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LONG-TERM UNEMPLOYMENT AND  
MENTAL HEALTH IN  
NEW ZEALAND

A thesis presented in partial fulfilment of  
the requirements for the degree of Doctor of Philosophy  
in Psychology at Massey University

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## ABSTRACT

The aim of the present research was to identify environmental features and personal characteristics and their relationship to mental health among long-term unemployed people in New Zealand. Warr's Vitamin Model of unemployment was investigated in a cross-sectional/longitudinal study. In the Main Study 532 people who had been unemployed for at least six months, were surveyed. A wide ranging questionnaire, the General Health Questionnaire 12 (GHQ) and the Rosenberg (1965) Self-Esteem Scale (RSE) were administered. This was followed by an interview in which people selected themselves into 4 groups. One group or 28.6% "wanted employment", 35% felt "not able to work", 27.2% stated having "alternatives to employment" and a small minority of 9.2% were "interested in training". One year later, people from each of the 4 unemployed groups and one group of re-employed people were re-interviewed in the Follow-up Study (N=99). A shortened questionnaire, the GHQ, the RSE and the Hopkins Symptom Checklist 25 (HSCL) were administered. A series of multiple regressions supported Warr's Vitamin Model, as five environmental features were associated with mental health levels in the Main Study and two in the Follow-up Study. A number of personal characteristics were also significant predictors of mental health. Generally, mental health levels of the unemployed were low, but re-employment resulted in significant improvements. The results of the Follow-up Study showed that the percentage of people "wanting employment" and "interested in training" decreased, whereas the group having "alternatives to employment" increased. The group "not able to work" stayed the same in size. Mental health levels were low in the groups "wanting employment" and "interested in training". Extremely low mental health was evident in the group "not able to work". In the group "alternatives to employment"

mental health levels were high and more similar to levels observed in the employed group. Several moderator variables of the negative experience of unemployment were tested such as "age", "gender", "marital status" and "stated ethnic origin". The results show that long-term unemployed people are not a homogeneous group and significant differences in mental health exist within sub-groups. Recommendations for future research were made.

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CHAPTER 1

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## **1.1 Introduction to Chapter 1**

Long-term unemployment is a recent phenomenon in New Zealand and possible health and mental health consequences are not well known. Research overseas has consistently shown that periods of unemployment are for most people a very destructive experience (Harrison, 1976) and have serious negative mental health effects (Feather & O'Brien, 1986; Hepworth, 1980; Vaillant & Vaillant, 1981; Warr, 1984). Given New Zealand's unique cultural and environmental conditions and considering these as an important behavioural determinant (Segall, 1979), generalizations from overseas research may be inappropriate. Therefore the aim of the present thesis is to investigate the relationship between long-term unemployment and mental health in New Zealand.

However, in the context of this research it is necessary to define who is considered to be unemployed and long-term unemployed. Furthermore the psychology of unemployment and the concept of mental health need to be addressed, before New Zealand's unique position in the Western world is discussed in detail.

## **1.2 Who is considered to be unemployed?**

The definition of who is unemployed for the purposes of research is difficult. There are three main definitions of the unemployed: the bureaucratic, functional and self-definition (Kelvin & Jarrett, 1985). Psychologically these distinctions all overlap and although they are all relevant they are also most often inadequate singly and in combination.

The term unemployment as we now use it goes back to the late 19th century. Before then the unemployed were part of the largely undifferentiated mass of the poor, provided for, if at all, under Poor Law (Garraty, 1978). However, in the late 19th century and early 20th century it became clear that unemployment in the Western world was a problem associated with the setbacks and fluctuations of commerce and industry (Beveridge, 1944).

In New Zealand the increase of unemployment during the Depression prompted the first major response by the government with the Unemployment Act in 1930, which provided the establishment of an Unemployment Board (Tennant, 1989). The unemployed were registered and became a special category and were provided for by the state. Therefore the definition of who is unemployed is profoundly effected by the state's criteria of who should be entitled to its provision. Generally this entitlement refers to a person who is of working age without a job and actively looking for one (Mitton, Willmott, & Willmott, 1983).

This administrative and political criterion used by the state to define unemployment is in many cases not adequate considering the functional criteria used by a psychologist or economist. For example a large number of married women who are unemployed, have little incentive to register as they are not entitled to benefits. They are not considered to be unemployed and therefore are not part of the unemployment statistics. Unemployed single mothers, receiving the Domestic Purpose Benefit in New Zealand do not gain financially in registering (Macky & Haines, 1982). However, many are functionally unemployed, inasmuch as they are looking for work and are thus part of the work-force. Psychologically and in terms of self-definition these women are unemployed as they see themselves "normally" in a job but are unable to obtain one.

Furthermore some people are entitled to a benefit and claim it, and in doing so are theoretically expected to look for employment. However, they may not be in search of employment and may not consider themselves as part of the workforce being near retirement or for health reasons. This includes also people who may have adapted to unemployment or are discouraged job-seekers and have accepted living on the welfare benefit and no longer want or expect employment. And there may be a small number of people who claim and get benefits as unemployed but also work at least occasionally in the "informal economy" (Kelvin & Jarrett, 1985). These people are functionally part of the work force and they may not see themselves as unemployed in the same sense as those really without employment.

These problems of definition associated with who should count as unemployed and of measuring unemployment have always been controversial (Beveridge, 1944; Sinfield, 1981). In New Zealand there are four main sources of unemployment statistics, which all involve slightly different definitions of the unemployed person: i) the census of population and dwellings (five yearly), ii) the Household Labour Force Survey (quarterly, since the end of 1985), iii) the unemployment benefit statistics of the Department of Social Welfare (yearly, at least) and the iv) unemployment register of the Labour Department (monthly) (for more detail refer to Shirley, Easton, Briar, & Chatterjee, 1990; pp. 115-134). For international comparisons the figures of the Household Labour Force Survey are used. For internal purposes, however, the register of the New Zealand Employment Service of the Department of Labour is considered the indicator of national unemployment levels. There is no compulsion to register, unless one is an unemployment beneficiary.

Most researchers on the unemployed have selected for practical reasons samples of people who are on the register of the Department of Labour (Kelvin & Jarrett, 1985) despite the problems involved. In New Zealand as in most Western countries, the registered unemployed people constitute the majority of the unemployed (with the exception of married women). Therefore it appeared reasonable that the sample for the present study was selected from people who were registered unemployed in Palmerston North.

Considerations of who is long-term unemployed varies from country to country. In Britain since the early 1980s the customary definition of long-term unemployment implies registration for one year or more. It is after one year that any entitlement to insurance-based unemployment benefit ceases (White, 1983). In other countries, including New Zealand six months registration as unemployed with the New Zealand Employment Service serves as the criteria of distinction between a period of medium term unemployment and long-term unemployment (Shirley et al., 1990). Evidence on the experience of unemployment indicates that six months unemployed is a more appropriate time period as it can no longer be described as seasonal or to be due to particularly bad weather conditions (Sinfield, 1981). This time frame also coincides with research findings on mental health and unemployment which indicated that after three to six months a stabilization at low levels of mental health (rather than a continuing decline) was observed (Warr, 1987). As the focus of this research is long-term unemployment only people registered six months or longer were asked to participate.



