recent interest in this field of study in the specific level of analysis (Berkman and Kawachi 2000).

2.5 DIFFERENT LEVELS OF SOCIAL CAPITAL WITHIN SOCIAL NETWORKS

Social capital is functioning within the following levels of social networks;

2.5.1 MICRO LEVEL OF SOCIAL CAPITAL

At the micro level, examples of social networks were parents and siblings within family, acquaintances and friends and consisted of relationships that are very powerful. The norms in such a relationship are love and care, reciprocity and generosity. Sanctions in the micro-level could be withdrawal of affection as explained in figure 2.2.

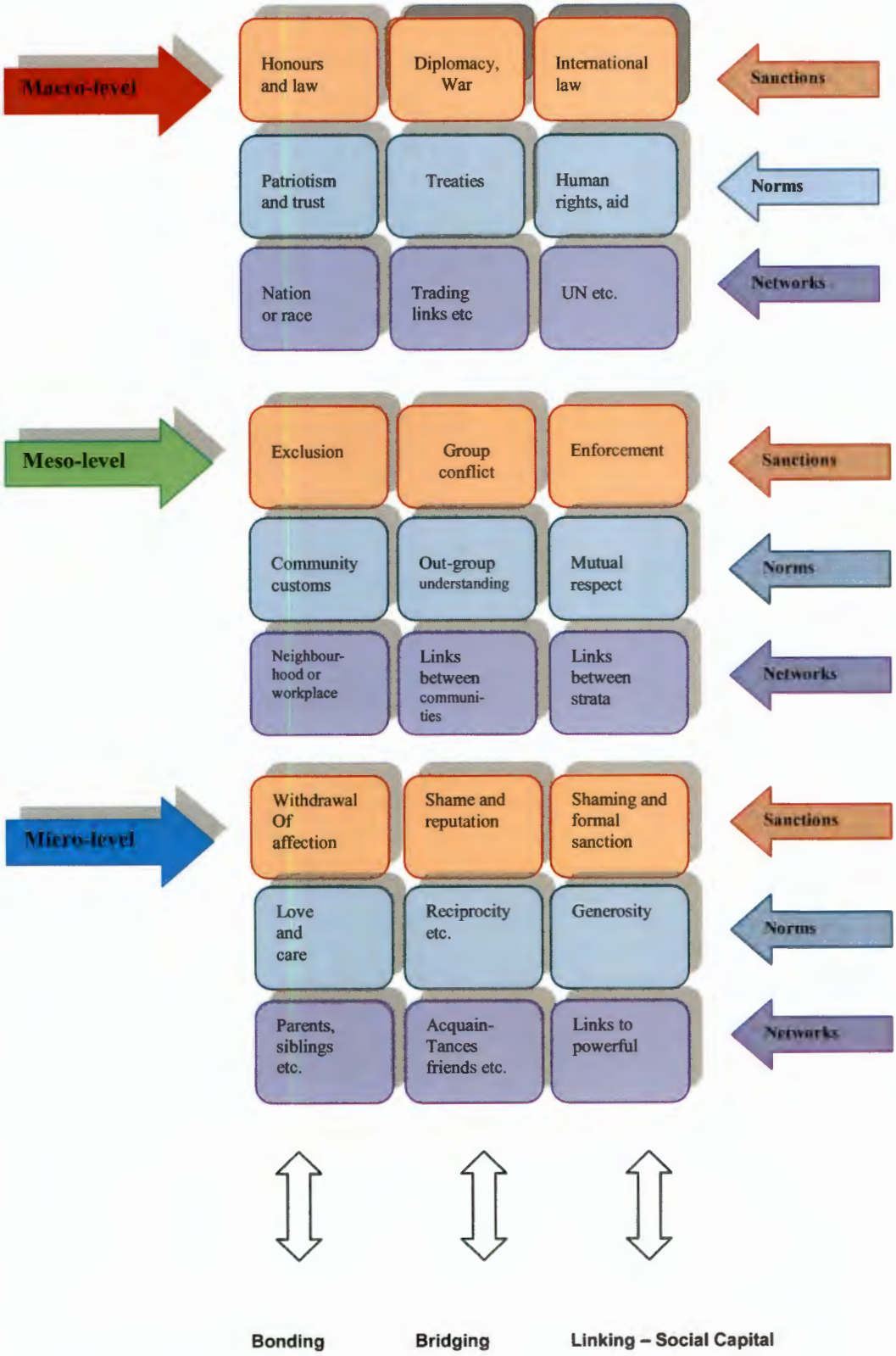

Figure 2-2: A conceptual Framework for Social Capital (Halpern 2005).

2.5.2 MESO LEVEL OF SOCIAL CAPITAL

At the meso or community level, examples of social networks were considered regarding the fact that the individuals knew some of their neighbours. Relationships may vary from simple recognition by sight, or maybe a greeting exchanged as we pass to deep friendships that involved frequent visits to each other's homes and the exchange of both emotional and material support. Due to rivalry and dislike these relationships were not referred to positively. In the community, that forms part of the network, it may be defied either formally or geographically, for example in rural villages. Its boundaries can therefore be ill defined. Another example is workplace relationship between employees and colleagues and employees and employers. Norms within the meso-level were considered as community customs, out-group understanding and mutual respect. Sanctions in the meso level are conflict and exclusion as explained in figure 2.

2.5.3 MACRO LEVEL OF SOCIAL CAPITAL

At the macro level, examples of social networks that were considered were on how a nation or race link within trade. Norms are based on patriotism and trust as well as human rights. Macro considerations of sanctions would be within international law, diplomacy and the development of war as explained in figure 2.

In each social network, within all the levels of social capital, being micro-, meso- or macro level, there is social cohesion. Within this cohesion trust gets built. In the micro level there is mutual trust within the family, for instance. In the meso level, i.e. in the workplace, there is trust in the relationship that you have with your fellow workers and with your employer. At the macro level one country entrust their economical benefit to another country in terms of trade. The trust adds value to the relationships in each level and so social capital gets built (Berkman and Kawachi 2000).

Of the three levels, higher education institutions, being workplaces, social capital of academics applies at the meso level of social networks.

2.6 DIFFERENT LEVELS OF SOCIAL CAPITAL IN RELATION WITH HEALTH AND WELL-BEING

2.6.1. Micro level of social capital in relation with health and well-being

Over the last decades, psychologists have noticed that individuals with particularly poor mental health, generally have significantly smaller social networks. Those suffering from chronic illnesses appear to have fewer intimate relationships and friends. People suffering illnesses also tend to report a lower quality of support, regardless of the number of persons in their social network. Large numbers of cross-sectional studies have reported this association between quality and size of people's social networks and their health. Those people who are less socially isolated and more involved in social and civic activities tend to have better health (Veenstra 2000).

This problem is particularly serious in relation to mental health. Firstly an individual suffering from depression, for instance, is likely to report more symptoms and perceive any given level of support as lower than someone not suffering from depression. Similarly, some individuals that have a generally more positive outlook on life may report their relationships and health as better than those of others, even if they are objectively identical. This can be interpreted as bias that can have misleading positive consequences in cross-sectional data, especially when they rely on self-reports of health and relationships (Veenstra 2000).

Secondly, the causality may have an unclear direction. It could be that people end up more isolated due to their illness, rather than the other way round. Do personal relationships protect health, or does your health affect your relationship? To take retirement as an example; early retirement, and the associated loss of social contact with work colleagues, is often associated with poor health. But early retirement may be the result of existing illness, rather than the other way round (Veenstra 2000).

Some personality variables can sometimes help explain the covariance between positive relationships and good health. Individuals with a "hardy" personality have an internal locus

of control (a sense of control over your own fate). These people see adversity as a challenge, not a crisis; and therefore commit to whatever need to be done. This "hardiness" makes them both perceive and experience less ill-health (Halpern 2005.)

This may present a considerable challenge for a researcher attempting to understand the relationship between social capital and health and well-being.

2.6.1.1. Psychological health

The interaction between individuals within the micro-level of social capital's relationship with health plays a valuable part in mental health. In the absence of such affectionate relationships, individuals are clearly more exposed to mental illness. Brown and Harris (1978) did a study of depression amongst women in London. They found that the existence of close, confiding relationships seemed to reduce the likelihood of depression. They further determine that in the year following a major life event, a woman without a husband or boyfriend to confide in was four times more likely to develop depression than one with such a relationship. Brown and Harris's findings have been widely replicated and therefore it is generally accepted that intimate relationships act as a buffer to protect individuals from the adversities of life.

By way of balance, it should be noted that not every personal relationship will universally have a positive impact on mental health. Within these close relationships, individuals may be exposed to abusive, depressed or disturbed individuals that often can have damaging impacts on mental health. When support shades into dependence, it can bring along feelings of helplessness and resentment (Kawachi & Berkman 2000.)

2.6.1.2. Happiness

Happiness, or life satisfaction, is strongly affected by personal relationships. Some people appear to be genetically programmed to be happier than others. The satisfaction with family life fairly consistently tops the polls of factors that predict individual happiness. The married are very substantially happier than the unmarried. Those living together are

happier than those living alone; and the separated are particularly unhappy (Donovan & Halpern 2003.)

Friendship is also a good predictor of well-being, if slightly weaker than marriage. Other measures of social connection also have significant effects, like going to church or being a member of some other voluntary association (Helliwell 2002.)

Income also played a significant part in being happier. Being richer is associated with being happier, though this is a non-linear relationship and not very strong. There seem to be diminishing returns to income, with the very rich hardly any happier than the comfortably well-off, though this happiness gradient is more marked outside of the generally wealthy nations. Similarly, lottery winners only seem happy in the short term than in the long term. But in contrast, strong personal ties have positive effects on happiness. In a massive rolling American survey getting married is the "happiness equivalent" of quadrupling your annual income (Putnam 2000.)

2.6.1.3. Physical health

Individuals who are socially isolated have between two and five times the risk of dying early from all causes compared to those who have strong social ties (Berkman & Glass 2000.)

The indications are that social networks have a larger impact on the risk of mortality than on the risk of developing a disease. In other words, it is not so much that social networks stop you getting sick as that they help you to recover when you do get sick (Kawachi & Berkman 2000.)

2.6.2. Meso-level of social capital's relationship with health and well-being

2.6.2.1. Psychological health

Durkheim's work (1950) on suicide offers a classic example of the impact of social cohesiveness on mental health. A significant relationship with self-reported mental health, have been found in studies that have included questions on the neighbourhood. For

example, the British Household Survey found that people that reported low levels of neighbourhood relationships were twice as likely to suffer from psychiatric morbidity as those reporting high levels (McCulloch : 2001).

Cross-cultural studies determined that the tighter and more cohesive social networks of more traditional communities are may help explain the lower rates of mental illness that are often reported within them (Watts & Morant:2001.) Within these tight cohesive social networks, the focus was on the relationship between the individual and the group.

According to Putnam (2000) social capital has features within social organizations which act as form of resources for individuals and facilitate collective action. It consists of networks of secondary associations with high levels of interpersonal trust and further has norms of mutual aid and reciprocity.

Ecological studies determined a relationship between social capital and health. It however, is difficult to distinguish between individual or group effects of social capital on health (Poortinga: 2006). Szreter and Woolcock (2004) furthermore suggested that the preferred unit of analysis for measuring and conceptualizing social capital would be to look at both, the individual and the ecological as units of analysis.

Studies in the field of social capital traditionally focussed on residential or geographical areas, but recent studies suggested that social capital should also be investigated in the workplace (Baum & Zierch, 2003; Kawachi, 1999.) Because many people spend more waking hours at work than elsewhere, the workplace may constitute an important social unit and be a significant source of social relations. Workplaces might appropriately capture the important social interactions and networks that constitute the core of social capital compared to large sources of social relations (Sundquist & Yang 2006.) Civic engagement and social connectedness can indeed be found inside the workplace and not at the outside thereof (Putnam 2000.)

