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The Influence of Social Support on the Psychological Effects of Unemployment.

A thesis presented in partial fulfilment of the requirements for the degree of **Master of Arts in Economics** at Massey University.

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Abstract

Over the past two decades the proportion of people suffering long-term unemployment has risen in the developed countries. It is agreed that transitory shocks to aggregate demand initially contributed to the high rates of unemployment but there are divergent views as to why these high rates have persisted. Some suggest that these shocks may influence structural factors on the supply-side of the economy. Darity and Goldsmith (1993; 1996) propose a labour market model in which the deleterious psychological effects of unemployment cause contractions in labour demand and supply to persist thus exacerbating unemployment. The model is outlined and the psychology literature concerning its tenets is reviewed. The literature is reviewed as to whether and how social relationships and support ameliorate the psychological distress associated with unemployment. To determine whether unemployment is psychologically deleterious and whether this may be offset by certain types and sources of social support, an exploratory survey examined a small cross-section of people registered with Work and Income New Zealand (WINZ) as unemployed a year before the study. The respondents included people who remained unemployed throughout the entire period, people who had experienced recurrent spells of unemployment and people who had re-entered paid employment and were employed when surveyed. No difference in psychological wellbeing was found on the basis of employment status but differences were found in perceptions of the availability of different types of support from different sources. Those who were re-employed when they were surveyed gained psychological benefits from support derived from the immediate family and associative relationships (e.g. neighbours, workplace and leisure associates). Emotional and socialising support derived from the immediate family appeared to be particularly psychologically beneficial. The analysis further indicates that psychologically healthy and distressed individuals differ in their perceptions of the availability of support from the immediate family and in the availability of financial support from the overall network.

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Table of Contents

<i>Abstract</i>	<i>ii</i>
<i>Acknowledgements</i>	<i>iii</i>
<i>Chapter 1 Introduction.</i>	<i>1</i>
<i>1.1. Research Topic.</i>	<i>1</i>
<i>1.2. Relevance of Research.</i>	<i>3</i>
1.2.1. Unemployment trends.	<i>3</i>
1.2.2. Persistent unemployment and hysteresis in the labour market.	<i>5</i>
1.2.3. Unemployment and psychological distress.	<i>6</i>
1.2.4. The social cost of unemployment.	<i>7</i>
<i>1.3. Aims and Objectives.</i>	<i>8</i>
<i>1.4. Methodology.</i>	<i>10</i>
<i>1.5. Thesis Outline.</i>	<i>11</i>
<i>Chapter 2 Unemployment, Psychological Distress and Hysteresis.</i>	<i>13</i>
<i>2.1. Introduction.</i>	<i>13</i>
<i>2.2. Unemployment Hysteresis.</i>	<i>14</i>
2.2.1. The persistence of involuntary unemployment in the long-run.	<i>15</i>
2.2.2. The Darity and Goldsmith model and unemployment hysteresis.	<i>18</i>
<i>2.3. Unemployment and Psychological Distress.</i>	<i>22</i>
2.3.1. The theoretical relationship between unemployment and psychological distress.	<i>22</i>
2.3.2. The empirical association between unemployment and psychological distress.	<i>25</i>
2.3.3. Factors that moderate the psychological adversity associated with unemployment.	<i>26</i>
2.3.4. Unemployment duration and the severity of psychological distress.	<i>30</i>
<i>2.4. Psychological Wellbeing and Productivity.</i>	<i>32</i>
2.4.1. The theoretical relationship between individuals' psychological wellbeing and productivity in the labour market.	<i>32</i>
2.4.2. The empirical relationship between psychological wellbeing, productivity and employability.	<i>35</i>
<i>2.5. Summary.</i>	<i>37</i>

Chapter 3	<i>Social Support and the Psychological Wellbeing and Efficiency of Labour.</i>	40
3.1.	<i>Introduction.</i>	40
3.2.	<i>The Theoretical Relationship Between Stress, Psychological Distress and Social Support.</i>	41
3.2.1.	The nature of social support.	42
3.2.2.	Social networks and the overall sense of support within the community.	44
3.2.3.	The dynamics of social support.	47
3.3.	<i>The Empirical Relationship Between Unemployment, Psychological Distress and Social Support.</i>	51
3.3.1.	The relationship between stress, psychological wellbeing and social support.	51
3.3.2.	The effectiveness of different types of support derived from various networks in ameliorating the psychologically deleterious effects of stress.	53
3.3.3.	Demographic influences in the utilisation of social support as a coping mechanism.	56
3.4.	<i>Social Capital and Labour Market Performance.</i>	57
3.5.	<i>Summary.</i>	62
Chapter 4	<i>Empirical Methodology.</i>	65
4.1.	<i>Introduction.</i>	65
4.2.	<i>The survey.</i>	66
4.2.1.	The sampling frame.	67
4.2.2.	Comparison groups	67
4.2.3.	Administration of the questionnaire.	68
4.2.4.	Limitations of the survey.	68
4.2.5.	The questionnaire.	70
4.3.	<i>Measuring social support.</i>	71
4.3.1.	The social support scale.	72
4.4.	<i>Measuring psychological wellbeing.</i>	73
4.4.1.	The General Health Questionnaire (GHQ).	74
4.5.	<i>Hypotheses.</i>	77
4.6.	<i>Summary.</i>	78

Chapter 5	Results.	80
5.1.	<i>Introduction.</i>	80
5.2.	<i>Description of the Sample.</i>	82
5.3.	<i>Unemployment, Psychological Wellbeing and Social Support.</i>	84
5.3.1.	Unemployment and psychological wellbeing.	85
5.3.2.	The psychological benefits attributed to different types of social support and different social networks.	89
5.3.3.	The psychological benefits derived from different types and sources of support during unemployment.	94
5.4.	<i>The Determinants of Psychological Wellbeing.</i>	102
5.5.	<i>Summary.</i>	110
Chapter 6	Conclusion.	114
6.1.	<i>The objectives and implications of the study.</i>	114
6.2.	<i>Main findings.</i>	117
6.3.	<i>suggestions for Future Research.</i>	120
Appendices.		123
Appendix 1.	<i>Questionnaire Design.</i>	123
Appendix 2.	<i>Statistical Note.</i>	126
Appendix 3.	<i>Correlations.</i>	128
Appendix 4.	<i>Regression Equations.</i>	131
Bibliography.		135

Suppose a close friend is without clothes and daily food. If one of you says to that person, "Go, I wish you well; keep warm and well fed," but does nothing about his/her physical needs, what good is it?

James 2:15-16. The Bible.

1

Introduction

1.1 RESEARCH TOPIC

Over the past two decades, the level of unemployment and the proportion of people experiencing long-term unemployment has increased markedly in many of the developed countries including New Zealand (OECD, 1994). One explanation for the persistent, high levels of unemployment witnessed in these economies, is the notion of unemployment hysteresis. This may arise when transitory shocks to the economy alter underlying structural factors in the labour market and thus permanently shift equilibrium unemployment. The nominal demand-side variables in the macroeconomy do affect the deep structural supply-side variables of the economy in the long-run, contrary to the proposition of the classical dichotomy.¹ Within this broad research paradigm, there is continued debate as to how changes in the nominal variables may affect the real structural characteristics of the economy such as the supply of labour in the aggregate market.

There are well established theoretical grounds, as well as some empirical evidence in the economics literature, suggesting that the probability of people leaving unemployment is partly dependant on their duration of unemployment (Nickell, 1979; Pissarides, 1992; Layard, Nickell and Jackman, 1994). Some suggest that unemployment has a detrimental effect on individuals' human capital and thus on their productive capability (Becker, 1993; Acemoglu, 1995). This may lessen their desirability to prospective employers. In accordance with this literature, Darity and

Goldsmith (1993, 1996), suggest that people who become unemployed suffer serious psychological consequences that adversely affect their level of psychological wellbeing. This in turn adversely affects their ability to maintain and utilise their human capital and productive potential. During times of economic contraction, a larger proportion of the labour supply may experience unemployment with a corresponding increase in psychological distress. This causes the effective labour supply to contract leading to a rise in the aggregate equilibrium rate of unemployment (Pissarides, 1992; Darity and Goldsmith, 1993).

A considerable empirical and theoretical literature has identified factors that moderate or ameliorate the adverse psychological effects associated with unemployment. These include social contact and support provided by various networks within the community during periods of stress. It is suggested that people with a larger and more responsive social network may retain a greater reservoir of optimism and maintain greater motivation for job search than others with relatively weaker social networks. Those with better social resources are likely to enjoy better psychological wellbeing enabling them to utilise and maintain their human capital. This protects their productive capability increasing their likelihood of re-employment. Everyone is involved with some type of social network. These can include family members, friends and people known through activities undertaken in the community. Social and economic resources may be transferred through such relationships enabling people to cope with the stress associated with such adversity as the experience of unemployment.

However, current literature concerning the ameliorative effects of social support is somewhat inconsistent and insufficiently developed. While many empirical studies have suggested that significant psychological benefits are associated with good social support and a high degree of social contact, other studies have not found evidence in support of this proposition. The theoretical literature concerning the conceptualisation, effects and dynamics of social support and networks is somewhat vague.

It is hypothesised in this thesis that people who suffer recurrent and prolonged periods of unemployment are likely to experience greater psychological distress than those in employment. The psychological distress associated with unemployment may

¹ The classical dichotomy suggests that nominal variables on the demand-side are unable to influence real variables on the supply-side in the long-run and so affect the natural equilibrium rate of unemployment.

adversely affect individuals' likelihood of re-employment.² Certain factors including effective social networks and embodied social support may moderate the impact of unemployment on psychological wellbeing. It is further hypothesised that some types of support derived from certain social networks are more effective than others under specific circumstances in transferring psychological benefits to people. For example, assuming that the primary affliction associated with unemployment is financial deprivation, financial support would be the most appreciated type of support during periods of prolonged unemployment. Specific types of support appropriate to the circumstances are most likely to transfer psychological benefits effectively.

1.2 RELEVANCE OF RESEARCH

This section outlines the underlying motivation of the research. Section 1.2.1 outlines current trends in unemployment in the developed economies. Section 1.2.2 discusses the meaning and relevance of the unemployment hysteresis concept. Section 1.2.3 gives a broad outline of the psychological effects associated with unemployment. Section 1.2.4 outlines the links between social problems and high and persistent unemployment experienced in the developed nations during the last decades.

1.2.1. Unemployment trends.

The effects of long-term unemployment are of particular interest to this study. Short periods of unemployment may not have the economic and social costs associated with longer periods of unemployment (OECD, 1994). Countries where people suffer fewer spells of unemployment but of longer duration are likely to suffer a much higher economic and social burden (ibid.). According to Layard, et al. (1994), the dramatic rise in the level of unemployment experienced by many of the developed nations over the

² The reduction in psychological wellbeing may lead to a decrease in motivation for investment in human capital and/or a reduction in the intensity of employment search. Furthermore, employers may distinguish between individuals who display better and worse psychological wellbeing and discriminate accordingly.

past decades is largely attributed to the substantial rise in the proportion of people experiencing long-term unemployment.

Contributing to the rise in unemployment during the 1980s in many of the OECD countries, including New Zealand, was the poor economic performance of the global and domestic economies (OECD, 1994). Productivity growth in many of the OECD countries during this period was flat providing little scope for employment growth (Layard and Nickell, 1986). Furthermore, structural changes in the developed economies during this period have benefited skilled and more adaptable workers rather than unskilled workers (Layard and Nickell, 1986; Nickell and Bell, 1995). According to Nickell and Bell (1995), this collapse in the demand for unskilled workers has been caused partly by the direction and rapid change in technology and increased competition from the lesser-developed nations. In New Zealand, between 1986 and 1991, over 90% of the rise in unemployment was due to the contraction and job loss in the manufacturing sector, which consisted of mainly unskilled workers (Krishnan, Hunter and Goodger, 1993). While the supply of unskilled workers in the OECD has decreased over the past two decades, unskilled jobs have disappeared faster. It follows that poorly skilled people have contributed disproportionately to the increase in people suffering long-term unemployment and to the overall rise in the level of unemployment.³

In New Zealand, the economic restructuring of the mid 1980s to the early 1990s and recessions of 1987 and 1991 had a profound impact on employment (Krishnan, et al., 1993). This has contributed to the marked rise in the proportion of the unemployed experiencing long-term unemployment in New Zealand (OECD, 1994)⁴. Between 1986 and 1991, employment in the New Zealand labour market declined by around 111,500 people (Krishnan, et al., 1993). In 1998, approximately 38% of all people unemployed in New Zealand were experiencing long-term or very long-term duration of unemployment.⁵ This proportion has shown a remarkable increase from the OECD (1994) figure of about 18% for New Zealand in 1991 (p.48). Labour force growth

³ Approximately three-quarters of people unemployed in the UK in 1994 were poorly skilled. (Layard, et al., 1994, p.9).

⁴ The OECD and the HLFS define the long-term unemployed as those people who are registered as actively seeking work yet have been without paid employment for in excess of 52 weeks. The very long-term unemployed are those persons who have been unemployed continuously for in excess of 104 weeks and are still actively seeking work.

⁵ According to the Household Labour Force Survey (HLFS) unemployment statistics for the Mar-Dec quarters (*Labour Market Bulletin*, 1998: p.173).

during the post-war period previously reflected the increase in the working age population but the rise in unemployment in the late 1980s ended this relationship. Maori and Pacific Island Polynesians have disproportionately suffered the most severe decline in employment, labour market participation and the largest increase in the rate of unemployment. This is indicated in table 1.1 below.

Table 1.1 Pakeha, Maori and Pacific Islands labour market differences

<i>Year to March</i>	<i>Pakeha</i>			<i>Maori</i>			<i>Pacific Islands</i>		
	1986	1992	1998	1986	1992	1998	1986	1992	1998
Labour force									
Participation rate (%)	66.4	64.1	66.7	68.8	60.0	62.5	72.1	61.5	63.0
Unemployment rate (%)	3.3	8.1	4.8	9.6	25.8	17.3	7.7	28.8	15.2
Employment rate (%)	64.2	59.0	63.5	62.3	44.5	51.7	66.5	43.7	53.5

(Source: Bururu, Irwin and Melville, 1998).

1.2.2. Persistent unemployment and hysteresis in the labour market.

It is commonly agreed that both demand and supply factors have initially contributed to the high rates of unemployment experienced by the developed nations during the 1980s (Layard and Nickell, 1986; Blanchard and Summers, 1988; Layard, et al., 1994). However, there is continued debate concerning why the present levels of unemployment have remained persistently higher and labour market participation rates have remained much lower than during the post-war period. It is clear that today there is a larger proportion of people suffering periods of long-term unemployment than in past decades. The question is why has unemployment become more persistent today than in the past.

Conventional neo-classical theory suggests that the social institutions that have been developed over the past decades have eroded people's incentives to involve themselves in economically meaningful work. This is predominantly due to government policy which has affected labour supply-side factors such as the replacement ratio⁶ and

⁶ This is defined as the ratio of income received while unemployed to the income received from employment (Smith, 1994). The replacement ratio is influenced by such factors as the minimum wage rates and the level of the unemployment benefit.

wage bargaining systems (Smith, 1994; Layard, et al., 1994). Other authors argue that the manipulation of and shocks to the nominal variables in economic systems irreparably damaged those economies. According to Galbraith (1997), the pervasive ideological commitment of governments to the suppression of inflation during the 1980s, through tight monetary and fiscal policy, stifled the capacity of the economy and labour market to recover to previous levels of equilibrium. Blanchard and Summers (1988) suggest that if demand-side factors (such as those that are affected by monetary and fiscal policy) are allowed to affect the short-run equilibrium of the economic system, the possibility of multiple equilibria in the long-run cannot be discounted. This implies that there is no reason that economic systems should automatically return to previous equilibria or so-called 'long-run' positions of stable equilibrium. Darity and Goldsmith (1993; 1996) present a behavioural model of the labour market that provides a rationale for unemployment hysteresis to arise. This model is reviewed in the following chapter.

1.2.3. Unemployment and psychological distress.

The reality and threat of unemployment, whatever the reasons for its emergence and persistence in the 1990s, is a real and substantial part of modern economic and social life. In an economic sense, unemployment for individuals entails a loss of earnings and life-style deprivation while they are without paid work. For the macroeconomy, unemployment entails a reduction in the capacity for production, growth and wealth creation. Psychologists suggest that the experience of unemployment is likely to entail much greater costs for individuals and society. People find the experience of unemployment depriving, baffling and stressful, thus inducing physiological and psychological distress.

The evidence suggests that unemployment is associated with depression, anxiety, low self-esteem and diminished satisfaction with life. Some suggest that the psychological consequence of unemployment may be exacerbated with unemployment duration. People may take time to recover from these deleterious effects even after they become re-employed. The psychological debilitation experienced by many people when they are exposed to involuntary periods of unemployment, whether short or long term,

has serious aggregate consequences for society as a whole.

The present high level of unemployment...represents an enormous waste of resources. It reflects both economic inefficiency and human distress. Its persistence is bound to undermine social cohesion and confidence in democratic institutions and market economies. (OECD, 1994: p.2).

2.2.4. *The social cost of unemployment.*

Some suggest that unemployment is destructive to society in that there may be significant direct and indirect links between unemployment and social problems. It is commonly accepted that there is a relationship between the incidence of unemployment and the level of crime (Freeman, 1996; Small and Lewis, 1996)⁷. Sen (1997) describes a host of problems that may result from the high level of prolonged unemployment in many parts of the developed world. These include a greater susceptibility to health problems, higher mortality, disruption in family life, social exclusion and loss of freedom, racial and gender inequality and conflict, deteriorating social values, diminishing responsibility and organisational inflexibility (ibid.). According to Sonn and Fisher (1998), negative family environments, which are strongly associated with poverty and prolonged unemployment, can initiate a process of societal breakdown and unemployment into future generations.

By ignoring the social psychological consequences, policy makers underestimate the true costs to society and the economy as they are mutually dependent. Humans are essentially social beings and human existence, whether in market or non-market engagement, is fundamentally grounded in social connection and thus is intimately related to the social conventions by which society functions. According to Smith (1776, p.22),

⁷ Small and Lewis (1996), provide evidence to suggest that there is a significant relationship between unemployment and economic/property crime. However, the direction of causality is not clear. There is continued debate as to whether unemployment causes crime or whether crime causes unemployment to increase.

in civilized society man stands at all times in need of the co-operation and assistance of great multitudes, while his whole life is scarce sufficient to gain the friendship of a few persons. In almost every other race of animals each individual, when it is grown up to maturity, is intirely independent, and in its natural state has occasion for the assistance of no other living creature. But man has almost constant occasion for the help of his brethren ...

A market is part of a wider system of institutional arrangements. Market phenomena and other institutions involving human interaction do not operate independently of one another. For instance, the institutions of the household and work are inextricably joined in the sense that they are mutually dependent on one another for income and services respectively. The two institutions are enormously different, but still exist together in an intimate exchange relationship. Concurrently with the rise in unemployment in the developed nations over the past decades, broad research programmes have emerged from economics and psychology concerning both the reasons for and the effects of unemployment. However, few studies have recognised the nature of the labour market as both an economic and a social institution (Solow, 1980). Although this thesis treats labour market status and social relationship as separate entities, bringing them together in one study is a step towards co-ordinating inquiry into the social and economic nature of the labour market.

1.3 AIMS AND OBJECTIVES

This thesis reviews the currently available economics and psychological literature and draws attention to possible elements that are important, but have so far been overlooked, concerning one aspect of the economic and social dynamic of the labour market and unemployment. The focus of this thesis is whether and how social support ameliorates the psychological adversity associated with unemployment. In order to address this central question the thesis attempts to establish that unemployment is associated with considerable psychological adversity and that there are real economic costs associated with such adversity for both the individual and economy, hence the need to address this psychological adversity associated with unemployment. The study

is primarily an exploratory review of the literature and involves a small-scale empirical study. Essentially the study attempts to understand unemployment in its social and psychological context and to determine a possible synthesis of ideas between the psychology and economics literature. An attempt is made to draw implications from this synthesis to apply to labour market phenomena such as unemployment and unemployment hysteresis.

A large body of the thesis is concerned with the importance of social relationships and their potential effect on the efficient functioning of the labour market and economy. The social capital literature is explored. Certain questions arise, including whether the degree of social trust and embeddedness has a significant effect on outcomes in the labour market. If social relationships are important for the functioning of the labour market, what implications does this have for countries that lack certain elements of social capital? The thesis makes no attempt to answer this question but highlights and identifies certain gaps in current knowledge and possible directions for future productive research.

The primary objective of the present study is to determine whether and how social support ameliorates the psychological adversity of unemployment. The empirical component of the study examines four propositions surrounding this central question. This study seeks to determine:

- 1) Whether recurrent and prolonged periods of unemployment are associated with significant detriment to individual's psychological wellbeing.
- 2) Whether overall social contact and support offer protection against the hypothesised detrimental psychological effects associated with unemployment.
- 3) Whether certain types of social support perceived to be available from particular social networks are more effective than other types and sources of support in ameliorating the psychological distress of people who are or have been unemployed.
- 4) Whether the different types and sources of social support have a greater influence on psychological wellbeing than general demographic factors.

1.4. METHODOLOGY

This thesis examines the degree of influence the social environment has on the functioning of the labour market. Primarily the thesis addresses the question of 'by what means and from what social sources in the community can social support ameliorate the psychological effects of unemployment?' This study first reviews and discusses the theoretical and empirical literature concerning the psychological effect of unemployment and its influence on the probability of a person's re-employment. Then it reviews the literature concerning the psychological effect the social environment may have on people experiencing periods of unemployment and its effect on their probability of re-employment.

The second part of the study is empirically based using a cross-sectional quantitative survey analysis. A questionnaire was distributed to people who became unemployed and were registered with Work and Income New Zealand (WINZ) a year before the survey was sent out. The respondents included people who remained unemployed throughout the entire period, people who had experienced recurrent spells of unemployment and people who had re-entered paid employment and were employed at the time of their response.

The empirical study employs psychological scales concerning subjective individual perceptions of social support and social environments and of their psychological wellbeing. Psychologists have shown that there are valid and reliable measures or indications of different subjective perceptions. These psychological scales are incorporated into the research in order to investigate the hypotheses. The data is analysed to determine whether there are significant differences in the levels of psychological wellbeing between individuals of different employment status. The influence on psychological wellbeing of different types of social support derived from various networks within the community is assessed. The interaction is then examined between the employment status, the degree of social support perceived to be available from different sources within the community and the level of psychological wellbeing. Finally, the influence of social determinants is compared to the influence of demographic factors on psychological wellbeing.

The theoretical qualifications and assumptions are addressed throughout the course of the literature review, while the methodological limitations and implications of

the theory are addressed in the methodology and results chapters. In terms of the empirical analysis, there are a number of limitations. These are specifically addressed throughout the course of the thesis. This thesis is an exploratory study that seeks to explore the current literature and highlight possible theoretical and empirical shortcomings.

1.5. THESIS OUTLINE

The theoretical and empirical literature relevant to the main propositions of the study is reviewed. These include the psychological effects of unemployment, the moderating influence of certain demographic factors and the psychologically ameliorative effect of social support from the overall community as well as specific sources. Finally, hypotheses are formally drawn and the empirical analysis explores the linkages between the experience of unemployment, psychological distress and the psychological benefits associated with various types of social support derived from different sources within the community.

The following chapter 'unemployment, psychological wellbeing and hysteresis', reviews the theoretical and empirical literature concerning unemployment persistence and hysteresis in the labour market. Darity and Goldsmith's (1993; 1996) aggregate behavioural model of the labour market is outlined. This provides a theoretical framework in which the psychological experience of unemployment reduces the probability of leaving unemployment. This causes the long-run equilibrium rate of unemployment to increase over time. The psychology literature concerning the behavioural foundations of the model is reviewed, highlighting its strengths and shortcomings. Finally, the implications of the theoretical and empirical literature concerning the behavioural foundations of persistent high unemployment are discussed and hypotheses concerning the research are outlined.

The 'social support and the psychological wellbeing and efficiency of the labour market' chapter (3) reviews the theoretical and empirical literature concerning the conceptualisation of, and psychological benefits associated with, effective social support, networks and community. Social support is defined and conceptualised and the dynamics are outlined by which social support ameliorates stress and its effects on

psychological wellbeing. The relevance of the social support concept is discussed in relation to the social capital literature and labour market theory outlined in chapter two. The potential for the social and cultural context to influence the way in which the labour market mechanism operates is discussed.

The methodology chapter (4) outlines the empirical research design. The theoretical and conceptual design of the survey questionnaire is examined along with the psychometric properties of the General Health Questionnaire (GHQ) which is used as a measure of psychological wellbeing. In this section, theoretical and methodological limitations of the empirical research are identified. Finally, hypotheses are outlined concerning the effect of unemployment on psychological wellbeing and the effectiveness of social support in ameliorating psychological adversity. Finally the findings are summarised and the research hypotheses and empirical analysis are introduced.

The result chapter (5) concerns the data analysis with respect to the hypotheses and discusses the implications of the results in terms of the literature reviewed in the previous chapters. The first section describes the sample demographics and the distribution of the sample by employment status. The second section addresses the main hypotheses of the study. In this section test-statistics and regression analysis is used to examine the adverse influence of unemployment on psychological wellbeing and how this may be ameliorated by social support. The different types of support derived from various support networks are examined to determine what factors are important in general and specific circumstances of unemployment. Regression equations are estimated to determine whether the interaction between various types of support derived from different sources and employment status influences psychological wellbeing. Canonical discriminant functions are estimated to determine what factors contribute to psychological wellbeing. These include the different types and sources of social support, employment status and various demographic factors. In the final section the findings are summarised and discussed in the light of the existing literature.

The conclusion chapter (6) summarises and discusses the main findings from the literature review and the empirical study outlined in the preceding chapters. Finally, gaps in current knowledge are highlighted and suggestions for future research are discussed.

2

Unemployment, Psychological Distress and Hysteresis.

2.1. INTRODUCTION.

During the 1980s and 1990s, the level of unemployment in many of the developed nations has been at its highest since that of the great depression of the 1930s. Contemporary unemployment has proved more persistent than in the past with more people currently experiencing periods of long-term unemployment. Over the past two decades, there has been a substantial increase in the theoretical and empirical literature concerning unemployment in the developed nations. An important development in the economics research program has been the introduction of the concept of hysteresis, where transitory shocks to the economy can alter underlying structural factors in the labour market and in this way permanently shift the equilibrium level of unemployment.

One vein of the persistence/hysteresis literature focuses on the depreciative influence that periods of cyclical unemployment have on individuals' productive human capital and the influence these changes have on the demand and supply aspects of the aggregate labour market and hence on the product market. Darity and Goldsmith (1993, 1996) develop such a theory using a wealth of theoretical and empirical evidence from psychology to propose a behavioural model of the aggregate labour and product markets. The Darity and Goldsmith model is focused upon because it has behavioural assumptions that are addressed in the psychology literature. The model suggests that periods of cyclical unemployment may over time lead to further deterioration in individuals' productivity, efficiency and attachment to work. As a result the equilibrium level of unemployment persists and increases over time.

The mechanisms by which periods of cyclical unemployment adversely affect the psychological wellbeing of labour market participants are explored in greater detail in the psychology literature. Conceptual models have been developed concerning the psychological effects of unemployment and the processes by which psychological wellbeing is adversely affected. The literature suggests that exposure to periods of unemployment negatively affects certain elements of psychological wellbeing but certain factors have been shown to moderate those effects. The evidence concerning the relationship between unemployment duration and psychological adversity is inconsistent.

This chapter reviews the theoretical and empirical, psychological and economics literature concerning the effects of unemployment on individuals' psychological wellbeing and how this may affect employability and hence the probability of re-employment. Section 2.2 reviews the Darity and Goldsmith model concerning unemployment hysteresis and its two main behavioural assumptions. Sections 2.3 reviews the theoretical and empirical psychology literature regarding the first assumption of the Darity and Goldsmith model unemployment reduces psychological wellbeing. Factors other than social support (reviewed in the following chapter) that moderate the psychological adversity associated with unemployment are highlighted in this section. Section 2.4 reviews the theoretical and empirical literature regarding the second assumption of the Darity and Goldsmith model that psychological wellbeing affects the productivity and hence re-employability of the unemployed. Finally, section 2.5 summarises the chapter and attempts to establish connections between the unemployment research programs of psychology and economics.

2.2. UNEMPLOYMENT HYSTERESIS.

In the 1980s, many of the developed nations experienced a combination of high and persistent unemployment coupled with high inflation. In the last decade, although inflationary pressure has diminished, the spectre of unemployment has remained in much of the OECD. It is commonly agreed that demand or nominal factors initially contributed to the current unemployment problem (Layard and Nickell, 1986; Blanchard and Summers, 1988). However, there is continued debate concerning the reason high unemployment rates have been so persistent in the past decade in the

absence of the economic instability of the previous decades.