### 1.3 The psychological meaning of unemployment

The psychological meaning of unemployment is difficult to describe without considering the psychological implications of employment. Jahoda (1979; 1980; 1981; 1982) investigated this relationship empirically and emphasized the psychological deprivations experienced by unemployment (for a full account of her approach refer to Chapter 2, section 2.4). However, for the purpose of this introduction, a more general understanding of the psychology of unemployment is required and a distinction between employment and unemployment is outlined below.

Warr (1987) defines employment as having a single paid job with terms and conditions summarized in an explicit or implicit contract. Fryer and Ullah (1987) refer to employment as work under contractual and institutionally regulated arrangements, involving material rewards. Therefore a psychological definition of employment involves four factors: (i) income (ii) a voluntary exchange relationship, (iii) an institutional relationship and (iv) work (Fryer & Payne, 1986). A comparison on these four factors in employment and unemployment describes the advantages and disadvantages in each condition and contributes to an understanding of the psychological meaning of unemployment.

#### (i) Income

The income of employed people is generally higher than the unemployment benefit (White, 1983). Employment has often other material and financial benefits: heating and lighting during working hours, subsidized canteen and sports facilities and discounts or use of a telephone or work car. Therefore earned income of employed people provides a reasonable standard of living and allows independence and self-determination (Fryer & Payne, 1986).

Social Welfare's unemployment benefit is a system designed to adjust the individual's income to the minimum required to survive (Seabrook, 1982). For people on the benefit there is generally little room for expenditure such as clothing, replacement of household items or family, social and leisure activity (Bradshaw, Cooke, & Godfrey, 1983). Subsidized sporting and leisure facilities are usually not available. Daily expenses such as heating and lighting increase and the job search with travel expenses and the cost of self-presentation are usually above the means of the unemployed (Fryer & Payne, 1986). Self-determination, planning the future and a measure of control is increasingly difficult (Campbell, 1984). The unemployed person has not only lost an occupation and an income but due to loss of earnings experiences downward social mobility (Fryer & Payne, 1986).

(ii) Voluntary exchange relationship

The fundamental right of employed people is to negotiate the terms and conditions of employment (Fryer & Payne, 1986) (although in New Zealand this right has been somewhat curtailed by the Employment Contracts Act, 1991) (Rudman, 1991). The relationship is voluntary and either side is able to dissolve the contract.

Most unemployed people are not able to negotiate their terms and conditions of their benefit with the State. Instead, they have obligations and responsibilities as beneficiaries to register with the employment office. They have to report at the office, to be available for work, to notify casual work done and to be prepared to accept any job seen as appropriate by the employment officer. Under the conditions of unemployment personal agency is severely limited (Fryer & Ullah, 1987).

### (iii) Institutional relationship

The majority of the employed have an institutional role. The industry, company or place of employment provide identity, status and a place in the social order (Marsden, 1982). In most countries the institutional role is associated with trade union membership which provides collective resources, responsibilities and political influence (Fryer & Payne, 1986).

The unemployed person loses the positive status of being employed and also gains a negative one (living off the tax payer, or the state, the "dole bludger") (Kelvin, 1981; Kelvin & Jarrett, 1985). In addition society has many expectations of the unemployed, who are supposed to be economical and spend their money wisely (Richards, 1991).

### (iv) Work

Jahoda (1982) defined work as an activity for a purpose beyond the pleasure of its own execution. There are activities which are clearly work but do not involve employment, such as for example housework, gardenwork, childcare or study. Work under conditions of employment has an economic purpose and reward. It offers some psychological advantages such as for example the exercise of one's skills and the experience of achievement (Atkinson, 1964).

During unemployment work such as housework, gardenwork, childcare or study is still available for the unemployed. Other activities which necessitate tools, materials, workshop space or transport may not be. Therefore work has changed for the unemployed but is not eliminated and the majority have to meet these work obligations with reduced resources. However, for many unemployed people the loss of employment is considered a double loss: they see themselves not only being deprived of the rewards of the

exchange relationship but also of the benefits of the work itself (Hartley, 1980).

This comparison suggested that the disadvantages of unemployment are not simply a lack of the advantages of employment. It described a fundamental change in the occupational and social relationships of the individual and a severe limitation of personal self-determination and control under conditions of reduced material resources (Fryer & Payne, 1986).

#### 1.4 Mental health

There is no universally accepted definition of the concept of mental health. This is due to difficulties experienced by researchers to reach a general agreement about its meaning as mental health is bound by culture and by time (Jahoda, 1958). Contemporary society most often accepts as healthy those processes and outcomes which are typically valued by the middle class members of that society (Warr 1987). In this way a mentally healthy child living in 20th century Western society might be considered disturbed if s/he lived in the Victorian era (Durie, 1985).

The concept of mental health used as the basis for medical decision making, implies the application of three criteria, which designate individuals as either mentally "ill" or "not ill". The first criterion is that a person feels unwell, the second that a psychological, social or physical function is impaired and thirdly that there is a recognizable pattern or syndrome (Davidson & Neale, 1982). Generally, however, the mentally healthy individual in Western society is considered to be a person who is functioning at a high level of behavioural and emotional adjustment,

rather than one who is simply not mentally ill (Reber, 1985). ~~The~~ <sup>the</sup> New Zealand Maori concept of mental health as a separate entity from physical health has little traditional meaning. Health from the Maori perspective has always acknowledged the unity of the soul, the mind, the body and the family (Durie, 1985). Maori leaders consider the land (whenua), family (whanau) and language (reo) as critical determinants of good mental health (Abbott & Durie, 1987). According to Durie (1985) Western mental health concepts have centred on the importance of the individual, on self-sufficiency and self-assertion which in Maori terms is the antithesis of mental health. Interdependence, rather than independence is considered desirable in Maori society (Rangihau, 1975).

New Zealand's dominant culture is Western or more specifically British and New Zealand European (Willmott, 1989), although being a multi-cultural society. Therefore for the purposes of the present research a Western perspective of mental health according to Warr (1987) is adopted. Warr describes five major components of mental health which are: i) affective well-being, ii) competence, iii) autonomy, iv) aspiration and v) integrated functioning. Affective well being describes how a person feels. Competence, autonomy and aspiration describe aspects of a person's behaviour in relation to the environment and are considered important in three ways: a) They determine the level of a person's affective well-being; b) they tend to be valued in their own right as indicators of good mental health and c) each component can be viewed objectively in terms of the individual's perception of his or her own competence, autonomy or aspiration. The fifth component "integrated functioning" is concerned with the multiple relationship between the other four components (for a full account of each individual component refer to Chapter 2, section 2. 5. 1).

This concept of mental health does not characterize people as "ill" or "not ill". The emphasis is upon variations in degrees of mental health in the population, which may range from very good mental health, through conditions considered moderately healthy to those widely taken as moderate and severe illness. The assumption is a normal frequency distribution with most people falling in the middle range of the mental health continuum and only a few at each extreme (Warr, 1987).