Data analysis that took into account the multilevel structure comprising individuals in social units has been a major advancement within social capital research (Szreter & Woolcock

2004; Yen & Syme 1999.) These techniques enable predictors to include multiple levels and provide a flexible framework to not only determine group level differences (within and between groups), that attributed to either contextual differences or compositional effects, but also interaction between variables of different levels. Several studies, have to date, examined social capital and self-rated health among working population in a multilevel setting. Most of these studies have determined a relationship between higher social capital and better self-rated health at either individual or aggregated level (Browning & Cagney 2002; Franzini, Caughy, Spears & Fernandez Esquer 2005; Islam, Merlo Kawachi, Lindström & Gerdtham 2006; Kavanagh, Bentley, Turrell, Broom & Subramanian 2006; Kavanagh, Turrell & Subramanian 2006; Kawachi, Kennedy & Glass 1999; Kim & Kawachi 2006; Kim, Subramanian & Kawachi 2006; Lindström, Moghaddassi & Merlo 2004; Poortinga 2006a,2006b; Subramanian, Kawachi & Kennedy 2001; Subramanian, Kim & Kawachi 2002; Sundquist & Yang 2006; Veenstra 2005; Wen, Browning & Cagney 2003.) Some multilevel studies, in addition, have reported a cross-level interaction with modifications of the effects of individual-level social capital by community-level social capital (Kim & Kawachi 2006; Poortinga 2006a; Subramanian et al, 2002.) None of these studies however focussed specifically on social capital at the workplace. Due to limitations of previous research, it is not clear whether social capital presents a consequence or an antecedent of health and how changes in individual or workplace units of social capital will have influence on health. Research on work-related health has mainly focused on individual factors. The study will then look at the relationship between social capital at work and how change in social capital will have influence on health impairment among academics. It will expand the focus by exploring the role of institutional characteristics of the workplace for different individual health outcomes.

2.6.2.2. Physical health

A strong cohesive community will always benefit the health of its members. For physical health and behaviour that is health-related, the effects of social capital depend heavily on the culture and habits of the academic community. The effect of the community is generally estimated to be relatively modest, over and above that of the individual factors. Though it is important to note that this may itself be partly ecologically determined, the

presumption must be that most of these neighbourhood effects are actually mediated by the quality of the individual's own social capital (Halpern 2005.)

2.6.3 Macro levels of social capital's relationship with health and well-being

Within the macro-level of social capital there is strong evidence of positive ecological effects of social capital on reducing suicide rates and on improving life satisfaction and happiness. For physical health, the evidence is more complex. Within nations like the USA there is clear evidence of social capital impacting on physical health, over and above the impacts of income levels or individual-level health-related behaviours. Studies of cross-national differences also show substantial variations in physical health that cannot be adequately accounted for by differences in income levels. However some controversy occurred in explaining these national differences. Apart from traditional explanations such as diet and lifestyle, the combined evidence indicates that a triangle of reciprocal relationships between social capital, inequality and public expenditure patterns account for macro-level differences in population health. Little or no evidence was shown in the relationship between social capital and mental health at the national level.

Yet some experts proposed from existing evidence that the health policy should focus on social capital as an important and largely neglected lever to improve public health (Abbott 2002; Gilbert & Walker 2002; Petersen 2002; Pilkington 2002 & Watt 2002.)

2.7 MESO LEVEL SOCIAL CAPITAL AND ACADEMICS

2.7.1 WORKPLACE DIMENSIONS OF SOCIAL CAPITAL AND ACADEMICS

There are two different types of ill-health. Physical ill-health which involves the physical ailments that one might suffer from and psychological ill-health, which address the mental or psychological ailments that one might suffer. Research on the physical and psychological well-being of academics has been well-documented. Winefield, Gillispie, Stough, Dua and Hapuararchchi & Boyd (2002) found correlations between incidences of self-reported stress-related physical health symptoms – such as headaches, colds and

other viral infections and sleeping difficulties amongst academic staff in South Africa, and poor social capital. These symptoms are furthermore associated significantly with stress-related medical conditions reported by staff members, such as hypertension, coronary heart disease and migraines. Dale (2004) found that although the work of academics is sedentary, it involves repetition in its performance which may involve awkward and sustained postures and infrequent rest periods, all of which are risk factors for the development of work-related musculoskeletal disorders.

Ill-health is consequently the outcome of stress and has either negative and damaging effects. However, workplace stress does always result in ill-health as academics may be unwell due to other factors such as lack of a healthy lifestyle (Cartwright & Cooper 2002).

Incidences of psychological ill-health have also been widely documented. Barkhuizen (2005) for example found very high levels of psychological ill-health among South African academics. Psychological ill-health and burnout occur as a result of chronic work stress and have become prominent within the academic work life. Burnout may have a negative impact on academics, leading to emotional and physical ill-health (Salami 2010).

Psychological ill-health often results in depression as well as emotional changes in the behaviour of an individual. In severe cases people will be confined to institutions that specialized in mental disorder for their own safety. They may get a nervous breakdown and will then become a danger to themselves or even their loved ones. It is argued, by researchers, that individuals that experience mental health, often are better able to deal with chronic stressors and then are less likely in experiencing burnout. It was shown that individuals that are psychologically healthier in adolescence and early adulthood would stay in a job that have a high stress level and would be greater committed and involved in their jobs and experienced satisfaction in their work environment (Burke & Richarson, 1993; Jenkin & Maslach 1994). Burnout can lead to various negative outcomes such as absenteeism, illness and staff turnover. Burnout is frequently linked to ill-health and research linked burnout to a variety of psychological and physical health problems (Lee & Ashforth 1990). According to Aronsson & Gustafsson (2005) burnout mediates the relationship between stress and ill-health.

2. 8 CONCLUSION

Taking into consideration all the mentioned studies that were done, social capital in the meso level of the workplace, needs to be investigated more. Studies of this nature would contribute to better working relationships in academic institutions. Social cohesion within the workplace then can contribute to better trust relationship within the social context of the workplace, which are universities where academics are employed.

3. RESEARCH DESIGN AND METHODS

3.1 INTRODUCTION

This chapter presents the research design as well as the research methods used in this study. The broad research design and the descriptive strategy of inquiry to the research approach are considered. This is followed by a discussion on the strategy of inquiry. The sampling within the population as well as, the data gathering by questionnaires, follow with a discussion that demonstrates the quality and rigour of the research design. Issues that affect reliability and validity of the research will then be considered. This followed by the ethical aspects that are considered for the study and the development of the research hypotheses to be tested after data-gathering and analysis.

3.2 RESEARCH DESIGN AND METHODOLOGY

3.2.1 RESEARCH PARADIGM

A quantitative research approach was followed in this study. According to Ivankova, Creswell and Plano Clark (2007:255), "the goal of quantitative research is to describe the trends or explain the relationship between variables. "A quantitative study may therefore be defined as an inquiry into a social or human problem, based on testing a theory composed of variables, measured with numbers and analysed with statistical procedures in order to determine whether the predictive generalisations of the theory hold true."(Creswell:1994.)

The study was conducted from a positivistic paradigm. According to Bryman and Bell (2011) this paradigm can be described as "an epistemological position that advocates the application of the methods of the natural sciences to the study of social reality and beyond." The positivists also believe that an objective reality exists outside of personal experience that has demonstrable and immutable laws and mechanisms that can reveal cause-and-effect relationships (Babbie & Mouton 2001:23.)

3.2.2 RESEARCH METHODOLOGY AND DATA SOURCES

This study draws data from both secondary sources and primary field research in the form of a survey.

3.2.2.1 Literature and Theoretical viewpoints

The sources used for literature and theoretical reviews in this study are obtained from published books and journal articles on the subject of social capital's relationship with health and well-being. The researcher has read studies in this area to determine what researchers already said on this topic and whether certain fields can be improved or make a contribution towards this specific body of knowledge.

3.2.2.2 Field research

The sample for this study is drawn from academics in three randomly selected Higher Education Institutions (HEIs) in South Africa. The sample of respondents in this study is comprised of academics from those institutions. Eight hundred (800) quantitative, structured closed-ended questionnaires were distributed to a purposive convenience sample of academics from those HEIs. An agreement was made with four traditional universities in South Africa to partake in the research subject and total anonymity and confidentiality were guaranteed. Of the 800, 417 questionnaires to respondents were completed and returned. This represents a response rate of 52.12%.

3.2.2.3 *Research Procedure*

Permission to conduct the research was obtained from the necessary authorities. The questionnaires were mailed to human resource officers at participating universities, from where they were distributed to individual academics. A cover letter explained the purpose of the study, stated that participation is voluntary, and confidentiality and anonymity are guaranteed. Respondents were asked to return the completed questionnaires in a sealed envelope, either to the person who had distributed them or directly to the researcher.

3.2.2.4 *Measuring Instruments*

Two measuring instruments are used in this study: Social Capital measuring scale – developed by Onyx and Bullen (1997,1998 & 2000) of the Centre for Australian Community Organizations and Management (CACOM) and the General Health Questionnaire Universidad Complutense (1988).

3.2.2.5 *Social Capital Measure*

An adapted version of the Social Capital Measure is used. The Measure consists of three sections: Workplace, Family Life and Community. The Workplace Questionnaire consists of 25 items and measured five factors: Supervisor Support, Colleague Support, Job Security, Compensation and Career Advancement. The Family Life questionnaire consists of two dimensions: Work Support to Family and Family Support to work. Each dimension consists of 6 items. The third section measures Community and consists of 20 items. All three sections use a four point scale ranging from Never (1) to Always (4). This scale has yet to be validated in the South African context.

3.2.2.6 *General Health Survey*

The General Health Survey is used to measure the well-being of the respondents. The questionnaire consists of 19 items and measures physical and psychological well-being. Each item is scored from 1, where the ill-health symptom or change of behaviour is never experienced over the last three months, to 4 where the ill-health symptom or change of behaviour is often experienced over the past three months. The questionnaire has been validated in the South African context (Barkhuizen et al., 2008).

3.2.2.7 Statistical Analyses

Statistical analysis was carried out using the SPSS Program (SPSS, 2013). The reliability and validity of the Social Capital Measure and General Health Questionnaire are determined by means of Cronbach alpha coefficients, as well as exploratory factor analysis. Pearson product-moment correlation coefficient is used to specify the relationship between barriers-to-change and work engagement. A cut-off point of 0,30 (medium effect), (Cohen, 1988) is set for the practical significance of correlation coefficients. Multivariate analysis of variance (MANOVA) is used to determine the significance of differences between the levels of barriers-to-change and work engagement of demographic groups. When an effect is significant in MANOVA, ANOVA is used to discover which dependent variables are affected. In terms of statistical significance, a value at a 95% confidence interval level ($p \leq 0{,}05$) is set. Effect sizes (Field, 2010 are used to decide on the practical significance of the findings. Multiple regression analyses are used to determine the moderating effect between the variables.

3.3 DESCRIPTION OF STRATEGY OF INQUIRY AND BROAD RESEARCH DESIGN

3.3.1 STRATEGY OF INQUIRY

A cross-sectional survey research strategy of inquiry is utilised in the research of the relationship between social capital and health and well-being of academics at Higher Education Institutions in South Africa. Key descriptions of the characteristics of the broad research design are discussed below:

3.3.1.1 Empirical research

Within the cycle of research the researcher comes to the stage where a research topic of interest needs to be chosen and investigated. Here the research area or general topic

gets chosen. From this, the problem statement is formulated (Welman, Kruger & Mitchell:2005).

3.3.1.2 Non-experimental design

According to Maree and Pietersen (2007:149) "non-experimental designs are mainly used in descriptive studies in which the units that have been selected to take part in the research are measured on all the relevant variables at a specific time without any manipulation. The most widely used non-experimental research design, according to them, is surveys."

3.3.1.3 Cross-sectional survey design

The randomised cross-sectional survey design is usually associated with exploratory and descriptive studies which examine several groups of people at one point in time (Maree & Pietersen 2005). The purpose of the study for example the extent to what social capital and health and well-being are related, will be tested.

3.3.1.4 Survey research

Survey research is the most frequently used research design within the social sciences. Surveys are used in many applied research fields like, now for instance, in the field of social capital's relationship towards health and well-being. One of the most important contributions to the popularity of surveys relates to the computer technology advance which has made the analysis of large data sets possible. Survey research is used for descriptive, explanatory and exploratory purposes. They are mainly used in research that have individual people as units of analysis. When the researcher need to describe a population that is too large to observe directly, survey research would be the best method available to use (Babbie & Mouton 2007).

3.3.1.5 Fundamental or basic research

Under the specific field of study basic research seeks to expand the body of knowledge. The present study aims to obtain a greater understanding of the effectiveness of social capital in relation to health and well-being of academics in HEIs. (Welman et al 2005).

3.3.1.6 Quantitative research design

In quantitative research the researcher attempts to measure something precise. Quantitative research usually measures consumer behaviour, knowledge, opinions and attitudes. This knowledge, opinions and attitudes usually answer questions related to how much, how often, how many, when and who (Cooper & Schindler 2008).