2.2.1. The persistence of involuntary unemployment in the long-run.

Conventional economic wisdom suggests that the persistent high levels of unemployment, particularly in Europe, are predominantly due to factors which affect the supply-side in those economies (Layard, Nickell and Jackman, 1994). Layard, et al. (1994) suggest that transitory nominal shocks to the economic system in the short-term can affect the equilibrium real wage and equilibrium level of unemployment, referred to here as the short-run NAIRU¹. However, only factors which affect the deep structure or supply-side of the economic system are assumed to influence the otherwise stable long-run NAIRU (Layard and Nickell, 1986; Dornbush and Fisher, 1994; Layard, et al. 1994).² Such factors include social institutions and organisation, which influence the replacement ratio³, and large external shocks to the system, such as from oil price rises and wars. According to Layard, et al. (1994), the persistent unemployment seen in recent times is predominantly due to the way government policy has affected the evolution of the economy. These policies have effectively eroded people's incentives to involve themselves in economically productive work, or the formal labour market, which in turn has contributed to the increase in the proportion of unemployed people experiencing long-term unemployment (Smith, 1994; Layard, et al., 1994).

Some authors disagree with the conventional explanation for the persistent unemployment witnessed during the past decade. According to Karanassou and Snower (1998), during the 1980s and 1990s many of the developed nations have implemented policies in accordance with conventional economic wisdom but have not succeeded in releasing their economies from the incubus of persistent high unemployment. Social institutions such as unions and job protection legislation which contribute to employees'

¹ The NAIRU or Non Accelerating Inflation Rate of Unemployment is defined as the equilibrium rate of unemployment where the inflation rate is neither accelerating nor decelerating (Dornbush and Fisher, 1994).

² For instance, Layard, et al. (1994) in their model assume, that the price mark-up over wage costs for any given level of productivity is constant in the long-run. This implies that the demand for labour or the 'price-setting' side of the labour market can not influence the long-run NAIRU.

³ This is defined as the ratio of income received while unemployed to the income received from employment (Smith, 1994). The replacement ratio is influenced by such factors as the minimum wage rate, the duration of entitlement to and level of the unemployment benefit and the wage bargaining system.

wage bargaining power, have been steadily eroded in many OECD countries since the mid-1980s (Karanassou and Snower, 1998). According to the conventional wisdom, this would induce a reduction in the NAIRU or 'natural rate' of unemployment. However, structural unemployment has tended to rise rather than fall, implying some error in the conventional theory.

Unemployment hysteresis has been suggested as the primary cause of the persistently high levels of unemployment experienced in much of the OECD over the past decades. The broad premise is that the level of unemployment in past periods permanently influences future levels of unemployment.⁴ Equilibrium unemployment tends to track actual unemployment (Roed, 1997). A rise in the short-run equilibrium unemployment rate, whether caused by macroeconomic fluctuations in the 'nominal' or 'real' determinants, will permanently affect the deep structure of the labour market, in turn affecting the equilibrium level of unemployment in the long-run (Blanchard and Summers, 1986; Roed, 1997). The residual trace of a past shock may not be obvious, but may nevertheless exist and exert substantial influence on the fundamental structural characteristics of the labour market.⁵

According to Cross (1993, 1995) the inclusion of a persistence influenced short-run NAIRU, must theoretically result in an unstable future in the labour market equilibrium. If changes in the nominal variables within the system can influence the short-run equilibrium NAIRU, and the long-run follows from the short-run, then the long-run NAIRU is unlikely to be nominally immune. If so, the existence of some stable equilibrium position, the long-run NAIRU, to which the economic system will return at some time in the future, is logically implausible (Tobin, 1980; Cross, 1995). According to Tobin (1980, p.62),

it is possible that there is no NAIRU, no natural rate, except one that floats with actual history.

According to Schumacher (1973), the future is continuously written on the basis of what

⁴ The term hysteresis is borrowed from the physical sciences to denote residual effects on a system due to a previous stressor. Even when the initial stress which induced change into the system is taken away, elements in the system are permanently changed. This can lead to different future equilibrium outcomes within the system.

⁵ Events in the past can only impact the present to the extent that a trace of the past continues to exist in the present (Elster, 1976). In terms of unemployment hysteresis, the current state of the labour market must retain some residual imprint of a past shock. This causes the equilibrium level of unemployment to remain persistently higher than in periods before the shock.

has existed in the past and exists in the present. While there are an infinite number of paths to the future, all paths lead inevitably from points in the past and present to an inevitable future. Just as human thought, speech and action bring to the future some aspect of the past, so a combination of events affecting the labour market will influence future labour market equilibria.

The hypothesis of pure unemployment hysteresis implies that the notion of the classical dichotomy cannot hold either in the short-run or in the long-run. The nominal variables in the product market exert a real and substantial effect on the deep structure of the economy in the short and long-run. The nominal variables are not merely a veil behind which the real structure and workings of the economy are hidden. Conventional economic wisdom suggests that monetary and fiscal policy have only a short-term effect on the 'real' supply-side variables, such as the level of unemployment. In the long-run, only the nominal variables in the economic system, such as the inflation rate, are affected. However, the existence of hysteresis and the breakdown of the classical dichotomy, implies that policy shocks to the demand-side (as well as the supply-side) permanently influence real variables in the economy in the long-run. This includes demand-side policy such as fiscal and monetary management.

The concepts of unemployment hysteresis and persistence are essentially Keynesian in origin. They appear in response to demand shocks in a framework where markets do not clear in the short and intermediate-run. This may be due to wage or price rigidities in the market. For example, Blanchard and Summers (1988) suggest that markets may not clear in the short-run due to the influence wielded by unionised workers in raising or retaining the real wage rate above the market clearing equilibrium level. This is referred to as 'insider power'. This impedes the natural market tendency of the real wage rate to track downward causing disequilibrium and 'involuntary unemployment' in the labour market in the short-run. Blanchard and Summers (1988), suggest that until the real wage is able to respond to its natural tendency, enabling the labour market to clear, involuntary or 'unnatural' unemployment will persist.

Other theorists suggest that even when the labour market clears, higher than 'natural' unemployment may persist in the intermediate and long-term (Pissarides, 1992; Layard, et al, 1994; Acemoglu, 1995; Darity and Goldsmith, 1996). During periods of high unemployment, employers and employees may observe that the level of unemployment has not increased to such an extent as in past periods. They may reason that a large proportion of the unemployed have been jobless for relatively long periods.

Employers and the employed (insiders) may assume that these people are less productive, and hence less desirable to employ, than people who have experienced relatively shorter periods of unemployment.⁶

With a greater proportion of long-term unemployed than short-term unemployed in the labour market, the effective labour supply becomes 'thinner' from the perspective of prospective employers (Pissarides, 1992). This causes downward real wage pressure to weaken (*ibid.*). The long-term unemployed pose a minimal threat to the wage bargaining power of the insiders, and thus have little effect in restraining wage demands. According to Pissarides (1992), employers may respond to the thinning of the 'effective' labour supply by reducing hiring, causing a contraction in the demand-side of the labour market. This accentuates the persistence of the employment shock increasing the likelihood of multiple equilibria in the long-run (Pissarides, 1992).

2.2.2. The Darity and Goldsmith model and unemployment hysteresis.

In order to develop a deeper and more realistic understanding of the labour market, Darity and Goldsmith (1993, 1996) argue that social and psychological factors must be incorporated into labour market models instead of being commonly treated as omitted variables.⁷ They suggest that individual psychological factors strongly influence the demand and supply-side factors in the labour market and hence outcomes in the labour market and the macroeconomy. The Darity and Goldsmith (1993; 1996) model is essentially a behavioural extension of the Keynesian understanding of the labour market and its relationship to the macroeconomy.

The model has assumptions, in common with the Keynesian models, including the premise that workers and employers bargain over nominal and relative wages as opposed to real wages. These nominal and relative wages respond slowly in the short-

⁶ Employers may perceive that the skills or 'human capital' and hence potential productivity of workers depreciate while they are unemployed and thus find those who have experienced a greater duration of unemployment less desirable than those who have experienced relatively shorter periods of unemployment.

⁷ Darity and Goldsmith (1996) argue that the standard techniques used in dealing with the problem of omitted variables are inappropriate in the case of the influence of individuals' psychological wellbeing on their productivity, wages and employment status. This is because individuals' psychological wellbeing is related to a certain extent to their human capital.

run – particularly to downwards pressure.⁸ The Darity and Goldsmith model differs from traditional models in that it further assumes 1) that individuals exposed to periods of unemployment suffer serious psychological impairment including cognitive difficulties, changes in the perception of self and others, diminished motivation and decreased happiness and emotional wellbeing. This psychological adversity is assumed to be observable and thus measurable. 2) It is suggested that such psychological consequences of unemployment may adversely affect individuals' labour market potential for productivity as well as undermining their attachment to the labour market.

Traditional Neo-classical theory assumes that the real wage that people command in the labour market reflects their marginal product or individual productivity. Individual productivity is determined by investment in elements of human capital such as education, experience, tenure and aptitude. According to Darity and Goldsmith (1996), Neo-classical theory incorrectly treats such elements of human capital as equivalent to individuals' effective labour market productivity. They suggest that investment in human capital merely represents individuals' 'capacity to initiate and complete tasks' (p.125), not the level of productivity that individuals actually realise. The 'effective productivity' of individuals is determined by their ability to utilise effectively their 'capacity for productivity' or human capital. Darity and Goldsmith (1996) argue that this ability is principally determined by their motivation, which is in turn influenced by aspects of their psychological wellbeing or 'psychological capital'.

In conventional macroeconomic models, contractions in the demand-side of the aggregate market generally lead to a contraction in the employers' demand for workers in the labour market. The effect of the demand contraction does not generally flow on into the supply-side of the labour market and hence into the supply-side of the aggregate product market. In the Darity and Goldsmith model, in addition to the initial effect of the demand-side contraction, both the demand and supply sides of the labour market are influenced by aggregate changes in the psychological wellbeing of the labour market participants.

On the demand-side, psychological wellbeing positively affects individual productivity and hence labour market efficiency. If high levels of unemployment

⁸ Darity and Goldsmith (1993) suggest that the presence of 'sticky nominal wages' in the short run implies that aggregate demand influences the supply-side through the labour market in the short and intermediate term. This assumption is necessary to explain unemployment hysteresis/persistence in the intermediate and long-term.

adversely affect labour market participants' psychological wellbeing, leading to a contraction in the potential productivity of unemployed workers, then aggregate labour efficiency will fall resulting in an aggregate fall, resulting in an aggregate fall in firms' demand for labour. In figure 2.1 below, the labour demand curve dd_{L0} will shift to the left to dd_{L1} . The decrease in labour demand leads to increasing downward pressure on real wages to decrease from w_0 to w_1 , decreasing employment from N_0 to N_1 .

The supply-side mechanism of the Darity and Goldsmith model is somewhat more complicated than the demand-side mechanism outlined above. Darity and Goldsmith (1996) suggest that there are two opposing mechanisms by which psychological distress related to aggregate unemployment may influence the supply of labour from households. As in conventional labour market models, tastes and preferences for work over leisure and consumption relative to the obtainable real wage are assumed to have a positive influence on individuals' attachment to the labour force. In the Darity and Goldsmith model, the labour market participants' psychological wellbeing affects their preferences for work over consumption and hence their decisions to incur costs in searching for employment. This in turn determines individual and aggregate labour market attachment and aggregate labour supply. Empirical work in the psychology literature suggests that psychological distress associated with periods of unemployment, may either produce a 'discouragement effect' or a 'trauma escape effect'.

Over time, if the labour market does not provide satisfying employment, people may become psychologically distressed, developing feelings of helplessness and discouragement. This may adversely influence their preferences for work and their motivation to incur the costs of job-search, leading to a decrease in labour market attachment. Increasing disinclination to work leads to a contraction in the effective labour supplied by households. In this scenario, the labour supply curve ss_{L0} in figure 2.1 shifts leftwards to ss_{L1} , increasing real wage pressure from w_1 to w_0 while further reducing the level of employment from N_1 to N_2 . However, if the trauma escape effect exerts the stronger influence, people suffering the greatest psychological distress from their experience of unemployment may show a stronger preference for work. These individuals will choose to incur greater costs in job-search activity, even offering more labour to potential employers for lower real wages in a bid to escape the trauma of unemployment. This may weaken the discouragement effect left by unemployment and

shift the labour supply curve ss_{L1} towards its original position ss_{L0} , decreasing wage pressure from w_0 to w_1 , so increasing the aggregate level of employment from N_2 to N_1 .⁹

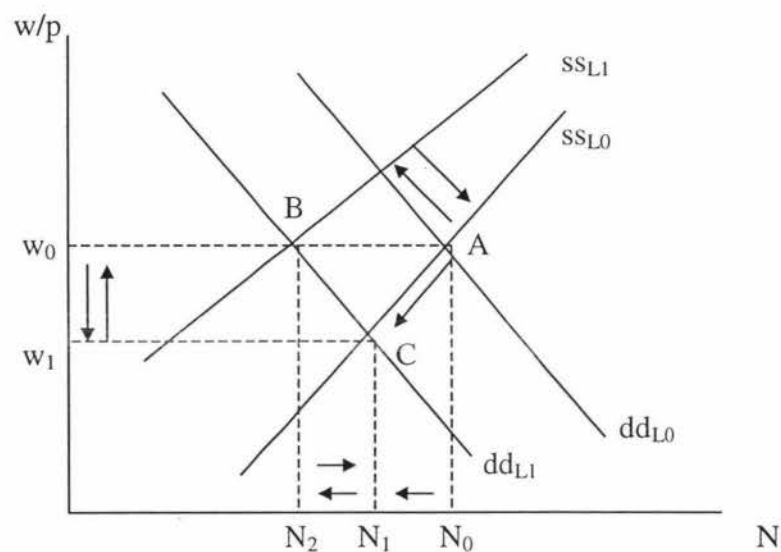


Figure 2.1 The Darity and Goldsmith model of the labour market.

In the Darity and Goldsmith model, people who are exposed to long or recurrent periods of unemployment suffer psychological adversity that in turn affects their productivity and attachment to the labour market. As more people suffer psychological distress because of prolonged periods of unemployment, the demand and supply of labour may contract further, settling at a higher equilibrium level of unemployment in the intermediate to long-term.

The Darity and Goldsmith model clearly shows that hysteresis effects may arise through the behavioural mechanisms of the labour market. That is, contractions in aggregate product demand may lead to contractions in the supply of and demand for labour. This may, in turn, lead to a contraction in the supply side of the aggregate product market. The aggregate demand (including the nominal variables) and aggregate supply (the real variables) functions in the product market are inextricably related through the behavioural mechanism in the labour market. The classical dichotomy

⁹ If the aggregate intensity of the trauma escape effect is stronger than the discouragement effect in response to widespread unemployment, net labour market attachment may rise. This may result in a net observable increase in the effective household labour supply, which in turn shifts the labour supply curve ss_{L0} rightward instead of leftward. This would cause real wage pressure to diminish, offsetting some reduction in employment caused by the demand-side. It is unlikely that the trauma escape effect would completely compensate the reduction in employment due to the demand effect.

asserts that nominal factors cannot influence real factors in the economy in the long-run. However, the Darity and Goldsmith model offers a possible mechanism by which nominal factors do influence the real structure of the economy. This could be the cause of the persistent high unemployment experienced in many of the developed economies in the past two decades.

2.3. UNEMPLOYMENT AND PSYCHOLOGICAL DISTRESS.

The first of the main tenets of the Darity and Goldsmith model, that unemployment induces psychological distress, has a strong theoretical and empirical basis in psychology. Psychological theory suggests that the experience of unemployment causes people to become psychologically distressed because it removes the means of realising certain needs and objectives in the short and long term. However, the degree of psychological adversity people associate with periods of unemployment is influenced by subjective evaluations of the importance of work. Empirical studies consistently provide evidence suggesting that people find unemployment to be psychologically debilitating. The empirical literature has identified certain factors that moderate the psychological adversity associated with periods of unemployment and enables some people to recover quicker than others. The evidence also suggests that the psychological experience of unemployment is worse in the first months and abates as people adapt to their predicament.

2.3.1 The theoretical relationship between unemployment and psychological distress.

According to deprivation theory, the social institution of employment provides certain categories of human experience that are necessary for psychological wellbeing. People gain these beneficial categories of experience from both good and bad employment. These categories of experience include an enforced time structure, regular contact with people other than from the primary social network, the participation in collective purpose beyond the scope of the individual, a source of personal status and identity and regular physical and mental activity (Jahoda, 1988). According to Jahoda (1988), work, through the combination of the enforced categories of experience and the

means of earning a living, is the strongest tie to reality that individuals have. Following from Freud, Jahoda (1981) suggests that unless people have an adequate tie to 'reality', no matter how disagreeable it may be, fantasy and emotion may overwhelm them.

The categories of experience normally associated with work reinforce the capacity for productive work. While people are involved in a setting that provides these categories of experience, their employability is maintained. When people remain in settings that do not provide these categories of experience, their employability is not maintained. When individuals lose access to the categories of experience associated with work, by becoming unemployed, they suffer psychological distress. Jahoda (1988) recognises that some jobs may be lacking in satisfaction in that the conditions of the work preclude other important categories of experience. However, Jahoda (1988) asserts that the psychological benefit derived from any employment provides outweighs any of its disadvantages.

Fryer and Payne (1986) and Fryer (1995) recognise that those categories of experience or latent functions associated with the institution of work, identified by Jahoda (1988), are important for psychological wellbeing. However, other factors, such as material or financial deprivation, may have equal or greater importance for psychological wellbeing. Agency theory has emerged over the past two decades from the criticism of, and in response to, deprivation theory.

Agency theory can be loosely described as a type of social existentialism, where people are seen as free to express themselves within the bounds of certain internally determined directives and externally determined limitations. People strive for fulfilment according to their values, aspirations and anticipation of the future (Fryer, 1995). However, they are constrained externally by aspects of their social institutional environment including 'cultural norms, traditions and past experience' (Fryer, 1995, p.270). Fryer (1995) suggests that while people are socially embedded, they are not entirely passive in relation to external social institutional forces. People display initiative and exert influence, actively responding to their institutional environment (Fryer, 1995).

According to agency theory, unemployment may be psychologically debilitating for individuals because it restricts their personal agency or ability to exert influence on their own lives and on their external environment. Circumstances, such as exposure to periods of unemployment, can induce stress and thus psychological distress by limiting personal freedom and agency (Fryer, 1995). According to Fryer and Payne (1986),

financial and material deprivation may debilitate individuals' psychological wellbeing by undermining their desire for independence and self-determination. The income that individuals earn in paid employment may legitimate and fortify their perceptions of personal status and social value. According to Fryer (1995, p.270), exposure to

unemployment is psychologically destructive ... because it impoverishes, restricts, baffles and discourages the unemployed agent.

Cohn (1978) argues that the value people place on work determines the intensity of their perception of the adversity associated with unemployment. Implicit in this theory is the assumption that employment is a major factor in determining individuals' estimation of themselves. Cohn (1978) recognises that job loss has a predominantly negative effect for individuals' self concept but the strength of this effect will be partly dependent on the subjective perception people have of their joblessness. To what extent people are psychologically deprived depends on the degree that their employment status defines their self-concept.

According to Cohn (1978), this is dependent on three factors. First, a person's subjective evaluation of the importance of employment for his/her self-concept may be dependant on his/her social environment (Cohn, 1978). In different family, community or regional environments, there may be varied dominant perceptions of the importance of work and consequent expectations and pressure on the individual. Factors in their upbringing and social environment will often shape people's beliefs concerning the importance of employment for their self-concept.¹⁰ This will be reflected in the person's work ethic and self-concept.

Second, how individuals attribute the loss of a job, whether it was due to influences within or beyond their control, contributes to the overall subjective evaluation of joblessness. For example, in the event of a factory closure due to global commodity price fluctuations, the individual may evaluate the situation as beyond their control and not attribute the joblessness to any personal inadequacy. In this case the person may still suffer psychological distress, but not as severely as when loss of employment is perceived as due to personal inadequacy.

¹⁰ For example, Brooks-Gunn, Duncan, Klebanov and Sealand (1993) have found evidence to suggest that the neighbourhood individuals grow up in influences their psychological and social development during childhood and adolescence. They suggest that neighbourhood effects can strongly influence individuals' childhood IQ levels and increase the propensity for early school-leaving and teenage births. This issue will be addressed in the following chapter.

Other elements of an individual's self-concept, for instance their self-esteem, may lessen the importance that having a job contributes to an individual's psychological wellbeing and life satisfaction. According to Cohn (1978), people may derive a greater proportion of self-concept from past achievements or from other interests that can be pursued while unemployed. People who derive self-concept from past achievements and other interests may not suffer as severe depletion in their psychological wellbeing as people who derive their self-concept primarily from work.

Finally, unemployment may affect people in different ways over time. Eisenberg and Lazarsfeld (1938) suggest that the psychological experience of unemployment differs during different stages of unemployment. This is referred to as the stage-response theory. According to Eisenberg and Lazarsfeld (1938), when people first become unemployed they may suffer shock but may still be optimistic of getting another job and their job-search may be intense. In the second stage, if they have not been able to find a job, people may become anxious, distressed and pessimistic about their chances of finding another job. They may give up hope and enter a state of helplessness. In the final stage, individuals become apathetic and fatalistic. They adapt to unemployment, possibly ceasing to search for a job. Overall, adverse pressure on psychological wellbeing is likely to increase with the duration of unemployment. To counter this, people may progressively disengage themselves from the labour market in an attempt to cope with their predicament of unemployment and thus offset their psychological deterioration (Darity and Goldsmith, 1996).

2.3.2. The empirical association between unemployment and psychological distress.

Empirical studies have consistently provided evidence suggesting that the experience of unemployment is detrimental to general psychological wellbeing (Warr, 1978; Banks, et al., 1980; Hepworth, 1980; Pearlin, et al., 1981; Banks and Ullah, 1988; Liem and Liem, 1988; Whelan, 1992; Clark and Oswald, 1994; Roberts, et al., 1997; Theodossiou, 1998). Studies have identified specific aspects of psychological wellbeing that may be more seriously affected by the experience of unemployment. These include heightened anxiety (Shamir, 1986; Theodossiou, 1998), depression (Shamir, 1986; O'Brien and Feather, 1990; Theodossiou, 1998) and a loss of confidence and morale (Shamir, 1986; O'Brien and Feather, 1990; Theodossiou, 1998). People are

generally happier and more satisfied with their life if they are in fulfilling employment rather than when they are unemployed (O'Brien and Feather, 1990; Theodossiou, 1998).

However, there has been some controversy concerning whether the experience of unemployment adversely affects self-esteem. Some authors have found that the unemployed suffer in some aspects of their psychological wellbeing but do not suffer any detriment to their self-esteem (Hartley, 1980; Rothwell and Williams, 1983; Shamir, 1986). These authors suggest that self-esteem is more a stable property than a malleable construct of a person's self-concept. Others have found evidence suggesting that unemployment does adversely affect self-esteem (Cohn, 1978; Pearlin, et al., 1981; Sheeran and McCarthy; 1992; Winefield, et al., 1993; Goldsmith, Veum and Darity, 1996; 1997a; 1997b; Theodossiou, 1998). It is argued that certain factors are present in the Hartley (1980) and Shamir (1986) studies that moderate the adverse affects of unemployment on self-esteem. The samples in these studies comprise highly skilled and well-educated people and are not representative of general populations. It is suggested that factors such as skill and educational attainment moderate the psychological adversity associated with unemployment.

2.3.3. Factors that moderate the psychological adversity associated with unemployment.

Educational and skill attainments are not the only factors that may contribute to self-esteem, self-concept and psychological wellbeing. Studies provide evidence suggesting that other factors may moderate the impact of unemployment on different aspects of self-concept and psychological wellbeing. Studies have found that people displaying certain characteristics, attitudes and behaviours seem to cope with the experience of unemployment better than others. However, there has been controversy surrounding some of these findings.

Evidence suggests that women tend to exhibit lower general psychological wellbeing than men, irrespective of whether they are employed or unemployed. Studies have found that women generally display less self-esteem (Winefield and Tiggemann, 1985), less satisfaction with life (Harding and Sewel, 1992) and suffer greater depression (Winefield and Tiggemann, 1985; Goldsmith, et al., 1996). However, women are not as adversely affected by the experience of unemployment as men

(Banks, et al., 1980; Harding and Sewel, 1992; Theodossiou, 1998). It has been suggested that such gender-based differences in psychological wellbeing and reactions to outcomes in the labour market are due to biological predisposition and differences in socialisation patterns. Others have suggested that these differences arise because of differences in exposure to stressful circumstances (Fryer and Payne, 1986). However, there has been little empirical support for such explanations and authors have tended to focus on the differences in coping strategies and social resource utilisation of men and women (Fryer and Payne, 1986; Gore and Colten, 1991; Thoits, 1991).¹¹

The evidence concerning the moderating influence of age has been mixed. Some authors provide evidence suggesting that psychological wellbeing is unrelated to age (Banks, et al., 1980; Hepworth, 1980). These studies examine whether there is a substantial linear correlation between the psychological wellbeing of unemployed people and their age. However, others suggest that the relationship between psychological wellbeing and age is not linear but curvilinear or u-shaped (Clark and Oswald, 1994). Studies have found evidence suggesting that middle aged (30-50 years) individuals suffer greater psychological adversity during unemployment than the young (< 30 years) or the old (> 50) (Warr, 1978; Theodossiou, 1998; Clark and Oswald, 1994).

Clark and Oswald (1994) suggest that the middle-aged suffer greater psychological adversity during unemployment because they are more likely to incur larger direct and indirect costs. A number of factors may contribute to this finding. First, middle-aged people are more likely to have dependent family members. When unemployed, they become less capable of providing for their own needs and for those of their family, causing them to feel greater inadequacy and hence psychological distress. Second, fewer middle-aged people suffer prolonged periods of unemployment than those in the younger and older age groups (Clark and Oswald, 1994). Hence the middle-aged unemployed may attract a stronger and more negative social stigma because they are regarded as more atypical than those in other age groups who are unemployed.¹² Finally, the young are more likely to have more social contact with

¹¹ This issue is addressed in greater detail in the following chapter.

¹² People who are characterised by certain observable demographics or traits not commonly associated with the unemployed who become unemployed are more likely to attract a negative stigma than others. For instance, evidence suggests that people who become unemployed during periods or in geographic regions with proportionately lower unemployment are more likely to be stigmatised or discriminated against, even by prospective employers (Cohn, 1978; Omori, 1997).

people who are in the same predicament and share the same experience who can empathise with their experience. Older people may become more easily resigned to their situation and adapt accordingly. They may realise that employers are more likely to discriminate against employing them on the basis of their age and may make the best of the situation by taking early retirement.

Similarly, other factors may moderate the adversity of the experience of unemployment on psychological wellbeing. Clark and Oswald (1994) provide evidence suggesting that the unemployed in geographic regions with higher than average unemployment rates suffer less psychological distress than those unemployed living in regions where there is lower than average unemployment. In areas where unemployment is more common, the unemployed are more likely to enjoy social contact with people experiencing similar circumstances (Cohn, 1978) and are less likely to attract negative stigma (Omori, 1997).

The evidence concerning the moderating effects of skill and educational attainment is inconsistent and ambivalent. Some evidence suggests that higher skill and educational attainment moderates the adversity the experience of unemployment inflicts on individuals' self-esteem and self-concept (Shamir, 1986). People with higher educational and skill attainment may derive their self-concept from past achievements and experience and attribute less importance to their current employment status while those who cannot rely on past achievements derive greater status and self-esteem from employment (Cohn, 1978). Accordingly, the less skilled and educated may suffer considerable deterioration in aspects of their self-concept.

Some authors provide evidence suggesting that self-esteem and other aspects of self-concept moderate the psychological adversity associated with unemployment (Shamir, 1986; Sheeran and McCarthy, 1992). People with higher self-esteem suffer less psychological distress during unemployment than individuals with lower self-esteem. Hepworth (1980) provides evidence suggesting that semi-skilled and unskilled unemployed men are affected more adversely by the experience of unemployment than skilled professional men.

However, other studies suggest that skill and educational attainment actually accentuate the psychological adversity associated with unemployment. Clark and Oswald (1994) provide evidence suggesting that individuals with higher educational qualifications suffer greater psychological distress than people with lower educational qualifications while they are unemployed. They argue that people with higher levels of

skill and educational attainment are likely to be more productive workers and thus command a higher wage in the labour market. When they are unemployed, these people incur a greater opportunity cost in terms of foregone wages and consumption. Thus people with higher education and earnings potential suffer greater psychological distress than people with lower wage potential incurring a lower opportunity cost when they are not working.

Differences in individuals' attitudes towards work and leisure are shown to influence the psychological severity of the experience of unemployment. Warr (1978) provides evidence suggesting that people with a strong work ethic who are employed are better off in terms of their self-concept than when they are unemployed. The psychological wellbeing of people with a weak work ethic tends to be unaffected by their employment status. Unemployed people who occupy their time effectively are likely to be psychologically healthier than those who do not occupy their time positively (Hepworth, 1980). However, regardless of how well unemployed people may occupy their time, they tend to be more psychologically distressed than employed people. According to Jahoda (1988) time occupation is an important psychological category of experience often best provided by the formal institution of paid work.