Warr suggests that affective well-being describes how a person feels and that subjectively assessed levels of competence, autonomy and aspiration are major elements of self esteem. For this reason mental health is operationally defined in the context of this research as a certain range of scores on an affective well-being scale and self-esteem measure (for details of scales and measures refer to Chapter 4, section 4. 4. 1 and 4. 4. 2). On the basis of previous empirically determined validity and reliability, it is assumed that such measures accurately reflect a person's level of mental health.

### **1. 5 New Zealand and unemployment**

Over the last 20 years due to economic recessions in the early 1970s and early 1980s unemployment rates in most Western countries have risen from about 3% of post World War II levels to between 10% and 15%. Within each country there are wide variations in the overall rate so that for some groups 20% to 30% unemployment is not uncommon (Warr, 1984). However, New Zealand's experience with unemployment has been almost unique. After World War II the unemployment rate averaged only 0.17% (Hicks, 1984) for nearly three decades. In the middle of the 1970s a steady climb of unemployment levels began and by 1981 it had risen to 3.8% (Hicks, 1984)

and by 1986 to 4.3% (Department of Labour, 1986). The OECD average unemployment rate for 1985 was 8.1% and Australia's unemployment level was nearly twice (8.3%) that of New Zealand (Department of Labour, 1986). However, in the mid 1980s most Western economies started to recover and experienced some economic growth, with the exception of New Zealand where the opposite trend occurred. At the time of the initial data collection of this study in 1989, New Zealand had reached higher levels of unemployment than most OECD countries. The unemployment rate was higher than that of Australia, the USA, Germany and Britain and these levels were still rising (Brosnan & Wilson, 1989). Over the last four years the numbers of people unemployed in New Zealand have risen to 13% (Staff, 1989). Therefore the experience of long spells of unemployment, redundancies and early retirement in New Zealand has been very recent in comparison to most other countries.

There is no single explanation as to how high unemployment of the late 1980s has come about in New Zealand, the issue of causation being a matter of contention. Shirley, Easton, Briar and Chatterjee (1990) attribute it to the disinflationary governmental policies and the transitional implications of economic restructuring. Despite government promises it seems highly unlikely that the 1990s will witness a return to the pattern of full employment (Abbott, 1990).

Whatever the political or economic reasons for the present high unemployment rate in New Zealand, the future for the unemployed people is a matter of great concern. As in the rest of the Western world unemployment in New Zealand in the late 1980s and early 1990s has been mainly concentrated among the younger age groups. Many are unskilled or previously employed in restructured or declining industries or working in the public sector (Department of Labour, 1990). There are some unemployed

people from ethnic minorities or with physical, mental or psychiatric disabilities (Department of Labour, 1990). In addition, there is an ever increasing number of people who are long-term unemployed, that is, people who experience continuous unemployment for longer than six months (Shirley et al., 1990). In 1989 the national average number of long-term unemployed people in New Zealand was 43.3 %, nearly half of all registered as unemployed (Brosnan & Wilson, 1989). The real scale of the long-term unemployed problem is disguised by the official practice of only counting those who have been registered as unemployed in one uninterrupted period (Sinfield, 1981).

Overseas research has provided evidence that unemployment has serious consequences for mental and physical health leading to symptoms of depression, anxiety, distress, general loss of morale, increased levels of blood pressure, stress and general ill health (Dooley & Catalano, 1980; Fleming, Baum, Reddy, & Gatchel, 1984; Kasl, Gore & Cobb, 1975; Macky & Haines, 1982; Warr, 1984a). Furthermore, most research reports demonstrate a relationship between unemployment and a wide range of social problems such as suicide, family and marital breakdown, child abuse, racial conflict, violence and crime (Shirley et al. 1990).

In New Zealand, there has been little empirical research into these consequences of unemployment (Abbott, 1982; 1990; Shirley et al., 1990). The exceptions are studies on school leavers (Haines & Macky, 1982; Macky, 1985; Stacey, 1984), on womens' employment and unemployment (Hancock, 1982; Shipley, 1982) and on recently unemployed people (Hesketh, 1984; Hesketh & Shouksmith, 1982). Furthermore, there are investigations of training programmes for long-term unemployed people (Employment Policy Division, 1984), case studies, reports and surveys on the social effects of unemployment on youths and freezing workers and accounts owing to



factory closure (Nicholls & Piesse, 1982; "Shutdown", 1982; Waldegrave & Coventry, 1982). The possibility of severe physical health consequences of unemployment has been suggested by Bethwaite, Baker, Pearce and Kawachi (1990), although local research has generally been on a small scale. Two studies have examined the epidemiology of suicide in New Zealand, based on hospital admissions and coroner's records (Antoniadis, 1988; Howell et al., 1980) and MacDonald, Pearce, Salter and Smith (1982) applied a time series model to New Zealand data to assess the correlations between health indices and the rise in unemployment. However, the psychological study of unemployment and in particular the study of long-term unemployment has been neglected. To date no systematic attempt has been made in New Zealand to study mental health and long-term unemployment. Therefore the present thesis hopes to fill that gap.

## 1.6 Summary

The first part of the above outline stated the need for a New Zealand study of long-term unemployment. Long-term unemployment is a recent occurrence in New Zealand. Overseas research findings have consistently indicated a relationship between low levels of mental and physical health, social problems and unemployment. Whether these generalizations do apply to New Zealand, given its unique cultural and environmental conditions, is the aim of the present study.

The second part described who is considered to be unemployed and by what criteria the designation was made. The bureaucratic criteria used for registering as unemployed is essentially administrative and affected by the state's regulations of who should be entitled to its support. It is in many

cases (for example married women) not adequate as a functional description or as a self-definition of unemployment. Therefore the definition of unemployment is problematic as the criteria of distinction overlap. Despite these difficulties most researchers have selected their sample from the register of the Department of Labour. This study is concerned with a sample of long-term unemployed people (six months or longer) registered with the New Zealand Employment Service of the Department of Labour.

The third section outlined a comparison on four factors between employment and unemployment to enhance the understanding of the psychological meaning of unemployment. These four factors are: income, a voluntary exchange relationship, an institutional relationship and work (Fyer & Payne, 1986). This comparison suggested a total change in the occupational and social relationships of the unemployed person. Furthermore reduced material resources are seen as severely limiting personal self-determination and control (Fryer & Payne, 1986).

The concept of mental health was defined in the fourth part of the above outline. A description of what is generally considered to be mentally healthy was followed by the criteria used by Western medical professionals and the New Zealand Maori perspective. It is acknowledged that New Zealand's dominant culture is Western and for this reason a Western perspective of mental health according to Warr (1987) was adopted. Warr describes five major components of mental health which are: i) affective well-being, ii) competence, iii) autonomy, iv) aspiration and v) integrated functioning. Warr suggests that affective well-being reflects how a person feels and subjectively assessed levels of competence, autonomy and aspiration are major elements of self esteem. Therefore mental health is operationally defined for the purposes of the present research as a certain range of scores on a well-being scale and self-esteem measure.