3.4 SAMPLING

3.4.1 SAMPLING FRAME AND THE UNIT OF ANALYSIS

According to Welman et al (2005:57) "before researchers can draw a sample of the population that is going to be analysed, they should first obtain some clarity about this population, or the units of analysis." In this case it would be individual academics. According to Welman et al (2005:70), "generalising about populations on the basis of data collected using any probability sample is based on probability." It allows researchers to use few observations to generalise to a much wider population. Probability sampling is therefore a compromise between the accuracy of findings and the amount of time and money that was invested in collecting, checking and analysing data.

3.4.2 SAMPLING TECHNIQUE USED

There are a variety of sampling techniques that can be used in quantitative research. For the purpose of the study the purposive convenient sampling technique was used. This technique is also called judgmental sampling, thus based on researcher's judgment, the purpose of the study and on the basis of researcher's knowledge of the population being studied. The purposively selected sample size for this study has resulted in questionnaires

being successfully administered to 417 academics in selected South African Higher Education Institutions.

3.5 DATA COLLECTION

The following section will discuss the specific approach used to collect the required data for the study and discuss the specific measurement instruments used in the collection of the required data.

3.5.1 SPECIFIC RESEARCH METHOD

Structured closed-ended questionnaires are used in this study as method of data collection. The questionnaires are sent out electronically and in hard copies due to the access that the researcher has to specific academics. The researcher used Likert scaled questions. Likert scales are also called summated-rating scales, because a respondent's score on the scale is computed by counting the number of responses the respondent gives. This is accomplished by asking a series of Likert scale questions and then calculating a total score for each respondent; that is assigning the values 1 to 5 (if five categories are used) to the categories and then adding each respondent's five values based on his or her responses (Maree & Pietersen 2007:167.)

3.6 ETHICAL CONSIDERATIONS

The research is subject to the following research principles:

- This study is subject to the North West University, Mafikeng Campus Ethical committee for approval;
- Clear details about the research are communicated to the participants before completion. These details include the purpose of the study, the procedure to be followed and his or her anonymous participation. The participants are given full rights to withdraw from the study at any stage that he/she wishes to do so.

- All data collected are the property of the North West University, Mafikeng campus.

3.7 RELIABILITY AND VALIDITY

Reliability within the study is achieved by providing sound methods in the collecting and analysing of the data. For the achievement of credibility with validity the researcher used an appropriate design and statistical methods for the analysis of the data. (Cooper & Schindler 2008).

3.8 HYPOTHESES

The following hypotheses are formulated for this research:

The point of departure of this study is that there is a significant relationship between social capital (i.e. in the workplace, in the family and community at large), health and well-being (i.e. physical and psychological ill-health) of academics in HEIs of South Africa. This research proposes that the higher the level of social capital, the lesser the levels of physical and psychological ill-health academics will experience.

3.9 CONCLUSION

In this chapter a detailed discussion of the research design and methods used was made. The strategy of inquiry and the broad research design followed, which addressed the research approach. The strategy of inquiry discussed the following aspects: the non-experimental design, the randomised cross-sectional design, survey research design, primary data, empirical and fundamental or basic research, as well as the quantitative design. The sampling frame and the unit of analysis were addressed. The sample size and sampling techniques were also discussed. The chapter concluded by looking at ethical aspects of the research and stated the research hypotheses which form the basis and act as a guideline to investigate the research problem and to find answers to the research questions.

4. RESULTS

4.1 INTRODUCTION

Chapter three presented information on the research design and methodology which included the paradigm, methods, participants, measuring instruments, research procedure and statistical methods that were applied during this study. This Chapter reports on the data gathered and the results obtained from the data analyses.

This chapter is structured in three distinct phases as follows:

- **Phase 1:** The presentation of the sample demographics
- **Phase 2**: Results of the Social Capital measuring scale and General Health Questionnaire. The survey was used to measure 19 items on two subscales.
- **Phase 3:** Testing of the Hypotheses

In what follows next, the demographic characteristics of the sample in this research study are presented as phase 1 of data analyses.

4.2 PHASE 1: SAMPLE DEMOGRAPHICS

The following section reports on the demographic characteristics of the sample group used in this study. Eight hundred (800) questionnaires were distributed to a convenience sample of academics from various South African HEIs. A total of 417 questionnaires were returned for data analyses. This represented a response rate of 52.12%. The demographic breakdowns of the respondents were reported next.

4.2.1 GENDER

Table 4.1 reports on the gender distribution of the sample. From this Table it is clear that the sample consisted of an equal distribution of both male and female academics (48.9%).

Table 0-1: Frequency Distribution for Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	204	48.9	50.0	50.0
Female	204	48.9	50.0	100.0
Total	408	97.8	100.0	
Missing Values	9	2.2		
	417	100.0		

4.2.2 AGE

Table 4-2 indicates the age distribution of the sample. From this table it is evident that the majority of the respondents were aged between 40-49 years (29.5%), followed by respondents aged between 30-39 years (26.4%). The minority of the respondents were aged between 20-29 years (9.1%).

Table 0-2: Frequency Distribution for Age

	Frequency	Percent	Valid Percent	Cumulative Percent
20-29 years	38	9.1	9.3	9.3
30 - 39 years	110	26.4	26.8	36.1
40 - 49 years	123	29.5	30.0	66.1
50 - 59 years	96	23.0	23.4	89.5
60 years plus	43	10.3	10.5	100.0
Total	410	98.3	100.0	
Missing Values	7	1.7		
	417	100.0		

The frequency distribution for age is illustrated in the bar chart below in Graph 4-1.

4.2.3 JOB TITLE

Table 4-3 shows the frequency distribution of the job level of academics. According to this Table Lecturers are mostly representative of the sample (24.9%) followed by Senior Lecturers at (21.1%), Associate Professors (16.8%) and Professors (16.3%) respectively. The minority of the respondents included junior lecturers at (5.3%).

Table 0-3: Frequency Distribution for Job Level of Academics

	Frequency	Percent	Valid Percent	Cumulative Percent
Junior Lecturer	22	5.3	6.3	6.3
Lecturer	104	24.9	29.5	35.8
Senior Lecturer	88	21.1	25.0	60.8
Associate Professor	70	16.8	19.9	80.7
Professor	68	16.3	19.3	100.0
Total	352	84.4	100.0	
Missing Values	65	15.6		
	417	100.0		

4.2.4 YEARS IN CURRENT INSTITUTION

Table 4.4 shows the years that the respondents have been employed in their current Institution. It is evident from the response that most of the respondents were employed between 0-10 years in their current institutions (54.9%), followed by those that were employed for 11-20 years in their current institutions (24%). The minority of the respondents were employed for 20 years and more (18.5%).

Table 0-4: Frequency Distribution for Years in Current Institution

	Frequency	Percent	Valid Percent	Cumulative Percent
0-10 years	229	54.9	56.4	56.4
11 -20 years	100	24.0	24.6	81.0
20 years and more	77	18.5	19.0	100.0
Total	406	97.4	100.0	

Missing values	11	2.6
	417	100.0

4.3 PHASE 2: RESULTS PERTAINING TO THE MEASUREMENTS

The following section reports on the results obtained from the measuring instruments used in this study is the (CACOM) Centre for Australian Community Organizations and Management Social Capital Measuring Instrument and the General Health Survey as mentioned in Chapter 3, the Social Capital Questionnaire consists of three Dimensions: Workplace, Family Life and Community. First the results of the Workplace section are reported.

4.3.1 RESULTS: SOCIAL CAPITAL QUESTIONNAIRE - WORKPLACE

As mentioned in Chapter 3, the Social Capital Questionnaire consists of three Dimensions: Workplace, Family Life and Community. First the results of the Workplace section are reported.

4.3.1.1 Sample adequacy and Sphericity

The Sampling Adequacy and Sphericity of the inter-item correlation matrix was determined by applying the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity to the inter-item correlation matrix of the Workplace Dimension of Social Capital. The results of the KMO for the Workplace Dimension are presented in Table 4-5 below.

Table 0-5: KMO and Bartlett's test of inter-item correlation

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.824
Bartlett's Test of Sphericity	Approx. Chi-Square	4647.797
	df	210
	Sig.	0.000

As evidenced in Table 4-5 above, the KMO measure verified the sampling adequacy for factor analysis, since the value of KMO is 0.824 which is above the 0.6 cut off point set by Hair *et al.* (2010). Bartlett's Test of Sphericity was significant ($p<0.05$), indicating correlations between items were sufficiently large for a factor analysis. Thus, the sample is suitable for further analysis by means of factor analysis.

4.3.1.2 Factor Analysis

An exploratory factor analysis using the Principle Component Factoring extraction method was performed on the 25 items of the Workplace Questionnaire. The Principal Component Factor Analysis initially resulted in six factors. However a closer inspection of the pattern matrix indicated the items primarily loaded onto four factors. A Principle Factor Analysis was done by using the Direct Oblimin Rotation to specify the four factors. Four items were excluded due to low and problematic factor loadings. The four factors were labelled Supervisor/ Colleague Support (Factor 1), Compensation (Factor 2), and Job Security (Factor 3) and Opportunities for Growth and Development (Factor 4). The four factors explained 59.930% of the variance. The results of the Factor analysis as well as the Pattern Matrix are shown below in Table 4-6 and Table 4-7. The item loadings were acceptable for the four specified factors.

Table 0-6: Total Variance Explained for Workplace Questionnaire

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.846	27.836	27.836	5.846	27.836	27.836
2	2.741	13.052	40.888	2.741	13.052	40.888
3	2.359	11.235	52.124	2.359	11.235	52.124
4	1.639	7.807	59.930	1.639	7.807	**59.930**
5	1.461	6.958	66.888			
6	1.028	4.895	71.783			
7	.830	3.951	75.734			
8	.674	3.211	78.945			
9	.614	2.924	81.869			
10	.583	2.777	84.646			
11	.523	2.493	87.139			
12	.381	1.814	88.952			

13	.349	1.661	90.614
14	.328	1.562	92.176
15	.317	1.511	93.687
16	.292	1.388	95.076
17	.278	1.326	96.401
18	.258	1.228	97.629
19	.201	.958	98.587
20	.194	.923	99.510
21	.103	.490	100.000

Table 0-7: Pattern Matrix[a] for Workplace Scale

	Component			
	Supervisor/ Colleague Support	Compensation	Job Security	Career Advancement
EEW2	-.061	.050	-.014	**.763**
EEW3	.025	-.002	-.013	**.855**
EEW4	-.005	-.011	-.061	**.843**
EEW5	.239	-.014	-.001	**.521**
EEW8	-.012	-.369	-.002	**.441**
EEW9	**.752**	-.016	.008	-.011
EEW10	**.778**	-.077	-.017	-.106
EEW11	**.714**	.067	.012	-.122
EEW12	**.477**	.027	-.015	.230
EEW13	**.481**	-.117	.054	.125
EEW14	**.464**	-.100	.024	.077
EEW15	**.791**	.034	.030	-.005
EEW16	**.755**	.014	-.073	-.018
EEW17	**.740**	.064	-.051	.058
EEW18	.040	.015	**.942**	-.001
EEW19	-.017	.022	**.955**	.019
EEW20	-.036	-.010	**.878**	-.044
EEW21	.016	**-.839**	.064	-.036
EEW22	.011	**-.826**	-.079	-.016
EEW23	-.024	**-.901**	-.050	-.114
EEW24	.055	**-.727**	.022	.166

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 7 iterations.

4.3.1.3 Descriptive Statistics and reliabilities of the Workplace Dimension

The descriptive statistics of the Workplace Dimensions are reported in Table 4-8 below. Standard Deviation values for group range between 0.567 and 1.057 indicating a relatively small degree of dispersion. The skewness values for the group range between 0.370 and 0.869, indicating a positively skewed distribution. The kurtosis values for the range are between 0.182 and 1.180. The Cronbach Alpha Coefficients range from 0.790 to 0.921 which indicates an acceptable to excellent level of reliability (Field, 2010).

A four-point response scale ranging from "Never" to "Always" was utilised. The mean values for the respondents ranged between 1.86 and 3.09. On average the respondents experienced colleague and supervisor support. The respondents also indicated that they seldom experienced job insecurity. The respondents however also indicated that they seldom experience sufficient compensation.