Evidence suggests that the financial and lifestyle deprivation associated with the experience of unemployment causes people to become depressed, lose their sense of mastery and self-esteem (Pearlin, et al., 1981; Goldsmith, et al., 1996) and reduce their general life satisfaction and general psychological wellbeing (Warr, 1978; Whelan, 1992). Fryer (1995) suggests that this is because their finances are a major factor by which they may realise their desire for independence and self-determination. Unemployment restricts individuals' finances and opportunities, thwarting their ability to express themselves and to reach their potential. Unemployed people are not alone in their experience of unemployment. Spouses and family members also suffer substantial deprivation and psychological distress when the main breadwinner becomes unemployed (Whelan, 1992).

Studies have found evidence suggesting that the unemployed and their families are less able to secure certain basic needs including adequate heat, food and warm clothes and more likely to be in debt than people in full-time employment (Warr, 1978; Whelan, 1992). Furthermore, they are more likely to suffer secondary deprivation, becoming less able to buy gifts for family and friends, to own and run a car or to buy a house and by inference a future and security (Whelan, 1992). Some people who

become unemployed after years of employment in higher paid professional jobs may have greater resources available to them including, greater savings and other assets as well as unemployment insurance schemes. Wealthier people may not suffer the same primary and housing deprivation as those with shorter working histories and lower wages but they may suffer a relative reduction in social status and living standards.

Finally, some authors suggest that the loss of some poor quality jobs is not psychologically detrimental and can even be psychologically beneficial (Winefield, et al., 1993). Low paying, unpleasant, futureless and dangerous employment can actually thwart people's ability to realise their objectives and can undermine psychological wellbeing. Evidence suggests that young people tend to associate the same psychological distress with unsatisfactory employment as they do with unemployment and experience greater psychological distress than people with satisfactory jobs (O'Brien and Feather, 1990; Winefield, et al., 1991). However, Theodossiou (1998) found that from a general sample of young and old, unemployment is associated with a rise in anxiety, depression, loss of confidence and a reduction in self esteem and happiness whether people are in poor or well paying employment.

2.3.4. Unemployment duration and the severity of psychological distress.

There has been a great deal of research in the economics literature concerning the influence that the duration of unemployment has on the likelihood of people becoming re-employed. A number of authors provide evidence suggesting that the longer people remain unemployed, the less chance they have of becoming re-employed, regardless of their personal qualifications and characteristics (Jackman and Layard, 1991; Gardiner, 1994; Omori, 1997; van den Berg and van Ours, 1997; Arulampalam, et al., 2000). However, it is argued that such studies may suffer from a bias of omitted variables (Heckman and Borjas, 1980). That is, there are other factors not directly taken into account or adequately compensated for by the statistical techniques used in these studies (Goldsmith, Veum and Darity, 1997a).

Goldsmith, et al. (1997a) argue that psychological factors must be explicitly accounted for in terms of a 'behavioural model' of the labour market. They suggest that people suffer greater psychological distress with longer duration of unemployment. This undermines their ability to utilise their endowments of human capital effectively.

They suggest that the stage-response theory may explain such adverse psychological effects of unemployment duration. However, few studies have been conducted on the duration effects of unemployment on psychological wellbeing. The studies that have examined this relationship have provided only mixed evidence concerning whether longer duration of unemployment accentuates psychological distress.

Some studies have confirmed such a hypothesis (Hepworth, 1980; Winefield, et al., 1993). Winefield, et al. (1993), provide evidence from longitudinal data suggesting that individuals who are unemployed for a period of nine months or longer suffer greater depression and hopelessness than people unemployed for a shorter time. However, other studies have found that psychological wellbeing may diminish during the initial stages of unemployment but improve over time as people adapt to their predicament (Banks and Ullah, 1988; Clark and Oswald, 1994). Clark and Oswald (1994) provide evidence suggesting that aspects of psychological wellbeing improve over periods of continuous unemployment of more than a year. They suggest that individuals' psychological wellbeing is related to unemployment duration in a curvilinear fashion.

There is inconsistent evidence concerning the influence of the duration of unemployment on psychological wellbeing and hence the likelihood of re-employment. It has been suggested that unemployment duration and psychological distress indirectly affect the likelihood of re-employment. Darity and Goldsmith (1996) suggest that people may disengage themselves from the labour market in response to prolonged periods of unemployment in order to protect their self-concept and psychological wellbeing from the deleterious effects of unemployment. Some evidence suggests that unemployment duration and psychological distress may reduce individuals' employment search activity and increase their propensity to withdraw from the formal labour market (Banks and Ullah, 1988; Winefield, et al. 1993). Banks and Ullah (1988), provide evidence suggesting that such factors, along with the individual's ethnicity, labour market history and local labour market conditions are the main predictors of unemployment duration.

Although the evidence is not clear concerning the effect of unemployment duration on psychological distress, there is clear evidence that people take time to recover from the psychological trauma of unemployment after they become re-employed (Cohn, 1978; Fineman, 1987; Liem and Liem, 1988; Kessler, Turner and House, 1989). It has been suggested that the time needed for people to recover from the

experience of unemployment is dependent on the quality of their new employment and the social support they receive (House, 1981; Darity and Goldsmith, 1996).¹³

2.4. PSYCHOLOGICAL WELLBEING AND PRODUCTIVITY.

The second major assumption of the Darity and Goldsmith model is that there is a relationship between psychological wellbeing and the level of productivity in employment. The model assumes that the psychological distress associated with long periods of unemployment causes individuals to become less productive, hence diminishing the value of the labour they can offer to prospective employers. The decrease in productivity in the labour market implies a reduction in labour efficiency. This causes a reduction in the demand for labour at the prevailing wage rate leading to a contraction in employment and downward pressure on the real wage rate.¹⁴ Furthermore, the psychological distress associated with unemployment may cause deterioration in individuals' motivation for job search and participation in the labour market. This may result in a contraction in the 'effective labour supply' and a decrease in the equilibrium level of employment in the formal labour market.

2.4.1. The theoretical relationship between individuals' psychological wellbeing and productivity in the labour market.

In the economics literature, individuals' accumulation and maintenance of their human capital determines their productivity in employment and hence the 'permanent' income they command in the labour market over their lifetime. Human capital is defined as knowledge and skills that add to individuals' productive potential. It is accumulated through investments in education and on the job training (Becker, 1993). This involves the sacrifice of time, money, and foregone opportunities for production and consumption in order to invest in education and training activities.

When people become unemployed, unless compensatory investments are made,

¹³ This point is discussed in greater detail in the following chapter.

¹⁴ If wage stickiness is assumed in the short-run and wages do not initially fall, then employment will initially fall further. It will then take time for wages to fall and employment to rise to reach the new market clearing equilibrium.

their stock of human capital depreciates and hence their potential productivity deteriorates over time. Even if people maintain their human capital, employers may discriminate on the basis of unemployment duration (Acemoglu, 1995). Employers may be reluctant to employ people who have been unemployed for longer periods preferring people who have been unemployed for a shorter period. Accordingly, individuals' probability of finding a job diminishes the longer they remain unemployed. In response, people may give up looking for re-employment, adapting to their predicament by finding other ways to secure an income and occupy their time. According to Budd, Levine and Smith (1988, p.1071),

The process can be understood by an analogy with a flower shop. The seller has a stock of flowers of declining freshness. If there is no price variation and customers can choose their flowers, there is a double process of discrimination at work: the newest flowers will tend to sell first, but some will fade more rapidly than others. If any of the two-day old flowers are sold, for example, they will be the brightest of the group. Thus each day not only does each cohort of flowers grow older, it will have lost those which fade least rapidly.

Darity and Goldsmith (1996), argue that the level of investment in human capital primarily determines individuals' labour market productivity *potential* and hence their potential wage and employment outcomes. The individuals' level of 'psychological capital' determines how well their stock of accumulated human capital is utilised. In conjunction, their human and psychological capital stocks determine their actual productivity and wage outcomes. The accumulated stock of human capital establishes potential productivity whereas the stock of psychological capital determines to what extent that potential is reached.

Goldsmith, Veum and Darity (1997a) define psychological capital as any aspect of psychological wellbeing, self-concept and personality that directly or indirectly contributes to human capital utilisation and maintenance and hence productivity in the labour market. Psychological and personality attributes such as 'perceptions of self, attitudes towards work, ethical orientation and general outlook on life' influence productivity and hence wage and employment outcomes in the labour market (Goldsmith, et al., 1997a, p.815). Some aspects of psychological capital, such as self-esteem, may protect other aspects of psychological capital and hence indirectly protect human capital utilisation and productivity. Other aspects, such as depressive symptoms

and anxiety, may have a negative influence on individuals' human capital utilisation and hence on productivity.

When people become unemployed, their overall stock of psychological capital may positively influence their motivation to search for employment and to maintain their job skills and thus protect their employability. However, the stock of psychological capital may diminish with unemployment duration with the stock of some people depreciating faster than that of others. Goldsmith, et al. (1997a) suggest that depreciation in aspects of psychological capital, such as self-esteem, adversely affects the ability to cope with unemployment and even re-employment. Depreciation in other aspects of psychological capital, such as depression, diminishes the efficiency of human capital utilisation and thus productivity and employability (ibid.).

Darity and Goldsmith (1993; 1996) suggest that with greater unemployment duration, either of two effects may take place: the trauma escape effect or the discouragement effect. The trauma escape effect comes into play where individuals are so severely affected by unemployment that they put greater effort into escaping from it. Those who are worst affected by unemployment may conduct more intensive job-searches or they may be ready to drop their wage and employment expectations. It was suggested above that middle-aged males with a strong work ethic, living in regions with lower than average unemployment were those likely to be the worst affected by the experience of unemployment. Such people may display stronger trauma-escape behaviour in the initial stages of their unemployment. In later stages of unemployment, the discouragement effect is likely to be strongest for most unemployed people.

People may become increasingly pessimistic about finding employment, and adapt to their plight by abandoning their search in the labour market. Darity and Goldsmith (1996) suggest that people experiencing long periods of unemployment adapt to their predicament by altering their preferences for work. People do this as a means of coping with what they regard as a psychologically intolerable situation. This inactivity causes deterioration in people's ability to maintain and utilise their human capital effectively, thus reducing productivity and making them less desirable to prospective employers. The disengagement of a proportion of people from the labour market leads to a further contraction in the effective supply of and demand for labour.

2.4.2 *The empirical relationship between psychological wellbeing, productivity and employability.*

Goldsmith, Veum and Darity (1997a) provide evidence suggesting that individuals' self esteem strongly influences the real wage they command in the labour market. Goldsmith, et al. (1997a) argue that this implies that the individuals' self-esteem directly affects their marginal productivity in the labour market.¹⁵ Furthermore, their evidence suggests that changes in the individuals' self-esteem have a larger influence on the real wage and hence productivity than comparable changes in aspects of accumulated human capital including education, work tenure, experience and basic skills. It is argued that because unemployment produces deterioration in aspects of psychological wellbeing, including self-esteem, it diminishes individuals' productive potential, reducing their employability. Thus the psychological adversity associated with unemployment may cause people to suffer prolonged and future recurrent spells of unemployment.

There is inconsistent but sufficient evidence to support the argument that the experience of unemployment is harmful to aspects of psychological wellbeing and self-concept such as self-esteem and attribution. Even psychologists who contend that self-esteem is a relatively stable element of personality acknowledge that it may be altered by particularly traumatic life-events (Darity and Goldsmith, 1995). The trauma associated with experiences of unemployment is well documented in the psychology literature.

Other studies have provided evidence suggesting that certain stable personality characteristics are the predominant predictors of individuals' job performance and productivity. Barrick and Mount (1991) provide evidence suggesting that two characteristics, conscientiousness and extraversion, are particularly predictive of good job performance. Their evidence suggests that conscientious people are better performers and more productive in general employment, while extraverts are usually more successful and hence productive in employment where social interaction is important (Barrick and Mount, 1991). Banks and Ullah (1988) found, from a sample of school leavers, that employment improved individuals' sociability, an element of

¹⁵ In conventional Neo-classical theory it is assumed that the individuals' real wage represents their marginal productivity they express in the labour market at least in the long term. Accordingly, Goldsmith, et al. (1997a) treat the individuals' real wage as a proxy for their marginal labour productivity.

extraversion, as well as their achievement orientation, an element of their degree of conscientiousness. Banks and Ullah (1988) suggest that individuals' early experience of the labour market positively affects the development of certain elements of stable personality that may influence individuals' future labour market experience.

However, these findings are based on longitudinal data concerning youth employment and unemployment. The longitudinal data sets used by Goldsmith, et al. (1997a) and Banks and Ullah (1988) are both concerned with youth labour market experiences. They track individuals' initiation into and early experience of the labour market but do not address the experience of middle-aged and older workers. These studies indicate that aspects of the individuals' psychological wellbeing and personality that are responsible for productivity are shaped by early experiences in the labour market. Accordingly, the individuals' initiation and early experience of the labour market may influence their future potential productivity and hence their future earnings and employment. However, it is not clear whether periods of unemployment experienced in later life adversely affect aspects of personality such as conscientiousness and extraversion thus adversely affecting productivity and employability. Nor is it apparent whether changes in self-esteem due to unemployment later in working life affect labour productivity and employability.

Empirical evidence concerning the relationship between other aspects of psychological wellbeing, such as depression, and the probability of securing employment has been mixed. Kessler, et al. (1989) did not find a significant relationship between the individuals' psychological wellbeing and the probability of re-employment. If anything Kessler, et al. (1989) found weak evidence suggesting that individuals' with greater unemployment induced psychological distress, including symptoms of depression and anxiety, were more likely to secure employment within the first months of unemployment. Shamir (1986) from cross-sectional and longitudinal data obtained from well-educated adults, found that those with greater psychological distress were more likely to be flexible in their wage expectations when considering job offers. Such evidence indicates a 'trauma escape effect' rather than a discouragement effect.

However, Banks and Ullah (1988) provide evidence suggesting that psychological wellbeing positively influences the likelihood of people becoming re-employed. The level of psychological distress was predictive of whether the individual would find a job on leaving school. Those with higher psychological wellbeing at

school were more likely to find jobs than those who had lower psychological wellbeing (Banks and Ullah, 1988). Furthermore, general psychological distress increased for those who did not find jobs while it decreased for those who did find jobs after leaving school. Their study suggests that, although unemployment adversely affects psychological wellbeing, the likelihood of unemployment is increased by psychological distress.

2.5. SUMMARY.

This chapter has reviewed the theoretical and empirical literature concerning the persistently high unemployment experienced in many of the developed nations over the past two decades. It has been suggested that transitory shocks to the demand-side of the aggregate product market in these economies have altered certain underlying structural factors in the aggregate labour and product markets, thus permanently shifting the long-run equilibrium rate of unemployment. Darity and Goldsmith's (1993; 1996) 'behavioural' labour market model was presented to explain how transitory shocks to an economy may affect the 'deep structure' of that economy, in turn affecting its 'natural rate' of unemployment.

According to the Darity and Goldsmith model, unemployment may persist due to the adverse psychological effect that periods of unemployment entail for individuals comprising the labour market. Unemployment is assumed to have an adverse effect on psychological wellbeing. When individuals are exposed to periods of unemployment, the psychological adversity they suffer 1) weakens attachment to work and 2) limits potential productivity, reducing their attractiveness to potential employers. At the micro level, these factors reduce the probability of individuals securing psychologically and materially rewarding employment, thus increasing the duration of unemployment and the psychological impairment. At the macro level, during periods of economic downturn, these factors may cause the labour demand and supply to contract further, exacerbating and prolonging unemployment in the labour and product markets.

Deprivation theory suggests that unemployment is psychologically debilitating because it deprives the individual of certain latent categories of human experience that are necessary for an psychological wellbeing and are normally provided by employment (Jahoda, 1988). According to agency theory, the financial and material deprivation

associated with unemployment may debilitate psychological wellbeing by undermining a person's need for independence and self-determination (Fryer, 1995). Cohn (1978) suggests that the severity of the psychological adversity associated with unemployment is partly determined by the amount of importance a person places on work. This subjective perception of the importance of work is influenced by social, cultural and economic factors. Eisenberg and Lazarsfeld (1938) suggest that psychological wellbeing may deteriorate with unemployment duration. However this may be offset as people adapt to their predicament by withdrawing from employment search (Darity and Goldsmith, 1996).

The empirical literature confirms that unemployment negatively affects elements of psychological wellbeing, including self-esteem and levels of depression and anxiety. Longitudinal studies provide evidence suggesting that psychological wellbeing diminishes on becoming unemployed and continues to diminish during the duration of unemployment. Although some studies have not shown unemployment to be psychologically destructive, it is suggested that certain factors protect the individual from the full onslaught of adversity normally associated with unemployment. People who are middle-aged, better educated, responsible for dependants as the main breadwinner, with few empathetic peers or interests outside their career are more likely than others to experience greater psychological adversity during periods of unemployment.

This has implications for outcomes in the Darity and Goldsmith model. Demographic characteristics of the people who comprise the labour market may influence the mechanism by which the labour market adjusts. If people who suffer prolonged periods of unemployment belong to an older age group, the behavioural mechanism in the labour market is likely to exhibit a predominant discouragement effect and only a marginal trauma escape effect. The situation may be exacerbated by discriminatory employment practices against the aged. The adjustment process of the labour market supply and demand may depend on the aggregate individual characteristics of the unemployed as well as on other social, cultural and economic factors.

It is hypothesised that people will generally suffer greater psychological distress during unemployment than during psychologically rewarding employment. People experiencing longer periods of unemployment are likely to suffer greater psychological distress than people experiencing shorter periods of unemployment. It is likely that people will take some time to recover fully from experiences of unemployment because

of residual traces of the psychological consequences of unemployment. As outlined above, certain demographic factors are likely to influence the psychological experience of unemployment. According to Clark and Oswald (1994), well educated, middle aged people are more likely to suffer greater psychological distress during unemployment than younger and older people with less education. Whelan (1992) suggests that people who are married with dependants are more likely than unmarried people to suffer severe psychological distress as a consequence of unemployment.

The psychology literature further suggests that demographic characteristics are not the only factors that can influence psychological wellbeing during and after periods of unemployment. There is an enormous literature suggesting that social support, social networks and a healthy community substantially influence perceptions and experiences during periods of psychological distress. Some of this literature has specifically addressed the predicament of unemployment suggesting that effective social support and networks can be psychologically beneficial to individuals during and after periods of unemployment. It is suggested here that the quality of social support and the efficiency by which various social networks transfer that support and other social resources may have profound implications for the labour market adjustment process in the Darity and Goldsmith model.

3

Social Support and the Psychological Wellbeing and Efficiency of Labour.

3.1. INTRODUCTION.

The previous chapter discussed the literature concerning the psychological adversity associated with periods of involuntary unemployment and how this may influence adversely the real variables in the economic system. This chapter discusses the literature concerning the psychological benefits associated with social support and how this may offset the psychological adversity associated with periods of unemployment. The literature tends to focus on the psychological benefits derived from close relationships with people from the immediate family and close friends. Fewer studies have investigated the psychological benefits and costs associated with interrelationship and embeddedness in the wider community outside of the primary social network. The present study attempts to determine how, and from what sources within the community, including the primary social network, social support moderates the psychological adversity associated with stressful life-events such as periods of unemployment.

The concept of social support is related to the wider concept of social capital and its effect on economic systems. It is argued that certain aspects of social organisation and the social environment may positively affect the functioning of the labour market mechanism thus offsetting hysteresis in the labour market. This implies that countries and regions with greater social capital may have more adaptable and better functioning labour markets. This literature is reviewed to highlight some wider implications of the focus of the present study.

The following section 3.2 outlines the theoretical literature concerning the psychologically beneficial effects associated with social support. This section conceptualises the social support, network and community concepts and discusses the processes by which they may be psychologically beneficial. Section 3.3 discusses the empirical literature concerning the psychological adversity associated with unemployment and under what circumstances social support, networks and the community are most psychologically beneficial. Section 3.4 outlines the social capital and community literature concerning the influence that aspects of social organisation and social environment have on the performance of social and economic systems. This section relates the notion of social capital to the social support, social network and embeddedness concepts. Section 3.5 summarises the literature reviewed throughout the chapter.

3.2. THE THEORETICAL RELATIONSHIP BETWEEN STRESS, PSYCHOLOGICAL DISTRESS AND SOCIAL SUPPORT.

This section conceptualises and outlines the dynamic by which social support moderates the psychological adversity associated with unemployment related stress. In section 3.2.1, social support is conceptualised and its relevance for psychological wellbeing is discussed. This section also discusses the various ways in which social support has been evaluated. In section 3.2.2, the context within which social support transfers various resources and psychological benefits is discussed. The network and community concepts are defined in terms of the present study and in the light of the existing literature. Section 3.2.3 describes the dynamic by which social support transfers resources and benefits. Social support may offset the adverse psychological effects of stress by differing mechanisms, including directly influencing stress, psychological distress or moderating the relationship between these factors. This study concerns this moderating mechanism. That is, how social support ameliorates the effect of stress on psychological wellbeing. This section also discusses the situational and functional appropriateness of certain types of support derived from various networks.

3.2.1. The nature of social support.

The social support concept emerged from the study of disease aetiology and epidemiology. There was evidence that certain life events, typically defined as being stressful or inducing stress, affected some people but not others. Extensive inquiry has been undertaken during the past three decades into the nature and benefits associated with social support. There has been considerable debate about the conceptualisation of social support. It is generally agreed that social support addresses both specific, temporary needs brought about by stressful life-events and perennial, interpersonal needs that are fundamental to human experience (Cutrona, 1996). However, there is continued disagreement concerning the mechanism by which social support provides various benefits.

According to Caplan (1974) fundamental needs of humans include love and affection, freedom to express personal feelings, validation of personal identity and worth, help with tasks, and support in handling emotion and controlling impulses. Caplan (1976) suggests that social support may address these needs in three ways. First, social support assists people to mobilise psychological resources and to master emotional burdens. Second, social support may convey empathy thus aiding people in tasks and problems. Third, social support may transfer physical resources such as finances or immaterial social resources such as 'skills and cognitive guidance' to improve the management of adverse situations (*ibid.*, p.20).

Caplan (1976) suggests that for social support to be effective and psychologically beneficial it must convey relevant, clear and comprehensible information. People are more likely to feel valued and secure in familiar environments and situations where they are aware of external expectations and thus feel able to trust their actions and reactions. Consequently, in social settings where social support conveys adequate information, people are less likely to experience emotional and physiological stress and will be less susceptible to psychological distress.

In its broadest sense, social support is inherent within the social milieu in which people are born, brought up and live. Ideally, this social environment will indicate to people that they are cared for and appreciated (Cobb, 1976). Social support that people derive from a social setting may be interpreted as an acknowledgement of their existence and worth. Cobb (1996) suggests that supportive action may not even be

functionally useful but its presence fulfils a fundamental human longing to be appreciated.

There has been little consensus concerning the processes by which social support influences physiological and psychological wellbeing. Some emphasise the importance of the perception that people have of the potential availability of and/or satisfaction from support (Vaux and Athanassopoulou, 1987). Others focus on the support that people actually receive from social relationships. Evidence suggests that there may be considerable divergence between the degree of support people perceive to be available and the support people actually receive. According to Kessler (1992), the two constructs have been found to have dissimilar health effects. Research suggests that perceived social support produces the most obvious benefits for physical and psychological wellbeing (Wethington and Kessler, 1986; Kessler, 1992; Cutrona, 1996).

Some suggest that perceptions of social support are comparable to a personality construct (Sarason, Sarason and Pierce, 1990; 1992). According to Sarason, Sarason and Pierce (1990), perceived support is defined as 'a sense of acceptance, an inherently stable personality characteristic that contributes to the perception of social support separately from what the environment actually offers at any particular point in time' (p.110). Social support is an aspect of people's perceptions of themselves as opposed to a characteristic of the social environment in which they are embedded. According to Sarason et al (1992), individual differences in perceptions of potentially available social support are nurtured by experiences of relationships during early childhood development. If people experience positive interactions with parents and family then they will interpret supportive interactions more positively and develop greater expectations of future support.

Others suggest that aspects of interpersonal relationships, situational factors and personality all have roles in developing perceptions of support (Kessler, 1992; Cutrona, 1996). Perceptions of available support may represent the level of certainty and security that people feel they have during every day life or crises. The perception of social support may be influenced by past experiences of its availability in times of need (Siegert, Chung and Taylor, 1990). Perceptions may develop on the basis of the level of stability of past relationships. Some suggest that there is no relationship between the evaluations of perceived available and received support (Sarason, et al, 1990; Kessler, 1992). However, the evaluations of perceived and received support may diverge on

account of the lapse in time between previous experiences of support and the current need and social setting.

Social support is a wide-ranging concept comprising various degrees and dimensions of human relationships and interaction. It includes emotional and instrumental assistance transferred through intimate or merely associational connections. Psychologically beneficial social support conveys social guidance, addresses specific needs and provides a sense of security and belonging in various social settings. Lin and Westcott (1991, p.215-216), define social support in a broad sense as

'the process (e.g. perception or reception) by which resources in the social networks are brought to bear to meet the functional needs (e.g. instrumental and expressive) in routine and crisis situations'

Social support includes social and instrumental resources transferred by agents within a social setting. Recipients subjectively appraise this support as either what they have received or as resources they perceive to be available. Social support is transferred by different social relationships within various social networks.

3.2.2. Social networks and the overall sense of support within the community.

In the sociological literature, a network refers to a group of similar or different organisations or associations that are interrelated by a common activity or purpose (Olsen, 1968). In the social support literature a social network is defined as an organisation of people bound by common activity, purpose, norms and/or resources. According to this definition, the shared activity, purpose, norms and/or resources differentiate social networks. Social networks may consist of horizontal or vertical relationships or a mixture including intimate or mere associative affiliations. They may include intimate relationships such as those within an immediate family or living situation and looser associations such as work or leisure based relationships.

Community refers to the wider network of social relationships within which people live. It is an aggregation of all social relationships and the supportive resources embodied in them. The degree of cohesion in the community is indicated by the intensity of contact, support, and empathy between people comprising the community or

wider social network. Chavis, Hogge, McMillan and Wandersman (1986), contend that the level of community cohesiveness is determined by the extent to which members feel they belong and are important to the group and are confident that they can rely on the community for support in a time of need. Sarason, et al. (1990) suggest that the degree of community may be evaluated as an overall sense of support comprising different types of support derived from various networks.

House (1981) suggests that the existence of an extensive community does not guarantee good or even adequate social support. Whether people experience general day-to-day stress or extraordinary stress-inducing life-events, mere quantities of potentially supportive resources do not guarantee an adequate buffer against this stress. Social relationships may not be good predictors of effective, psychologically beneficial social support that people may receive from various social networks and overall community during crises and day-to-day life (House, 1981). On the contrary, Cutrona (1996), suggests it is likely that the larger the social networks and community people have, the greater the probability of receiving actual support in a crisis. A large social network does not guarantee but better enables the provision of crucial elements for psychological wellbeing such as, 'attachment, guidance, reassurance of worth, and tangible assistance' (Cutrona, 1996: p.10).

Caplan (1976) suggests that, social support or supportive behaviour seems to operate predominantly 'through kith and kin groups and networks, via the informal operation of individual non-professional caregivers, and through such organisations as religious denominations, fraternal associations, and mutual assistance and self-help groups.' (p.20). Putman (1995) categorises networks and community as including such informal and formal institutions as neighbourhoods, church congregations, and bowling leagues. Fukuyama (1995) includes the family, flat-mates, workplace or sports-clubs. Fukuyama (1995) suggests community can include any organisation or agreement of people from the basic family unit to the entire nation state. Community can encompass whatever the individual subjectively appraises as being a part of his/her community. Community is something to be defined subjectively by the individual, not circumscribed by academics or politicians (Fukuyama, 1995). In the present study, different types of relationship are differentiated by their function and categorised within different networks.

The first type of relationship, the primary social network, comprises individuals' immediate family and members of their household. It was assumed that relationships

between individuals who lived with each other for long periods, such as in stable flats and long-term boarding arrangements, may develop and display similar characteristics to relationships found between immediate family members. The theoretical and empirical literature suggests that close confidants, usually the individual's spouse or immediate family, are the strongest and most effective source of social support in ameliorating adverse psychological consequences associated with stress (Cutrona, 1996).¹ This type of supportive resource tends to be characterised by very close and intimate relationships with a high degree of mutual trust.²

The second type of relationship, the identity-based network, includes people known through groups such as the extended family, church, marae, and ethnic societies. There may be a deep bond in such an association that reflects the essential personality of the individual. People may be held together by common beliefs and aspirations yet lack the degree of intimacy found in a primary relationship. Members of the identity group may be more empathetic than some relationships based on blood or living arrangements. People are more likely to share similar beliefs and experiences with fellow members of the identity group. The social capital and community literature emphasises the importance of identity based support networks. They typically produce high levels of trust and opportunities for social intercourse or spontaneous sociability (Fukuyama, 1995). The present study hypothesises that identity based support networks are an important source of social support and provide substantial benefits for psychological wellbeing.

The third type of relationship, the formal supportive network, comprises people or groups who cater to specific needs during a crisis or period of severe stress. This network includes community-based organisations such as Citizens Advise Bureau's, drop in centres, food banks, and women's centres. Such formal relationships provide support such as information, finances or practical assistance. These services may become necessary during extreme hardship including periods of unemployment, poverty and social exclusion. Such support may be a substitute for traditional support from family, neighbourhood or identity based groups. This support may provide substantial benefit to some people. However, in terms of the present analysis, it is likely this type

¹ However, according to Pagel, et al. (1987), these types of relationships may also be the greatest source of stress and psychological distress.