The last part addressed New Zealand's unique position in the Western world and outlined its historical development in the area of unemployment. It described the transformation of New Zealand from a country with the lowest post-war unemployment rates in the world to the present situation as a country with one of the highest levels. Empirical research and general studies on unemployment are discussed. Research into long-term unemployment has been neglected and the present study hopes to fill that gap.

This thesis is based on a sample of long-term (six months and longer) unemployed people registered with the New Zealand Employment Service in Palmerston North. It is concerned with long-term unemployment and mental health. Social scientists have proposed several models which attempted to explain the effects of unemployment on mental health and the major models are outlined in the next chapter.

## CHAPTER 2

## LITERATURE REVIEW

## MAJOR MODELS OF UNEMPLOYMENT

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## 2. 1 Introduction to Chapter 2

The world-wide economic depression in the 1930s brought about an increased awareness of the social and in particular the psychological problems associated with unemployment in most countries. Research by Lazarsfeld (1932), Jahoda, Lazarsfeld and Zeisel (1933; 1972), Bakke (1933), Beales and Lambert (1934), Zawadski and Lazarsfeld (1935) and Eisenberg and Lazarsfeld (1938), found that the majority of unemployed people experienced a deterioration in their psychological health.

These findings of the 1930s were reviewed in the 1970s and 1980s when once again the rate of unemployment increased in most Western countries after decades of relatively full employment. Despite increased unemployment benefits and improved economic and social circumstances a decline in psychological health was observed (Banks & Jackson, 1982; Buechtemann & Rosenblatt, 1981; Feather, 1982; Feather & Bond, 1983; Hentschel, Moeller, & Pintar, 1977). For a few the deterioration of mental health was such that they became psychiatrically ill or attempted or committed suicide (Jaco, 1960; Platt, 1984).

For several decades social scientists and psychologists have attempted to explain these phenomena and three major psychological models were developed. These were:

- (i) the Stage Model (Eisenberg & Lazarsfeld, 1938).
- (ii) the Latent Function Model of Employment (Jahoda, 1979; 1980).
- (iii) the Vitamin Model of Mental Health (Warr, 1987).

## 2.2 The Stage Model (Eisenberg & Lazarsfeld, 1938)

Eisenberg and Lazarsfeld (1938) outlined the psychological processes involved during unemployment and developed the Stage Model. They had reviewed the European and North American research in the area and summarized their findings by stating "... all writers who have described the course of unemployment seem to agree on the following points: First there is shock, which is followed by an active hunt for a job, during which the individual is still optimistic and unresigned, he still maintains an unbroken attitude. Second, when all efforts fail, the individual becomes pessimistic, anxious and suffers active distress; this is the most crucial state of all. And third, the individual becomes fatalistic and adapts himself to his new state but with a narrower scope. He now has a broken attitude" (p.378). Therefore according to Eisenberg and Lazarsfeld changes in behaviour during unemployment occurred in three main stages over time and these stages were: (i) shock - optimism, (ii) pessimism, (iii) fatalism. They suggested that any differences between individuals may affect the period spent in each stage, but not the development of these stages and not the ultimate psychological outcome of apathy during unemployment. Long-term unemployment will lead inevitably to a state of inertia, fatalism and apathy.

### 2.2.1 Supportive research findings

The Stage Model was influential in the 1930s and became important in the 1970s and 1980s. Many researchers have investigated and tested it and confirmed its three main stages. Kasl and Cobb (1970) studied men undergoing plant closure and found that two months after closure stress levels had reduced to those before plant closure levels. There was a significant increase in stress six months after termination and a significant decline six months later. Hepworth's (1980) study confirmed Kasl and Cobb's findings and documented significant differences in affective well-being and

life satisfaction means for groups of men unemployed for more than six months in comparison to less than six months. Similar results were reported by Kaufman (1982) in his research of unemployed professionals. Those out of paid work the longest, felt less family stress. Kaufman suggested that the long-term unemployed had adjusted to their situation and this contributed to a reduction in tension at home. Results from Warr and Jackson (1984) supported Kaufman's findings. They found significant associations between three measures of health change (general health, psychological and physical health) and duration of unemployment. The greatest deterioration was reported in these measures after six months of unemployment with evidence of a leveling off after this period.

Furthermore most research findings confirmed Eisenberg and Lazarsfeld (1938) statement that differential vulnerability of various groups such as differences due to culture (Binns & Mars, 1984; Stokes & Cochrane, 1984), differences due to age (Daniel & Stilgoe, 1977; Hill, 1978; Pilgrim Trust, 1938) or gender differences (Daniel, 1974; Jahoda et al., 1933; 1972; Sinfield, 1979; 1981) would affect the time spent in each stage and when these stages occurred, though not the order in which they occurred (Kaufman, 1982; Warr, 1984a; Warr & Jackson, 1985). However, not all data supports the model and some researchers found the empirical evidence concerning the three stages controversial.

### 2. 2. 2 Non supportive research findings

Several studies did not support all three stages suggested by the model. Platt and Kreitman's (1985) findings of their epidemiological study suggested that high levels of distress were associated with the initial shock phase, during the subsequent more optimistic phase distress levels improved, with progressively worsening levels during the later stages. However, the

levelling off period, so characteristic of the Stage Model did not appear to occur.

Furthermore cross-sectional studies which have systematically sampled unemployed people in terms of their length of unemployment, have not demonstrated significant associations between duration of unemployment and affective reactions (Platt & Kreitman, 1985; Warr, Jackson & Banks, 1982), motivation to be employed or reported concern for not having a job (Feather & Barber, 1983; Feather & Davenport, 1981).

Even some longitudinal studies, which generally provide stronger support for a relationship between psychological health and period of unemployment are inconclusive. Warr, Jackson and Banks (1982) and Feather and O'Brien (1986) explored psychological health of unemployed people over longer time frames. Decreases in life satisfaction and psychological health and increases in depressive affect were found, but there was no evidence of apathy, fatalism or adaptation.

In addition there is evidence of exceptions to the Stage Model. The literature of the 1930s (Beales & Lambert, 1934; Zawadski & Lazarsfeld, 1935) and as well the research findings of the 1970s and 1980s (Fagin & Little, 1984; Kasl, Gore, & Cobb, 1975; Kelvin & Jarrett, 1985) contain examples where unemployed people did not pass through the stages of shock - optimism to apathy. Some unemployed people did not show any negative psychological effects (Fagin & Little, 1984). Others lost their job and appeared to be most vulnerable either becoming psychiatrically ill or attempting or committing suicide (Jaco, 1960; Platt, 1984). Therefore the validity of a stage account experienced by all people who are unemployed is questionable. It might be possible to delineate some stages to unemployment, its generality though might be misleading and an oversimplification.