Table 0-8: Descriptive Statistics of the Workplace Dimensions

	Mean	Std. Deviation	Skewness	Kurtosis	Cronbach Alpha
Career Advancement	2.8072	.66074	-.370	-.364	.790
Colleague and Supervisor Support	3.0954	.56746	-.423	-.418	.855
Job Security	2.1958	1.05777	.376	-1.180	.921
Compensation	1.8681	.74598	.869	.182	.855

4.3.1.4 Summary of Results

The results of the statistical analysis of the Workplace Dimension of Social Capital can be summarised as follows:

- The KMO of the Sampling Adequacy and Sphericity inter-item correlation was at a great level and there was a significant correlation between the items according to the Bartlett's test. This implies that there is significance in the relationship that social capital has in

academics' social cohesion within the workplace, being it career advancement, colleague and supervisor support, job security or compensation.

- Four Factors were identified based on the Exploratory Factor Analyses using Direct Oblimin Rotation. The factors were labelled Supervisor/ Colleague Support, Compensation, Job Security and Opportunities for Growth and Development. The four factors explained 59.930% of the variance, meaning that social capital contribute to the social cohesion relationship in the workplace.
- The reliabilities ranged between acceptable and excellent.
- The respondents were mostly satisfied with the support they receive from their colleagues and supervisor. This means that social capital improved the work experience as such and in the end enhanced the well-being.

4.3.2 RESULTS: SOCIAL CAPITAL QUESTIONNAIRE – WORK SUPPORT TO FAMILY

This section deals with the Family Life (i.e. Work Support to Family) of Social Capital. Respondents were requested to indicate to the extent to which they perceived that the work supports their family. The results are reported in the ensuing section.

4.3.2.1 Sample adequacy and Sphericity

The Sampling Adequacy and Sphericity of the inter-item correlation matrix was determined by applying the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity to the inter-item correlation matrix of the work support to family of Social Capital. The results of the KMO for the Work Support to Family are presented in Table 4-9 below.

Table 0-9: KMO and Bartlett's test of inter-item correlation

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.821
Bartlett's Test of Sphericity	Approx. Chi-Square	233.811
	df	15
	Sig.	.000

As evidenced in Table 4-9 above, the KMO measure verified the sampling adequacy for factor analysis, since the value of KMO is 0.821 which is above the 0.6 cut off point set by Hair *et al.* (2010). Bartlett's Test of Sphericity was significant ($p<0.05$), indicating correlations between items were sufficiently large for a factor analysis. Thus the sample is suitable for further analysis by means of factor analysis.

4.3.2.2 Factor Analysis

An exploratory factor analysis using the Principle Component Factoring extraction method was performed on the 6 items of the Work to Family Scale. The Principle Component Factor Analysis initially resulted in two factors. However a closer inspection of the pattern matrix indicated the items primarily loaded onto one factor. A Principle Factor Analysis was done to specify the four factors. The factor was labelled Work Support for Family. The factor explained 71.130 % of the variance. The results of the Factor analysis as well as the Component Matrix are shown below in Table 4-10 and Table 4-11. The item loadings were acceptable for the specified factor.

Table 0-10: Total Variance Explained for Work Support to Family Scale

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.268	71.130	71.130	4.268	71.130	71.130
2	1.080	18.001	89.131			
3	.247	4.120	93.251			
4	.203	3.382	96.633			
5	.128	2.141	98.774			
6	.074	1.226	100.000			
Extraction Method: Principal Component Analysis.						

Table 0-11: Factor Matrix for Work Support to Family Scale

	Component
	Work Support to Family
WSF1	.853
WSF2	.859
WSF3	.861
WSF4	.918

WSF5	.775
WSF6	.786
Extraction Method: Principal Component Analysis.	
a. 1 components extracted.	

4.3.2.3 Descriptive Statistics and reliabilities of Work Support to Family Measure of Social Capital

The descriptive statistics of the Work Support to Family Measure of Social Capital are reported in Table 4-8 below. Standard Deviation values for group range between 0.449 and 0.937, indicating a relatively small degree of dispersion. The skewness value for the group was 0.893, indicating a positively skewed distribution. The kurtosis value was 0.235. The Cronbach Alpha Coefficient was 0.917 which indicates an excellent level of reliability (Field, 2010).

A four-point response scale ranging from "Never" (never work support to family) to "Always" (always work support to family) was utilised. The mean value of the Work Support to Family is 2.781. On average the respondents experienced that their work environment supports their family life. This means that if an academic is happy in his work environment his family life will benefit from it.

Table 0-12: Descriptive Statistics of the Work Support to Family Measure

	Mean	Std. Deviation	Skewness	Kurtosis	Cronbach Alpha
Work Support to Family	2.7817	.74580	-.893	.235	.917

4.3.2.4 Summary of Results

To conclude the information presented in the preceding section (section 4.3), the results of the statistical analysis of the JCS can be summarised as follows:

- The KMO of the Sampling Adequacy and Sphericity inter-item correlation was at a great level and there was a significant correlation between the items according to the Bartlett's test.

- The EFA initially resulted in two factors. However a closer inspection of the pattern matrix indicated the items primarily loaded onto one factor. The factor was labelled Work Support for Family. The factor explained 71.130 % of the variance
- The value of Cronbach's Alpha indicates an excellent level of reliability for the Work Support to Family. This means that social capital in the workplace built trust, trust that will benefit also in the relationship towards the family and will therefore contribute towards a significant relationship with well-being.

4.3.3 RESULTS: SOCIAL CAPITAL QUESTIONNAIRE – FAMILY SUPPORT FOR WORK

This section deals with the family support for work of Social Capital. Respondents were requested to indicate to the extent to which they personally evaluate the aspects of their work and work environment. The results are reported in the ensuring section.

4.3.3.1 Sample adequacy and Sphericity

The Sampling Adequacy and Sphericity of the inter-item correlation matrix was determined by applying the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity to the inter-item correlation matrix of the Family support to work. The results of the KMO for the Family support to work measure are presented in Table 4-13 below.

Table 0-13: KMO and Bartlett's test of inter-item correlation

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.627
Bartlett's Test of Sphericity	Approx. Chi-Square	44.156
	df	6
	Sig.	.000

As evidenced in Table 4-13 above, the KMO measure verified the sampling adequacy for factor analysis, since the value of KMO is 0.627 which is above the 0.6 cut off point set by Hair *et al.* (2010). Bartlett's Test of Sphericity was significant ($p<0.05$), indicating

correlations between items were sufficiently large for a factor analysis. Thus the sample is suitable for further analysis by means of factor analysis.

4.3.3.2 Factor Analysis

An exploratory factor analysis using the Principle Component Factoring extraction method was performed on the 6 items of the Family Support to Work Measure. The Principle Component Factor Analysis initially resulted in one factor. Two items were deleted because of low and problematic factor loadings. A Principle Factor Analysis was done to specify the one factor. The factor was labelled Family Support for Work. The factor explained 57.644 % of the variance. The results of the Factor analysis as well as the Component Matrix are shown below in Table 4-14 and Table 4-15. The item loadings were acceptable for the specified factor.

Table 0-14: Total Variance Explained for Family Support to Work Measure

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.306	57.644	57.644	2.306	57.644	57.644
2	.855	21.363	79.007			
3	.536	13.399	92.406			
4	.304	7.594	100.000			

Table 0-15: Component Matrix for Family Support to Work

	Family Support to Work
FSW1	.802
FSW3	.648
FSW4	.774
FSW6	.803
Extraction Method: Principal Component Analysis.	

4.3.3.3 Descriptive Statistics of Family Support to Work

The descriptive statistics of the Family Support to Work Measure are reported in Table 4-8 below. Standard Deviation value was 0.517, indicating a relatively small degree of dispersion. The skewness value was -.527, indicating a negative skewed distribution. The kurtosis value was -.982. The Cronbach Alpha Coefficient was 0.749 which indicates an

acceptable reliability (Field, 2010). A four-point response scale ranging from "Never" to "Always" was utilised. The mean value for the respondents was 3.458. On average the respondents experienced that their family experienced them most of the time for their work.

Table 0-16: Descriptive Statistics of the Family Support to Work Measure

	Mean	Std. Deviation	Skewness	Kurtosis	Cronbach Alpha
Family Support for Work	3.4583	.51772	-.527	-.982	.749

4.3.3.4 Summary of Results

To conclude the information presented in the preceding section, the results of the statistical analysis of the family support to work measure can be summarised as follows:

- The KMO of the Sampling Adequacy and Sphericity inter-item correlation was at a great level and there was a significant correlation between the items according to the Bartlett's test. This measured the Family support to work.
- The EFA was run and the Principle Component Factor Analysis initially resulted in one factor. The factor explained 57.644 % of the variance.
- The overall value of Cronbach's Alpha indicates an acceptable reliability for the Family Support to work.

4.3.4 RESULTS OF COMMUNITY LEVEL

This section deals with the community dimension of Social Capital. Respondents were requested to indicate to the extent to which they personally evaluate the aspects of their work and work environment. The results are reported in the ensuing section.

4.3.4.1 Sample Adequacy and Sphericity

The Sampling Adequacy and Sphericity of the inter-item correlation matrix was determined by applying the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity to the inter-item correlation matrix of the Workplace Dimension of Social Capital. The results of the KMO for the Workplace Dimension are presented in Table 4-17 below.

Table 0-17: KMO and Bartlett's test of inter-item correlation

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.693
Bartlett's Test of Sphericity	Approx. Chi-Square	383.206
	df	153
	Sig.	.000

As evidenced in Table 4-17 above, the KMO measure verified the sampling adequacy for factor analysis, since the value of KMO is 0.824 which is above the 0.6 cut off point set by Hair *et al.* (2010). Bartlett's Test of Sphericity was significant ($p<0.05$), indicating correlations between items were sufficiently large for a factor analysis. Thus the sample is suitable for further analysis by means of factor analysis.

4.3.4.2 Factor Analysis

An exploratory factor analysis using the Principle Component Factoring extraction method was performed on the 20 items of the Community Measure. The Principle Component Factor Analysis initially resulted in six factors. However a closer inspection of the pattern matrix indicated the items primarily loaded onto one factor. Two items were deleted because of low and problematic factor loadings. A Principle Factor Analysis was done to specify the one factor. The factor was labelled Community. The factor explained 33.393 % of the variance. The results of the Factor analysis as well as the Component Matrix are shown below in Table 4-18 and Table 4-19. The item loadings were acceptable for the specified factor.

Table 0-18: Total Variance Explained for Community Measure

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.011	33.393	33.393	6.011	33.393	33.393
2	2.336	12.977	46.370			
3	1.759	9.770	56.140			
4	1.368	7.601	63.741			
5	1.058	5.876	69.617			
6	.944	5.246	74.863			
7	.832	4.624	79.487			

8	.686	3.811	83.297
9	.639	3.552	86.849
10	.540	3.000	89.849
11	.424	2.356	92.205
12	.384	2.136	94.341
13	.305	1.697	96.038
14	.239	1.327	97.365
15	.174	.967	98.332
16	.116	.643	98.975
17	.100	.558	99.533
18	.084	.467	100.000

Extraction Method: Principal Component Analysis.

Table 0-19: Factor Matrix[a] for Community Measure

Component Matrix[a]

	Component 1
Comm1	.544
Comm2	.329
Comm4	.747
Comm5	.573
Comm6	.572
Comm7	.711
Comm8	.843
Comm9	.659
Comm10	.550
Comm11	.608
Comm12	.629
Comm14	.447
Comm15	.415
Comm16	.433
Comm17	.495
Comm18	.468
Comm19	.467
Comm20	.658

Extraction Method: Principal Component Analysis.

4.3.4.3 Descriptive Statistics and Reliabilities of Community Dimension of Social Capital

The descriptive statistics of the Community dimension of social capital are reported in Table 4-8 below. Standard Deviation value was 0.531. The skewness value was 0.348. The kurtosis value was -056. The Cronbach Alpha Coefficient was 0.876 which indicates a very good reliability (Field, 2010). A four-point response scale ranging from "Never" to "Always" was utilised. The mean value for the respondents was 2.731. On average the respondents experienced trust from their community and also indicated that they are frequently involved in community activities.