² If the assumption that non-family co-inhabitants will tend to be those who have this sort of relationship is not true then the effect of this group on psychological wellbeing will be biased downwards.

of support would be negatively associated with psychological wellbeing not as an effect but because individuals with the most severe psychological problems may be more likely to resort to such supportive resources.

The last type of relationship, the associative social network, includes people such as work and sporting associates and neighbours. There is everyday contact but there is not necessarily any intimacy. Contact may range from common interests and goals to a shared driveway. People known to the individual through his/her workplace and neighbourhood were included in the survey in the associative group primarily to cut down the length of the survey. These types of relationships are defined as associative on the rationale that people interact with others, not on the basis of absolute freedom of association but through chance and circumstance.³ People may participate in associative relationships, not because they explicitly choose to consort with those particular people, but because they are involved in the same profession or workplace, purchase a house in a particular neighbourhood or enjoy the same leisure activities. The quality of relationship people experience under these circumstances may or may not hold a degree of intimacy and trust, depending on how well they 'hit it off'.

3.2.3. The dynamics of social support.

Some authors have focused specifically on the role of social support in 'buffering' individuals' psychological and physical wellbeing from the effects of cumulative and extraordinary stress. This is often referred to as the 'stress-buffering hypothesis'. Although this may be considered the dominant mechanism by which social support can ameliorate the effects of stress, the buffer-hypothesis is merely one strand or component of a broader body of theory. There are three ways in which social support may offset the adverse psychological and physiological effects of stress. Social support may directly address and reduce stress at the source; it may directly address and reduce psychological distress; or it may buffer or protect psychological wellbeing from the deleterious effects of stress. The model in figure 2.1 below illustrates the dynamics by

³ Associations convened in the workplace could be categorised as identity relationships because of the importance traditionally placed upon work in western society. However, in recent decades, while people have become more attached to the institution of work, they have become less attached to the workplace as a setting for social identity.

which social support ameliorates the adverse effects of stress on psychological and physical wellbeing.

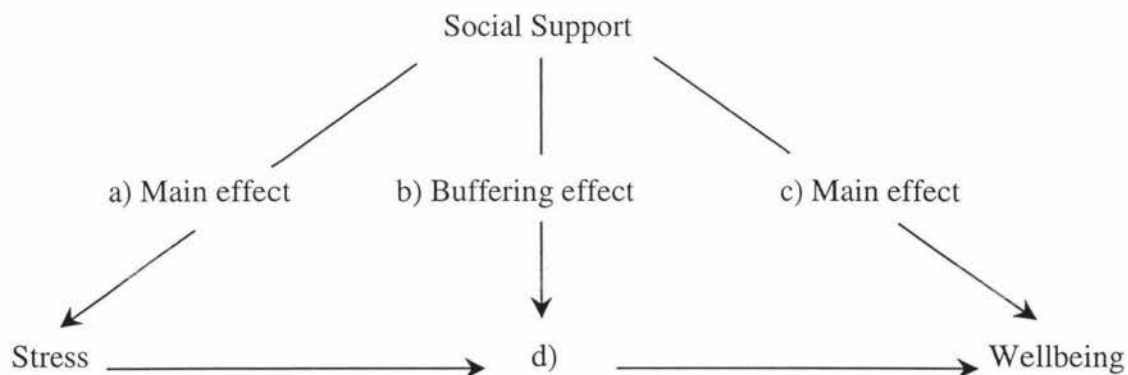


Figure 3.1. Potential effects of social support on stress and health

(House, 1981, p.31).

In the above diagram, social support acts, through the main effect a), to reduce directly the stress associated with ongoing and extraordinary life circumstances. People with larger and more effective sources of social support will generally experience less stress than those with less social support even when experiencing similar life circumstances. With less stress experienced, less pressure will be exerted on psychological and physiological wellbeing. People with better quality and quantity of social support will tend to be physically and psychologically healthier than those who have less access to effective social support. The psychological and physiological benefits associated with social support may not be observable during stable periods of existence. A pure main effect a) implies that people will have a similar level of psychological and physiological wellbeing in periods without stress irrespective of the available level of social support. In stressful circumstances, people who have good social support will suffer less stress and thus exhibit better general wellbeing than those with inadequate social support.

Social support via the main effect c), illustrated in figure 3.1 above, directly addresses general psychological and physiological wellbeing irrespective of stressful life circumstances or any associated stress. People with access to effective social

support may exhibit better general wellbeing than people who have meagre resources, whether or not they are exposed to acute stress.

The buffer effect b) in the above diagram, shows that socially supportive resources act to blockade or 'buffer' psychological wellbeing against the damaging effects of stress. A greater quantity and/or quality of social support effectively buffers a greater amount of stress. This does not directly reduce either the level of stress or the resulting level of psychological distress but interrupts the relationship between these factors. When people with greater access to effective social support experience the same amount of stress as those with lesser access to similar resources, their psychological and physiological wellbeing is not threatened to the same extent as that of those lacking in social resources. The general wellbeing of people who are socially well endowed will be better than that of those lacking social support. The buffering effect does not directly reduce the amount of stress at the source, as does the main effect a). Neither does 'buffering' support address directly the physical or psychological ailments brought on by exposure to stress, as does the main effect c). Social support essentially acts as a barrier which blocks the harmful effects of stress from damaging physiological and psychological wellbeing.

Veiel (1987; 1992) offers a fourth possible dynamic by which support exerts its ameliorative effect, contrary to the mechanism expounded by the buffer hypothesis. When people are faced with a degree of stress that passes a certain threshold, people will call on available supportive resources in order to block the stress from impacting psychological wellbeing. People will have different thresholds at which point they will identify a threat to their wellbeing. Stress may reach this threshold either cumulatively or in one substantial stroke through a major life event. Veiel (1987; 1992) argues that cross-sectional studies have interpreted social support as having an interaction or buffer effect on the relationship between stress and depression. However the data in these studies can just as easily point to a main effectual type a) relationship between stress and social support. These may just as well be two poles on a single dimension of 'social stress' rather than existing on different dimensions (Veiel, 1992).

Some authors emphasise the different types of social support and the various functions they perform in different situations and circumstances (Cohen and Wills, 1985; Vaux and Athanassopoulou, 1987; Lin and Westcott, 1991; Cutrona, 1996). These include emotional, socialising, practical, advisory and financial support (Vaux and Athanassopoulou, 1987). These different types of support fulfil different functions and

address a variety of needs. Emotional support may convey empathy, understanding and encouragement. Such support is important during crises or in ongoing stressful situations. Socialising involves personal interaction in a variety of situations. This may include joining a club or attending a meeting or a social outing. This could be an important form of support to a newcomer in a district or workplace. Practical support may involve active participation in a situation, either sharing in or relieving someone of a task. Advisory support may consist of providing information concerning opportunities, legal rights or personal relationships. Financial support may involve providing pecuniary aid as a gift or a loan.

According to Vaux Riedel and Stewart (1987), various modes of support may affect different aspects of general wellbeing by way of the mechanisms outlined above. For instance, emotional support may specifically affect certain elements of psychological wellbeing such as the incidence of depression while not significantly affecting self-esteem (Vaux et al., 1987). Financial support may effectively address only financial-related stress or its effects but not adequately address other psychological needs related to other forms of stress such as emotional stress. The different modes of support may work most effectively through a combination of different mechanisms. In order to reduce effectively financial-based stress or its effects, financial support may act primarily through a main effect a) to attack the source of the stress (refer to figure 3.1 above). Some types of support may specifically address the stressors at the source. Other types of support, such as emotional support, may most effectively address emotionally related stressors indirectly either through a buffer effect b) or a main effect c).

It has been suggested that certain types of social support do not always successfully ameliorate the psychological distress brought on by particular stressful life-events such as unemployment (Cutrona, 1996). The literature suggests that different social networks and support derived from them are comparatively better equipped to address the consequences of certain stressors. According to Cohen and Wills (1985), in order for social support to be effective in buffering the effects of stress, it must provide the appropriate social, emotive or material resources which the individual lacks in the face of a particular stressor. For example, if people, as a result of a particular stressor such as unemployment, specifically lack only financial resources, then emotional support will be unlikely to ameliorate the adversity associated with that unemployment. According to Cohen and Wills (1985), social support is expected only to be 'effective

when the resources they provide are closely linked to the specific need elicited by a stressful event.' (p.314).

3.3. THE EMPIRICAL RELATIONSHIP BETWEEN UNEMPLOYMENT, PSYCHOLOGICAL DISTRESS AND SOCIAL SUPPORT.

This section reviews the empirical literature concerning the psychological benefits associated with different types of social support in everyday life as well as in stressful circumstances, including unemployment. In section 3.3.1, the evidence is discussed concerning the effectiveness of social support promoting wellbeing in everyday life as well as in moderating the psychological adversity associated with the experience of unemployment. The evidence concerning the mechanism by which social support ameliorates the psychological adversity associated with unemployment is discussed. In section 3.3.2, the evidence of whether some types of social support derived from certain networks are more appropriate for addressing the specific needs associated with unemployment and thus are better equipped for providing psychological benefits. In section 3.3.3, the influence of demographic factors in determining the effectiveness of social support derived from certain functional networks is discussed.

3.3.1. The relationship between stress, psychological wellbeing and social support.

According to the theory, social support can be beneficial in every day life as well as during crises. Early studies of general population samples found evidence that people with a greater number of social ties or relationships generally enjoy better psychological and physiological wellbeing than those lacking in such relationships (Cobb, 1976; Berkman and Syme, 1979). Other studies have looked at whether social support significantly ameliorates the physiological and psychological adversity associated with specific life-events, such as the experience of unemployment, and the stress involved. Such studies indicate that social relationships and support substantially ameliorate and offset stress and its effects thus benefiting and buffering psychological wellbeing (Gore, 1978; Pearlin, et al, 1981; Bolton and Oatley, 1987; Banks and Ullah, 1988; Kessler, Turner and House, 1988; Siegert, et al, 1990; Schwarzer, Jerusalem and

Hahn, 1994; Walsh and Jackson, 1995; Roberts, Pearson, Madeley, Hanford and Magowan, 1997).

Some studies altogether reject the hypothesis that social support moderates stress and benefits psychological wellbeing (Dooley, Catalano and Brownell, 1986; Payne and Hartley, 1987). However, these studies evaluate social support by subjective estimates of the quantity and quality of support actually received. Studies have generally shown that there is only a small relationship between the support people actually receive and their psychological wellbeing in the short term. People derive the greatest psychological benefits from their perceptions of the availability of support (Wethington and Kessler, 1986; Sarason, et al., 1990).

Evidence suggests that perceptions of social support fluctuate over time, particularly in response to stressful life-events such as unemployment (Atkinson, Liem and Liem, 1986; Liem and Liem, 1988; Kong, Perruci and Perruci, 1993; Schwarzer, et al., 1994; Roberts et al., 1997). According to Kong, et al. (1993), duration of unemployment leads to greater economic distress that in turn causes perceived social support to decrease. Social support changes as stressors persist. Some suggest that perceptions of the availability of support are partly dependant on the level, quality and satisfaction with support actually received in the past (Siegert, et al., 1990).

The theory indicates that social support offsets the adverse psychological effects of stress by differing mechanisms. According to House (1981), social support may directly address and reduce the stress, indirectly protecting psychological wellbeing. It may directly address psychological wellbeing, offsetting the damaging effects of stress. Or it may influence the process by which stress adversely affects psychological wellbeing (Pearlin, et al., 1981). Veiel (1992) suggests social support may come into action to buffer psychological wellbeing when stress reaches a certain threshold. Some suggest that claims of buffer effects of social support on the stress-psychological wellbeing relationship, made on the basis of evidence from cross-sectional studies, are suspect (Thoits, 1982; Veiel, 1992). However, longitudinal studies have provided evidence suggesting that, over time, social support and contact buffers psychological wellbeing from the detrimental effects of unemployment related stress (Bolton and Oatley, 1987; Schwarzer, et al., 1994).

These studies both provide evidence that people who become unemployed and remain unemployed, become psychologically worse off than people who are employed or regain employment. People who are or become employed exhibit relatively similar

psychological wellbeing regardless of whether they perceive more support to be available to them or not. However, people who remain unemployed, who have perceptions of greater available support, experience greater wellbeing than the unemployed with perceptions of lesser available support. Schwarzer, et al., (1994) provides evidence suggesting that the physiological and psychological wellbeing of those unemployed, who have perceptions of greater available support, actually improves over time. Employed people exhibit better psychological wellbeing than the unemployed regardless of whether they enjoy a high or a low degree of social contact and support. This implies that social support may influence psychological wellbeing in times when their wellbeing is threatened in times of crisis and need.

Bolton and Oakley (1987) claim that the ameliorative effect that social interaction has on people's experience of unemployment is undoubtedly a buffering effect as no direct effect of social support on depression is found independently of their experience of unemployment. They phrase their theoretical justification for these results within a framework in which employment provides opportunities for people to meet basic emotional and social needs. According to Bolton and Oakley (1987, p.460),

social support is effective in buffering the negative psychological effects of unemployment because it provides protection from complete loss of those sources of social interaction that provide many people with their sense of worth.

3.3.2. *The effectiveness of different types of support derived from various networks in ameliorating the psychologically deleterious effects of stress.*

The theory suggests that social support provides specific and general functions in different situations. In some situations social support has to fulfil specific functional requirements while in general life social support may only be required to signal an acknowledgement or appreciation to subjects. Social support is a means of transferring social and instrumental resources by different types of social relationships or ties within different functional social networks. The theory suggests that specifically focused social support more effectively ameliorates the stress and psychological adversity associated with unemployment (Cohen and Wills, 1985). It is implied that certain types of functional networks, found within the overall community, may be better equipped in transferring certain types of social support and embodied resources than other networks

under certain circumstances.⁴ The social support literature has tended to focus more on the benefits derived from support from the primary social network of the spouse and immediate family. However, the community literature suggests that other functional networks found in the wider community offer substantial benefits and are important to the wellbeing of individuals and society (Caplan, 1976; Sonn and Fisher, 1998).

There have been few studies, providing mixed evidence, concerning the specific functions and benefits that certain types of support offer in offsetting the psychological adversity associated with unemployment. Some studies found that overall perceptions of the availability of support and the number of social relationships are psychologically beneficial but found no relationship between different types of social support and psychological wellbeing in response to incidences of unemployment (Bolton and Oatley, 1987; Siegert, et al., 1990). Other studies have found some types of support to be more psychologically beneficial under specific circumstances. Banks and Ullah (1988) provide evidence suggesting that having someone to talk to may lessen the level of anxiety people experience in unemployment, particularly for young women. Whelan (1993) provides evidence suggesting that instrumental and emotional support may ameliorate the psychological adversity associated with financial and life-style deprivation.

The evidence has been mixed concerning whether perceptions of the availability of support in the wider community, outside of the spouse and immediate family, are psychologically beneficial. However, the research into the dynamics and benefits associated with social relationships and support has tended to focus on the spouse and immediate family (Dew and Bromet, 1991; Cutrona, 1996). Research shows that the marriage/partner relationship generally provides more psychologically beneficial social support than other sources within the community for both men and women (Lin, Woelfel, and Light, 1985; Dew and Bromet, 1991). Dew and Bromet (1991) provide evidence suggesting that people in a marriage/de facto relationship that is perceived to be stable and fulfilling enjoy better psychological wellbeing than single people or those in poor relationships.

However, Lin, Woelfel and Dumin (1986), suggest that, although marriage is seen as the primary source of social support, being married gives no certainty of a

⁴ In the present study, such functional networks include the primary, identity, formal and associative social support networks. These functional networks are described, as they are relevant to the present study in section 3.2.2 above.

confiding relationship. Even a confiding relationship is no guarantee of social support during times of stress. Walsh and Jackson (1995) provide evidence suggesting that unemployed people, particularly women, who do not receive adequate support from their partner, seek out alternative formal and informal support from within their community.

Some evidence suggests that social relationships and support derived from the different functional networks in the wider community are important for individual wellbeing (Berkman and Syme, 1979; Chavis et al., 1986; McCarthy, Pretty and Catano, 1990). According to a large scale epidemiological study conducted by Berkman and Syme (1979) the absence of social relationships and networks such as marriage, friendships, membership and involvement in organisations such as churches and clubs can substantially increase the likelihood of early death. Social relationships and support derived from different functional networks in the wider community may be a substitute for a lack of support from the primary network of the spouse and immediate family. Few studies have sought to differentiate between the strengths, weaknesses and functions of the various types of social networks that people can access in their community. The empirical study, outlined in the following chapters, attempts to determine what networks and particular functions of those networks are important for addressing the emotional and functional needs associated with people's experiences of unemployment.

Finally, some of the literature indicates that certain types of support from normally supportive sources undermine psychological wellbeing rather than benefit it (Pagel, et al, 1987; Vaux, 1992; Nemoto, 1998). Some people may perceive certain types of supportive behaviours as judgmental or patronising when they are unemployed whereas they might perceive such support as useful and thus psychologically beneficial in different circumstances. Others suggest that certain social or cultural norms may influence people's perceptions of the usefulness of supportive behaviours (Nemoto, 1998). Certain cultural factors may contribute to an individual exhibiting strong social norms of reciprocity. Nemoto (1998) provides evidence suggesting that people who have strong norms of reciprocity in social interaction may not realise net benefits from their social resources. They may suffer detriment to their psychological wellbeing when they receive support that they cannot reciprocate. Even their perceptions of available support may accentuate psychological distress if they feel that they could not potentially offer the same degree of support.

3.3.3. *Demographic influences in the utilisation of social support as a coping mechanism.*

In the previous chapter, literature was reviewed concerning the psychological adversity associated with the experience of unemployment. The empirical evidence presented suggests that people may differ in their perception of the psychological severity of the adversity of unemployment because of certain personal characteristics. For instance, the evidence suggests that people of different gender, age, educational and skill attainment, living in different geographic regions, differ in their perceptions of the psychological adversity associated with unemployment. Researchers have offered various explanations and theory to account for these observed differences. Some suggest that certain characteristic differences influence the relationship between self-concept and employment status (Cohn, 1978). Others suggest that the differences are due to the influence of personal characteristics and circumstances on perceptions of economic factors in relation to employment status (Clark and Oswald, 1994).

However, such explanations do not account for the observed differences, for example, between the sexes, in depressive symptoms, low self-esteem and the impact of unemployment (Gore and Colten, 1991; Winefield, et al., 1991). Research suggests that men and women maintain and utilise their social resources in different ways and to different degrees.

According to Thoits (1991), women tend to employ their social resources, such as social support, to a greater extent than men do under stressful circumstances. Evidence suggests that the most psychologically beneficial social resources and support for men tend to come from the marriage/partner relationship, whereas women tend to engage support from outside the primary relationship (Lin, et al., 1985; Lin, Woelfel and Dumin, 1986; Lin and Westcott, 1991). Lin, et al. (1986) found that more males than females actually confided in their marital partner. Walsh and Jackson (1995) suggest that women would prefer to derive social support from the marriage/partner relationship, but often do not perceive that relationship to offer adequate support. Unemployed women who do not receive or perceive adequate support to be available from their partner are more likely to seek out alternative formal and informal support than men.

Other demographic and personal factors tend to have little influence on effectiveness of social support. Evidence suggests that unemployment and lack of

perceived support have an adverse psychological influence on physiological and psychological wellbeing irrespective of age (Berkman and Syme, 1979; Roberts, et al., 1997), socio-economic status, smoking and alcohol consumption, obesity, physical activity, preventative health practices (Berkman and Syme, 1979). People who utilise their social resources more effectively are better able than others to cope with stress and are less likely to suffer serious detriment to their psychological wellbeing as a result of stressful life circumstances such as unemployment.

3.4 SOCIAL CAPITAL AND LABOUR MARKET PERFORMANCE.

Economists generally acknowledge that intangible features of the social environment influence economic systems but in the past have tended not to treat such variables as factors that explicitly contribute to the efficiency of economic systems. Recently economists have begun to re-examine the influence of such factors, as they are important for economic systems. Some have looked at the relevance of concepts such as social capital expounded in the sociology and political science literature. Social capital is a wide-ranging concept encompassing any aspect of social organisation that is important in facilitating co-ordination and co-operation within a system (Coleman, 1988). Although social capital is a century-old concept, it has only in little more than the last decade been firmly established and generated substantial interest from a range of intellectual disciplines (Putnam, 2000).⁵ Social capital has been credited with aiding the accumulation of human capital (Coleman, 1988), developing a civil society (Putman, 1995), facilitating co-ordination and organisation in industry (Fukuyama, 1995), and fostering economic growth and development (Narayan and Pritchett, 1997; 1999; Hazledine, 1998; Chhibber, 1999; Dasgupta, 1999; Helliwell and Putman, 1999).

Serageldin and Grootaert (1999) suggest that social capital is transferred through informal and formal, horizontal and hierarchical social networks. It may even exist within institutions of law and government. According to Serageldin and Grootaert (1999, p.44), social capital is the 'glue that holds societies together' binding together the social, political and economic spheres of life. For a social or economic system to

⁵ James Coleman's article, 'Social capital in the creation of human capital', published in the 1988 *American Journal of Sociology* is accredited with the reintroduction and modern conceptualisation of social capital.

function well, the network must display social norms and elements of trust and association conducive to building relationships both within and outside that social network (Fukuyama, 1995). Fukuyama (1995) refers to this as the ability of the community to 'spontaneously socialise'. In this sense, social capital refers to the capability of a group of people to spontaneously come together in social interaction, trusting that certain social norms will be adhered to, facilitating efficient exchange relationships. Research has highlighted certain elements that are important for aiding the effective functioning of economic systems including social norms, the quality and quantity of associational life and the level of trust individuals or organisations of individuals confer on other individuals (Putman, 1995).

Fukuyama (1995) argues that social capital in the form of the trust, co-ordination and co-operation facilitated by certain forms of social organisation determines the functioning of the economy. Some argue that the structure of economic organisation in a society determines the level of social capital exhibited within the community and the economy which in turn influences the structure of economic organisation (Hazledine, 1998; Serageldin and Grootaert, 1999; Stiglitz, 1999). The structure of social capital may influence the evolution of economic systems as well as be influenced by the structure of those economic systems. For example, Hazledine (1998) suggests that the economic restructuring in New Zealand over the past fifteen years has eroded the stock of social capital in New Zealand thus constraining the potential of the economy to perform to an optimum degree.

Although there has been a great deal of interest in social capital over the last decade, there have been some reservations regarding the concept. Some have criticised the claim that the concept constitutes a form of 'capital' in the same way that physical capital and human capital deserve the title. Capital accumulation models tend to involve active decisions concerning the level of initial and ongoing investment in the capital stock of the productive enterprise. The decision to invest seeks to maximise economic returns in relation to the accounting and opportunity costs associated with the investment. For example, in the human capital models, knowledge and skills that add to individuals' productive potential are accumulated through investments in education (Becker, 1993). In turn, the individuals' productivity determines the wage they command in the formal labour market.

The accumulation of human and physical capital involves active investment decisions entailing real opportunity costs based on expectation of maximising future

returns. The accumulation of social capital may produce tangible returns in the future but does not tend to involve active decisions entailing any real costs or expectations of returns (Arrow, 1999). Social capital is not 'capital' in the human or physical capital sense but rather a positive economic externality associated with the functioning of social systems.⁶ However, enthusiasts for the concept regard it as a 'capital' concept on the basis that it does provide real economic benefits for individuals and communities. According to Narayan and Pritchett (1997),

Social capital is indeed both capital, in that it raises incomes, and social, in that household outcomes depend on [community] not just household social capital.

Whether the social capital concept is deserving of the 'capital title' status or a 'lesser' status of social externality, the growing evidence of the substantial economic contribution of 'social capital' makes it clear that the concept is worthy of further attention. There is evidence suggesting that some aspects of social capital make a greater contribution to growth and development than comparable investments in human capital.⁷ According to Dasgupta (1999), social capital could be the elusive factor responsible for economic growth in the endogenous growth models. In the present study it is argued that elements of social capital are partly responsible for the efficient functioning of the labour market mechanism. The quantity and quality of certain aspects of social capital may influence the extent to which unemployment persists in response to endogenous and exogenous shocks to the aggregate economic system.

It is argued here that social support is an expression of certain aspects of social capital. Coleman (1988) suggests that social capital lies in the relationships between people and is expressed and becomes apparent in the interactions between people as well as organisations of people. According to Dasgupta (1999, p.386), 'social networks are the embodiment of social capital.' Social support may be more readily given, received and hence perceived to be readily available within networks and/or communities where certain behavioural norms of sociability, trust and reciprocity are common. According to Coleman (1988) the degree of social capital embedded in the

⁶ This critique of the social capital concept can be equally applied to the psychological capital concept advanced by Goldsmith, Veum and Darity (1997a).

community is indicated by the confidence people have that their social networks and communities will fulfil their expectations and obligations. Accordingly, individuals' perceptions of the availability of social support reflect their subjective estimates of the quality and quantity of aspects of social capital based on their own experience and beliefs.

Social support is the means by which the resources embedded in the social network are utilised and transferred to meet the ongoing and specific needs of the network members. It is argued here that the social support embodied in social networks is an important element of social capital responsible for facilitating the efficient functioning of the labour market.⁸ The literature suggests that effective social support can ameliorate the adverse psychological consequences associated with stressful life-events including the experience of unemployment. In this way, this element of social capital can influence outcomes in the labour market within the dynamic of the Darity and Goldsmith model outlined in the previous chapter.

In times of economic downturn, precipitated and perpetuated by contractions in the demand-side of the economy, the demand for labour may decrease, reducing the level of employment in the labour market. According to Pissarides' (1992) thin market externality and the Darity and Goldsmith model, if unemployment is perpetuated for a long period of time a further contraction in both the labour demand and supply may take place, exacerbating unemployment. However, aspects of social capital such as the level of social contact and support may offset some of the adverse psychological flow-on effects predicted by the Darity and Goldsmith model. Certain elements of social capital may even facilitate the efficient operation of the recovery mechanism of the labour market.

Some evidence suggests that during unemployment certain aspects of psychological wellbeing deteriorate with duration (Banks and Ullah, 1988). Even when people are re-employed after suffering periods of unemployment, there can be residual psychological scarring remaining from their experience of unemployment (Liem and

⁷ For example, Narayan and Pritchett (1997, p.23) provide evidence to suggest that increasing elements of social capital such as villagers' 'trust in strangers' and 'associational life' by a half in a Tanzanian rural village may increase household expenditures (a proxy for incomes) by between 20 to 50 percent. Whereas an equivalent increase in the average rate of education accumulated by the villagers would provide only between 3 to 5 percent (Narayan and Pritchett, 1997, p.24).

Liem, 1988). There is some evidence that deterioration in certain aspects of psychological wellbeing can undermine the ability to maintain and utilise human capital and the embodied productivity potential (Barrick and Mount, 1991; Goldsmith, et al., 1997a).

The literature reviewed in this chapter suggests that effective social support ameliorates the adverse effects of unemployment on psychological wellbeing. People who have become unemployed but have access to good social support and effective networks are less likely to suffer the same severity of psychological distress as those who do not have access to effective sources of social support. Some suggest that appropriate social support in the work environment can facilitate a faster psychological recovery from unemployment, reduce absenteeism and turnover (House, 1981; Argyle, 1989).

The availability of social support from different networks within the community may promote psychological wellbeing in the community thus protecting the potential productivity of the unemployed and enhancing the productivity of those recently re-employed. This may influence the degree to which the duration of unemployment affects individuals' human capital, productivity and attachment to the labour market and hence their probability of re-employment. People who have access to a greater level of embeddedness and social support within their communities may display a greater degree of psychological wellbeing and thus potential productivity and employment probability. This may cause lower incidences of long-term unemployment, all other factors held constant. When people become unemployed who have greater access to social resources and hence suffer less psychological distress, they may be re-employed sooner than those lacking in such resources and psychological wellbeing. In communities and even countries that accumulate higher levels of social capital and more supportive networks, the aggregate economy and labour market may be better able to accommodate shocks with greater efficiency and less impact. Unemployment may persist to a greater degree in communities and countries where elements of social capital are less prevalent.

⁸ The present study does not attempt to explicitly address questions regarding the social capital concept. It merely endeavours to establish the links between the social capital literature and the social support and network concepts (which are the focus of the present study) and highlight some wider implications of studying social support.

3.5 SUMMARY

The literature reviewed in the previous chapter suggests that unemployment adversely affects psychological wellbeing. This in turn may reduce people's employability and attachment to the labour market. Certain personal and demographic factors have been shown to moderate the adversity associated with unemployment. However, the literature reviewed in this chapter suggests that the level of social contact and the degree of social support that people perceive as available to them have a greater ameliorating effect on the psychological distress associated with unemployment. Social support is a means of transferring social and instrumental resources by different types of social relationships and networks within the community. People who are more embedded in their networks and community are more likely to enjoy access to social resources and support and experience better psychological wellbeing.