### 2. 2. 3 Limitations of the Stage Model

(i) Eisenberg and Lazarsfeld's conceptualization of the Stage Model is based mainly on autobiographies, memoirs, case histories and other self report measures (Bakke, 1933; Beales & Lambert, 1934; Jahoda, Lazarsfeld, & Zeisel, 1933; 1972; Zawadski & Lazarsfeld, 1935). Later researchers who supported the model adopted a similar methodology (Briar, 1977; Fagin & Little, 1984; Gould & Kenyon, 1972; Hill, 1978; Komarovsky, 1940; Marsden & Duff, 1975; Pilgrim Trust, 1938; Wedderburn, 1964). The limitation of this descriptive evidence lies not only in its sample size but also in its methodology. Many of the accounts of the unemployed are memories from the past and the experience might have had greater continuity and coherence retrospectively than it had at the time. Zawadski and Lazarsfeld's (1935) review for example was based on 57 autobiographies, which had been pre-selected from a collection of 774 biographies. Beales and Lambert (1934) had asked unemployed people to describe their shock - optimism - pessimism - fatalism sequence in essay format. They were asked for example about coping with feelings of pessimism and how they had been able to remain optimistic. This methodology was criticized by Fryer (1985), as the unemployed people were encouraged to consider their experiences in terms which were inherent in the Stage Model.

(ii) Researchers offered different definitions of each of the stages, and there was disagreement over the number of stages. Zawadski and Lazarsfeld (1935) described six stages in their investigations, in which stage four described the stage in which hopes were fading and stage five as feelings of hopelessness. The authors considered them as two different stages. Bakke (1933) after interviewing unemployed men reported five stages of adaptation to unemployment. Beales and Lambert (1934), Harrison (1976) and Kaufman (1982) described four distinctive stages, where the initial shock of losing a job was considered as a different stage from the optimistic phase which

followed. Kaufman's first stage contained shock, relief and relaxation, which were stages within stages. However, the variety of psychological experiences, was not distinctive of that first stage alone, and some of these emotions were also characteristic of later stages. Finley and Lee (1981) described three stages, and Briar (1977) noted two.

(iii) However, the most important criticism and limiting factor of the Stage Model is its lack of explanatory power. As it is stated in the British, Australian and American literature, it describes the experience of unemployed people, but it does not offer any explanation to why unemployment can be detrimental to psychological health. Dissatisfaction with the model made researchers look for other explanations of the observed psychological effects.

### **2.3 Other theories**

Kaufman (1982) suggested that the reactions associated with the stages of unemployment were consistent with the physiological theory of stress the General Adaptation Syndrome (Selye, 1956). The Adaptation Syndrome occurs in three stages; (i) the alarm reaction, (ii) the stage of resistance in which the mobilized forces and defences attempt to cope with the stress and (iii) the stage of exhaustion (Gatchel, Baum & Krantz, 1989). Selye's stress model, in particular the stage of resistance offered one explanation for the differential level of people's vulnerability to the negative effects of unemployment found by researchers.

Lindemann (1944) explained the sequence of stages experienced by the unemployed as a reaction to loss which is part of the normal grief process.

Parkes (1972) considered job loss as a psycho-social transition similar to transitions from school to work, from employment to retirement or to unemployment. These life-events are not necessarily destructive or harmful if they are successfully resolved by the individual. According to Fagin and Little (1984) a minority of people do not manage to overcome these transitions in a positive way, but find difficulties in accepting loss or making the necessary changes. These people are more likely to develop psychological or physical symptoms.

Feather and Davenport (1981) explained their findings of depression among unemployed young people within the theoretical framework of the expectancy-valence approach. This theory implies that the strength of the motivation to seek work may be related both to a person's expectations that his or her efforts will result in employment and to the perceived attractiveness of the nature of the employment itself. Their findings confirmed that people who are highly motivated to find employment are more depressed than people who are less motivated.

Researchers considered attribution theory (Feather & Barber, 1983; Hesketh, 1982) Beck's theory of depression (Feather, 1982; Tiggemann & Winefield, 1984) and helplessness theory (Feather & Davenport, 1981) as possible explanations of the adverse effects of long spells of unemployment. Erikson (1950) was particularly concerned about young people and their inability to settle on an occupational identity if unemployed after leaving school. According to his developmental theory the fifth major stage has as its central task the synthesis of ego. Erikson believed that the biggest threat to ego synthesis was either identity confusion, negative identity or identity foreclosure. Each stage is characterized by the developmental crisis which has to be mastered and if not resolved, success in later stages is unlikely. Therefore inhibited development could be a disturbing possibility for those

who are unemployed for long periods after leaving school. Haines and Macky (1982) in New Zealand suggested that unemployment delays the transition from school to work, impairing the development of an occupational identity and of work habits which may lead to unemployability and an increase of social problems. Social scientists agreed that gaining a job was of great significance for young people, as it signified the end of childhood and ensured financial independence. Aspirations may be inhibited and it was feared that young people who have never known a job might lose interest in paid employment. Banks and Ullah (1986), however, documented that particularly young people retained the strong desire for employment, even if their job seeking behaviour decreased. Personal development may also be inhibited by having to live at home. The unemployed young person may be denied the development of skills, knowledge and competence which a job, the work environment and interactions with adult colleagues may provide. These hypotheses are largely speculative as so far only few studies have been able to investigate developmental and attitudinal issues of young unemployed people (Gurney, 1981).

To consider the impaired psychological health of the unemployed people in terms of <sup>these theories</sup> seemed to explain the negative experience of unemployment in terms of the personal characteristics of the individual. It did not take sufficiently into account the environment the particular individual lived in. It was not until the late 1970s that the interest in theoretically based research of the psychological effects of unemployment increased and a new model was proposed.

Jahoda (1979, 1981) approached the question why does unemployment lead to a deterioration of psychological health, by focusing her attention on the meaning of employment. According to Jahoda once the meaning of

employment is identified, it would be easier to understand a situation without it. She developed her argument from Merton's (1957) paradigm for functional analysis and was able to propose the Latent Function Model of Employment.

#### 2.4 Latent Function Model of Employment (Jahoda, 1979; 1981)

The Marienthal study by Jahoda, Lazarsfeld and Zeisel in 1933 has become closely associated with a particular set of explanations of the effects of unemployment which Jahoda developed and formulated in 1979, 1981 and 1982. Jahoda (1979) argued, basing her ideas on the experience and observations at Marienthal, that the distress associated with unemployment cannot be considered in isolation and can only be understood from the perspective of employment. Jahoda (1981) claimed that being employed has consequences, some of which are clearly evident. She considered earning a living as the obvious consequence of employment. But having a job has also latent consequences and these enable one "to understand the motivation to work beyond earning a living; to understand why work is psychologically supportive even when conditions are bad and, by the same token, why unemployment is psychologically destructive" (Jahoda, 1979; p. 313). The latent consequences of employment are seen as unintended by-products of the purposeful action that is necessary to achieve the obvious consequences. Jahoda (1981) lists the following positive latent consequences or functions of employment:

- (i) Employment imposes a time structure.
- (ii) Employment implies regularly shared experiences and contacts with people outside their family.