Table 0-20: Descriptive Statistics of the Community Measure

Descriptive Statistics					
	Mean	Std. Deviation	Skewness	Kurtosis	Cronbach Alpha
Community	2.7315	.53130	.348	-.056	.876

4.3.4.4 Summary of Results

To conclude the information presented in the preceding section (section 4.3), the results of the statistical analysis of the Community Measure can be summarised as follows:

- The KMO of the Sampling Adequacy and Sphericity inter-item correlation was at a great level and there was a significant correlation between the items according to the Bartlett's test. This measured the community dimension of social capital.
- A Principal Component Factor Analysis was done to specify the one factor. The factor explained 33.393 % of the variance.
- The overall value of Cronbach's Alpha indicates a very good reliability for the Job of Community Dimension of Social Capital.
- The mean value for the respondents was 2.731. On average the respondents experienced trust from their community and also indicated that they are frequently involved in community activities.

4.3.5 RESULTS: WELL-BEING

This section deals with the results of the General Health Questionnaire. Respondents were requested to indicate to the extent to which they personally evaluate the aspects of their work and work environment. The General Health Survey was used to measure the well-being of the respondents. The questionnaire consists of 19 items and measures physical and psychological well-being. Each item is scored from 1, where the ill-health symptom or change of behaviour is never experienced over the last three months, to 4 where the ill-health symptom or change of behaviour is often experienced over the past three months. The questionnaire has been validated in the South African context (Barkhuizen et al., 2008).

4.3.5.1 Sample Adequacy and Sphericity

The Sampling Adequacy and Sphericity of the inter-item correlation matrix was determined by applying the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity to the inter-item correlation matrix of the General Health Questionnaire. The results of the KMO for the General Health Questionnaire are presented in Table 4-21 below.

Table 0-21: KMO and Bartlett's test of inter-item correlation

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.939
Bartlett's Test of Sphericity	Approx. Chi-Square	*3293.586*
	df	136
	Sig.	*0.000*

As evidenced in Table 4-21 above, the KMO measure verified the sampling adequacy for factor analysis, since the value of KMO is 0.939 which is above the 0.6 cut off point set by Hair *et al.* (2010). Bartlett's Test of Sphericity was significant ($p<0.05$), indicating correlations between items were sufficiently large for a factor analysis. Thus the sample is suitable for further analysis by means of factor analysis.

4.3.5.2 Factor Analyses

An exploratory factor analysis using the Principle Component Factoring extraction method was performed on the 19 items of the General Health Questionnaire. The Principle Component Factor Analysis initially resulted in two factors. A Principle Factor Analysis was done by using the Direct Oblimin Rotation to specify the two factors. Two items were excluded due to low and problematic factor loadings. The two factors were labelled Physical Ill-Health (Factor 1) and Psychological Ill-Health (Factor 2). The two factors explained The four factors explained 52.689% of the variance. The results of the Factor analysis as well as the Pattern Matrix are shown below in Table 4-22 and Table 4-23. The item loadings were acceptable for the four specified factors.

Table 0-22: Total Variance Explained Well-Being Measure

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.568	44.518	44.518	7.568	44.518	44.518
2	1.389	8.171	52.689	1.389	8.171	52.689
3	.880	5.176	57.864			
4	.850	5.000	62.865			
5	.763	4.489	67.354			
6	.708	4.166	71.520			
7	.638	3.756	75.275			
8	.580	3.409	78.684			
9	.559	3.288	81.972			
10	.509	2.994	84.966			
11	.504	2.963	87.929			
12	.446	2.626	90.555			
13	.396	2.329	92.884			
14	.359	2.111	94.995			
15	.324	1.903	96.898			
16	.268	1.574	98.472			
17	.260	1.528	100.000			

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

Table 0-23: Pattern Matrix for General Health Questionnaire

	Component	
	Psycological Ill-Health	Physical Ill-Health
GH1	.157	**.566**
GH2	-.207	**.803**
GH3	.217	**.506**
GH4	.015	**.652**
GH5	.322	**.365**
GH6	.183	**.596**
GH7	.066	**.635**
GH10	**.737**	.106
GH11	**.742**	.006
GH12	**.820**	-.135
GH13	**.773**	-.048
GH14	**.535**	.262
GH15	**.780**	.048
GH16	**.774**	-.028
GH17	**.737**	.072
GH18	**.776**	-.008
GH19	**.673**	.130

4.3.5.3 Descriptive Statistics and Reliabilities of Well-Being

The descriptive statistics of the Well-being dimensions are reported in Table 4-8 below. Standard Deviation values for group range between 0.667 and 0.685, indicating a relatively small degree of dispersion. The skewness values for the group range between 0.047 and 0.175, indicating a positively skewed distribution. The kurtosis values for the range are between -.428 and -.608. The Cronbach Alpha Coefficients range from 0.782 to 0.918 which indicates an acceptable to excellent level of reliability (Field, 2010). A four-point response scale ranging from "Never" to "Always" was utilised. The mean values show that the respondents experience average levels of physical and psychological ill-health.

Table 0-24: Descriptive Statistics for Well-being

	Mean	Std. Deviation	Skewness	Kurtosis	Cronbach Alpha

Physical	2.1942	.66720	.175	-.428	.782
Psychological	2.2062	.68599	.047	-.608	.918

4.3.5.4 Summary of Results

To conclude the information presented in the preceding section (section 4.3), the results of the statistical analysis of the General Health Questionnaire can be summarised as follows:

- The KMO of the Sampling Adequacy and Sphericity inter-item correlation was at a great level and there was a significant correlation between the items according to the Bartlett's test. This items measured the physical and psychological factors of well-being.
- The EFA was run and a Principle Factor Analysis was done by using the Direct Oblimin Rotation to specify the two factors. The two factors were labelled Physical Ill-Health (Factor 1) and Psychological Ill-Health (Factor 2). The two factors explained 52.689% of the variance. This means that there is a near equal distribution between physical and psychological ill-health.
- The overall value of Cronbach's Alpha indicates an excellent level of reliability for well-being.
- The physical mean score was 2.194 and the psychological mean score was 2.206 which means an average level of well-being in both factors.

4.3.6 PHASE 3: TESTING OF HYPOTHESES

This section reports on the testing of the hypotheses. Three main hypotheses were formulated which were supported by sub-hypotheses. The results are reported below.

4.3.6.1 Hypothesis 1

Hypothesis 1 tests the relationship between social capital and well-being. Pearson correlations were used to test for the above relationships. One integrative hypothesis and eight sub-hypotheses are set.

$H_0$1: There is no significant relationship between Social Capital (i.e. workplace, family life and community) and well-being (i.e. physical and psychological ill-health)

H_a1: There is a significant relationship between Social Capital (i.e. workplace, family life and community) and well-being (i.e. physical and psychological ill-health)

Eight sub-hypotheses were set in support of Hypothesis 1. The results are reported below.

$H_0$1.1a: There is no significant relationship between the Workplace Dimension of Social Capital and Physical Ill-Health

H_a1.1b: There is a significant relationship between the Workplace Dimension of Social Capital and Psychological Ill-Health

$H_0$1.2a: There is no significant relationship between the Work Support to Family Dimension of Social Capital and Physical Ill-Health

H_a1.2b: There is a significant relationship between the Work Support to Family of Social Capital and Psychological Ill-Health

$H_0$1.3a: There is no significant relationship between the Family Support to Work Dimension of Social Capital and Physical Ill-Health

H_a1.3b: There is a significant relationship between the Family Support to Work Dimension of Social Capital and Psychological Ill-Health

$H_0$1.4a: There is no significant relationship between the Community Dimension of Social Capital and Physical Ill-Health

H_a1.4b: There is a significant relationship between the Community Dimension of Social Capital and Psychological Ill-Health

The results of the correlation analyses between the workplace dimension and well-being are reported in Table 4-25 below.

Table 0-25: Correlation Analyses between Workplace Dimensions and Well-Being

	Physical Ill-Health	Psychological Ill-Health
Supervisor and Colleague Support	-.148**	-.201**
Compensation	-.246**	-.326**
Job Security	.109*	.066
Career Advancement	-.235**	-.189**

The results in Table 4-25 show the following:

- Supervisor and Colleague support are significantly negatively related to Physical and Psychological Ill-Health (all small effects). This means that the workplace dimensions had little effect towards well-being.
- Compensation is significantly negatively related to Physical and Psychological Ill-Health (all small effects) This means that the workplace dimensions had little effect towards well-being.
- Job Security is significantly positively related to Physical Ill-Health (small effect). This means that the workplace dimensions had little effect towards well-being.
- Career Advancement is significantly negatively related to Physical and Psychological Ill-Health (all small effects). This means that the workplace dimensions had little effect towards well-being.

The above results partially confirm both the null and alternative sub-hypotheses.

The results of the correlation analyses between family life and well-being are reported in Table 4-26 below. The results in Table 4-26 show that there is no significant relationship between the family life dimensions and well-being dimensions. Based on the results the null hypothesis and sub-hypotheses are accepted.

Table 0-26: Correlation Analyses between Family Life and Well-being Dimensions

	Physical Ill-Health	Psychological Ill-Health
Work Support to Family	.025	-.026
Family Support to Work	-.197	-.211

Next the correlation analyses between community and well-being are reported. The results in Table show that there is no significant relationship between community and the well-being dimensions. Based on the results the integrated null hypothesis and sub-hypotheses are accepted.

Table 0-27: Correlation Analyses between Community and Well-being Dimensions

	Physical Ill-Health	Psychological Ill-Health
Community	.006	-.035

4.3.6.2 Summary of Results

To conclude the information presented in the preceding section, the results of the statistical analysis of the relationship between Social Capital and Well-being can be summarised as follows:

- The Workplace Dimensions of Colleague and Supervisor support, Compensation and Career Advancement are significantly negatively related to Physical and Psychological Ill-Health (all small effects). This means that the community dimensions had little effect towards well-being within the relationship.
- Job Security is significantly positively related to Physical Ill-Health (small effect). This means that the community dimension had little effect towards well-being;
- The results showed no significant relationship between family life and well-being dimensions. This was not directly related to the academics social capital within the workplace.
- The results showed no significant relationship between community and well-being dimensions. The community does not relate directly to the academics relationship within their work environment.

Next the Manova Analyses are reported.

4.3.7 MANOVA ANALYSES

The Manova analyses report on the background characteristics or the respondents in relation to Social Capital and Well-being. The Manova analyses of the Social Capital Dimensions are reported first.

4.3.7.1 Hypothesis 2: Manovas Analyses - Social Capital

Hypothesis 2 tests the relationship between the social capital dimensions and the demographic characteristics of the respondents. One integrated hypotheses and six sub-hypotheses were formulated.

H $_0$2: There are no significant differences between the social capital dimensions (i.e. workplace, family life and community) of the respondents based on their demographic characteristic.

H $_a$2: There are significant differences between the social capital dimensions (i.e. workplace, family life and community) of the respondents based on their demographic characteristic.

The following sub-hypotheses were set:

H $_0$2.1a: There are no significant differences between the workplace dimensions of the respondents based on their demographic characteristics.

H $_a$2.1b: There are significant differences between the workplace dimensions of the respondents based on their demographic characteristics.

H $_0$2.2a: There are no significant differences between the family life dimensions of the respondents based on their demographic characteristics.

H $_a$2.2b: There are significant differences between the family life dimensions of the respondents based on their demographic characteristics.

H $_0$2.3 a: There are no significant differences between the community dimension of the respondents based on their demographic characteristics.

H $_a$2.3 b: There are significant differences between the community dimensions of the respondents based on their demographic characteristics.

The results of the Manova Analyses between Workplace Dimensions and background variables of the respondents are reported in Table 4-28 below.

Table 0-28: Manovas: Workplace Dimensions and Background Variables

Category	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Gender	.975	2.548[b]	4.000	403.000	.039	.025
Age	.921	2.087	16.000	1228.768	.007	.020
Job Title	.922	1.778	16.000	1051.575	.029	.020
Years in Current Institution	.955	2.329[b]	8.000	800.000	.018	.023

From Table 4-28 it is evident that statistically significant differences exist between all the background variables of the respondents and Workplace Dimensions. The results were further explored by determining the effect size and post-hoc analyses. The results are reported in the ensuing section.

Table 0-29: T-Tests for Gender and Colleague and Supervisor Support

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower	Upper
Colleague and Supervisor Support	Equal variances assumed	1.890	.170	2.848	406	.005	.15904	.05584	.04926	.26882
	Equal variances not assumed			2.848	403.334	.005	.15904	.05584	.04926	.26882

The results in Table 4-29 showed no significant differences between gender and colleague and supervisor support.

The post-hoc analyses for age are reported in Table 4-30 below.