Social support may offset the adverse psychological effects of stress by differing mechanisms. Social support may directly address and reduce the stress, indirectly protecting psychological wellbeing. In some instances, social support may directly address psychological wellbeing, offsetting the damaging effects of stress but without addressing the source of the stress. Sometimes it may produce a buffering effect, acting as a barrier blocking the harmful effects of stress from impacting physical and psychological wellbeing. Some evidence suggests that social support does not always successfully ameliorate psychological distress brought on by stressful life events, including the experience of unemployment. According to some of the literature, the nature of social support and the supportive relationships or networks in which support is embodied can themselves change due to the force exerted by stressors.

Some evidence suggests that social networks and the community must fulfil certain requirements in order to provide psychologically beneficial social support. Different types of relationships from within various networks may convey specific or general functions. In some situations social support may fulfil specific functional requirements while in general life social support may be required only to signal an acknowledgement or appreciation to subjects. Some types of social networks may possess different social and instrumental resources and be better equipped than others to transfer various types of social support and embodied resources.

Much of the literature concerning the buffering and main ameliorative effects of social support look at immediate family and close friends yet ignore the interaction of

the individual with the wider community and its various institutions. Support networks outside of the primary relationships of the spouse/partner and immediate family may prove to be vital in some specific respects for the healthy and efficient functioning of the individual and society. Evidence suggests that some, particularly women, may find the support derived from the primary network inadequate to meet their needs. Either the primary social network is not operating properly or the functional structure of such a network was never equipped to deal with particular stressors and situations.

Some networks, communities and regions may possess particular attributes and features that 'facilitate co-ordination and co-operation' within society and the economy making those social structures more efficient than others (Putman, 1995). These attributes of social and economic organisation, which may include certain norms of behaviour, trust and organisation, are referred to as social capital. This may exist within informal and formal, horizontal and hierarchical relationships. It is suggested that social capital facilitates the degree to which social support is transferred through social networks within the community.

In the Darity and Goldsmith model outlined in the previous chapter, it is argued that unemployment causes psychological distress. This in turn adversely affects individuals' ability to maintain and utilise human capital thus reducing their potential for productivity. If this is widespread, the aggregate demand for labour will decrease. The psychological distress associated with unemployment may adversely affect individuals' attachment to the labour market thus reducing the effective supply of labour. This may lead to a sustained increase in the long-run equilibrium rate of unemployment. Social embeddedness and support that effectively ameliorates the psychological adversity associated with unemployment, may offset the reduction in labour demand and supply, thus reducing the persistence of unemployment in the economy. Regions that possess aspects of social capital that facilitate the efficient transfer of social resources and support may experience less persistent unemployment.

Some suggest that some forms of economic organisation can undermine social cohesiveness and social capital (Sen, 1997; Hazledine, 1998; Stiglitz, 1999). During the radical economic restructuring of the past decades in New Zealand, some ethnic communities are likely to have suffered a reduction in their level of social capital. This may partly account for the rise in unemployment and reduction in labour market participation rates in the Maori and Pacific Island communities during the period of restructuring.

The empirical study outlined in the following chapters addresses the questions of whether, and from what sources within the community, different types of social support moderate psychological adversity associated with unemployment. It is anticipated that a greater quantity and/or quality of social support may effectively buffer the adverse effects of stress associated with unemployment. Some types of support derived from various networks may provide greater psychological benefits than other types. People with access to more effective social support may not experience the same psychological distress as those lacking in social resources.

4

Empirical Methodology

4.1 INTRODUCTION

The literature reviewed in the previous chapters suggests that long and recurrent periods of unemployment or even the incidence of involuntary unemployment adversely affect different aspects of psychological wellbeing. Some evidence suggests that this adversity may increase with the duration of unemployment. This adversity may be accentuated in people distinguished by certain demographic characteristics. Studies indicate that well educated, middle-aged males, living in regions with lower than average rates of unemployment, may suffer greater psychological adversity than others when they become unemployed. However, some studies suggest that the degree of psychological distress suffered during unemployment is mitigated by access to a substantial social network and embodied support.

The social support and network literature suggests that social contact and support substantially moderate the psychological adversity associated with stressful life events such as the experience of unemployment. The literature suggests that people with more social contacts from the various social networks are less likely to suffer distress in adverse circumstances. Some types of support derived from different sources within the family and the community are likely to be more effective than others in mitigating the effects of stressful situations. The social support that people perceive to be available must be appropriate to their current situation.

The present study examines whether periods of unemployment adversely affect general psychological wellbeing and what demographic and socially supportive factors alleviate general psychological distress. Different types and sources of social support

are examined to determine how social networks and the resources they embody influence psychological wellbeing. A self-administered questionnaire was distributed to people who became registered with Work and Income New Zealand (WINZ) as being unemployed approximately a year before the survey was sent out. The questionnaire was constructed to quantify the degree of psychological importance people attribute to different types of social support derived from various social networks. The questionnaire included two psychometric scales concerning social support and psychological wellbeing; an open-ended question concerning unemployment and the quality and type of support received; and questions relating to demographic factors.¹

Section 4.2 outlines the determination and derivation of the sample, the administration of the questionnaire and some of the limitations of the study. This section also gives a short description of the questionnaire. The development and the application of the social support scale is described in section 4.3. The survey instrument used to indicate general psychological wellbeing, the GHQ-12, is described in section 4.4. In this section, the methods of scoring the GHQ-12 along with the psychometric properties of the instrument are discussed. Section 4.5 outlines the hypotheses and expected results of the empirical study. In section 4.6, a summary of the chapter is given.

4.2. THE SURVEY

The current study uses a survey methodology to examine the psychological perceptions of people who were experiencing or had experienced recent periods of unemployment. The survey method was judged to be the most appropriate because the necessary information was not readily available for a New Zealand population. Due to time and pecuniary constraints the current study is only exploratory. A questionnaire, to be self-administered, was distributed by post to a sample of people who became unemployed approximately a year before the survey was sent out.

¹ A full copy of the questionnaire can be referred to in appendix 1.

4.2.1. The sampling frame.

The sample included a cross-section of 750 people who became registered with Work and Income New Zealand (WINZ) as being unemployed approximately one year before the survey was conducted. Work and Income New Zealand (WINZ) randomly selected people from the Auckland central region population who had become unemployed over a two-month period approximately a year before the survey. Auckland City was chosen because it is the largest urban economy and labour market in New Zealand. According to Bururu, Irwin and Melville (1998), Auckland represents around 32 percent of New Zealand's economy (p.16). A relatively large labour market was used in the study, partly so that a large enough sample of people who became unemployed within a short space of time could be selected from a particular region. The sample would be more geographically concentrated ensuring that respondents would be exposed to similar labour market conditions. Although there are certain advantages associated with defining the population and deriving the sample in this way, this methodology poses considerable limitations on the applicability of the results of the study to other populations. This is discussed in section 4.2.4 below.

4.2.2. Comparison groups.

It was expected that some respondents would be unemployed for less than a year. They would have re-entered either part or full-time paid employment before they answered the survey questionnaire. Other respondents, at the time they replied to the survey, would have been unemployed for the entire period up until the survey was conducted. These people, according to the OECD and HLFS definitions of unemployment, were classified as long-term unemployed having suffered continuous unemployment in excess of one year in duration. A third group of respondents would be unemployed for a period but would have regained employment only to become unemployed again during the year. This group is referred to as experiencing recurrent spells of unemployment or the recurrent unemployed. In the following empirical analysis the respondents are categorised according to the above definitions of their employment status. The respondents are either re-employed; recurrent unemployed; or long-term unemployed.

4.2.3. Administration of the questionnaire.

The staff at WINZ randomly selected the sample and distributed questionnaires by mail to be self-administered. Both Massey University and WINZ included covering letters outlining their respective involvement with the study. The surveys were enveloped by the author and sent to Work and Income New Zealand (WINZ) to be addressed and posted to the prospective participants. At no stage was the author aware of the identity or contact details of the people who were invited to participate in the research. Included with the questionnaire was a post-paid reply envelope addressed directly to the author at Massey University. The staff at WINZ did not have access to the completed questionnaires. There was no way of linking the identity of respondents to their responses. The questionnaires were destroyed three months after the author had received and recorded the data from them.

4.2.4. Limitations of the survey.

The study examines a cross-section of people living in the central Auckland area who had become unemployed a year previously. This research design entails three major methodological limitations: its cross-sectional nature; the distribution of the survey and the uniqueness of the sample. These factors introduce considerable bias limiting the reliability of the study. These limitations were unavoidable due to resource constraints, limited time and the sensitive nature of the subject matter.

Cross-sectional studies are only able to determine whether there are relationships between variables. They are unable to establish the causation or direction of relationship. Observations would be needed at different times and in responses to various events. For instance, Veiel (1987; 1992) suggests that the relationship between stress, social support and psychological wellbeing may not be linear in the case of the individual even if it is reflected in regression estimates as assumed in terms of the buffering hypothesis. The relationship may appear to be linear in cross-sectional studies yet in reality be non-linear. According to Veiel (1992), the buffer hypothesis implies that social support and stress exist in different but related dimensions. Veiel (1987) suggests that, although the buffer hypothesis pre-supposes this relationship, evidence of

interaction of social support between stress and aspects of psychological wellbeing such as depression does not actually prove this point. According to Veiel (1987, p.738),

statistical interaction effects of social support and stress variables on depressive symptomatology in cross-sectional data should only be regarded as non-specific indicators of non-linearities in the data and not as proof of buffer processes.

Inferences as to the dynamic processes by which social support acts to ameliorate the effect of stress on certain aspects of psychological wellbeing should not be made by using cross-sectional data (Veiel, 1987; 1992; Manski, 1993). Manski (1993) terms this the 'identification problem'. Specifically, inference on the nature of social effects is only possible if there is sufficient information concerning the composition of the reference groups within a population (ibid.). Inference will be impossible where variables are either functionally dependent or statistically independent from the social effects in question (ibid.). In cases which do not comply with these requisites, a strong presupposition is needed that the average or overall process displayed, as indicated by the cross-section, is indicative of the actual individual process (Veiel, 1987). A longitudinal study with a larger sample size and distribution would have been ideal for the above purposes, but due to the restrictions outlined above, was not feasible.

Because of privacy and ethical concerns relating to the nature of the study, it was necessary to administer the questionnaire by post. This has both advantages and disadvantages over methods such as telephone and personal interviews. Advantages include the removal of interviewer bias as well as considerable reductions in expenditure and time. The amount of sampling bias may be reduced because the posted questionnaire will reach potential respondents in places which would be expensive and time-consuming to visit (Schweigert, 1994). However, mail surveys generally attract lower response rates than other methods depending on the nature of the inquiry and population. Response rates between 10 and 50 percent are common in mail surveys (Neuman, 1997). Low response rates can introduce considerable bias into the sample. The people who actually respond to the survey may not be representative of the population under investigation.

Other factors that contribute to bias in the present sample include using a sample derived from one specific region. Although the sample is randomly selected from the population of unemployed in central Auckland, the findings of the present study cannot

be extrapolated to other populations. The Auckland labour market differs considerably from other regions in New Zealand. The working population of Auckland tends to be better educated and skilled than other regional populations with the exception of Wellington. Auckland has a higher proportion of skilled professionals than the national average. About seventeen percent of the total Auckland labour force have 'an advanced educational qualification' as compared with the national average of 15.2 percent (Bururu, et al., 1998, p.16). In addition, the Auckland population and labour market has greater ethnic and cultural diversity than other regions in New Zealand. There is a higher proportion of Asian, South African and Polynesian people living in Auckland than in any other region (ibid.).

According to the NZES (1996), a major problem preventing the long-term unemployed in New Zealand finding employment is difficulty with the English language. This posed a problem for the research in terms of the response rate and the population representation of the sample. The questionnaire was constructed with particular care to make the survey as short and unambiguous as possible with clear and detailed instructions. This was to ensure maximum participation by those surveyed in the population. Other than these measures, little more could be done and it had to be accepted that this was an unavoidable limitation of the study.

4.2.5. The questionnaire.

The questionnaire consists of four sections. The questionnaire needed to be as short as possible but still glean the necessary information. Part one or the first scale in the questionnaire concerns the individuals' subjective appraisal of social support from different sources in their community. Although research into the effects associated with social relationships and support has burgeoned in recent years along, with the means of measuring different aspects of social relationships, there were no existing survey instruments suitable for the present study.² One had to be constructed specifically for this research. The construction of this instrument is discussed in the following section 4.3. The second part of the questionnaire concerns the individual's general level of

² Vaux (1992) gives a comprehensive overview of the different measures of the various aspects of social relationships that were available at the time of publication.

psychological wellbeing. This is indicated by the GHQ-12³, a psychological survey instrument that has been extensively used in psychological studies in labour market settings. Section 4.4 outlines the origins and methodological appeal of the survey instrument.

Part three of the questionnaire is an open-ended question concerning the social support people have received from different sources in the community which they considered helpful to their unemployment predicament in the past year. This question was included to gauge the difference between an individual's perception of potential support and their appraisal of support actually received from different community sources while they were unemployed. The final section of the questionnaire concerns employment status and demographic factors such as age, ethnicity, educational attainment, gender and marital/partner status. A full copy of the questionnaire is included for reference in Appendix 1.

4.3. MEASURING SOCIAL SUPPORT.

Part one of the questionnaire concerns the individual's subjective perceptions of the quality and quantity of social support, which is currently potentially available to the individual from different sources within his/her overall social network or community. The survey instrument was developed specifically for the study due to a lack of an appropriate existing one. Most studies have developed survey instruments that address only the type and quality of social support derived from a close confidant such as a spouse, members of the immediate family or close friends (Vaux, et al., 1987; Cutrona, 1996). Few researchers have focused on the issue of 'who provides what types of social support'. Accordingly, only a few survey instruments have been developed for the purpose of investigating the types of networks from which individuals derive different types of support (Vaux and Athanassopoulou, 1987). These were considered too long and inappropriate for use in a postal questionnaire.

³ The General Health Questionnaire (GHQ) comes in a number of different sizes of which the GHQ-12 is the 12 item version.

4.3.1. The social support scale.

In the present research, social support is defined as the quantity and quality of emotional, socialising, practical, advice and financial support that individuals perceive to be available from their overall social network or community. The survey instrument used in the current study is a shortened version of the 45-item Social Support Behaviours scale (SS-B scale) developed by Vaux, Riedel and Stewart (1987). It includes eleven questions and five sub-scales concerning different types of support that people perceive to be available from their social network. The scale consists of questions regarding the perceived availability of different types of social support to the respondents. For example, regarding whether the respondents perceive practical support to be available from within their community, they are asked whether people they know 'would loan them tools, appliances or a car if they needed it'. The questions were chosen from the SS-B scale based on factor loading scores in Vaux et al. (1987).

The original SS-B scale posits each question regarding the respondents' relationship with two groups of people; the primary social support network consisting of the individual's immediate family and the auxiliary social support network, consisting of the individual's close friends. According to the literature reviewed in the previous chapter, the primary support network has the most significant effect in ameliorating the adverse consequences associated with stress. However there is evidence to suggest that other sources of social support significantly ameliorate the effects of certain types of stress and are therefore important (Berkman and Syne, 1979). This study is concerned with the influence of social interaction within the primary social network as well as within the wider community, including close friends and less intimate associations. The survey instrument presents each of the eleven questions in the context of the four different potential sources of social support outlined in the previous chapter in section 3.2.2. These include the primary social network of the immediate family and cohabitants; the identity based social network with belief and ethnic-based associations; the formal support network catering to specific needs; and the associative social network including people known through sporting interests, the workplace and in the neighbourhood. In the survey, the eleven questions are asked regarding each of the four categories of relationship described above. The responses are given scores on a five point scale ranging from 'No one in this group would do this', with a value of 1 to

'Almost anyone in this group would certainly do this' with a value of 5: This scale was taken directly from the SS-B scale (Vaux, et al., 1987).

It was anticipated that some respondents may have had no contact with some potentially supportive resources and accordingly neglect to answer questions concerning such resources. Extending the scale from five to six points with the inclusion of a 'non applicable' option was considered. This was rejected believing that respondents' would interpret position 1 on the scale as being roughly equivalent to having no contact with a supportive resource in that category.

However, there was still the possibility that respondents would interpret the scale in a sense contrary to what was intended. In the original SS-B scale, questions are presented only in terms of the primary supportive resource and the auxiliary supportive resource, both of which people are expected to use. The survey instrument used in this study presents questions in relation to supportive resources which individuals may potentially but not necessarily use. Accordingly, non-response is interpreted as a 'non-applicable' response and accordingly scored as 0. However, this interpretation involves assumptions as to the respondents' understanding of the question and poses a potential limitation concerning the interpretation of the results.

Individual columns are used for the different social networks so that a comparison may be made of the psychological benefits derived from the various resources perceived to be available. The total numerical score for each column indicates the degree of social support perceived to be available to the individual from each type of social network when needed. The combined total of all the networks represents the total extent of support perceived as available to the individual in the community. This value also indicates the quantity of social contact and relationships people enjoy.

4.4. MEASURING PSYCHOLOGICAL WELLBEING

The concept of general psychological wellbeing includes such aspects as self-esteem, depression, life-satisfaction, anxiety and more besides. Certain arbitrary value judgements must be made in defining one person's psychological experience as normal and another person's experience as abnormal. Jahoda (1988) suggests that these value judgements are unavoidable in conceptualising psychological wellbeing. Psychological

wellbeing is defined in psychiatry and psychology in either of two ways. In a clinical sense, an individual is determined to be psychologically healthy where s/he exhibits an absence of mental illness (Banks, et al., 1980). Jahoda (1988) warns against this type of conceptualisation of psychological wellbeing/health and illness. The psychological health and illness concepts need to be kept separate. Jahoda (1988, p.20) suggests that

psychological health and illness are not "either-or" conditions such that one is defined by the absence of the other, but that there are degrees of mental health as there are of illness.

Warr (1978) describes psychological wellbeing in a non-clinical sense as a 'wide-ranging concept which embraces affective aspects of everyday experience' (p.111). Psychological wellbeing is a non-specific concept in psychology encompassing subjective appraisals concerning diverse aspects of an individual's life and being. According to Banks, et al. (1980), people are deemed psychologically healthy if they exhibit conduct, demeanour and sentiments that are judged to reflect a general satisfaction with their life.

Accordingly, the terminology of psychological wellbeing and distress is used in the present study to denote the relative level of psychological health an individual may enjoy. The term psychological distress is used to denote a low level of psychological wellbeing or health. The presence of mental illness may be inferred by apparent high levels of psychological distress, but mental illness is not taken as being synonymous with high levels of psychological distress (Jahoda, 1988).

4.4.1. *The General Health Questionnaire (GHQ).*

The twelve-item version of the General Health Questionnaire (GHQ-12) is used in the study as an indication or proxy measure of psychological wellbeing or distress. The GHQ-12 scale has been extensively used in cross-sectional and longitudinal research concerning the psychological wellbeing of unemployed people as well as in a wide range of occupational studies. The scale is regarded as providing a good generic indication of general psychological wellbeing due to its multidimensionality. Furthermore, the GHQ is a valuable tool for the estimation and comparison of mental wellbeing and illness of individuals within and between populations (Banks, et al., 1980;

Hepworth, 1980; Harding and Sewel, 1992; Clark and Oswald, 1994): The scale has been extensively tested both in its developmental stages and in later independent studies and has been shown to have a relatively high degree of internal consistency, test-retest reliability and external validity. The scale is relatively more succinct than other survey instruments concerned with gauging general psychological wellbeing. This is imperative for an exploratory postal survey where the questionnaire must be kept as brief as possible so that the response rate will be satisfactory.

The GHQ-12 scale is a shortened version of the GHQ-60 developed by Goldberg (1972)⁴. The GHQ scales were originally developed in psychiatric hospitals to measure psychiatric health and illness in patients and outpatients (Jahoda, 1988). The full and shorter versions of the GHQ⁵ comprise four sub-scales of psychological constructs (one major and three minor factors) including perceptions of self worth, depression, strain and loss of concentration and sleep. The GHQ-12 has elements of the four sub-scales but no sub-scales of its own. The GHQ-12 provides one value indicating individuals' general psychological wellbeing with respect to the four factors contained in the full and shorter scales. The main reason for using the GHQ-12 was to determine a simple relative psychological distress 'severity score'. According to Banks et al. (1980), the GHQ-12 is good in that it is derived directly from the GHQ-28 and represents the general psychological health factor well.

The GHQ-12 asks respondents to report on how they have felt over the past period of two weeks. According to Banks et al. (1980), the full version of the GHQ, the GHQ-60, was shown in the developmental studies conducted by Goldberg (1972) to have good test-retest reliability over a period of 6 months. That is, where no exogenous stress is exerted on individuals, their psychological wellbeing, indicated by the score on the GHQ-12, will be approximately the same for those individuals over reasonably long periods.

The respondents' GHQ-12 score is taken as an indication of the level of psychological wellbeing/distress the individual has and may be scored in either of two ways. The first, the 'GHQ method', scores positive answers as 0 and negative answers as 1. Using this scoring method, the range of scores is 0-12. Higher scores represent

⁴ Goldberg, D. (1972). *The Detection of Psychiatric Illness by Questionnaire*. London: Oxford University Press. As cited in Banks, Clegg, Jackson, Kemp, Stafford and Wall (1980).

⁵ The GHQ comes in a number of different sizes including the GHQ-30, GHQ-28 and the GHQ-20 which have respectively 30, 28 and 20 items derived from the GHQ-60.

lower psychological wellbeing or greater psychological distress. The GHQ-method of scoring was used in the early developmental stages of the GHQ scales. This scoring method is particularly useful, in a clinical sense, in identifying people who have, or are at risk of developing, minor psychiatric illnesses and those who are not at risk. Goldberg (1972) suggests that a score indicating two or more symptoms may indicate a much higher likelihood of the individual developing psychiatric illness. Studies have used a cut-off point of two, using the GHQ-method of scoring, in order to distinguish between psychologically 'healthy' and 'unhealthy' individuals (Banks, et al., 1980; Hepworth, 1980; Clark and Oswald, 1994).⁶

In the present study, the GHQ-method of scoring and the cut-off point are used to distinguish between groups of individuals with relatively low levels of psychological wellbeing and individuals with higher psychological wellbeing. In the rest of the analysis, the scale is scored using the 'Likert method'.⁷ The Likert-method determines arbitrary weights that are given to the responses on the four-point scale of 0, 1, 2 or 3. In the present study the Likert scoring method was used due to the low response rate.⁸

Studies have found that in terms of the GHQ-12 scale, the Likert-method is slightly better than the GHQ-method in terms of sensitivity and specificity in discerning between the psychologically well and unwell. Banks, et al. (1980) conducted a study using three population samples: 659 employees in an engineering firm; 647 recent school leavers and 92 unemployed men with the GHQ-12 as the dependent measure. They found that the Likert scoring method produced more normal distributions than the standard GHQ-scoring method for the three samples (*ibid.*). They considered the Likert method of scoring to be preferable to the GHQ method, especially for correlational analyses. Both scoring methods in the Banks et al. (1980) study led to positively skewed distributions 'but the degree of the skew is consistently less for the Likert scoring method' (p.192). Also the Likert-method gives a more normal and less peaked distribution range with kurtosis values closer to zero than the GHQ scoring method (*ibid.*).

⁶ Some authors suggest that data derived from non-clinical settings should be interpreted in terms of degrees of psychological health or 'positive mental health' (Jahoda, 1988). Accordingly, results derived from social environments should not be interpreted in the 'language of psychiatry' or an individualistic sense, regarding lower levels of psychological wellbeing as synonymous with mental illness.

⁷ Refer to appendix 2 for a statistical comparison of the sample distribution using the different respective scoring methods.

4.5. HYPOTHESES

The present study examines whether periods of unemployment adversely affect psychological wellbeing and what personal and social environmental factors may ameliorate the psychological adversity associated with periods of unemployment. It is hypothesised that:

- 1) The experience of unemployment is detrimental to general psychological wellbeing. People who have remained unemployed over a year will display higher psychological distress than those who have had, or have employment.⁹ Those who have suffered recurrent periods of unemployment are likely to display greater psychological distress than those who have employment.
- 2) A greater overall sense of social support is generally psychologically beneficial to people who have experienced and are experiencing periods of unemployment. People with a greater overall sense of social support are likely to enjoy better psychological wellbeing than people with a lesser perception of such support.
- 3) Certain networks may be more appropriate than others in addressing and ameliorating the psychological distress associated with periods of unemployment. Specifically, the primary and identity networks are likely to be the most beneficial sources of support. Associational networks are expected to provide some helpful support, but are not as likely to provide the deep emotional and financial support of the above networks. The formal network may provide psychologically beneficial support and may therefore be important for some people. However, people are likely to use formal network resources as a last resort. Accordingly, a positive as opposed to a negative statistical relationship may be observed between people's

⁸ Refer to appendix 2.

⁹ People were questioned whether they had been in paid employment in the past year and whether they were currently employed. People, who answer in the affirmative to both questions, are categorised as employed. People who answer the first question in the affirmative, but who are not currently employed are categorised as recurrent unemployed. People who answer both questions negatively are categorised as long-term unemployed in accordance with the HLFS and OECD standards.

general psychological distress and their perception of the availability of support from the formal network.¹⁰

- 4) Some networks may provide greater psychological benefits during times of stress than others because they are better able to transfer social and economic resources that directly address the source of the stress. It is anticipated that financial, practical and socialising support will more effectively address the stress and psychological distress associated with unemployment than other types of support.
- 5) Certain demographic factors, such as educational attainment, gender and age will accentuate or moderate the psychological distress associated with the experience of unemployment. However, the influence of these factors is unlikely to be as substantial as that of social support.

4.6. SUMMARY

The present study concerns the dynamic of the interaction between the labour market and the community and how this may affect and be affected by individuals' psychological wellbeing. The study examines whether the experience of unemployment adversely affects psychological wellbeing and whether positive social structures in the community may ameliorate this adversity. A questionnaire, to be self-administered, was posted to a sample of people chosen by WINZ, living in the central Auckland region, who became unemployed a year before the survey. It was expected that some respondents would become re-employed over that period; others would regain employment but again become unemployed; others would remain unemployed. The questionnaire includes two scales: 1) the 12-item version of the General Health Questionnaire (GHQ-12) used to measure general psychological wellbeing and 2) a scale specifically developed for the present study to estimate perceptions of the availability of different types of social support from various social networks.

This is an exploratory study with a small sample. It is clear that it has

¹⁰ This is not because the formal network negatively affects individuals' psychological wellbeing, but because individuals with the most severe psychological distress may be more likely to use formal network resources and to perceive them as helpful.

methodological and theoretical limitations but it remains a valuable study of the social context of unemployment and the labour market. It is likely that this study will highlight areas for future research into the interaction of the community and the labour market and the reciprocal relationships that exist between social and economic phenomena. The following chapter describes the data, documents the correlations and tests the above hypotheses.

5

Results

5.1 INTRODUCTION

The literature reviewed in the previous chapters suggests that the experience of unemployment is detrimental to psychological wellbeing. Some suggest that the damage may be exacerbated with unemployment duration and that psychological scarring may remain even after re-employment. Certain demographic factors have been shown to influence the degree to which unemployment affects psychological wellbeing. These include age, gender, educational and skill attainment and labour market history. Social relationships and different types of support derived from various categories of social networks have been shown to moderate the psychological adversity associated with stressful life-events such as unemployment. The literature indicates that certain types and sources of social support are perceived to be superior to others in moderating the psychological adversity associated with unemployment.

The research first attempts to determine whether there are significant differences between the psychological wellbeing of people based on their employment status. The mean GHQ-12 values (representative of general psychological wellbeing) of groups of people based on their employment status are compared using test statistics. It is expected that the unemployed and the recurrently unemployed will be more psychologically distressed than those in employment. Those experiencing long-term unemployment are expected to exhibit greater psychological distress than those who are experiencing a recurrent period of unemployment.

Second, the research attempts to determine whether the overall sense of support as well as the different types of social support derived from various networks benefit

psychological wellbeing. It is hypothesised that people with greater perceptions of available social support will be psychologically better off than those with lesser perceptions of such support. Psychologically healthy and distressed groups of people are compared to determine what networks and what types of support they perceive to be available.

Some networks may be more effective in providing support that appropriately addresses the needs specifically associated with unemployment and thus protecting psychological wellbeing. An attempt is made to distinguish what types of support and what networks contribute to psychological wellbeing generally and under specific circumstances. Regression equations are estimated to determine whether there are significant interaction effects between employment status and the various types of support people perceive to be available from the different networks.

Finally, it is hypothesised that social support will be more important than demographic factors in contributing to psychological wellbeing. The various types of support and networks are compared with various demographic factors, including educational attainment, age, ethnicity, gender and employment status to determine their relative contribution to psychological wellbeing. Canonical discriminant functions are estimated to determine the relative contribution to psychological wellbeing made by the various factors.

The sample is described in section 5.2. The respondents are distinguished by different demographic factors including their gender, marital status, ethnicity, age and educational attainment. Section 5.3 tests the main hypotheses of the study. Test-statistics are used to determine whether the long-term and recurrent unemployed are psychologically worse off than those in employment. Regression analysis and t-statistics are used to determine whether social support contributes to psychological wellbeing. The analysis identifies the types of support and networks that are particularly important in addressing the needs associated with unemployment. Section 5.4 estimates canonical discriminant functions to determine what factors contribute most to psychological wellbeing. In section 5.5, the results are summarised and discussed in the light of existing literature.