- (iii) Employment links an individual to transcending goals and purposes.
- (iv) Employment defines aspects of personal status and identity.
- (v) Employment enforces activity.

Following Freud (1930), Jahoda assumed that these employment consequences provide ties with reality and therefore the employed person is not overwhelmed by fantasy and emotion. For the unemployed person these ties are diminished. According to Jahoda both the obvious and latent consequences or functions of employment are viewed as objective consequences that occur for all people who are employed. These consequences are inevitable and are imposed by the employment situation in industrialized societies.

Employment is the major institution in Western society that provides these positive latent functions, which seem necessary for the individual's psychological health. According to Jahoda's model the negative effects of unemployment are due to the withdrawal or deprivation of some or all of the five functions which are provided by employment and which meet basic human needs. She states that there are institutions other than formal employment that have the same psychologically relevant consequences such as the criminal gangs, moonlighting or those who work for the informal economy. This might explain why some people although unemployed stay psychologically healthy (Jahoda, 1982).

Jahoda suggested that the Latent Function Model applies to employment and unemployment in Western industrialized societies only, where formal employment has such an importance to people. In predominantly agricultural societies or in countries where the Western work ethic is not as firmly established the model might not provide a valid conceptual framework.

#### 2. 4. 1 Supportive research findings

The Latent Function Model of Employment has been given considerable impressionistic support. Seabrook (1982) described the way of life and the hardship experienced by people without employment in several areas in Great Britain. Throughout his account of many personal stories of unemployed individuals he confirmed the latent functions identified by Jahoda (1979; 1981). According to his observations the absence of a time structure was the most important of the latent functions, as without it there was boredom, monotony and desperation. The sociological study by Binns and Mars (1984) which explored social relations of unemployed heads of families in a Glasgow housing estate, confirmed the findings of Seabrook, although the study did not specifically test the Latent Function Model. They described the loss of status and identity, the loneliness, isolation, boredom and lack of purpose and activity experienced by all men. The East London study of the psychological effects on 22 families (Fagin & Little, 1984) focused on the positive aspects of employment which the unemployed families were likely to miss. Therefore in addition to the five latent functions of Jahoda's model, two manifest functions such as income and opportunity to develop skills and creativity were explored. The findings suggested wide support for the Latent Function Model.

Empirical support was provided by Henwood (1983), and Henwood and Miles (1987). They considered the Latent Function Model a useful conceptualization of the experience of unemployment. Henwood (1983) used a simple measure to investigate the hypothesis that formal employment allows access to certain categories of experience (ACE) (in Jahoda's terminology latent functions), denied to those not in employment. The study was based on a postal questionnaire distributed to residents of Brighton. Her results showed a positive relationship between being in employment and ACE. Unemployed men and women's ACE tended to be

depressed below the level that would be likely to be obtained if employed. Henwood and Miles (1987) reported a further study from Brighton which focused on the variations in ACE among groups of unemployed people. It was found that there was a wide span of variation in ACE scores and these scores were positively correlated with measures of psychological well-being. When gender differences were investigated, registered unemployed women differed from employed women in psychological well-being as well as ACE measures, in much the same way as unemployed and employed men differ. Despite the support of the Latent Function Model and its usefulness, there are several limitations to the model.

#### 2. 4. 2 Non supportive research findings

The model's implied linear relationship that psychological health of the unemployed will always be worse than for the employed is not always supported by the research literature. Warr (1987) cited examples where people disliked being employed because of an over-rigid structure in their work situation. Furthermore some jobs might isolate a person to such an extent that this isolation at work may in some cases be more severe than that out of work. Locke (1976) provided evidence from research that for at least 25% of the people working, employment was dissatisfying. Some 10 to 15% of the employed population reported levels of stress high enough to warrant some medical or psychological help (Fletcher & Payne, 1980) and about 20% identified employment as the major source of their stress (Warr & Payne, 1982). Several researchers have found that health and psychological well-being improved in some who have been made unemployed (Schwefel, John, Potthof, & Hechler, 1984; Warr & Jackson, 1984). These findings suggest that although the five latent functions were absent, physical and mental health improved.



### 2. 4. 3 Limitations of the Latent Function Model

(i) Jahoda's model is difficult to refute. According to Jahoda if the unemployed person remains psychologically well, this may be occurring, because the person is obtaining support from some other social institution such as moonlighting, organized crime or the informal economy. But humans are social beings and they are often members of a social institution such as for example a church, voluntary organizations, charity trusts, a gang, peer group or support group or the informal economy (Fryer, 1986). Therefore there are difficulties to reject the model in its present form since counter examples can always be explained away by the latent functions themselves.

(ii) The Latent Function Model suggests that people are dependant on external situations for enforcing activity, for imposing a time structure, for providing a goal or a purpose and for stimulating the individual into activity. Therefore to the extent that the model has explanatory power the assumption must be that people are influenced by the environment alone and do not initiate actions from within themselves. People are seen as passive with no self-chosen goals. Fryer (1986) objects to this one sided view of human behaviour and cites Maslow's hierarchy of needs as an example where there is no suggestion that the person waits passively for the need to be satisfied. The multi- stage model of ego development by Loevinger (1976) describes the behaviour pattern of humans with an alertness and responsiveness absent from the environmental model by Jahoda.

(iii) The model does not offer an explanation for the psychological consequences of unemployment of those who have never been employed, such as school leavers or students, unless it is assumed that school or University duplicate the supportive function of employment.

Despite the limitations of Jahoda's Latent Function of Employment Model it provided stimuli to the empirical study of the unemployed and a new and useful conceptual framework to explain the psychological effects of unemployment. As the model explained psychological deterioration by very general criteria, Warr (1987) suggested more specific items, applicable not only to the employed and unemployed environment but to any setting. Therefore Warr's Vitamin Model sets out to be wider and more comprehensive in its coverage than Jahoda's perspective which is restricted to the influence of intrinsic job features. However, it is compatible with Jahoda's framework. Warr proposed nine environmental features, where he incorporated Jahoda's five latent functions which determined mental health. He added some manifest functions of employment, such as money and skill use and other features. He proposed a comprehensive definition of mental health and suggested ways how the nine environmental features influence mental health. In this way Warr offered an explanation also for the occurrence of the three psychological stages of the Stage Model.

As the Vitamin Model is investigated in the present thesis it is described in more detail. Research findings are integrated in the main part of the model rather than presented separately at the end.

## **2.5 The Vitamin Model of Mental Health (Warr, 1987)**

The Vitamin Model is a broad ranging model of nine environmental features which influence mental health in all settings. At the core of the model is a postulated pattern of association between level of an environmental feature and level of mental health. Each environmental feature is suggested to be particularly harmful at low values, but to have a

constantly beneficial effect across a wide range beyond a certain threshold. This pattern corresponds to that representing the influence of vitamins upon physical health and it is from that similarity that the model is overall termed the Vitamin Model. Although Warr (1987) takes into consideration individual differences, he emphasizes that the model is a situation centred enabling model in that people are assumed to be able to shape the character of their environment and to influence its impact upon them.