Table 0-30: Post-hoc analyses between Workplace Dimensions and Age

Dunnett t (2-sided)$_a$							
Dependent Variable			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Career Advancement	1	5	-.2236	.14764	.317	-.5785	.1312
	2	5	-.0023	.11926	1.000	-.2889	.2844
	3	5	-.0328	.11748	.993	-.3152	.2495
	4	5	-.0896	.12168	.832	-.3821	.2028
Colleague and Supervisor Support	1	5	-.1452	.12526	.537	-.4463	.1558
	2	5	-.2143	.10119	.098	-.4575	.0289
	3	5	-.1312	.09967	.433	-.3707	.1084
	4	**5**	**-.3063***	**.10324**	**.010**	-.5545	-.0582

Job Security	1	5	.4007	.23318	.222	-.1598	.9611
	2	5	.1944	.18836	.628	-.2583	.6472
	3	5	-.1675	.18554	.721	-.6134	.2785
	4	5	-.1262	.19218	.878	-.5881	.3357
Compensation	1	5	-.0568	.16542	.986	-.4544	.3408
	2	5	-.0459	.13362	.986	-.3671	.2753
	3	5	-.1239	.13162	.693	-.4403	.1925
	4	5	-.0124	.13633	1.000	-.3400	.3153

Table 4-30 shows that The Wilks' Lambda for age is equal to 0.921 [F (16, 1228,768) = 2.087, $p \leq 0.05$. Analysis of each dependent variable, using a Bonferroni adjusted alpha level of 0,025 showed that the groups differ in terms of the colleague and supervisor support dimension. The results showed that academics aged 60 years and older experienced more colleague and supervisor support than those aged between 50 and 59 years. The effect however is small. The results revealed no significant differences between the other social capital dimensions and background characteristics of the respondents.

The results of the post-hoc tests between Workplace Dimensions and Job Title are reported in Table 4-31 below.

Table 0-31: Post-hoc analyses between Social Capital Dimensions and Job Title

Multiple Comparisons							
Dunnett t (2-sided)a							
Dependent Variable			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Career Advancement	1	5	-.2845	.14661	.167	-.6448	.0758
	2	5	-.1925	.09322	.128	-.4216	.0366
	3	5	-.1822	.09651	.186	-.4194	.0550
	4	5	.0625	.10177	.931	-.1876	.3126
Colleague and Supervisor Support	1	5	-.0544	.13337	.984	-.3821	.2734
	2	**5**	**-.2166***	**.08480**	**.039**	-.4250	-.0082
	3	5	-.1983	.08779	.082	-.4141	.0175
	4	5	-.0948	.09258	.700	-.3223	.1328
Job Security	1	5	.5437	.25288	.106	-.0778	1.1651
	2	5	.0204	.16079	1.000	-.3748	.4155
	3	5	-.0624	.16647	.988	-.4715	.3467
	4	5	-.0936	.17555	.957	-.5250	.3379
Compensation	1	5	.1197	.18750	.922	-.3411	.5804

2	5	-.1216	.11922	.703	-.4146	.1714
3	5	-.0707	.12343	.945	-.3740	.2326
4	5	.0408	.13016	.994	-.2791	.3606

Table 4-31 shows that The Wilks' Lambda for job title is equal to 0.922 [F (16, 1051,575) = 1.778, $p \leq 0.05$. Analysis of each dependent variable, using a Bonferroni adjusted alpha level of 0,025 showed that the groups differ in terms of the colleague and supervisor support dimension. The results showed that full professors experienced more colleague and supervisor support than lecturers. The effect however is small. The results revealed no significant differences between the other social capital dimensions and background characteristics of the respondents.

Table 0-32: Post-hoc analyses between Social Capital Dimensions and Years in Current Job

Dependent Variable			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Career Advancement	1	3	.0211	.08594	.951	-.1677	.2100
	2	3	-.0708	.09891	.671	-.2881	.1466
Colleague and Supervisor Support	1	3	-.0674	.07421	.538	-.2304	.0957
	2	3	-.1838	.08541	.056	-.3715	.0039
Job Security	1	3	**.4054***	**.13824**	**.007**	.1016	.7092
	2	3	.1346	.15910	.580	-.2150	.4842
Compensation	1	3	.0426	.09879	.860	-.1745	.2597
	2	3	-.0809	.11370	.674	-.3307	.1690

Table 4-32 shows that The Wilks' Lambda for job title is equal to 0.955 [F (8, 800) = 2.329, $p \leq 0.05$. Analysis of each dependent variable, using a Bonferroni adjusted alpha level of 0,025 showed that the groups differ in terms of the job security dimension. The results showed that academics employed between 0 and 10 years in their current institution experience more job security than academics employed for more than 20 years. The effect however is small. The results revealed no significant differences between the other social capital dimensions and background characteristics of the respondents.

The results of the Manova Analyses between Family Life and background variables of the respondents are reported in Table 4-33 below.

Table 0-33: Manova Analyses – Family Life and Background Variables

Category	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Gender	.983	.320[b]	2.000	36.000	.728	.017
Age	.650	1.984[b]	8.000	66.000	.062	.194
Job Title	.875	.621[b]	8.000	72.000	.757	.065
Years in Current Institution	.972	.266[b]	4.000	74.000	.899	.014

The results in Table 4-33 show no significant differences between the family dimensions of social capital based on their demographic characteristics.

Next the Anova Analyses on the relationship between Community and Background characteristics of the respondents are reported.

Table 0-34: Anova Analyses – Community and Background Variables

	Sum of Squares	df	Mean Square	F	Sig.
Gender	5.373	23	.234	2.261	.053
Age	37.808	24	1.575	1.285	.319
Job Title	36.360	25	1.454	1.444	.225
Years in Current Institution	7.394	25	.296	1.065	.462

The results in Table 4-34 show that statistically significant differences exist between community and the gender of the respondents. No significant differences exist between community and the rest of the background variables. The post-hoc analyses between gender and community are reported in Table 4-35 below.

Table 0-35: T-Tests between Gender and Community

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower	Upper
Community	Equal variances assumed	.105	.748	-.752	37	.457	-.14691	.19547	-.54297	.24914

Equal variances not assumed	-.705	12.072	.494	-.14691	.20838	-.60063	.30680

The results in Table 4-35 show no significant differences between gender based on the community dimension.

4.3.7.2 Summary of Results

- The results showed that significant differences exist between the workplace dimensions of the respondents based on their background variables. The results further showed that academics aged 60 years and older experienced more colleague and supervisor support than those aged between 50 and 59 years. In addition the results also showed that full professors experienced more colleague and supervisor support than lecturers. Academics employed between 0 and 10 years in their current institution experience more job security than academics employed for more than 20 years.
- The results showed that no significant differences exist between the respondents based on family life and community.

The results of the Manova Analyses between Well-being and background variables of the respondents are reported next.

4.3.7.3 Hypothesis 3: Manova Analyses: Well-Being

Hypothesis 3 tests the relationship between well-being and background variables. One integrated and four sub-hypotheses were set.

$H_0$3: There are no significant differences between the well-being dimensions (i.e. physical and psychological ill-health) of the respondents based on their demographic characteristics.

H_a3: There are significant differences between the well-being dimensions (i.e. physical and psychological ill-health) of the respondents based on their demographic characteristics.

The following sub-hypotheses were set:

H $_0$3.1a: There are no significant differences between physical ill-health of the respondents based on their demographic characteristics.

H $_a$3.1b: There are significant differences between physical ill-health of the respondents based on their demographic characteristics.

H $_0$3.2a: There are no significant differences between psychological ill-health of the respondents based on their demographic characteristics.

H $_a$3.2b: There are significant differences between psychological ill-health of the respondents based on their demographic characteristics.

The results are reported in Table 4-36 below.

Table 0-36: Manova Analyses – Well-being and Background Variables

Category	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Gender	.970	6.180[b]	2.000	405.000	.002	.030
Age	.947	2.807[b]	8.000	808.000	.005	.027
Job Title	.966	1.507[b]	8.000	692.000	.151	.017
Years in Current Institution	.983	1.735[b]	4.000	804.000	.140	.009

From this table it is evident that statistically significant differences exist between gender and age and the well-being dimensions. No significant differences exist between job title and years in current institution and well-being dimensions. The significant results were further explored by determining the effect size and post-hoc analyses.

The post-hoc analysis between gender and physical ill-health is reported in Table 4-37 below.

Table 0-37: T-Tests Gender and Well-being Dimensions

Independent Samples Test								
	Levene's Test for Equality of Variances		t-test for Equality of Means					
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference

									Lower	Upper
Physical	Equal variances assumed	2.527	.113	-3.500	406	.001	-.22759	.06503	-.35543	-.09975
	Equal variances not assumed			-3.500	403.384	.001	-.22759	.06503	-.35543	-.09975

The results in Table 4-37 show no significant differences between gender based on physical ill-health. The post-hoc analysis between psychological ill-health and gender is reported in Table 4-38 below.

Table 0-38: T-Tests between Gender and Psychological Ill-Health

		Levene's Test for Equality of *Variances*		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower	Upper
Psychological	Equal variances assumed	4.099	.044	-2.670	406	.008	-.18088	.06775	-.31406	-.04771
	Equal variances not assumed			-2.670	402.893	.008	-.18088	.06775	-.31406	-.04770

The results in Table 4-38 show that significant differences exist between the two gender groups based on psychological well-being. The results showed that females experienced significant higher levels of psychological ill-health problems compared to males.

The results of the post-hoc analyses between Well-being Dimensions and age are reported in Table 4-39 below.

Table 0-39: Post-Hoc Analyses between Age and Well-being

Dependent Variable			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Physical	1	5	.3637*	.14798	.044	.0080	.7194
	2	5	.3424*	.11954	.014	.0551	.6297

	3	5	.2858*	.11775	.047	.0028	.5688
	4	5	.3475*	.12196	.015	.0543	.6406
Psychological	1	5	.2087	.15050	.389	-.1530	.5704
	2	5	.3340*	.12157	.020	.0417	.6262
	3	5	.4221*	.11975	.002	.1343	.7099
	4	5	.3983*	.12404	.005	.1002	.6965

- Table 4-39 shows that The Wilks' Lambda for age is equal to 0.947 [F (8, 808) = 2.807, $p \leq 0.05$. Analysis of each dependent variable, using a Bonferroni adjusted alpha level of 0,025 showed that the groups differ in terms of both the well-being dimensions. The results showed that academics aged between 20 – 59 years experienced both higher levels of physical and psychological ill-health problems compared to those aged 60 years and older. The effects however are small. This would be due to the fact that academics, aged between 20 – 59, experienced more stress due to performance in the workplace within this age group. For example more pressure is on research outputs within this age group than in the aged group 60 years and older.

4.3.7.4 Summary of Results

- The results showed that significant differences exist between the two gender groups based on psychological well-being. Female academics experienced significant higher levels of psychological ill-health problems compared to males.
- The results showed that academics aged between 20 – 59 years experienced both higher levels of physical and psychological ill-health problems compared to those aged 60 years and older.

4.3.7.5 Hypothesis 4

Hypothesis 4 sets out to test the moderating effect of background variables on the relationship between social capital and well-being.

$H_0$4: Background variables do not mediate the relationship between social capital and well-being.

H_a4: Background variables mediate the relationship between social capital and well-being.

Multiple regression analyses were applied to test for the moderation effects. All the independent variables were entered. In models 1 and 2, the effects of the independent variables were entered, while in the third model the interaction term was also entered. A combined variable for social capital (consisting of workplace dimension, family life dimension and community) and well-being (consisting of physical and psychological ill-health) was created. The results of gender as moderator between social capital and well-being are report in Table 4-40 below.

Table 0-40: Regression Analyses - Gender as a moderator between Social Capital and Well-being

Model	Un-standardised Coefficients		Standardised Coefficients	t	P (Sig)	R	R^2	ΔR^2
	B	SE	Beta					
Social Capital and Well-Being						.226[a]	.051	.049
(Constant)	3.036	.179		16.947	.000			
Social Capital	-.335	.071	-.226	-4.730	.000			
Social Capital, Gender and Well-Being						.272[a]	.074	.069
(Constant)	2.720	.205		13.291	.000			
Social Capital	-.326	.072	-.217	-4.529	.000			
Gender	.197	.060	.158	3.311	.001			
Social Capital, Gender, Social Capital X Gender and Well-Being						.289[a]	.083	.077
(Constant)	3.841	.580		6.617	.000			
Social Capital	-.775	.229	-.515	-3.381	.001			
Gender	-.540	.362	-.434	-1.491	.137			
Social Capital X Gender	.296	.143	.664	2.062	.040			

From Table 4-40 it is evident that social capital and gender explained 7% of the variance in well-being. Adding the interaction of social capital and gender resulted in a significant increase in the explained percentage of variance of well-being. Gender thus moderates the relationship between Social Capital and Well-being. Therefore the alternative hypothesis is accepted.