5.2 DESCRIPTION OF THE SAMPLE

People who became unemployed approximately one year ago and registered with Work and Income NZ (WINZ) were surveyed by post. The number of respondents was 64 of which 63 were used in the analysis.¹ From an initial non-random sample of 750 people living in central Auckland, the response rate was 8.6%.² This response rate was substantially lower than the 10-20% response rate anticipated by the researchers.³

Approximately a fifth of the respondents (14) were employed in paid work at the time of response to the questionnaire. No distinction was made as to whether those people who stated they were employed were involved in full or part time employment. No distinction was made concerning when an individual became re-employed. Individuals may have become re-employed at any time within the period in question. Almost a third of the respondents (17) had been employed in paid work during the year but had become unemployed by the time they responded to the survey. Throughout the analysis these individuals are referred to as recurrent unemployed. Over half (32) of the people who responded to the questionnaire were unemployed when they responded and had had no part or full-time paid employment during the year. This sample distribution is not representative of the population with regards to HLFS estimates of the proportion of people who are experiencing long-term unemployment.

Of the survey participants, 43 were male and 20 were female. More than one in five (14) of the respondents were over the age of 50, while more than half of the participants (38) were middle-aged in their 30's and 40's. Ten of the participants were under the age of thirty. One participant declined to answer this question. The mean age was 40.8 years. The distribution of the sample by employment status, gender and age is given below in table 5.1.

¹ One respondent was removed from the sample due to the degree of incompleteness and illegibility of their questionnaire.

² Six questionnaires were returned unanswered by the postal service on the basis that the person was not at the same address and they were unable to locate that person. One questionnaire was returned by an individual unanswered in protest of the nature of the study's inquiry. The returned, unanswered questionnaires were not included in the calculation of the response rate.

³ Possible reasons as to why the response rate was lower than would normally be expected include the unfortunate timing of the distribution of the questionnaire and the connection with WINZ. The questionnaire was not distributed until approximately a week before Christmas. This was later in the year than originally planned, but was unavoidable. The questionnaire was enveloped in a WINZ envelope and included a WINZ covering letter. Some people may have found the involvement of WINZ intimidating and refrained from responding to the questionnaire for fear of incrimination.

Table 5.1. *Distribution of the sample by employment status, gender and age.*

<i>Employment status</i>			<i>Gender</i>		<i>Age</i>			
	n	%	n	%	n	%		
Unemployed	32	50.8	Male	43	68.3	<30	10	15.9
Recurrent Unem	17	27.0	Female	20	31.7	30-49	38	60.3
Employed	14	22.2				50 and over	14	22.2
						Missing	1	1.6

Participants predominantly identified their ethnicity as Pakeha, European or of Scots descent (37). Ten people identified their ethnicity as Maori. Three people associated their ethnicity with that of Pakeha/Scots/European and Maori. These people have been included in the other category (12) along with one Tongan participant, one Arab, two Indians, one Sri Lankan, two New Zealand/Kiwis and two people who identified their ethnicity with that of their religious affiliation. Four participants declined to respond to the question. Eighteen of the respondents were married or involved in a de facto relationship, while the majority, 42 of the respondents were single at the time of response. Three of the participants declined to answer the question concerning marital/partner status.

The respondents tended to be well educated with 38% (24) of the participants holding university/tertiary undergraduate or postgraduate degrees. Thirteen participants held university or technical college diplomas/certificates reflecting 1-2 years of full-time study, vocational certificates, skilled vocational/trade certificates and had completed secondary school with University Entrance or Bursary. Nineteen people completed some secondary schooling with School Certificate and/or basic vocational training. Seven participants declined to respond to the question. The sample proved to be aberrant or unrepresentative of the central Auckland population of which only seventeen percent possess a high level of educational qualifications and skill attainment (Bururu, Irwin and Melville, 1998). The distribution of the sample by marital/partner status, ethnicity and education is given below in table 5.2.

Table 5.2. *Distribution of the sample by marital status, ethnicity and education.*

<i>Married/Partner Status</i>			<i>Ethnicity</i>			<i>Education</i>		
	<i>n</i>	<i>%</i>		<i>n</i>	<i>%</i>		<i>n</i>	<i>%</i>
Single	42	66.7	European	37	58.7	High	24	38.1
Married/Partner	18	28.6	Maori	10	19.0	Medium	13	20.6
Missing	3	4.8	Other	12	15.9	Low	19	30.2
			Missing	4	6.3	Missing	7	11.1

5.3 UNEMPLOYMENT, PSYCHOLOGICAL WELLBEING AND SOCIAL SUPPORT.

In this section, the central hypotheses are tested. In section 5.3.1, the sample is split into groups by employment status and the psychological wellbeing (GHQ-12) of the groups is compared. The groups' GHQ-12 means are compared using test statistics to determine whether the long-term and recurrent unemployed exhibit greater psychological distress than those in employment.

In section 5.3.2, the sample is split into two groups determined as psychologically 'healthy' and 'distressed' according to their scores on the GHQ-12 using the GHQ-method of scoring and the cut-off point of two. The groups' evaluations of the availability of various types of social support derived from different social networks are compared. Test statistics are used to determine whether psychologically healthy and distressed people differ significantly in their perception of available support.

In section 5.3.3, ordinary least square (OLS) regression analysis is used to estimate the psychological influence of the interaction between employment status and various types and sources of support perceived as available. Equations are estimated to determine whether individuals' evaluation of various types of support and social networks benefit or accentuate psychological distress during periods of unemployment.

5.3.1. *Unemployment and psychological wellbeing.*

It was hypothesised that long and recurrent periods of unemployment would be detrimental to individuals' general psychological wellbeing. People who remained unemployed over the year would exhibit higher levels of psychological distress than those who had experienced recurrent periods of unemployment and those who were employed at the time of the survey. People who had experienced recurrent periods of unemployment were also expected to display greater psychological distress than those who had regained employment.

The test-statistic used to determine whether there were statistically significant differences between the GHQ-12 means of different groups is,

$$t = \frac{\bar{y}_1 - \bar{y}_2}{s_p \sqrt{1/n_1 + 1/n_2}} \quad (5.1)$$

where s_p is equal to the pooled variance of the sub-samples and is denoted by the equation,

$$s_p = \sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}} \quad (5.2)$$

In using this test statistic it is assumed that the comparison groups are independent, display relatively similar variance and are drawn from normal populations (Lyman-Ott, 1993). It is first assumed that the samples are independent and drawn from different populations. The test is likely to be in error if this assumption is violated. The second assumption is that the population and sample variances are relatively similar. According to Lyman-Ott (1993), the test statistic can sustain samples with a variance differing by approximately three, provided the sample sizes are relatively similar. Thirdly, it is assumed that the samples are normally distributed but, according to the central limit theorem, this assumption is irrelevant for combined sample sizes larger than 30 observations (Lyman-Ott, 1993).

People who had been unemployed for the entire period in question exhibited a mean GHQ-12 value of 15.844. The group classified as experiencing recurrent periods of unemployment exhibited a mean GHQ-12 value of 14.059. People who were re-employed at the time of the survey exhibited a mean GHQ-12 value of 12.5. The GHQ-12 means of the different groups are compared below to determine whether there are significant differences between the different groups using the test statistic outlined

above. The GHQ-12 means, standard deviations and variances for the different groups determined by employment status are given in the following table 5.3.

Table 5.3. The mean, standard deviation and variance of the measure of psychological distress by employment status.

<i>Employment status</i>	<i>n</i>	<i>GHQ mean \bar{y}</i>	<i>Standard Deviation s</i>	<i>Variance s^2</i>
Long-term unemployed	32	15.844	9.338	87.194
Recurrent unemployed	17	14.059	5.995	35.938
Re-employed	14	12.5	8.952	80.137

People who were unemployed for the entire period were hypothesised to exhibit significantly greater psychologically distress than people who had regained paid employment. The research hypothesis is indicated by H_a and the null hypothesis is given as H_0 below.

$$H_a: \mu_1 - \mu_2 < 0$$

$$H_0: \mu_1 - \mu_2 = 0$$

The null hypothesis H_0 is rejected if $t > 1.684$ ($\alpha \leq 0.05$) or 1.303 ($\alpha \leq 0.10$). The difference between the long-term unemployed group and the employed group GHQ-12 means is

$$t = 1.1311 < 1.303 < 1.684.$$

This shows no significant difference between the GHQ-12 means of the long-term unemployed and employed samples at the 5% or 10% confidence levels. The null hypothesis H_0 cannot be rejected without a greater than 10% chance of falsely rejecting that hypothesis.

People who were long-term unemployed were hypothesised to be significantly more psychologically distressed than people who had experienced recurrent periods of unemployment. The null hypothesis H_0 is rejected if $t > 1.303$ ($\alpha \leq 0.10$). The difference between the long-term unemployed sample and the recurrent unemployed sample GHQ-12 means is

$$t = 0.712 < 1.303.$$

There is thus no significant difference between the GHQ-12 means of the long-term

unemployed and recurrent unemployed samples at the 10% confidence level. The null hypothesis H_0 cannot be rejected without a greater than 10% chance of falsely rejecting that hypothesis.

People who had experienced recurrent periods of unemployment were hypothesised to suffer significantly greater psychological distress than those with employment. The null hypothesis H_0 is rejected if $t > 1.303$ ($\alpha \leq 0.10$). The difference between the recurrent unemployed sample and the employed sample GHQ-12 means is

$$t = 0.579 < 1.303.$$

There is no significant difference between the GHQ-12 means of the two samples at the 10% confidence level. The null hypothesis H_0 cannot be rejected without a greater than 10% chance of falsely rejecting that hypothesis.

Contrary to the hypothesis, no significant differences were observed in the mean level of psychological distress between the long-term unemployed, those who had experienced recurrent periods of unemployment and those in employment. Although the evidence suggests that unemployment is not psychologically detrimental, there are factors that counteract these findings. The present sample consists of people who became unemployed a year before the survey. During the year some became re-employed and remained in paid employment, while others remained unemployed or experienced recurrent unemployment. In this study, those categorised as in paid employment may have only recently become re-employed or have only part-time paid employment. Other research has compared independent population samples of people who became unemployed and those in continuous full-time paid employment.

In this study, some of the employed may have only recently regained employment and may retain psychological scarring from their experience of unemployment. Longitudinal and descriptive studies have found that people take time to recover from their experience of unemployment (Fineman, 1987; Liem and Liem, 1988; Kessler, et al., 1989). Liem and Liem (1988) found that people who became unemployed suffered a significant increase in depressive symptoms over the first 4-5 months of unemployment. These people experienced little improvement in their psychological wellbeing during the initial 2-3 months of being re-employed (ibid.). Kessler, et al. (1989) found that although the overall psychological wellbeing of the unemployed dramatically improved upon re-employment, it remained lower in some respects than in a sample of employed people who had not experienced recent

unemployment. It is estimated that it may take up to a year in continuous full-time employment for psychological wellbeing to recover to previous levels (Kessler, et al, 1989).

The employed may have only part-time or unrewarding employment and may feel that they are under-utilised or under-employed. Jahoda (1988) suggests that employment, regardless of its quality and circumstances, provides psychological benefits. Others suggest that unsatisfying employment may be demoralising and inhibit psychological recovery from unemployment (Kessler, et al, 1989; Winefield, et al., 1991). People employed under these circumstances may not be significantly better off than the unemployed.

Some evidence suggests that the mean psychological distress of the employed in the present sample is higher than that found in other research. Using the t-statistic outlined in equation 5.1, the sample used in the present study is compared with that of Banks, et al. (1980).⁴ The psychological distress that employed males in the present sample suffer is significantly greater ($p \leq 0.025$) than that suffered by employed males in the Banks, et al. (1980) sample. No difference between the samples was found in the mean psychological distress suffered by unemployed males. This evidence suggests that the employed people in the present study may be experiencing psychological scarring from their experience of unemployment. Outlined in table 5.4 is a comparison between the mean GHQ-12 values for employed and unemployed males in the present study and Banks et al. (1980).

Table 5.4 Comparison of the GHQ-12 means of the male employed and unemployed samples in Banks, et al. (1980) and the present study.

	Banks, et al. (1980) male samples A and C.			Present study, male sample. ^a			<i>t</i> -statistic
	<i>Mean</i>	<i>SD</i>	<i>n</i>	<i>Mean</i>	<i>SD</i>	<i>n</i>	
Unemployed	15.61	7.82	91	14.286	6.83	35	n.s
Employed	8.8	4.02	552	12.125	10.88	8	0.025

^a The unemployed portion of the sample includes individuals who were unemployed during the entire period and individuals who were re-employed during the period but then again became unemployed.

⁴ There are legitimate grounds for a comparison analysis of this nature. The GHQ-12 is considered a relatively 'normative' measure of psychological wellbeing in both pathological and general samples (Banks, et al., 1980; Hepworth, 1980; Harding and Sewel, 1992).

5.3.2 *The psychological benefits attributed to different types of social support and different social networks.*

It was hypothesised that people with a greater overall sense of available social support would be psychologically healthier than others.⁵ Within the community, the primary and identity networks would provide the most psychologically beneficial social resources. The associative network was expected to provide some useful resources, but not to the extent of the primary and identity networks. The formal network may provide psychological benefits but these may not appear in the current analysis. People suffering greater psychological distress may engage the formal network more than others, producing a positive rather than a negative relationship between psychological distress and the perception of the availability of resources from the formal network.

Financial, practical and socialising support were hypothesised to provide the greatest psychological benefits for individuals who were unemployed or had experienced recent unemployment. These types of support would directly address the source of the stress associated with unemployment. Emotional and advisory support were expected to exert less influence on the level of stress and psychological adversity that people experienced during and after periods of unemployment. These types of support were expected to affect individuals' psychological wellbeing but not to the same extent of other types of support.

The sample was split into two groups determined as psychologically 'healthy' and 'distressed' according to their scores on the GHQ-12 using the GHQ-method of scoring and the cut-off point of two.⁶ The test statistic employed in the previous section is used here to determine whether the groups of psychologically healthy and distressed people differ significantly in their perceptions of available support. First, the groups are compared concerning their perception of the availability of support from the overall community and from the various networks. Second, the groups are compared concerning their perceptions of the availability of different types of support in their

⁵ This study is only able to establish whether there is a relationship between psychological wellbeing and perceptions of the availability of social support. It is unable to determine the direction of causality of the relationship. If a relationship is established, this study is unable to determine whether people are psychologically healthy because more social resources are available to them. It may be that psychologically healthy people are better able to access and utilise social resources.

community. Table 5.5 below gives the mean, standard deviation and variance of the support that psychologically healthy and distressed groups perceive as available from their community and from different networks.

Table 5.5. *The mean, standard deviation and variance of the support the different groups perceive as available from the total and incorporated networks.*

	Primary Network	Identity Network	Formal Network	Associative Network	Total Network
<i>Healthy group n=30</i>					
mean \bar{y}	44.433	21.767	13.833	26.933	106.97
Standard Deviation s	11.869	16.446	12.682	15.569	40.501
Variance s^2	140.873	270.471	160.833	242.394	1640.331
<i>Distressed group n=33</i>					
mean \bar{y}	38.152	21.212	14.545	22.424	96.333
Standard Deviation s	12.828	15.966	9.4706	13.971	29.795
Variance s^2	164.558	254.913	89.692	195.189	887.742

The research hypothesis H_a holds that the psychologically 'healthy' group derives a significantly greater mean value of perceived support from their community and various networks than do the psychologically distressed group. The null hypothesis H_0 indicates that the mean levels of perceived social support from the community and different networks are not significantly different for the psychologically 'healthy' and 'unhealthy' groups.

$$H_0: \mu_1 - \mu_2 = 0$$

$$H_a: \mu_1 - \mu_2 > 0$$

⁶ According to Banks, et al. (1980), people who obtain scores of two or more on the GHQ-12 (using the GHQ-method of scoring) suffer a substantially heightened risk of suffering or developing psychiatric disorders such as severe or clinical depression. The GHQ-method of scoring and the rationale behind the cut-off point are described in the previous chapter.

The research hypothesis H_a is rejected and null hypothesis H_o is accepted if $t > 1.296$ ($\alpha \leq 0.10$ with 61 degrees of freedom). The difference between the healthy and unhealthy groups' mean overall sense of social support is

$$t = 1.195 < 1.296.$$

This is not significant at the 10% level. The null hypothesis H_o can not be rejected without a greater than 10% chance of making a type I statistical error. The difference between the healthy and unhealthy groups' mean perceived support available from the primary network is

$$t = 2.011 > 1.296.$$

This is significant at the 2.5% level ($t < 2.000$) but not significant at the 1% level ($t < 2.390$). The null hypothesis H_o can be rejected with a 2.5% or less chance of making a type I statistical error. The difference between the healthy and unhealthy groups' mean perceived support available from the identity network is

$$t = 0.136 < 1.296.$$

The difference is not significant at the 10% level. The null hypothesis H_o can not be rejected without a greater than 10% chance of making a type I statistical error. The difference between the healthy and unhealthy groups' mean perceived support available from the formal network is

$$t = -0.254 < 1.296.$$

There is no significant difference. The null hypothesis H_o can not be rejected without a greater than 10% chance of making a type I statistical error. The difference between the healthy and unhealthy groups' mean perceived support available from the associative network is

$$t = 1.212 < 1.296.$$

There is no significant difference between the psychologically healthy and distressed groups in the level of support they perceive to be available from the associative network. The null hypothesis H_o can not be rejected without a greater than 10% chance of making a type I statistical error.

The psychologically healthy and the distressed groups were found to exhibit significant differences in their perceptions of available support from the primary network. The psychologically healthy group perceives that there is a greater amount of support potentially available to them from the primary network than does the distressed group. However, no significant differences were found between the psychologically

healthy and the distressed in the level of total support perceived to be available from the community or from the identity, formal and associative support networks. This evidence is consistent with much of the social support and stress literature which claims that the primary network is the most important source of psychologically beneficial support (Caplan, 1976; Vaux and Athanassopoulou, 1987). According to Vaux and Athanassopoulou (1987, p.549),

networks composed of casual relationships, based largely on propinquity, provide relatively unsatisfying support.

Here, the psychologically healthy and the distressed groups are compared concerning their perceptions of the availability of different types of support in their community. Table 5.5 below gives the mean, standard deviation and variance for the different types of social support that the psychologically healthy and the distressed groups perceive to be available.

Table 5.6. The mean, standard deviation and variance of the various types of social support the different groups perceive as available from the total network.

<i>n=30</i>	Emotional Support	Socialising Support	Advisory Support	Practical Support	Financial Support
<i>Healthy sample n=30</i>					
mean \bar{y}	20.244	19.867	18.867	19.3	16.367
Standard Deviation s	7.616	7.505	9.187	7.213	3.288
Variance s^2	58.003	56.325	84.401	52.027	10.811
<i>Distressed sample n=33</i>					
mean \bar{y}	19.414	18.939	19.182	17.758	13.424
Standard Deviation s	5.873	5.238	6.964	5.596	7.128
Variance s^2	34.492	27.437	48.497	31.315	50.808

The research hypothesis H_a maintains that the psychologically 'healthy' group

have a significantly greater mean perception of the availability of the different types of support derived from their community than do the psychologically distressed group. The null hypothesis H_0 maintains that the mean perceived levels of the different types of social support available from the community are not significantly different for the psychologically 'healthy' and 'unhealthy' groups.

$$H_0: \mu_1 - \mu_2 = 0$$

$$H_a: \mu_1 - \mu_2 < 0$$

The research hypothesis H_a is rejected and null hypothesis H_0 is accepted if $t > 1.296$ ($\alpha \leq 0.10$ with 61 degrees of freedom). The difference between the mean level of perceived available emotional support from all available sources for the healthy and unhealthy samples is

$$t = 0.487 < 1.296.$$

This is not a significant difference. The null hypothesis cannot be rejected at the 10% confidence level. The difference between the mean level of perceived available socialising support from the community for the healthy and unhealthy samples is

$$t = 0.409 < 1.296.$$

There is no significant difference. The null hypothesis cannot be rejected at the 10% confidence level. The difference between the mean level of perceived available advisory support from the community for the healthy and unhealthy samples is

$$t = -0.154 < 1.296.$$

There is no significant difference. The null hypothesis cannot be rejected at the 10% confidence level. The difference between the mean level of perceived available practical support from the community for the healthy and unhealthy samples is

$$t = 0.952 < 1.296.$$

There is no significant difference. The null hypothesis cannot be rejected at the 10% confidence level. The difference between the mean level of perceived available financial support from the community for the healthy and unhealthy samples is

$$t = 2.068 > 1.296.$$

The difference between the mean perceived available financial support between the healthy and unhealthy samples is significant at the 2.5% ($t > 2.0$) level but not at the 1% level ($t < 2.39$). The probability of falsely rejecting the null hypothesis H_0 is about 2.5%.

It was expected that people would derive greater psychological benefits from

support that was pertinent to the needs associated with their predicament. According to the literature, financial deprivation and alienation from social contacts were likely to be some of the main problems associated with unemployment (Whelan, 1992; 1993). Thus, financial, practical and socialising support were expected to be most effective in addressing the stress and psychological distress associated with unemployment. The psychologically healthy group was found to exhibit significantly greater perceptions of the availability of financial support to be available to them from their community. No significant differences were found between the groups in terms of their perceptions of emotional, socialising, advisory nor in the practical support derived from their community. The evidence suggests that unemployment related stress is predominantly caused by the associated financial deprivation. Accordingly, financial support may best alleviate the psychological distress associated with unemployment.

5.3.3 The psychological benefits derived from different types and sources of support during unemployment.

It is hypothesised that social support is always important but the psychological benefits become most apparent during times of stress such as unemployment. In this section, ordinary least square (OLS) multiple regression analysis is used to estimate the psychological influence of the interaction between employment status and the perception of the availability of different types of support from various support networks. Equations are estimated to determine whether positive evaluations of support influence psychological wellbeing during periods of unemployment. Table 5.7 below lists and describes the variables used in the following regression and discriminant analyses.

Table 5.7. List and description of variables.

<i>Variable</i>	<i>Description</i>
Employment status	The sample is split into three groups: the long-term unemployed; the recurrent unemployed; and the re-employed. The sample is split according to two categorical dummy variables, Long-term unemployed and Recurrent unemployed. The omitted category is the re-employed group (ie. Those who became re-employed during the year and were still employed when surveyed).
Long-term Unemployed	Categorical dummy variable. 0 if re-employed or suffering recurrent spells of unemployment at time of survey, 1 if continuously unemployed during the year up until the time they were surveyed.
Recurrent Unemployed	Categorical dummy variable. 0 if re-employed or long-term unemployed, 1 if gained employment during the year but was unemployed when surveyed at the end of the year..
Psychological distress/wellbeing	GHQ-12 survey instrument scale variable, range 0-36. Higher values represent greater psychological distress.
Total network support	Scale variable, range 0-220. Measures total support perceived to be available from the primary, identity, formal and associative networks. Higher values indicate greater perceptions of support.
Primary network support	Scale variable, range 0-55. Measures total support perceived to be available from the primary network. Higher values indicate greater perceptions of support.
Identity network support	Scale variable, range 0-55. Measures total support perceived to be available from the identity network. Higher values indicate greater perceptions of support.
Formal network support	Scale variable, range 0-55. Measures total support perceived to be available from the formal network. Higher values indicate greater perceptions of support.
Associative network support	Scale variable, range 0-55. Measures total support perceived to be available from the associative network. Higher values indicate greater perceptions of support.
Emotional support total	Scale variable, range 0-40. Measures emotional support perceived to be available from the total network. Higher values indicate greater perceptions of support.
Socialising support total	Scale variable, range 0-40. Measures socialising support perceived to be available from the total network. Higher values indicate greater perceptions of support.
Advice support total	Scale variable, range 0-40. Measures advice support perceived to be available from the total network. Higher values indicate greater perceptions of support.
Practical support total	Scale variable, range 0-40. Measures practical support perceived to be available from the total network. Higher values indicate greater perceptions of support.
Financial support total	Scale variable, range 0-40. Measures financial support perceived to be available from the total support. Higher values indicate greater perceptions of support.
Gender	Categorical dummy variable. 0 if female, 1 if male.
Age	Discrete categorical variable. 1 if aged < 30yrs, 2 if aged 30-49yrs, 3 if 50 and over.
Ethnicity	Discrete categorical variable. 1 if European, 2 if Maori, 3 if other.
Married/partner	Categorical dummy variable. 0 if married/de facto, 1 if single.
Education	Discrete categorical variable. 1 if completed some secondary school, 2 if completed School Certificate, 3 if completed secondary school (University Entrance/Bursary), 5 if completed basic vocational qualifications (vocational certificate, etc), 6 if completed skilled vocational qualifications (apprenticeship, trade certificate), 7 if completed university diploma/advanced certificate (1-2 years full-time study or equivalent), 8 if completed undergraduate University degree (≥ 3 years full-time study or equivalent), 9 if completed postgraduate University degree.

The equations estimated in this section treat psychological wellbeing, as indicated by the GHQ-12, as the dependent variable. The types of support and networks perceived to be available and employment status are the independent variables. The multiple regression equations take the form,

$$y = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta_4x_1x_2 + \beta_5x_1x_3 \quad (5.3)$$

where y represents the expected value of the dependent variable psychological wellbeing, x_1 represents social support, x_2 represents the employed dummy variable (where $x_2 = 1$ represents the long-run unemployed), x_3 represents the recent employment experience dummy variable (where $x_3 = 1$ represents the recurrent unemployed), the cross-product terms x_1x_2 and x_1x_3 represent the respective interactions between social support and current employment status and social support and recent employment experience. The omitted category is the re-employed group. The coefficient β_0 represents the constant while β_1, \dots, β_n represent the coefficient parameter estimates of the model. A separate regression is run for each different source and type of support included as x_j . Only significant results are reported here. Refer to appendix 4 for all the regression results.

The multiple regression equations estimated indicate that support perceived to be available from the associative network is psychologically beneficial for the re-employed group ($\alpha \leq 0.05$). According to some respondents, former work colleagues and associates kept an eye out for potential job opportunities and provided them with helpful advice. People who remained in contact with members of their associative network may have had greater exposure to occupational and social opportunities which would aid in protecting psychological wellbeing. However, a number of people said that they had become estranged from people in their former workplace and other associates thus losing a vital social resource most needed during their unemployment. There are positive interaction relationships, x_1x_2 ($\alpha \leq 0.05$) and x_1x_3 ($\alpha \leq 0.10$) indicating that the long-term and recurrent unemployed groups' psychological distress increases with their perceptions of greater levels of available support from the associative network. This could suggest that those who have suffered long and recurrent periods of unemployment feel threatened by greater support from the associative network, perhaps because they interpret that support as patronising or humiliating. However, it is also likely that there is a selection bias influencing this result.

These results can be only tentatively accepted. The R^2 value is 0.11522 meaning that the equation only explains around 11.5% of the variance in the dependant variable psychological wellbeing. The F-test, representing the ratio of the explained variation to the unexplained variation of the equation, is not significant suggesting that the research hypothesis cannot be accepted from this equation. Details regarding the influence that the perception of the availability of support from the associative network and employment status has on psychological wellbeing are given in table 5.8 below.

Table 5.8. The interaction between employment status and total associative network support regressed as determinants of psychological distress.

	Constant	Associative Network (x_1)	Long-term UE dummy (x_2)	Recurrent UE dummy (x_3)	x_1x_2	x_1x_3
Coefficient	22.272	-0.37075	-8.8437	-10.317	0.4611	0.48146
t-value	4.323** (0.0001)	-2.108* (0.0395)	-1.504 (0.1382)	-1.558 (0.1247)	2.331* (0.023)	1.856+ (0.0687)
R^2	0.11522					
N	63					
F-test (5, 57)	1.4845 (0.2092)					

+ $p \leq 0.10$.

* $p \leq 0.05$.

** $p \leq 0.01$.

Of the different types of support offered by members of the associative network, only advisory support significantly influences individuals' psychological wellbeing. There is a positive interaction effect x_1x_3 ($\alpha \leq 0.10$) indicating that the perception of advice derived from the associative network is psychologically detrimental for those who have suffered recurrent periods of unemployment. This finding is consistent with Pagel, et al. (1987), who found that some support from certain sources can be beneficial under certain circumstances whereas some support which is well-meant can be quite detrimental. However, as in the equation above, there may a selection bias influencing this result. Again, the R^2 value 0.08157 is low, indicating only around 8% of the variance in psychological distress. Nor is the F-test significant, indicating that the research hypothesis should not be accepted from this equation. Details regarding this

equation are given in table 5.9 below.

Table 5.9. The interaction between employment status and advice support derived from the associative support network regressed as determinants of psychological distress.

	Constant	Associative/ Advice Support (x_1)	Long-term UE dummy (x_2)	Recurrent UE dummy (x_3)	x_1x_2	x_1x_3
Coefficient	15.454	-0.62654	-1.4186	-6.4208	1.0048	2.0046
t-value	3.751** (0.0004)	-0.862 (0.3922)	-0.280 (0.7805)	-1.124 (0.2658)	1.117 (0.2685)	1.705+ (0.0936)
Adjusted R ²			0.08157			
N			63			
F-test (5, 57)			1.0125 (0.4189)			

+ $p \leq 0.10$.