Warr applies the model to the setting of paid work and unemployment. In the context of the present study the unemployed environment and its relationship to mental health is given particular emphasis. An integral part of the Vitamin Model is Warr's comprehensive definition of mental health. The present study focuses on mental health and unemployment and for this reason Warr's definition is adopted. Therefore before presenting the model the concept of mental health is outlined below.

### 2.5.1 Mental health

Warr proposes five principal components of mental health: (i) affective well-being, (ii) competence, (iii) autonomy, (iv) aspiration and (v) integrated functioning. His perspective summarizes principal aspects of mental health developed by many Western writers.

#### (i) Affective well-being.

Affective well-being describes how a person feels. Warr identifies two dimensions of affective well-being: pleasure and arousal. In this way any affective state can be seen in terms of its position within the dimensions of pleasure and arousal. Any particular level of pleasure may be accompanied by high or low levels of arousal and a particular level of arousal may be either pleasurable or not pleasurable. Therefore the quality of affect is

derived from both dimensions. Warr acknowledges that the description of affective well-being includes a time period in which a person stays in a particular affective state, and the intensity with which it is experienced. Feelings are usually focused upon particular issues or objects. Thus one can feel depressed about unemployment, but may be pleased about a sports activity. Warr (1987) suggests that self-esteem may be viewed in terms of feelings or self-evaluations about the self. Other researchers pointed out that feelings about oneself are influenced by other aspects of one's life (Wessman & Ricks, 1966). Warr concluded that within his model self-evaluations of one's competence, autonomy and aspiration are significant contributors to self-esteem.

(ii) competence

Warr draws from theories developed by other writers and states that competence may be firstly viewed as "objective", what a person can actually do. Secondly there is "subjective" competence, what a person feels he or she can do. Jahoda (1958) understood the objective sense in terms of an acceptable degree of success in different spheres such as for example interpersonal relations, problem solving and paid employment. Bandura (1977) described the subjective sense of competence in terms of self-efficacy or individual expectations of personal mastery. Therefore the competent person is one who has adequate psychological resources to deal with the environment and a good level of self-efficiency.

(iii) Autonomy

Central to the concept of autonomy is the ability of the individual to resist environmental or social influences, to act upon the environment and to rely upon his or her own judgement and feeling responsible for his or her actions (Jahoda, 1958). Autonomy is linked with competence and aspiration.

By striving to be competent a person gains independence. The autonomous individual usually is competent to deal with problems of living.

(iv) Aspiration

Warr suggests that a healthy person has an active interest in the environment, is motivated to pursue new opportunities and able to meet challenges that are personally significant. Aspiration is described similarly by several researchers concerned with mental health (Herzberg, 1966; Kornhauser, 1965; Maslow, 1943) as the ability to go beyond normal activities towards new targets. This definition implies that the mentally healthy person in trying to achieve personal goals may experience some tension and some anxiety. However, active striving is often regarded in Western societies as psychologically desirable and healthy for its own sake. In an adverse environment raised aspiration levels are important because it enables the individual to make changes and they signify better health than low or high aspiration levels.

(v) Integrated functioning.

This final component of mental health refers to the person as a whole and it describes the multiple interrelationships between the other four components. Assessment of integrated functioning can be made "objectively" by an observer or "subjectively" by the individual person. In the latter case it includes viewing oneself and one's experiences as a coherent pattern of processes and states (Erikson, 1950). Another approach to this concept is in relation to three broad areas of social role functioning, which cover family relations, paid employment and leisure. Vaillant (1977) suggested that the healthy person is someone who balances the three areas. Jahoda (1958) emphasized consistency of character, a unifying outlook on life and the acceptance or resolution of mental conflicts. Warr considers integrated functioning across time, either in terms of a balance between

accepting strain during difficult phases of goal attainment and relaxation during the intervening periods. Considering the development of the self through stages of life, progression through certain defined stages leads to a mature integration which is otherwise lacking.

In this account of mental health, competence or aspiration are not valued above others. The expression of mental health may be considerably influenced by different settings and by cultural and social norms. A comprehensive definition of mental health should cover all five components. However, partial definitions are in practice more common than such a comprehensive approach. Particularly in non clinical settings researchers have to rely on self-report measures of affective well-being as indicators of wider mental health. Warr distinguishes between context-free and job related mental health.

The focus of this study on unemployment is context-free mental health. According to Warr subjectively assessed levels of competence, autonomy and aspiration are elements of self-esteem and feelings about the self are one aspect of affective well-being (Warr, 1987). Therefore the General Health Questionnaire (1972) (for details refer to section 4. 4. 1) and the Rosenberg Self-Esteem Scale (1965) (for details refer to section 4. 4. 2) are used in this study as a measure of mental health as defined by Warr.

### 2. 5. 2 The Vitamin Model of Mental Health

Warr presents his model in three principal parts: First is a categorization of the environment into nine features each of which is thought to be important in determining mental health. Each environmental feature will be described below (refer to section 2. 5. 3). The second part of the conceptual framework concerns the processes whereby the environmental features

have their effect on mental health. These processes are described in section 2. 5. 4. The third part concerns individual differences (refer to section 2. 5. 5). The overall model is situation centred, rather than person centred, in that its primary focus is upon features of the environment and their relationship to mental health. This represents the focus of the present thesis.

### 2. 5. 3 The environment - nine environmental features

The Vitamin Model has never been tested in an integrated manner as researchers have tended to examine individual environmental features of the model or small combinations of them. For this reason the research findings are stated where applicable and when each environmental feature is discussed. The research evidence compares between the environments in terms of the nine environmental features between employed and/or unemployed people. Following the research the variables which measure each particular feature in the present study are presented. Some environmental features could not be measured at all, others only indirectly, because of methodological issues related to difficulties with research in applied and non clinical settings (for details refer to Chapter 3, section 3. 1).

The environment is categorized into nine broad features, each of which is thought to be important in determining mental health. The features are labelled: (i) opportunity for control, (ii) opportunity for skill use, (iii) externally generated goals, (iv) variety, (v) environmental clarity, (vi) availability of money, (vii) physical security, (viii) opportunity for interpersonal contact and (ix) valued social position.

#### (i) Opportunity for control

Mental health is determined by the opportunities provided by an environment for a person to control activities and events. The opportunity

for control has two main elements: The opportunity to decide and act in one's chosen way, and the potential to predict the consequences of that action.

In general unemployed people have less chance than those in jobs to decide and act in their chosen ways. Shortage of money, increased dependence upon welfare bureaucracies, lack of success in job seeking and an absence of means to increase income, all contribute to a reduction in people's ability to control what happens to them. Low opportunity for control is likely to be harmful to the unemployed person both in its own right and also because it entails powerlessness in respect of other conditions which are themselves damaging. According to Warr opportunity for control is the first feature as it may be important in determining the level of other features as well as contributing to the individual's mental health in its own right.