Table 0-41: Regression Analyses - Age as the moderator between Social Capital and Well-being

Model	Un-standardised Coefficients		Standardised Coefficients	t	P (Sig)	R	R^2	ΔR^2
	B	SE	Beta					
Social Capital and Well-Being						.226[a]	.051	.049
(Constant)	3.036	.179		16.947	.000			
Social Capital	-.335	.071	-.226	-4.730	.000			
Social Capital, Age and Well-Being						.230[a]	.053	.048
(Constant)	3.156	.201		15.673	.000			
Social Capital	-.324	.072	-.218	-4.508	.000			
Age	-.048	.026	-.088	-1.826	.069			
Social Capital, Gender, Social Capital X Age and Well-Being						.241[a]	.058	.051
(Constant)	2.492	.485		5.142	.000			
Social Capital	-.062	.188	-.042	-.330	.741			
Age	.183	.156	.338	1.177	.240			
Social Capital X Age	-.092	.061	-.457	-1.505	.133			

From Table 4-41 it is evident that social capital and age explained 5% of the variance in well-being. Adding the interaction of social capital and age did not result in a significant increase in the explained percentage of variance of well-being. Age thus does not moderate the relationship between Social Capital and Well-being. Therefore the null hypothesis is accepted.

The results of the regression analyses between Social Capital, Job Title and Well-being are reported in Table 4-42 below.

Table 0-42: Regression Analyses - Job Title as the moderator between Social Capital and Well-being

Model	Un-standardised Coefficients		Standardised Coefficients	t	P (Sig)	R	R^2	ΔR^2
	B	SE	Beta					

Social Capital and Well-Being						.226[a]	.051	.049
(Constant)	3.036	.179		16.947	.000			
Social Capital	-.335	.071	-.226	-4.730	.000			
Social Capital, Job Title and Well-Being						.243[a]	.059	.054
(Constant)	3.150	.209		15.045	.000			
Social Capital	-.337	.078	-.226	-4.335	.000			
Job Title	-.039	.026	-.077	-1.479	.140			
Social Capital, Gender, Social Capital X Job Title and Well-Being						.265[a]	.070	.062
(Constant)	2.101	.558		3.765	.000			
Social Capital	.075	.217	.050	.344	.731			
Job Title	.291	.165	.574	1.764	.079			
Social Capital X Job Title	-.129	.064	-.732	-2.026	.044			

From Table 4-42 it is evident that social capital and job title explained 5% of the variance in well-being. Adding the interaction of social capital and job title did not result in a significant increase in the explained percentage of variance of well-being. Job Title thus does not moderate the relationship between Social Capital and Well-being. Therefore the null hypothesis is accepted.

The results of the regression analyses between Social Capital, Years in Current Job and Well-being are reported in Table 4-43 below.

Table 0-43: Years in current job as the moderator between Social Capital and Well-being

Model	Un-standardised Coefficients		Standardised Coefficients	t	P (Sig)	R	R^2	ΔR^2
	B	SE	Beta					
Social Capital and Well-Being						.226[a]	.051	.049
(Constant)	3.036	.179		16.947	.000			
Social Capital	-.335	.071	-.226	-4.730	.000			
Social Capital, Years in Current Job and Well-Being						.218[a]	.048	.043
(Constant)	3.062	.201		15.241	.000			

Social Capital	-.325	.073	-.219	-4.468	.000			
Years in Current Job	-.035	.038	-.045	-.918	.359			
Social Capital, Gender, Social Capital X Years in Current Job and Well-Being						.244[a]	.060	.053
(Constant)	2.233	.416		5.374	.000			
Social Capital	.007	.163	.005	.042	.967			
Years in Current Job	.503	.240	.641	2.096	.037			
Social Capital X Years in Current Job	-.217	.096	-.703	-2.273	.024			

From Table 4-43 it is evident that social capital and years in current job explained 4% of the variance in well-being. Adding the interaction of social capital and years in current job resulted in a significant increase in the explained percentage of variance of well-being. Years in current job thus moderates the relationship between Social Capital and Well-being. Therefore the alternative hypothesis is accepted.

4.4 CONCLUSION

This section presented the results of the statistical analysis carried out on measures of the relationship between social capital and health and well-being of academics at South African Higher Education Institutions. An overview of the statistical techniques employed in the study was given, before the results of the statistical analysis of the measures were presented. This was followed by a presentation of the statistical findings for the relationships between the different concepts which were explored before concluding the chapter. The next chapter will encompass a discussion of the implications of the statistical results presented in this chapter. In addition, the hypotheses presented in Chapter 2 will be further explored.

5. DISCUSSION OF RESULTS

5.1 INTRODUCTION

In this chapter the results, in terms of the specific research objectives will be discussed in detail. The objectives will be related to the theoretical and literature review of the study.

Three specific research objectives were set out for this study:

a. To determine the relationship between social capital, health and well-being in Higher Education Institutions (HEIs) in South Africa.
b. To determine to what extent social capital and health and well-being are related?
c. To identify if there are any significant differences in the level of social capital of academics based on their demographic characteristics;

5.2 DISCUSSION AND ANALYSIS OF FINDINGS

The results showed that the Workplace Dimensions of Colleague and Supervisor support, Compensation and Career Advancement are significantly positively related to Physical and Psychological well-being (all small effects). This implies that the higher the perceptions of workplace dimensions of social capital, the lower the physical and psychological ill-health problems the respondents will experience. The results further showed that Job Security is function of the fact that the respondents in this sample seldom experienced job insecurity. Significant relationships were found between the family life dimensions, community and well-being.

These findings relate to what Brown and Harris (1978) found. It is generally accepted that intimate relationships act as a buffer to protect individuals from the adversities of life within the micro-level of society. Academics, as representative in the meso level of society within the workplace, experienced a social cohesiveness between themselves and their collegial support system. Putnam (2000) also indicate that high levels of interpersonal trust has norms of mutual aid and reciprocity as experienced by the senior academics in the

workplace. Senior academics can be trusted more due to their skills and expertise for being so long in their specific field of knowledge. The more social capital is present within the workplace, the more civic engagement and social connectedness can be found.

According to Putnam (2000) social capital has features within social organization which act as form of resources for individuals and facilitate collective action. It consists of networks of secondary associations with high levels of interpersonal trust and further has norms of mutual aid and reciprocity.

The presence of a definite relationship between social capital and health and wellbeing are evident from the results of the study. As noted from the theoretical review, in the meso level, for instance in the workplace, there is trust in the relationship that you have with your fellow workers and with your employer. This trust adds value to the relationship in each level and so social capital gets built (Berkman & Kawachi, 2000).

Social capital, according to the theoretical and literature review of the study, has not been sufficiently researched within the field of the workplace. The findings of this study make a contribution to understanding of social capital's relationship towards the workplace and in specific the workplace of the academics. Workplaces might appropriately capture the important social interactions and networks that constitute the core of social capital compared to large source of social relations (Sundquist & Yang:2006.)

The results showed that significant differences exist between the workplace dimensions of the respondents based on their background variables. More specifically the results further showed that academics aged 60 years and older experienced more colleague and supervisor support than those aged between 50 and 59 years. In addition the results also showed that full professors experienced more colleague and supervisor support than lecturers. Academics employed between 0 and 10 years in their current institution experience more job security that academics employed for more than 20 years.

The academics aged 60 and older experiencing more colleague and supervisor support can be due to the fact that their skills and expertise, for being so long in their specific field of knowledge, are still adding value to that specific field of knowledge and therefore the

supervisor support is less between the ages 50 – 59 years. On the other hand, academics that are new, fairly younger, and inexperienced in the system need to make their mark within their specific field of knowledge and need to work hard to obtain the necessary expertise in their field of knowledge. This in turn places more pressure and stress on them. This findings contradicts the literature which suggests that employees in the workplaces necessarily enjoy social capital through collegial support, compensation and career advance. It is evident in view of these findings that this is not always the case but that, and as Bourdieu stated, there is an element of elitism related to social capital. Unlike senior experienced academics, the younger inexperienced and relatively new entrants into the sector do not enjoy similar level of workplace dimension social capital. Thus, for the latter category of academics to enjoy similar levels of social capital, they need to work harder to achieve more or less similar of status as their senior counterparts. Thus, as Bourdieu observed, class is important and in this specific case it is not class that plays a key role, but age and levels of seniority. Given the potential of younger academics to grow and gain senior status over time, it could argued that Coleman's view that social capital is not the preserve of the elite or selected few, the same would become available to the younger ones as they grow. Putman in this instance would claim that the academics will over time grow a sense of belonging and a common understanding concerning matters such as sharing the workload for instance.

The results showed that significant differences exist between the two gender groups based on psychological well-being. Female academics experienced significant higher levels of psychological ill-health problems compared to males. The fact that female academics experienced significant higher level of psychological ill-health problems, compared to males, in academia they are still not treated equally relating to their male colleagues in terms of gender. Males can still obtain certain milestones in the academic field easier than females and therefore females are still in a disadvantaged position in the academic field.

5.3 CONCLUSION

An analytical discussion of the research objectives was provided. Within the sociological sphere some questions need to be asked from the study.

Why is it that senior academics enjoy more support and express a better well-being than the younger junior academics? Could it be that Bourdieu is correct that "it's not what you know, it's who you know?" Does this in return explain why senior academics are able to get more support and are content, or do junior academics too have similar access to those in authority positions? Could we then refer to senior academics as more of the "posh group of people?" Or could it be that senior ones are an authority in their own right, and therefore are in control of their own working lives? So, this is not just to block some out but also to gain things such as support. Fact is that this raises more questions and not just gives answers.

Furthermore Coleman argue that social capital is a resource available to all and not just a few. The definition of social capital as a social structure defined by inter-connections and specific norms, rules, obligations and values with influence of action is a link to the findings. Putnam also emphasized that social capital forms part of networks and sanctions.

The notion that social capital creates human capital defined by improved emotional intelligence, confidence, secure the sense of self-identity. But could it be that this is the reason senior academics feel confident, with high well-being due partly to the resource of job-security – which is also available to junior academics and women? Thus, a potential exist for junior academics and women, since job security and the environment are the right kind of ingredients as part of the broader concept of social capital.

Coming from this one can make the conclusion that social capital's definition can be redefined and expanded to include non-social elements such as the contextual environment that report a high level of job security amongst respondents which serves as an indication as a potential to experience in the future advantage. This is rather competitive and inspiring.

Then on the other hand if redefinition may be necessary, does it mean that in this meso-level workplace, there is no evidence of what the theory of social capital says should be there i.e. all key defining features of social capital. No, other non-social aspects need to be considered as having influence on the experience of work and well-being.

With these questions taken in consideration, it is clear that this study have only touch certain aspects within the specific field of knowledge on social capital within the meso-level workplace. Further research need to be proclaimed to determine whether a new redefinition of social capital within the meso-level of workplace would add value.

6. CONCLUSION, LIMITATIONS, AND RECOMMENDATIONS

6.1. INTRODUCTION

This chapter draws some final conclusions based on the findings made in order inform recommendations for further studies and possible policy implications. The hypotheses were tested in this quantitative study analysis made. The purpose of this study was to determine the relationship between social capital, health and well-being of academics in Southern African Higher Education Institutions, based on selected cases. This main purpose is captured in the key objectives outlined below.

6.2 KEY OBJECTIVES OF THE STUDY

The following specific research objectives stemming from the research questions were set for the study:

a. To determine the relationship between social capital, health and well-being in Higher Education Institutions (HEIs) in South Africa.

b. To determine the extent to which social capital and health and well-being are related?

c. To identify if there are any significant differences in the level of social capital of academics based on their demographic characteristics;

The study reviewed existing literature and relevant theories on social capital which were applied by way of analysis to the data gathered. The analysis informed the findings made and reported on.