* $p \leq 0.05$.

** $p \leq 0.01$.

Support perceived to be available from the primary network is psychologically beneficial for those who became and remained re-employed during the year ($\alpha \leq 0.10$). People suffering long-term and recurrent periods of unemployment do not derive benefit or detriment from support perceived to be available from the primary network. The R² value is 0.08999 meaning that the equation only explains around 9% of the variance in the dependant variable psychological wellbeing. The F-test, representing the ratio of the explained variation to the unexplained variation of the equation, is not significant suggesting that the research hypothesis cannot be accepted from this equation. Details regarding the influence that the perception of the availability of support from the primary network and employment status has on psychological wellbeing are given in table 5.10 below.

Table 5.10. The interaction between employment status and total primary support regressed as determinants of psychological distress.

	Constant	Primary Network (x_1)	Long-term UE dummy (x_2)	Recurrent UE dummy (x_3)	x_1x_2	x_1x_3
Coefficient	23.571	-0.28335	-6.6165	-1.2269	0.2575	0.07282
t-value	3.452** (0.0011)	-1.720 ⁺ (0.0909)	-0.770 (0.4445)	-0.113 (0.9103)	1.277 (0.207)	0.275 (0.7844)
R^2	0.0899872					
N	63					
F-test (5, 57)	1.1273 (0.3564)					

⁺ $p \leq 0.10$.

* $p \leq 0.05$.

** $p \leq 0.01$.

Emotional support provided by members of the primary network significantly influences the psychological wellbeing of those that became and remained re-employed. Emotional support perceived to be available from the primary network significantly reduces psychological distress for the re-employed group ($\alpha \leq 0.10$). However, the R^2 value 0.10569 is low, indicating only around 10.5% of the variance in psychological distress. Nor is the F-test significant, indicating that the research hypothesis should not be accepted from this equation. Details regarding this equation are given in table 5.11 below.

Table 5.11. The interaction between employment status and emotional support derived from the primary support network regressed as determinants of psychological distress.

	Constant	Primary/ Emotional Support (x_1)	Long-term UE dummy (x_2)	Recurrent UE dummy (x_3)	x_1x_2	x_1x_3
Coefficient	23.573	-1.3924	-2.8926	2.0660	0.765	0.06822
t-value	3.441** (0.0011)	-1.712* (0.0923)	-0.356 (0.7235)	0.140 (0.8891)	0.786 (0.435)	0.040 (0.9678)
R^2	0.105686					
N	63					
F-test (5, 57)	1.3472 (0.2579)					

+ $p \leq 0.10$.

* $p \leq 0.05$.

** $p \leq 0.01$.

Along with emotional support, socialising support provided by members of the primary network significantly influences the psychological wellbeing of those that became and remained re-employed during the year. Socialising support perceived to be available from the primary network significantly reduces psychological distress for the re-employed group ($\alpha \leq 0.05$). Furthermore, the R^2 value 0.10958 is low, indicating only around 11% of the variance in psychological distress. Nor is the F-test significant, indicating that the research hypothesis should not be accepted from this equation. Details regarding this equation are given in table 5.12 below.

Table 5.12. The interaction between employment status and socialising support derived from the primary support network regressed as determinants of psychological distress.

	Constant	Primary/ Socialising Support (x_1)	Long-term UE dummy (x_2)	Recurrent UE dummy (x_3)	x_1x_2	x_1x_3
Coefficient	26.085	-1.7135	-6.5638	-11.745	1.2389	1.6802
t-value	3.904**	-2.160*	-0.809	-0.917	1.275	1.123
	(0.0003)	(0.0350)	(0.4217)	(0.3631)	(0.208)	(0.2659)
R^2	0.109584					
N	63					
F-test (5, 57)	1.403 (0.2370)					

⁺ $p \leq 0.10$.

* $p \leq 0.05$.

** $p \leq 0.01$.

Primarily the purpose of the regression analysis was to determine whether different types of social support derived from different social networks influences the level of psychological distress experienced by people on the basis of their employment status. The regression analysis indicates that the re-employed group gains significant psychological benefits from support derived from the primary and associative networks. Emotional and socialising support derived from the primary network are perceived by those individuals comprising the re-employed group as particularly psychologically beneficial. The interaction effects indicate that support derived from the associative network, particularly advisory support can accentuate the psychological distress that the long-term and recurrent unemployed suffer. It is possible that the inclusion of demographic factors into the analysis would account for more of the observed variance in psychological wellbeing. The discriminant analysis in the following section compares the influence of social support variables with that of demographic factors on psychological wellbeing.

5.4. THE DETERMINANTS OF PSYCHOLOGICAL WELLBEING

In this section, the data is analysed to determine which factors particularly contribute to psychological wellbeing. Two-group canonical discriminant analysis is used to estimate the relative contribution that employment status, social support and demographic factors make in determining the outcome of the dependent variable, psychological wellbeing. Discriminant analysis treats the dependent variable as a nonmetric categorical variable by splitting the sample into predetermined categories. This is similar to what was done in the previous section, but a different criterion is used to split the sample in discriminant analysis. The sample is split according to the discriminant Z-score Z_j determined by the linear discriminant function,

$$Z_j = a + W_1X_1 + W_2X_2 + \dots + W_nX_n \quad (5.4)$$

Where a is the intercept of the function, X_n is the independent variable and W_n represents the discriminant weight for the independent variable X_n (Hair, Anderson, Tatham and Black, 1998).

Discriminant analysis assumes multivariate normality and equality of the covariance matrices of the independent variables across the categories of the dependant variable (Sharma, 1996; Hair, et al, 1998). Multivariate normality of the independent variables refers to the skew and kurtosis of the distributions.⁷ Equality of the covariance matrices implies that the observations are relatively equally distributed between the different categories determined by the dependant variable. Violation of these assumptions can lead to misclassification of the observations, underestimating the classification error for some categories while overestimating the error for others. The significance level of the discriminant function may be inflated leading to an unwarranted rejection of the null-hypothesis. However, the evidence concerning the sensitivity of discriminant analysis to violations of these assumptions is mixed (Hair, et al, 1998).

Multicollinearity between the independent variables also adversely affects the predictive and categorical accuracy of the discriminant function (Hair, et al, 1998). The presence of significant correlations between independent variables may lessen the

relative importance of those variables in the standardised coefficient estimates of the discriminant functions. According to Sharma (1996), the ability to estimate the relative discriminatory influence of the independent variables by observing the relative size of the standardised coefficients of those variables may be fundamentally undermined where there is substantial multicollinearity.

The dependent and independent variables were chosen to reflect the broad hypotheses of the present study. It was hypothesised that the experience of recurrent and long-term unemployment would adversely influence psychological wellbeing. However, certain factors, such as the sense of support from the overall community and different networks, the different supportive functions and certain demographic factors can offset the perverse influence of unemployment. The results in section 5.3.2 indicate that psychologically healthy people perceive a significantly greater availability of financial support from their community and a greater availability of support from their primary network than the distressed individuals. The literature indicates that middle-aged men suffer the greatest detriment to their psychological wellbeing during periods of unemployment. However, the evidence is mixed concerning whether other demographic factors such as marital/partner status, ethnicity and educational/skill attainment ameliorate or accentuate the adversity associated with unemployment. The discriminant functions estimate the relative contribution made by demographic variables and various types of social support available from different networks in determining psychological wellbeing and distress.

In the present analysis, due to the small sample size and objective of the analysis, the sample is split into two rather than multiple groups. There is thus only one discriminant Z score and accordingly one discriminant function $j=1$ in each of the three analyses. The first discriminant function estimated takes the form,

$$Z_{1PsychDistress} = a + W_1X_{LongtermUE} + W_2X_{RecurrentUE} + W_3X_{TotSupport} + W_4X_{Educ} + \\ W_5X_{Gender} + W_6X_{Age} + W_7X_{Ethnicity} + W_8X_{Married/Partner}$$

The discriminant function Z_1 indicates that the most important determinants of psychological wellbeing are employment status, educational attainment and the overall sense of the availability of support from within the community. Having employment

⁷ Referring to table A2.2 in Appendix 2, the X^2 value indicates that the distribution of the sample by the dependent variable psychological wellbeing is significantly different from a normal distribution. This may heighten the risk of misclassification of the observations and inflate the significance of the following

has the greatest ameliorative effect on psychological distress. People who are currently employed as opposed to experiencing recurrent and long-term unemployment are more likely to be classified as psychologically healthy rather than distressed according to the discriminant function Z_1 . People with lower educational attainment who perceive higher levels of available support are more likely to be psychologically healthy. Other demographic variables including age, ethnicity, gender and marital status, all have a relatively smaller influence on psychological wellbeing. However, older, non-European males, who are married may experience less psychological distress than others during and after periods of unemployment. The standardised coefficients for the different variables indicating their relative contribution to psychological wellbeing in the discriminant function Z_1 are given below in table 5.13.

Table 5.13. Standardised canonical coefficients for discriminant function Z_1 .

<i>Variables</i>	<i>Standardised Canonical Coefficients</i>
Long-term unemployed	1.263
Recurrent unemployed	0.993
Educational attainment	0.766
Total social support	-0.426
Age	-0.353
Ethnicity	-0.336
Gender	-0.285
Married/de facto status	0.212

The discriminant function Z_1 performed well considering the small number of observations that could be used in the analysis.⁸ The function yields a Wilks' Lambda value of 0.715 which, when converted into a chi-squared (X^2) value, indicates that the null hypothesis can be rejected at the 10% confidence level. The probability is 10% or less that the psychologically healthy and distressed groups cannot be distinguished on the basis of the independent variables included in the discriminant function (Sharma,

discriminant analyses.

⁸ Only 51 of the 63 total observations were used in the present analysis due to missing responses in 12 of the questionnaires.

1996).

The function Z_1 correctly classifies 74.5% of the originally grouped observations or cases as psychologically 'healthy' or 'distressed'. Initially, 22 of the cases were classified as psychologically healthy, while 29 of the cases were classified as distressed according to the discriminant function Z-score. Of the 22 cases originally classified as healthy, six were estimated by the discriminant function to be 'distressed' according to the weightings estimated for the variables in the discriminant function. Of the 29 cases originally classified as distressed, seven of the cases were re-estimated by the function to be healthy. The discriminant function Z_1 yields a canonical correlation of 0.534 and a squared canonical correlation⁹ of 0.285. That is, the independent variables estimated in the discriminant function Z_1 account for just over a quarter (28.5%) of the variance in the distribution. The tests of significance of the canonical discriminant function Z_1 are shown in table 5.14 below.

Table 5.14. Tests for significance of the canonical discriminant function Z_1 .

<i>Function Tests of Significance</i>	
Wilks' Λ	0.715
X^2	15.089 ⁺
	(0.057)
Degrees of freedom	8
Canonical correlation CR	0.534
CR^2	0.285

⁺ $p \leq 0.10$.

The second discriminant function Z_2 examines the relative importance of social support derived from the different networks within the individuals' subjectively defined

⁹ The square of the canonical correlation can be used as a test of the practical significance of the discriminant function (Sharma, 1996). The squared canonical correlation (CR^2) gives the root of the proportion of the total sum of squares for the discriminant Z score that is due to differences between the two groups. The equation takes the form,

$$CR^2 = \sqrt{\frac{SS_b}{SS_t}}$$

This is equivalent to the R^2 value used in regression analysis to estimate the amount of variance in the dependant variable that is accounted for by the independent variables.

community. The canonical discriminant function Z_2 takes the form,

$$Z_{2PsychDistress} = a + W_1X_{LongtermUE} + W_2X_{RecurrentUE} + W_3X_{PrimaryNet} + W_4X_{IdentityNet} + W_5X_{FormalNet} + W_6X_{AssociativeNet} + W_7X_{Educ} + W_8X_{Gender} + W_9X_{Age} + W_{10}X_{Ethnicity} + W_{11}X_{Married/Partner}$$

The standardised discriminant function Z_2 coefficients indicate that the most important determinants of psychological wellbeing are the individuals' employment status, level of educational attainment and the amount of support perceived to be available from the primary network. Other supportive resources and demographic variables are all estimated to have relatively smaller effects on the grouping of cases as psychologically healthy or distressed. People who are employed are most likely to be classified as psychologically healthy according to the discriminant function Z_2 . As in the first discriminant function Z_1 , the discriminant function Z_2 estimates that people with lower educational attainment are more likely to be psychologically healthy. It is estimated that social support derived from the primary resource provides the greatest psychological benefits. The other supportive resources are estimated to contribute only minimally to psychological wellbeing. This is consistent with the findings of the analyses in the previous sections. The standardised coefficients for discriminant function Z_2 are given in table 5.15 below.

Table 5.15. Standardised canonical coefficients for discriminant function Z_2 .

<i>Variables</i>	<i>Standardised Canonical Coefficients</i>
Long-term unemployment	1.204
Recurrent unemployment	0.851
Educational attainment	0.604
Primary support	-0.573
Married/de facto status	0.345
Gender	-0.284
Associative support	-0.256
Ethnicity	-0.220
Age	-0.216
Formal support	0.064
Identity support	-0.015

The discriminant function Z_2 yields a Wilks' Lambda value of 0.684. This is lower than the Wilks' Lambda value of discriminant function Z_1 indicating lower explanatory power. However, with the greater degrees of freedom and small sample size, the X^2 value indicates that the null hypothesis cannot be rejected at the 10% level. There is a greater than 10% probability that there is no difference between the groups separated by the discriminant function and Z score with respect to the independent variables but the results are still useful. The discriminant functions are used to estimate only the relative importance of the demographic variables compared to the employment status and social support variables as they contribute to psychological wellbeing. The risk of including non-significant results is considered in this instance to be relatively small.¹⁰

The function Z_2 correctly classifies 78.4% of the originally grouped observations or cases as psychologically 'healthy' or 'distressed'. Initially, 22 of the cases were classified as psychologically healthy while 29 of the cases were classified as distressed. Of the 22 cases originally classified as healthy, four were estimated by the discriminant function Z_2 to be 'distressed according to the weightings estimated for the variables in the discriminant function. Of the 29 cases originally classified as distressed, seven were re-estimated by the function as healthy. The discriminant function Z_2 yields a canonical correlation of 0.562 and a squared canonical correlation of 0.316. That is, the independent variables account for approximately 31.6% of the variance between the psychologically healthy and distressed groups. The tests of significance of the canonical discriminant function Z_2 are shown in table 5.16 below.

¹⁰ According to Hair, et al. (1998), if the risks associated with including non-significant results are considered acceptable, discriminant functions may be retained that are significant at the 0.2 or even 0.3 level (p.262).

Table 5.16. Tests for significance of the canonical discriminant function Z_2 .

<i>Function Tests of Significance</i>	
<i>Wilks' A</i>	0.684
X^2	16.519
	(0.123)
Degrees of freedom	11
Canonical correlation <i>CR</i>	0.562
CR^2	0.316

⁺ $p \leq 0.10$.

* $p \leq 0.05$.

The final discriminant function Z_3 examines the relative importance of demographic variables and the different types of social support derived from the community as they contribute to psychological wellbeing. The canonical discriminant function Z_3 takes the form,

$$Z_{3PsychDistress} = a + W_1X_{LongtermUE} + W_2X_{RecurrentUE} + W_3X_{EmoSupp} + W_4X_{SocSupp} + W_5X_{AdvSupp} + W_6X_{PraSupp} + W_7X_{FinSupp} + W_8X_{Educ} + W_9X_{Gender} + W_{10}X_{Age} + W_{11}X_{Ethnicity} + W_{12}X_{Married/Partner}$$

The discriminant function Z_3 standardised coefficients indicate that the most important determinants of psychological wellbeing are employment status, the amount of advice, emotional and financial support perceived to be available and the level of educational attainment. Age and ethnicity also appear to be relatively important determinants of psychological wellbeing. Socialising and practical support, gender and marital/partner status are all estimated to have relatively smaller effects on the grouping of cases as psychologically healthy or distressed. Employed people with a high perceived level of advisory and financial support, less emotional support, and lower educational attainment are most likely to be classified as psychologically healthy according to the discriminant function Z_3 . Being young and European may also be psychologically beneficial. The standardised coefficients for discriminant function Z_3 are given in table 5.17 below.

Table 5.17. *Standardised canonical coefficients for discriminant function Z_3 .*

<i>Variables</i>	<i>Standardised Canonical Coefficients</i>
Long-term unemployment	1.290
Recurrent unemployment	0.999
Advisory support	-0.795
Educational attainment	0.782
Emotional support	0.618
Financial support	-0.545
Age	-0.522
Ethnicity	-0.513
Gender	-0.242
Practical support	0.179
Married/de facto status	-0.083
Socialising support	-0.036

The discriminant function Z_3 yields a Wilks' Lambda value of 0.668. This is lower than the Wilks' Lambda values of the previous two discriminant functions Z_1 and Z_2 thus indicating lower explanatory power. The X^2 value indicates that the null hypothesis cannot be rejected at the 10% level. There is a greater than 10% probability that there is no difference between the groups separated by the discriminant function and Z score with respect to the independent variables. The risk of including non-significant results in terms of the present analysis is considered relatively small.

The function Z_3 correctly classifies 70.6% of the cases originally categorised as psychologically 'healthy' or 'distressed'. Initially, 22 of the cases were classified as psychologically healthy while 29 of the cases were classified as distressed. Of the 22 cases originally classified as healthy, eight were estimated by the discriminant function Z_3 to be psychologically distressed, according to the weightings estimated for the independent variables in the discriminant function. Of the 29 cases originally classified as distressed, seven were re-estimated by the function to be healthy. The discriminant function Z_3 yields a canonical correlation of 0.576 and a squared canonical correlation of 0.332. That is, the independent variables account for approximately 33.2% of the variance between the psychologically healthy and distressed groups. The tests of

significance of the canonical discriminant function Z_3 are shown in table 5.18 below.

Table 5.18. Tests for significance of the canonical discriminant function Z_3 .

<i>Function Tests of Significance</i>	
<i>Wilks' A</i>	0.668
X^2	17.350 (0.137)
Degrees of freedom	12
Canonical correlation <i>CR</i>	0.576
CR^2	0.332

⁺ $p \leq 0.10$.

* $p \leq 0.05$.

As hypothesised, the discriminant functions all indicate that, of the variables tested, people who have become and remained re-employed are more likely to enjoy greater psychological wellbeing. People who are re-employed enjoy better psychological health than people who are still unemployed irrespective of other factors. Unexpectedly, discriminant functions Z_1 and Z_2 indicate that levels of education and skill qualifications contribute more to psychological wellbeing than the sense of support derived from the overall community and the various networks. Discriminant function Z_3 indicates that the perception of the availability of advisory support within the community may influence psychological wellbeing more than the level of education attainment but educational attainment is still an important factor. In accordance with Clark and Oswald (1994), the discriminant functions indicate that greater educational attainment may have accentuated the degree of psychological adversity experienced by those who had been unemployed in the year leading up to the survey.

5.5. SUMMARY.

First, it was hypothesised that people who were unemployed when they responded to the survey would exhibit greater psychological distress than those who were employed at the time of response. It was further hypothesised that those who had

experienced continuous periods of unemployment would display greater psychological distress than those who experienced recurrent periods of unemployment. These hypotheses were rejected based on the t-statistics in section 5.3.1 that indicate there is no significant difference between the different groups in terms of psychological wellbeing. However, this may be due to the nature of the comparison groups in the sample, all of whom had experienced unemployment within a year of the survey. Other empirical studies have compared groups of unemployed people with those in stable employment.

Second, it was hypothesised that people with a greater total perception of social support available from their community are likely to enjoy better psychological wellbeing than those with a lesser perception of such support. Although the majority of the social support literature suggests that the primary network is the most important source of support providing the greatest psychological benefits, some studies suggest that other networks are also important. The t-statistics in section 5.3.2 and regression analysis outlined in Table A4.1 indicate that the total amount of social support people perceive to be available from their overall community does not significantly influence psychological wellbeing.

It was further hypothesised that certain networks and specific types of support would be more effective than others in addressing and ameliorating the psychological distress associated with periods of unemployment. The literature suggests that the primary network provides the most psychologically beneficial support but the associational and identity networks could also provide some useful support. People would derive psychological benefits from the formal network, but those benefits were not expected to be statistically apparent. As people suffered greater distress and found little support available from the conventional sources, such as the primary, identity and associative networks, they might search out alternative support from the formal network. The test statistics in section 5.3.2 suggest that psychologically healthy people generally perceive a greater level of support to be available from the primary network including members of their household and their immediate family than those suffering psychological distress. No significant differences were observed between the psychologically healthy and distressed people in the amount of support perceived to be available from the other networks.

It was further expected that people would be likely to derive greater psychological benefits from support that was pertinent to the needs associated with their predicament. According to the literature, financial deprivation and alienation from social contacts were likely to be some of the main problems associated with unemployment. Thus, financial, practical and socialising support were expected to be most effective in addressing the stress and psychological distress associated with unemployment. The t-statistics in section 5.3.2 indicate that psychologically healthy people perceive a greater amount of financial support to be available from the overall network than those suffering psychological distress.

The regression analysis in section 5.3.3 estimates the differences in the perceptions of the different sources and types of support for groups of people determined by their employment status. The regression analysis suggest that people who became and remained re-employed derive significant psychological benefits from support derived from the primary network. These people particularly benefit from the emotional and socialising support derived from the primary network. People who became and remained re-employed derive significant psychological benefits from the associative network including people known in the neighbourhood, workplace and through leisure and sporting activities. However, the interaction effects in the regression analysis indicate that people experiencing long-term and recurrent periods of unemployment perceive support derived from the associative network as psychologically detrimental. Advice perceived to be available from the associative network is particularly detrimental for those experiencing recurrent periods of unemployment.

Finally, it was hypothesised that certain demographic factors, such as educational attainment, gender, age and ethnicity would influence how unemployment would impact psychological wellbeing. Although the influence of these factors was likely to be significant, social support was expected to be more important. The discriminant analysis in section 5.4 was used to estimate the factors that contribute most to psychological wellbeing.

As hypothesised, employment status is the most important contributor to psychological wellbeing. People who are employed enjoy better psychological wellbeing than people experiencing recurrent and long periods of unemployment. Contrary to expectations, educational attainment is the next most important factor in

determining psychological wellbeing. The evidence suggests that greater educational attainment accentuates the degree of psychological adversity experienced by those who had been unemployed in the year leading up to the survey. This is possibly because higher educational attainment contributes to higher earnings in the labour market. Better-educated people may forgo greater earnings during unemployment and thus suffer a greater opportunity cost, increasing psychological distress (Clark and Oswald, 1994). Accordingly, people who are or have recently become unemployed, who have higher levels of educational attainment, are more distressed than less educated people.

The discriminant analysis indicates that social support perceived to be available from the community is still a relatively important contributor to psychological wellbeing. The analysis indicates that the primary network is the most important source of general support while advisory and financial support are most effective in ameliorating psychological distress. Emotional support may be psychologically detrimental in that it may be interpreted as patronising.¹¹ Other factors, including age, ethnicity, and gender are all relatively unimportant in their contribution to psychological wellbeing.¹²

¹¹ These results are suspect due to the degree of multicollinearity. The different types of support are highly correlated with each other calling into question whether they actually measure different supportive concepts. According to Sarason, et al. (1990, p.20), this is a common finding suggesting that the functional 'sub-scales are not measuring distinct constructs'.

¹² However, the analysis did not take into account the non-linear nature of the influence of unemployment in relation to age as it affects psychological wellbeing. Studies that have taken account of the non-linear nature of the relationship between unemployment, age and psychological wellbeing have found age to have a substantial influence on psychological wellbeing.

6

Conclusion

6.1. THE OBJECTIVES AND IMPLICATIONS OF THE STUDY.

This study has reviewed the economics and psychology literature concerning the persistent high unemployment experienced in the OECD in the past two decades. The Darity and Goldsmith model was outlined concerning the psychological influence of unemployment on outcomes in the labour market. The psychology literature was examined in order to determine whether the main tenets of the model have reasonable theoretical and empirical grounding. Implications of the model were explored in terms of whether the social environment may have a substantial influence on labour market outcomes. This exploratory study was conducted to determine whether relationships exist between outcomes in the labour market, aspects of individual psychology and the social environment.

Darity and Goldsmith (1996) offer a possible mechanism as to how shocks to demand factors in the aggregate product market may flow through to the labour market, then flow back to the aggregate product market supply side, perpetuating a recession and further unemployment. Their model implies that, as people suffer longer duration of unemployment, their psychological wellbeing deteriorates, adversely affecting their ability to utilise and maintain human capital. This reduces their productivity. Deterioration in psychological wellbeing may cause people to disengage themselves from the labour market. If such effects are widespread the respective demand for and supply of labour will contract further, causing equilibrium unemployment to decrease over time. According to Layard, et al. (1994), people who become unemployed for long periods do not contribute to wage pressure in the economy. Hence the lower rate of equilibrium employment may become established in the long-run.

There are two major tenets of the Darity and Goldsmith model. The first is that periods of unemployment are harmful to psychological wellbeing, particularly over a long duration. Second, aspects of psychological wellbeing and self-concept, particularly self-esteem and attribution style (whether people attribute circumstances affecting themselves as internally or externally determined), are important factors for maintaining and utilising endowments of human capital and thus labour productivity.

Although the theory and empirical evidence suggest that unemployment is psychologically distressing, there is only mixed evidence suggesting that psychological distress intensifies with unemployment duration or whether the mere incidence of unemployment is psychologically debilitating. Some suggest that the incidence of unemployment is not the primary stressor for everyone (Walters, 1985; Whelan, 1992; Fryer, 1995). The associated poverty, deprivation and the stigma attached to unemployment are factors that tend to be the most debilitating. According to Fryer (1995), the loss of personal agency associated with unemployment can be attributed to pecuniary constraints. Some evidence suggests that the pecuniary burden often associated with unemployment is also apparent within low-paying employment and underemployment (Henry, 1982; Walters, 1985; Winefield, et al, 1991; Fryer, 1995).

In terms of the second tenet of the Darity and Goldsmith model, there is no consensus in the literature as to whether aspects of psychological wellbeing and self-concept, that are claimed to influence labour productivity, are actually affected by the experience and duration of unemployment. Neither is there consensus concerning whether aspects of psychological wellbeing and personality adversely affected by unemployment actually influence labour productivity.

The psychology literature suggests that, for most people, unemployment is not a voluntary decision. Unemployment is often a materially depriving and psychologically debilitating experience. Certain factors can moderate the adversity normally associated with the experience of unemployment. The literature indicates that gender, age, regional characteristics, skill and educational attainment, attitudes to work and leisure, financial deprivation and the quality of employment available may influence the degree to which unemployment adversely affects psychological wellbeing. For instance, males living in geographic regions with lower unemployment rates and better quality job opportunities, suffering severe financial deprivation are likely to be those worst psychologically affected by unemployment. The literature is inconsistent concerning whether greater skill and educational attainment moderates or accentuates the

psychological adversity associated with unemployment.

The literature suggests that aspects of the social environment, such as the perception of available social support and embeddedness in the community, may moderate the psychological adversity associated with unemployment. Some types of support derived from particular social networks may be more beneficial than other types of support. Some suggest that the support must convey social and instrumental resources that specifically address the source of the stress in order to be psychologically beneficial (Cohen and Wills, 1985). Furthermore, certain types of relationships and social networks are more likely to provide specific resources than others and hence be better equipped to transfer the appropriate resources to address adequately the social and instrumental needs associated with specific circumstances, particularly in times of stress such as during unemployment.

According to the social capital literature, some communities, regions and societies may display behavioural norms, levels of trust and social structures that are more conducive to promoting beneficial social relationships than others. In such communities, regions and societies, people may perceive a greater level of psychologically beneficial social support to be potentially available. If the available support is appropriate, it may offset some of the psychological adversity associated with unemployment. Communities that are well endowed with effective social capital may cope better than other communities with transitory shocks to their economic system.

The Darity and Goldsmith model suggests that transitory shocks to the economic system may permanently affect the demand and supply sides of the labour market by the perverse psychological influence of unemployment. This is likely to lead to a sustained contraction in equilibrium unemployment in the long run. However, in communities with better social interaction and support, the contraction in the labour market predicted by the behavioural mechanism may be partly offset. Communities with greater social capital may be better able to accommodate transitory shocks to the economic system. Communities, regions and countries that have greater endowments of effective social capital may suffer less persistent unemployment and unemployment hysteresis.

Some suggest that large shocks to the economic system can adversely affect the social and economic fabric in a country, weakening its ability to function effectively (Hazledine, 1998; Stiglitz, 1999). Sonn and Fisher (1998) suggest that shocks to the community adversely influence the structure of the family unit, undermining its ability to perform necessary functions. According to Goldsmith et al. (1997a), 'families and

significant others are the agents that socialise youths, affecting the evolution of their sense of self-esteem' (p.822).¹ If the effectiveness of the family unit is undermined through economic recession, exacerbated by government policy, then the productive potential of future generations of labour, and thus the economic system, may be fundamentally threatened.