6.3 KEY RESULTS.

The results of the research revealed the following:

6.3.1. SOCIAL CAPITAL:

- Workplace Dimensions: On average the respondents experienced frequently colleagial and supervisor support. The respondents also indicated that they seldom experienced job insecurity. The respondents however, also indicated that they seldom experience sufficient compensation.
- The respondents perceived more support from their family towards their work, than from their work towards their family.
- The results showed that the respondents are actively involved in their community.
- The Manova analyses showed that academics aged 60 years and older experienced more colleagial and supervisor support than those aged between 50 and 59 years. In addition, the results also indicated that full professors experienced more colleagial and supervisor support than lecturers. Furthermore, academics employed between 0 and 10 years in their current institution experienced more job security than academics employed for more than 20 years.

6.3.2. WELL-BEING:

- The results showed that the respondents experienced average levels of physical and psychological ill-health
- As regards to the Manova analyses the results revealed that significant differences existed between the two gender groups based on psychological well-being. Female academics experienced significant higher levels of psychological ill-health problems compared to males. The results further showed that academics aged between 20 – 59 years experienced higher levels of psychological ill-health problems compared to those aged 60 years and older.

6.3.3. SOCIAL CAPITAL AND WELL-BEING

- The results showed that The Workplace Dimensions of Collegial and Supervisor support, Compensation and Career Advancement are significantly negatively related to Physical and Psychological Ill-Health (all small effects).
- The results further showed that Job Security is significantly positively related to Physical Ill-Health.
- No significant relationships were found between the family life dimensions, community and well-being.

6.3.4. REGRESSION: SOCIAL CAPITAL, BIOGRAPHICAL VARIABLES AND WELL-BEING

- Gender moderates the relationship between social capital and well-being.
- Job Title does not moderate the relationship between social capital and well-being.
- Years in current job does not moderate the relationship between social capital and well-being.

6.4. THEORETICAL IMPLICATIONS OF THE RESULTS

The theoretical implications of the results suggest that social capital enjoyed by academics in both the workplace and home do not fully complement each other. The academics clearly enjoy support of colleagues at work and that of family members at home, but the same is not true in terms of social capital derived from workplace having positive influence on family members. This is consistent with the theoretical definition of social capital, especially by Coleman that it is a resource available to individuals, since academics' responses suggest that they have access to social capital as a resource both at home and in the workplace. Thus, social capital in the workplace is only accessible to the employed and not to family members as well, and therefore only the employed (in this case the academics) enjoy both avenues of social capital. This is in a way consistent with Bourdieu's view of social capital as having elite group aspect to it i.e. available as a resource to only to selected few and not to everyone. This is further confirmed by results on other variables whereby it was noted that more experienced and senior academics enjoyed more collegial and supervisor

support than those that are younger and less experienced. Similarly, it was found that there are gender differences whereby female academics experienced significantly higher levels of psychological ill-health problems compared to males.

6.5. LIMITATIONS

The research had the following limitations:

- Cross-sectional design – The data was collected at one point in time. This means that the research is limited in terms of cause and effect relationships. More longitudinal studies are needed to address the above limitation.
- Sampling Method: The research used a probability convenience sample and did not include all higher education institutions. The results of this research can therefore not be generalised to other South African higher education institutions.
- Lack of Literature: Limited knowledge currently existed on the relationship between social capital and well-being. This limited the research in terms of interpreting the results.
- Self-report measures: The research's mainly made use of self-report measures. This means that the opinions of the respondents are based on subjectivity.

6.6. RECOMMENDATIONS FOR FUTURE RESEARCH

In the light of the discussed findings, the following recommendations are made for future research:

- Longitudinal research should be executed to make clearer the cause and effect inference between social capital and well-being. This research can also be expanded to other population groups as well.
- Future studies can benefit from analysing other biographic variables such as ethnicity and home language. Social Capital is a phenomenon that can yield interesting results in a culturally diverse context such as South Africa.
- Future research can benefit from including other variables in addition to social capital such as job satisfaction, organisational commitment and turnover intentions.

- It is recommended that the Community Scale of the Social Capital Measure be revised. Some of the items showed problematic loadings and the scale yielded a low variance.
- Mixed Method Research – It is recommended that mixed method research employed for future studies. This research yielded some interesting findings – for example the positive relationship between job security and physical ill-heath. Qualitative research can explore this finding further.

6.7. RECOMMENDATIONS FOR PRACTICE

- The results of the research revealed a large gap between the respondents' perception of the extent to which the work support their family versus family support to work. Higher Education Institutions should create work environments conducive of family for academics.
- The compensation of academics remain problematic. Higher education institutions therefore need to invest in appropriate compensation and rewards for academics as it may have staff turnover implications.
- The results of the research clearly showed that older academics and those employed in higher job levels experience more colleagial and supervisor support than younger academics and those employed in the lower academic ranks. It is therefore recommended that higher education institutions invest in mentorship programmes for younger academics to retain them in academia.
- The results also showed that academics experienced average levels of well-being. Higher Education Institutions should therefore invest in wellness programmes to enhance the well-being of its academic staff.

6.8. CONCLUSION

Social capital, in the meso level, gave social structure to its associated networks. The study focused on the relationship that social capital has with health and well-being and specifically of academics in Higher Education Institutions. The results showed that social

capital had significant influence on health and well-being. Recommendations were made for future research and practice

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APPENDIX A : QUESTIONNAIRE

Research Project: The relationship between social capital and health and well-being at NWU – Mafikeng Campus.

Dear Participant,

Dalene Vorster is a registered student for her Masters in Sociology. Your participation in this survey will be appreciated, as every response adds value to the study. The aim of the survey is to determine whether there is a relationship between social capital and health and well-being between academic staff at North West University, Mafikeng Campus.

This questionnaire is divided into three sections dealing with different aspects namely:

- Section A: Demographic information
- Section B: Health and Well-being
- And Section C: Social Capital

Every section is preceded by instructions. Please follow the instructions as closely as possible. There are no right or wrong answers to these questions as they are intended to determine perceptions. Please answer all questions. If any question/item is left blank, it will unfortunately render your questionnaire unusable. Completing the questionnaire should not take longer than 20 minutes.

Your answers will be treated as strictly confidential. You need not reveal your identity. The information obtained will be used solely for research purposes, and is subject to the ethical rules of research at NWU, Mafikeng Campus.

Please forward the completed questionnaire by the 3rd of August 2012. Please return the questionnaire to Dalene Vorster on her e-mail Dalene.Vorster@nwu.ac.za or contact her at 018-3892653.

Thank you for your participation.

Instructions on how to complete the questionnaire:

- Read all questions or statements and answer all the questions.
- Give your first natural answer – try not to dwell too much on each question.
- Base your answers on how you have been feeling recently (the last 3 months), unless the question asks you to do otherwise.

SECTION A: DEMOGRAPHIC INFORMATION

(Mark all answers with X in the appropriate box)

1. Gender

Male	Female

2. Indicate in which Faculty you resort

Faculty of Science	1
Faculty of Commerce and Administration	2
Faculty of Human and Social Sciences	3
Faculty of Law	4
Faculty of Education	5

3. Number of years employed at the university

4. Please indicate your position

Full Professor	1
Associate Professor	2
Senior Lecturer	3
Lecturer	4
Junior Lecturer	5

5. Please indicate your highest qualification

Honours	1
Masters	2
PhD	3
Other: (Please specify)	4

6. Please indicate your employment status

Permanent	1
Fixed term	2

SECTION B: HEALTH AND WELL-BEING

Over the last 3 months, have you experienced any of the following symptoms or changes in behaviour?

	Symptoms or changes	Never 1	Rarey 2	Sometims 3	Often 4
1.	Lack of appetite.	1	2	3	4
2.	Indigestion or heartburn.	1	2	3	4
3.	Insomnia – sleep loss.	1	2	3	4
4.	Headaches.	1	2	3	4
5.	Panic or anxiety attacks.	1	2	3	4
6.	Muscular tension/aches and pains.	1	2	3	4
7.	Feeling nauseous or being sick.	1	2	3	4
8.	Tendency to drink more alcohol than usual.	1	2	3	4
9.	Tendency to smoke more than usual.	1	2	3	4
10.	Constant irritability.	1	2	3	4
11.	Difficulty in making decisions.	1	2	3	4
12.	Loss of sense of humour.	1	2	3	4

13.	Feeling or becoming angry with others too easily.	1	2	3	4
14.	Constant tiredness.	1	2	3	4
15.	Feeling unable to cope.	1	2	3	4
16.	Avoiding contact with other people.	1	2	3	4
17.	Mood swings.	1	2	3	4
18.	Unable to listen to other people.	1	2	3	4
19.	Having difficulty concentrating.	1	2	3	4

20.	Have you had any significant illnesses the last 6 months?	Yes 1	No 2

21.	Over the last 3 months, how would you rate your overall health?	Good 1	Alright 2	Poor 3

22.	Over the last 3 months, roughly how productive have you felt in your job?				
	100% 1	90-99% 2	80-89% 3	70-79% 4	Less than 70% productive 5

23.	Have you encountered any major stressful events over the last 6 months that have had an important effect on you?	Yes 1	No 2

24.	Over the last 3 months, how many working days in total have you been off work through illness or injury			
	0 days 1	1 day 2	2-5 days 3	6 or more 4

25.	How many times have you been to the doctor over the last 3 months?			
	0 days 1	1 day 2	2 days 3	3 or more 4

26.	During the last 3 months, have you not taken sick leave whilst ill and/or returned before you were well due to the pressure of work?	Yes 1	No 2

27	During the last 3 months, have you had any chronic illnesses that have been stress-related (e.g. chest complaints, depression, arthritis, digestive problems)?	Yes 1	No 2

SECTION C: SOCIAL CAPITAL

Answer the following questions by indicating from the scale below:

1=Never
2=Seldom
3=Often
4=Always

	Questions		Seldom	Often	Always
1.	Does your area have a reputation for being a safe place?	1	2	3	4
2.	Does your local community feel like home?	1	2	3	4
3.	Do you feel safe walking down your street after dark?	1	2	3	4
4.	Do you agree that most people can be trusted?	1	2	3	4
5.	Are you on a management committee or organising committee for Any local group or organisation?	1	2	3	4
	Questions		Seldom	Often	Always

6.	Have you ever been part of a project to organise a new service in your area?	1	2	3	4
7.	Are you an active member of a local organisation or club?	1	2	3	4
8.	In the past 3 years, have you ever joined a local community action to deal with an emergency?	1	2	3	4
9.	How often would you say you have attended a local community event in the past 6 months?	1	2	3	4
10.	How often do you help a local group as a volunteer?	1	2	3	4
11.	Do you feel part of a team at work?	1	2	3	4
12.	Are your work colleagues also your friends?	1	2	3	4
13.	Do you enjoy living among people of different lifestyles?	1	2	3	4
14.	Do you think multiculturalism makes life in your area better?	1	2	3	4
15.	Have you visited a neighbour in the past week?	1	2	3	4
16.	If you were caring for a child and needed to go out for a while, would you ask a neighbour for help?	1	2	3	4
17.	In the past 6 months, have you done a favour for a sick neighbour?	1	2	3	4

18.	Some say that by helping others you are helping yourself in the long run. Do you agree?	1	2	3	4
19.	If you were to die tomorrow, would you be satisfied with what your life has meant?	1	2	3	4
20.	Can you get help from friends when you need it?	1	2	3	4
21.	If you have a dispute with your neighbours, are you willing to seek mediation?	1	2	3	4
	Questions		Seldom	Often	Always
22.	In the past week, how many phone conversations have you had with friends?	1	2	3	4
23.	How many people did you talk too yesterday?	1	2	3	4
24.	Over weekends do you have lunch / dinner with other people outside your household?	1	2	3	4
25.	In the past week at work, have you helped a work colleague even though it was not in your job description?	1	2	3	4

26.	At work, do you take initiative to do what needs to be done even if no one asks you to?	1	2	3	4
27.	Have you ever picked up other people's garbage in a public place?	1	2	3	4
28.	If you need information to make a like decision, do you know where to find that information?	1	2	3	4
29.	Do you feel valued by society?	1	2	3	4
30.	If you disagree with what everyone else agrees on, would you feel free to speak out?	1	2	3	4
31.	If someone's car breaks down outside your house, do you invite him or her into your home to use the phone?	1	2	3	4
32.	When you go shopping in your local area are you likely to run into friends and acquaintances?	1	2	3	4
33.	Do you feel part of the local geographic community where you work?	1	2	3	4
34.	Do you go outside your local community to visit your family?	1	2	3	4
35.	If a stranger, someone different, moves into your street, would the neighbours accept him or her?	1	2	3	4