6.2. MAIN FINDINGS.

To determine whether unemployment is psychologically deleterious and whether this may be offset by certain types and sources of social support, an exploratory survey examined a small cross-section of people registered with Work and Income New Zealand (WINZ) as unemployed a year before the study. It was hypothesised that:

- 1) People who had become re-employed and remained employed would display better psychological wellbeing than those who had experienced recurrent periods of unemployment or had remained unemployed for the entire period.
- 2) People with greater perceptions of the availability of all types of social support from the overall community would be psychologically better off than those with lesser perceptions of the availability of such support.
- 3) Certain types of support may be more appropriate than others in addressing and ameliorating the psychological distress associated with periods of unemployment. Some types of functional networks may be better equipped to offer such support and thus to provide greater psychological benefits to the unemployed.
- 4) Certain demographic factors, such as educational attainment, gender and age will accentuate or moderate the psychological distress associated with the experience of unemployment. However, the influence of these factors is unlikely to be as substantial as that of social support.

¹ According to Goldsmith, et al. (1997a) self-esteem is one element of the individual's psychological resource or capital that strongly influences the individual's productivity and hence wages.

The empirical study did not find that the employed, long-term unemployed and recurrent unemployed differed in terms of their psychological wellbeing. However this is most likely due to the nature of the sample that was used compared to samples used in other studies. In the current study, people who became unemployed a year before the study were surveyed. The population and sample consisted of people who all had experienced unemployment within the year, whereas other studies have compared samples of people who have become unemployed and samples of people who have not experienced recent unemployment. In the current empirical study, both the re-employed and unemployed displayed comparatively similar levels of psychological distress to groups of unemployed in other studies and consistently higher psychological distress than the employed in other studies. This suggests that unemployment may leave a residual imprint of psychological distress. Some studies have documented such residual psychological effects (Fineman, 1987; Liem and Liem, 1988, Kessler, Turner and House, 1989).

The second proposition could not be confirmed in the analysis. No difference was found between the psychologically healthy and distressed in the level of overall social support they perceived to be available from the overall social network or community (including the primary, identity, formal and associative networks). However, in the discriminant analysis, support perceived to be available from the overall community was shown to be an important contributor to psychological wellbeing compared to the demographic factors such as age, gender and ethnicity.

Psychologically healthy and distressed people did differ with regard to the amount of social support they perceived to be available from the primary network as well as in their levels of perceived available financial support from the overall community. Those categorised as psychologically healthy perceived a greater availability of financial support as well as support offered by members of the primary network. These findings are consistent with findings in other studies. First, unemployment is often associated with financial deprivation (Whelan, 1992; Fryer, 1995). Second, the spouse/partner is generally seen as the most important source of support (Vaux and Athanassopoulou, 1987; Winefield, et al., 1993; Cutrona, 1996). However, Walsh and Jackson (1995) provide evidence suggesting that during unemployment some people do not perceive their spouse/partner to provide psychologically beneficial support. These people, particularly women, often go to other sources either within the primary network or outside that network in the wider

community.

The regression analysis indicates that people who have become and remained re-employed derive psychological benefits from support perceived to be available from the primary and associative networks. Emotional and socialising support derived from the primary network may be particularly psychologically beneficial for people who have become re-employed. The regression analysis indicates that those who have experienced long and recurrent periods of unemployment support derived from the associative network may be psychologically detrimental. Advisory support from members of the associative network may be particularly psychologically deleterious for those experiencing recurrent periods of unemployment. These results indicate either that the recurrent and long-term unemployed in the sample perceive the support available from the associative network as patronising and unhelpful or there is a selection bias in the data.

It was anticipated that certain demographic factors would moderate the psychological adversity associated with unemployment but that these would not exert as substantial an influence as that of certain types of social support derived from the various networks. Age, educational attainment, gender and marital status are reported in the literature as being important factors determining the degree to which unemployment debilitates psychological wellbeing. The discriminant analysis indicates that age, gender and marital status have only a marginal influence on the deleterious effects of unemployment. However, educational attainment influences psychological wellbeing to a greater extent than the different types of social support and networks. Greater educational attainment accentuates the degree of psychological adversity experienced by the unemployed. Clark and Oswald (1994) suggest that this may be because higher educational attainment contributes to higher earnings in the labour market. Better-educated people may forgo greater earnings during unemployment and thus suffer a greater opportunity cost, increasing psychological distress. They may have greater lifestyle expectations and suffer greater deprivation and loss of agency during periods of unemployment.

An open-ended question was included in the survey to gauge how consistent people were in answering the scale items concerning their psychological wellbeing and perceived level of potentially available support.² One of the participants responded to

² Refer to appendix 1, part 3 of the questionnaire.

this question with the following.

Most horrible is being a failed role model for my own children. I found it best to lie about my predicament to strangers. However, I found people generally understanding and as helpful as they could be if they knew you at all. Those who have been the most helpful during this time are ex-colleagues with genuine offers of work. Family and friends will give you their time and compassion but generally pride stops you asking for it.

The above extract indicates that unemployment is a horrific experience for some people. Although it encapsulates one person's subjective experience of unemployment, similar responses were common.

6.3. SUGGESTIONS FOR FUTURE RESEARCH.

The main objective of the research was to outline the literature and conduct an exploratory empirical study in order to highlight gaps in current knowledge and to ascertain future avenues of productive research. Although, the hypothesis that re-employment is psychologically preferable to continued unemployment had to be rejected, the evidence suggests that this may be due to residual psychological scarring from unemployment. A useful avenue of further research may be to examine what types of social support from what networks are most effective in ameliorating the residual psychological distress associated with past experiences of unemployment. Are certain types of support and social institutions better equipped in reintegrating people into formal employment?

The second hypothesis regarding the beneficial influence of support perceived to be available from the overall community also had to be rejected. However, the literature as well as the present empirical study suggests that certain types of social support derived from certain functional networks are psychologically beneficial under specific circumstances including long-term unemployment and re-employment. Further examination is needed of the psychological benefits (and detriment) associated with certain types of social support derived from social networks such as the workplace and the family.

The implications of the Darity and Goldsmith (1993; 1996) model should be further explored. On a cursory examination the model appears to be a useful conceptual tool in facilitating multidisciplinary study of the labour market. However, the behavioural assumptions made in the model need to be further examined. The premise made concerning the adverse effect that psychological distress associated with unemployment has on re-employment probability is an important assumption in the model and has been insufficiently explored. If psychological distress brought about by the incidence of involuntary unemployment lessens the likelihood of re-employment, this could be an important area for policy development.

Studies have shown that people generally exhibit greater psychological distress when they are unemployed compared to when they are employed. However, the evidence has been mixed concerning the relationship between the duration of unemployment and the severity of psychological impairment. There has been considerable disagreement concerning exactly what aspects of psychological wellbeing are affected as well as who are worst affected. Few studies have endeavoured to examine the empirical relationships between malleable aspects of psychological wellbeing and personality and the productivity displayed in employment and the probability of re-employment. Studies that have examined the relationship between the intensity of psychological distress suffered during unemployment and the probability of re-employment have produced inconsistent results.

It is unclear whether the psychological distress people suffer during unemployment has the potential to affect their labour market experience in future periods. Some evidence suggests that the initiation into the labour market from school influences the development of certain aspects of individuals' 'stable personality' (Banks and Ullah, 1988). An interesting avenue of future research could be to examine whether the experience of long periods of unemployment during middle or older age, alters certain elements of stable personality characteristics responsible for job performance and productivity. Furthermore, research is needed to determine whether people who are suffering psychological distress related to unemployment are more likely to accept work beneath their capabilities. Because of a possible 'trauma escape effect', people may accept temporary, part-time or poorly paid jobs when what they are really looking for is full-time, permanent, well paying work.

One implication of this study may be that social embeddedness and support are important indicators of the level of social capital in the community. Social capital may

facilitate psychologically beneficial social dynamics including effective social support. This may enable the labour market to function more efficiently by ameliorating the psychological distress associated with unemployment. On a macro scale, if social support is closely related to psychological wellbeing, then communities that are more socially cohesive and supportive may be less likely to experience unemployment hysteresis. Fukuyama (1995) argues that in recent times American society has comprised more cohesive and trusting communities than some European countries. Communities displaying aspects of social capital such as trust and spontaneous sociability have tended to be more socially and economically successful (*ibid.*). There is opportunity for future research concerning cross-country and regional differences between levels of social capital and the levels of unemployment hysteresis observed in those labour markets. Are countries that are rich in important aspects of social capital less likely to experience unemployment hysteresis than countries that are less well-endowed in social capital?

Finally, some argue that shocks to the economic system can permanently damage elements of social capital. This may provide another useful avenue for research. Some suggest that there is a role for government and collective initiatives in facilitating the accumulation and maintenance of social capital in communities. Social capital produces positive externalities for the community that cannot be fully appropriated by those who make investments in such enterprise.³ Serageldin and Grootaert (1999, p.47) suggest that 'agents tend to underinvest in social capital, creating a role for public support.' Research should look at what types of public and collective initiatives have the potential to accumulate social capital.

³ However, Champlin (1997) suggests that 'gated communities' are an example of private enterprise producing and fully appropriating social capital and the associated positive externalities of the investment. It is implied that as long as a fence can exclude 'outsiders', there is no way in which they are able to benefit from the various forms of 'capital' accumulated within the enclave.

APPENDIX 1: QUESTIONNAIRE DESIGN.

This part of the questionnaire asks you about who would give you different types of support. The information you give is completely confidential. We would like you to think about people you know in four groups, **A, B, C** and **D** as defined below and how likely it is that someone in each group would offer you support. The groups may overlap, ie. a friend may be in your church and play in your sports club, in this case circle all the numbers that you think apply.

The numbers indicate how likely you think it is that someone in the group would offer support on a scale from 1 to 5, For each statement, please circle the most appropriate number in each column.

1	2	3	4	5
<u>No one</u> in the group would do this	<u>Someone</u> in the group <u>might</u> do this	<u>Someone</u> in the group would <u>probably</u> do this	<u>Someone</u> in the group would <u>certainly</u> do this	<u>Almost anyone</u> in the group would certainly do this

Each of the 11 statements below are about the sort of help you may need from time to time. You may not have needed this kind of help but if you did, how likely would you be to receive support from people you know in each of the groups A, B, C and D.

	Group A Immediate family or people who live in your household.	Group B People you know from Church, other religious affiliations, Marae, Ethnic groups such as a Chinese or a Scots society, extended family.	Group C People you know from Community Organisations e.g. drop in centres, Citizens Advice Bureau, Salvation Army, a women's centre etc.	Group D People you know from your neighbourhood, workplace or leisure activities e.g. sporting clubs.
1. Would listen to me if I needed to talk about my feelings.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
2. Would help me decide what to do.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
3. Would loan me a fairly large amount of money (say equivalent of a months rent or mortgage).	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
4. Would visit with me or invite me over.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
5. Would show affection for me.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
6. Would loan me tools, appliances or a car if I needed it.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
7. Would suggest how I might find out more about a situation.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
8. Would buy me things (meals or clothes) if I was short of money.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
9. Would do things with me to have a good time.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
10. Would comfort me if I was upset.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
11. Would help me out with a move or other big chore.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

Part 2

Have you recently:

<i>been able to concentrate on whatever you're doing?</i>	Better Than usual	Same as usual	Less than usual	Much less than usual
<i>lost much sleep over worry?</i>	Not At all	No more than usual	Rather more than usual	Much more than usual
<i>felt that you are playing a useful part in things?</i>	More so Than usual	Same as usual	Less useful than usual	Much less useful
<i>felt capable of making decisions about things?</i>	More so Than usual	Same as usual	Less so than usual	Much less capable
<i>felt constantly under strain?</i>	Not At all	No more than usual	Rather more than usual	Much more than usual
<i>felt you couldn't overcome your difficulties?</i>	Not At all	No more than usual	Rather more than usual	Much more than usual
<i>been able to enjoy your normal day-to-day activities?</i>	More so Than usual	Same as usual	Less useful than usual	Much less useful
<i>been able to face up to your problems?</i>	More so Than usual	Same as usual	Less able than usual	Much less able
<i>been feeling unhappy and depressed?</i>	Not At all	No more than usual	Rather more than usual	Much more than usual
<i>been losing confidence in yourself?</i>	Not at all	No more than usual	Rather more than usual	Much more than usual
<i>been thinking of yourself as a worthless person?</i>	Not at all	No more than usual	Rather more than usual	Much more than usual
<i>been feeling reasonably happy, all things considered?</i>	More so than usual	About same as usual	Less so than usual	Much less than usual

Part 3

Now, thinking about the support that you received when you were unemployed, is there anything you would like to say about that? For example: Did anyone help you to cope with being unemployed?; Who helped you the most?; How did they help you?

Part 4 General Information

1. Are you male or female?
Male Female
2. How old are you?
_____ Years
3. Which ethnic group or groups do you identify with?

4. Have you been employed in a paid job at anytime during the past year?

Yes No
5. Are you currently employed?
Yes No
6. Are you married or in a de facto relationship with a partner?
Yes No
7. What is the highest level of education or training qualification that you have completed?

APPENDIX 2: STATISTICAL NOTE.

In the analysis, the GHQ-12 scale is scored using the Likert-method. According to Banks, et al. (1980), the distribution of the GHQ-12 scores are more likely to be 'normally distributed' exhibit smaller kurtosis and skew values when the Likert-method of scoring is used as opposed to the GHQ binary method. Overall, the relative distributions of the sample and sub-samples with regard to the scoring method used, is consistent with the summation of Banks et al. (1980). However, the GHQ-method is useful in order to determine a cut-off point between healthy and unhealthy individuals. In one part of the analysis, the GHQ-12 is scored using the GHQ-method in order to split the sample into healthy and unhealthy sub-samples. Refer to tables A2.1 and A2.2 below for kurtosis, skew and X^2 values.

The excess kurtosis statistic indicates how peaked the distribution is. Greater deviations from unity indicate a higher likelihood of extreme values bunched in the tail of the distribution (Hendry and Doornik, 1996). The kurtosis values are closer to unity using the Likert-method of scoring in the overall sample as well as the sub-sample of long-term unemployed. In the employed and recurrent unemployed sub-samples, the kurtosis values are lower using the GHQ-method as opposed to the Likert-method.

The skew statistic indicates the degree of asymmetry in the distribution. According to Hepworth (1980), distributions of GHQ-12 scores tend to be negatively skewed in non-pathological samples. In the current study the overall sample distribution as well as the employed and long-term unemployed sub-sample distributions are positively skewed. This could indicate either that the experience of unemployment for the sample populations was particularly psychologically damaging or that there is substantial sample bias. There is less deviation from unity in the overall sample, the recurrent unemployed and employed sub-samples using the Likert-method than the GHQ-method. The only exception is the sample of long-term unemployed.

The $Chi^2(2)$ value is a function of the skew and excess kurtosis values (Hendry and Doornik, 1996). The X^2 value indicates the probability that the $Chi^2(2)$ value could not be generated from the sample if the sample was normally distributed. The general sample and the employed and unemployed sub-samples are significantly unlikely ($p \leq 0.001$) to represent a normal distribution using the GHQ-method of scoring. The general sample, using the Likert-method of scoring is also significantly unlikely ($p \leq 0.01$) to represent a normal distribution.

Table A2.1 Normality tests of the different GHQ-12 scoring methods for the employed and unemployed sub-samples.

	Currently employed		Long-term unemployed	
	<u>Likert-method</u>	<u>GHQ-method</u>	<u>Likert-method</u>	<u>GHQ-method</u>
n	14	14	32	32
Mean	12.500	3.071429	15.718750	4.625000
SD	8.5919	3.954460	9.414863	4.449368
Skew	0.987526	1.263747	0.545404	0.479082
Excess kurtosis	-0.259986	0.027179	-0.737690	-1.308917
Min	2	0	0	0
Max	31	12	36	12
Chi ² (2)	5.9315	15.067 ***	4.8026	12.395 **
X ²	[0.0515]	[0.0005]	[0.0906]	[0.0020]

* Indicates distribution significantly different from normal at the 0.05 confidence level.

** Indicates distribution significantly different from normal at the 0.01 confidence level.

*** Indicates distribution significantly different from normal at the 0.001 confidence level.

Table A2.2 Normality tests of the different GHQ-12 scoring methods for the recurrent unemployed sub-sample and total sample.

	Recurrent unemployed		Total sample	
	<u>Likert-method</u>	<u>GHQ-method</u>	<u>Likert-method</u>	<u>GHQ-method</u>
n	17	17	63	63
Mean	14.058824	4.0	14.619048	4.111111
SD	5.994807	2.634611	8.499166	3.972569
Skew	-0.088142	0.424595	0.646004	0.713868
Excess kurtosis	-0.875996	-0.804797	-0.376869	-0.833782
Min	2	0	0	0
Max	23	9	36	12
Chi ² (2)	0.11537	1.2191	9.7223 **	25.145 ***
X ²	[0.9439]	[0.5436]	[0.0077]	[0.0000]

* Indicates distribution significantly different from normal at the 0.05 confidence level.

** Indicates distribution significantly different from normal at the 0.01 confidence level.

*** Indicates distribution significantly different from normal at the 0.001 confidence level.

APPENDIX 3: CORRELATIONS.

		TOTAL_SS	GHQlikert	GENDER	AGE	ethnicity	Long-t UE	Recurren UE	partner	EDUC
Total Network	Pearson Correlation	1								
	Sig. (2-tailed)	.								
	N	63								
Psych Distress	Pearson Correlation	-0.057	1							
	Sig. (2-tailed)	0.656	.							
	N	63	63							
GENDER	Pearson Correlation	0.088	-0.127	1						
	Sig. (2-tailed)	0.492	0.322	.						
	N	63	63	63						
AGE	Pearson Correlation	-0.054	0.008	-0.201	1					
	Sig. (2-tailed)	0.676	0.953	0.116	.					
	N	62	62	62	62					
Ethnicity	Pearson Correlation	0.007	-0.25	0.123	-0.205	1				
	Sig. (2-tailed)	0.959	0.058	0.359	0.126	.				
	N	58	58	58	57	58				
Long-term UE	Pearson Correlation	0.041	0.146	0.011	.370(**)	-0.214	1			
	Sig. (2-tailed)	0.75	0.252	0.933	0.003	0.106	.			
	N	63	63	63	62	58	63			
Recurrent UE	Pearson Correlation	-0.104	-0.040	0.107	-0.179	0.220	0.618(**)	1		
	Sig. (2-tailed)	0.419	0.755	0.403	0.164	0.098	0.0	.		
	N	63	63	63	62	58	63	63		
partner	Pearson Correlation	0.062	0.237	-0.111	0.073	-.429(**)	0.095	0.008	1	
	Sig. (2-tailed)	0.636	0.069	0.398	0.584	0.001	0.472	0.951	.	
	N	60	60	60	59	56	60	60	60	
Education	Pearson Correlation	-0.043	0.045	0.079	-0.021	-0.014	-0.126	-0.060	-0.23	1
	Sig. (2-tailed)	0.754	0.744	0.561	0.878	0.923	0.353	0.661	0.091	.
	N	56	56	56	55	53	56	56	55	56

		EMOTOTAL	SOCTOTAL	ADVTOTAL	PRATOTAL	FINTOTAL
EMOTOTAL	Pearson Correlation	1				
	Sig. (2-tailed)	.				
	N	63				
SOCTOTAL	Pearson Correlation	.854(**)	1			
	Sig. (2-tailed)	0	.			
	N	63	63			
ADVTOTAL	Pearson Correlation	.817(**)	.745(**)	1		
	Sig. (2-tailed)	0	0	.		
	N	63	63	63		
PRATOTAL	Pearson Correlation	.834(**)	.817(**)	.768(**)	1	
	Sig. (2-tailed)	0	0	0	.	
	N	63	63	63	63	
FINTOTAL	Pearson Correlation	.785(**)	.762(**)	.712(**)	.871(**)	1
	Sig. (2-tailed)	0	0	0	0	.
	N	63	63	63	63	63
Psych distress	Pearson Correlation	-0.102	-0.093	-0.009	-0.126	-0.123
	Sig. (2-tailed)	0.426	0.466	0.947	0.324	0.339
	N	63	63	63	63	63
GENDER	Pearson Correlation	0.137	0.127	0.221	.282(*)	0.176
	Sig. (2-tailed)	0.283	0.32	0.082	0.025	0.167
	N	63	63	63	63	63
AGE	Pearson Correlation	-0.126	-0.165	-.271(*)	-0.15	-0.077
	Sig. (2-tailed)	0.328	0.201	0.033	0.244	0.55
	N	62	62	62	62	62
Ethnicity	Pearson Correlation	-0.138	-0.244	-0.139	-.263(*)	-.290(*)
	Sig. (2-tailed)	0.3	0.065	0.298	0.046	0.027
	N	58	58	58	58	58
Long-term UE	Pearson Correlation	-0.028	0.024	-0.051	0.081	0.145
	Sig. (2-tailed)	0.827	0.851	0.692	0.526	0.257
	N	63	63	63	63	63
Recurrent UE	Pearson Correlation	0.121	0.059	0.134	0.023	-0.138
	Sig. (2-tailed)	0.344	0.644	0.294	0.856	0.280
	N	63	63	63	63	63
partner	Pearson Correlation	-0.047	0.131	-0.061	0.063	0.061
	Sig. (2-tailed)	0.724	0.317	0.645	0.631	0.641
	N	60	60	60	60	60
Education	Pearson Correlation	0.05	0.04	0.042	0.088	0.024
	Sig. (2-tailed)	0.716	0.768	0.758	0.517	0.86
	N	56	56	56	56	56

* Indicates correlation is significant at the 0.05 level (2-tailed).

** Indicates correlation is significant at the 0.01 level (2-tailed).

		Primary Net	Identity Net	Formal Net	Associative Net
Primary Net	Pearson Correlation	1			
	Sig. (2-tailed)	.			
	N	63			
Identity Net	Pearson Correlation	.377(**)	1		
	Sig. (2-tailed)	0.002	.		
	N	63	63		
Formal Net	Pearson Correlation	0.126	.508(**)	1	
	Sig. (2-tailed)	0.327	0	.	
	N	63	63	63	
Associative Net	Pearson Correlation	0.006	0.088	.250(*)	1
	Sig. (2-tailed)	0.963	0.495	0.048	.
	N	63	63	63	63
Psych Distress	Pearson Correlation	-0.164	-0.055	0.045	0.03
	Sig. (2-tailed)	0.2	0.668	0.729	0.816
	N	63	63	63	63
GENDER	Pearson Correlation	-0.193	0.211	-0.025	0.166
	Sig. (2-tailed)	0.13	0.097	0.849	0.194
	N	63	63	63	63
AGE	Pearson Correlation	0.039	-.287(*)	-0.055	0.192
	Sig. (2-tailed)	0.764	0.024	0.668	0.134
	N	62	62	62	62
Ethnicity	Pearson Correlation	0.08	0.123	0.073	-0.241
	Sig. (2-tailed)	0.55	0.358	0.589	0.068
	N	58	58	58	58
Long-term UE	Pearson Correlation	0.15	-0.106	-0.089	0.151
	Sig. (2-tailed)	0.241	0.408	0.489	0.239
	N	63	63	63	63
Recurrent UE	Pearson Correlation	-0.086	0.051	0.002	-0.231
	Sig. (2-tailed)	0.500	0.689	0.990	0.069
	N	63	63	63	63
Marital status	Pearson Correlation	0.155	-0.088	-0.141	0.21
	Sig. (2-tailed)	0.238	0.504	0.281	0.107
	N	60	60	60	60
Education	Pearson Correlation	-.290(*)	-0.072	0.087	0.161
	Sig. (2-tailed)	0.03	0.599	0.523	0.236
	N	56	56	56	56

* Indicates correlation is significant at the 0.05 level (2-tailed).

** Indicates correlation is significant at the 0.01 level (2-tailed).

APPENDIX 4: REGRESSION EQUATIONS.

Table A4.1 The interaction between employment status and total social support regressed as determinants of psychological distress.

	Constant	Total Network (x_1)	Long-term UE dummy (x_2)	Recurrent UE dummy (x_3)	x_1x_2	x_1x_3
Coefficient	19.772	-0.068977	-6.2029	-1.7137	0.0911	0.02706
t-value	3.006** (0.0039)	-1.181 (0.2424)	-0.775 (0.4418)	-0.167 (0.8681)	1.268 (0.2099)	0.274 (0.785)
R ²	0.0577928					
N	63					
F-test (5, 57)	0.69925 (0.6262)					

⁺ $p \leq 0.10$.

* $p \leq 0.05$.

** $p \leq 0.01$.

Table A4.2 The interaction between employment status and total identity support regressed as determinants of psychological distress.

	Constant	Identity Network (x_1)	Long-term UE dummy (x_2)	Recurrent UE dummy (x_3)	x_1x_2	x_1x_3
Coefficient	12.013	0.020580	3.3597	6.1221	0.0032	-0.1992
t-value	2.504* (0.0152)	0.116 (0.9081)	0.631 (0.5307)	0.981 (0.3308)	0.016 (0.987)	-0.861 (0.3929)
R ²	0.0510869					
N	63					
F-test (5, 57)	0.61374 (0.6897)					

⁺ $p \leq 0.10$.

* $p \leq 0.05$.

** $p \leq 0.01$.

Table A4.3 *The interaction between employment status and total formal support regressed as determinants of psychological distress.*

	Constant	Formal network (x_1)	Long-term UE dummy (x_2)	Recurrent UE dummy (x_3)	x_1x_2	x_1x_3
Coefficient	12.184	0.019306	3.4508	-1.2061	-0.0036	0.19711
t-value	2.927** (0.0049)	0.092 (0.9272)	0.724 (0.4719)	-0.204 (0.8390)	-0.014 (0.9886)	0.598 (0.552)
R ²			0.0381799			
N			63			
F-test (5, 57)			0.45253 (0.8097)			

+ $p \leq 0.10$.

* $p \leq 0.05$.

** $p \leq 0.01$.

Table A4.4 *The interaction between employment status and total emotional support regressed as determinants of psychological distress.*

	Constant	Emotional Support (x_1)	Long-term UE dummy (x_2)	Recurrent UE dummy (x_3)	x_1x_2	x_1x_3
Coefficient	19.853	-0.39494	-4.6051	-2.1745	0.4253	0.22367
t-value	3.298** (0.0017)	-1.324 (0.1909)	-0.597 (0.5527)	-0.211 (0.8336)	1.124 (0.266)	0.461 (0.6468)
R ²			0.058075			
N			63			
F-test (5, 57)			0.70287 (0.6236)			

+ $p \leq 0.10$.

* $p \leq 0.05$.

** $p \leq 0.01$.

Table A4.5 *The interaction between employment status and total socialising support regressed as determinants of psychological distress.*

	Constant	Socialising Support (x_1)	Long-term UE dummy (x_2)	Recurrent UE dummy (x_3)	x_1x_2	x_1x_3
Coefficient	21.906	-0.51439	-7.2174	-5.8045	0.5735	0.41226
t-value	3.504**	-1.619	-0.908	-0.562	1.442	0.810
	(0.0009)	(0.1111)	(0.3679)	(0.5762)	(0.155)	(0.4212)
R^2	0.0703321					
N	63					
F-test (5, 57)	0.86244 (0.5120)					

⁺ $p \leq 0.10$.

* $p \leq 0.05$.

** $p \leq 0.01$.

Table A4.6 *The interaction between employment status and total advice support regressed as determinants of psychological distress.*

	Constant	Advice Support (x_1)	Long-term UE dummy (x_2)	Recurrent UE dummy (x_3)	x_1x_2	x_1x_3
Coefficient	16.298	-21357	-1.2335	-4.1195	0.25538	0.3038
t-value	2.992**	-0.772	-0.185	-0.493	0.761	0.762
	(0.0041)	(0.4431)	(0.8541)	(0.6241)	(0.4495)	(0.449)
R^2	0.0380881					
N	63					
F-test (5, 57)	0.4514 (0.8105)					

⁺ $p \leq 0.10$.

* $p \leq 0.05$.

** $p \leq 0.01$.

Table A4.7 *The interaction between employment status and total practical support regressed as determinants of psychological distress.*

	Constant	Practical Support (x_1)	Long-term UE dummy (x_2)	Recurrent UE dummy (x_3)	x_1x_2	x_1x_3
Coefficient	18.818	-0.37483	-0.56318	-4.2320	0.2483	0.34671
t-value	3.358**	-1.238	-0.080	-0.456	0.679	0.715
	(0.0014)	(0.2206)	(0.9362)	(0.6505)	(0.500)	(0.4774)
R ²		0.057294				
N		63				
F-test (5, 57)		0.69285	(0.6309)			

+ $p \leq 0.10$.

* $p \leq 0.05$.

** $p \leq 0.01$.

Table A4.8 *The interaction between employment status and total financial support regressed as determinants of psychological distress.*

	Constant	Financial Support (x_1)	Long-term UE dummy (x_2)	Recurrent UE dummy (x_3)	x_1x_2	x_1x_3
Coefficient	17.613	-0.35261	-1.1526	1.4666	0.3135	-0.02339
t-value	3.509**	-1.148	-0.180	0.185	0.814	-0.044
	(0.0009)	(0.2557)	(0.8577)	(0.8541)	(0.419)	(0.9650)
R ²		0.0601555				
N		63				
F-test (5, 57)		0.72967	(0.6041)			

+ $p \leq 0.10$.

* $p \leq 0.05$.

** $p \leq 0.01$.

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