Empirical research has not examined differences and types of control opportunity in the situation of unemployed people. The contribution of this feature to low mental health seems obvious. The difficulties associated with measuring this feature during unemployment prohibited direct measurement in the present study. It was indirectly measured by variables measuring feature (vi) "availability of money" as it is recognized that financial security is a major contributor to a person's ability to control his/her environment.

(ii) Opportunity for skill use.

Warr distinguishes environments which inhibit or encourage the utilization and development of skills. Restrictions on skill use may be of two kinds. First are those which prevent people from using skills which they already possess, permitting instead only behaviours which are well within routine capability. Second are restrictions on the acquisition of new



skills, requiring people to remain at low levels of skilled performance despite their potential for extending into more complex activity.

During unemployment specifically occupational skills are by definition unused, although there are opportunities to use certain abilities in domestic, hobby, repair work or moonlighting. The potential for acquisition of new skills which is present in some jobs may in principle also be available during unemployment, for example through education or training courses or through leisure pursuits (O'Brien & Kabanoff, 1979). According to Fryer and Payne (1983) this opportunity was taken up by only a small minority of unemployed people and the effects on mental health were not investigated in their study. The magnitude of a reduction in opportunity for skill use which accompanies job loss depends in part on the level of that feature in a person's prior job. People becoming unemployed from jobs which have demanded a high level of skill are likely to suffer a greater reduction in this feature and subsequently experience lower levels of mental health than people whose previous employment required only limited skill (Warr, 1987).

In this study "opportunity for skill use" is measured by the following variables: "doing jobs at home", "helping neighbours and friends", "volunteering at schools, clubs, societies", "involvement with interests and hobbies", "number of interests and hobbies" and "training during unemployment" (six variables: "correspondence courses", "access training courses", "polytechnic courses", "university", "salvation army/red cross", "other training while unemployed").

(iii) Externally generated goals.

A setting which creates the establishment and pursuit of goals is assumed to lead to activities which both intrinsically and through their consequences

may have a positive impact upon mental health. The goals arise through obligations and targets deriving from roles within formal and informal institutions. These roles require certain behaviours and follow certain routines and demand to be in certain locations at specific times. Goals refer to all targets, whether they are imposed or self-selected, they give rise to plans, which structure the pattern of behaviour. Goals and plans are viewed as being generated by the nature of an environment as well as through motivational characteristics of people themselves.

The unemployed person, however, may be less encouraged by the environment to have objectives and to have purposeful activities. With fewer goals, one can less look forward to their successful attainment, so that a person's experience may come to lack positive rewards as well as being homogeneous in its limited challenge. An absence of demands can produce an excess of time, and may remove the need to choose between activities or to allocate fixed amounts of time to individual tasks. The unemployed person has to look for a job and contact official agencies, but these take up only a small amount of time, especially after many months, when active job search may have been abandoned. Inactivity is made more probable by an unemployed person's shortage of money. A number of researchers have found that many unemployed people spend long hours watching television, sleeping or doing nothing for long periods of time (eg. Fagin & Little, 1984; Froehlich, 1983b; Kilpatrick & Trew, 1985; Miles, 1983; Warr & Payne, 1983; Warr, 1984a; 1984c). As unemployment is associated with depression and anxiety, it is likely that a person's ability to generate activities is diminished. However, Fryer and Payne (1984; 1986) found that there is a small minority of people who are able to identify and pursue targets of considerable personal significance. The difficulties to measure "externally generated goals" in the unemployed environment have been acknowledged (Warr, 1987). One way to overcome them is an indirect approach to measurement.

For example people were asked how difficult it was for them to fill their time. Responses made to this question were associated with distress (Hepworth, 1980; Warr & Jackson, 1985) with depression and low self-esteem (Feather & Bond, 1983). Another indirect measurement of that environmental feature is to inquire into the amount of time spent watching television, doing nothing, sleeping during the day etc. The reported increase in these activities is significantly associated with lower mental health (Warr, 1984c; Warr & Payne, 1983).

A similar approach was used in the present study. "Externally generated goals" were measured by questions related to the amount of "time spent watching TV", "time spent listening to music", "time spent sleeping during the day" and "doing nothing".

#### (iv) Variety

Variety is increased in relation to the number of roles available, but in addition some roles carry with them greater heterogeneity than others. Low variety within a role or within a set of roles is assumed in general to have a negative impact upon mental health. A low variety environment constrains a person in physical location and in role-related activities.

For the unemployed person variety appears to be reduced. According to Warr variety is associated with the reduction in externally generated goals. The individual has to leave the house less often and the contrast between job and non-job activities may not exist. Homogeneity of experience is also increased through the activity reductions which follow an unemployed person's drop in income. Furthermore those domestic and other demands are likely to be similar and unchanging from day to day, with a standard routine and an absence of novelty.

Martin and Wallace (1985) in their study of British unemployed women found that women spent more time on housework, which previously was accomplished in non-work hours. The increase of spare time during unemployment was not used for new activities.

A number of reports have investigated the lack of variety by recording how the unemployed people spend their time. Jahoda, Lazarsfeld and Zeisel's (1933) study of the Austrian village of Marienthal, where most of the population were unemployed, showed that leisure activities did not expand to fill the time without work. Membership of clubs and voluntary organizations actually decreased, as did borrowing from free public libraries.

This decrease in activities cannot be attributed to lack of money, but may suggest apathy and depression. Warr & Jackson (1985) observed in their unemployed teenage sample in Britain that lower levels of reported variety were significantly correlated with anxiety, depression and general distress. In Australia O'Brian and Kabanoff (1979) in a systematic study of leisure activities, found that the unemployed engaged in more varied and skilful activities than the employed, but their activities involved less interaction with other people. This finding of social withdrawal was confirmed by Binns and Mars (1984) in their study from Scotland. Two New Zealand studies on youth unemployment (Christchurch Employment Advisory Committee, 1979; Haines & Macky, 1982) found no decrease in activities. Haines and Macky's unemployed school leavers slept more in the daytime, spent more time doing nothing, listening to the radio or watching television, than when they had been in school. But they also spent more time on hobbies, interests, helping around the house and going out with friends. Most researchers state that low activity level and lack of variety reflected in the unemployed person's inability to occupy their time

meaningfully are significantly associated with poorer affective health (Warr, 1984; Macky & Haines, 1982).

In the present study variety was measured by the same variables as "opportunity for skill use".

(v) Environmental clarity.

This environmental feature concerns the degree to which a person's environment is clear or opaque. There are three aspects: a) the availability of feedback about the consequences of one's behaviour, b) the degree to which other people and systems in the environment are predictable, so that one can foresee likely responses to one's behaviour, c) the clarity of role requirements and normative expectations about behaviour and the degree to which standards are explicit and generally accepted within one's environment. Availability of such information permits appropriate decisions and actions, allows planning within predictable time schedules and reduces anxiety which is typically generated by uncertainty.

Environmental clarity is likely to be reduced during unemployment and unclear in all respects. Warr (1984a) reported in his summary of nine separate projects, that it was found that unemployed people have difficulties planning for the future in view of their uncertainty about their occupational and/or financial position in the months to come. These findings were confirmed by Payne, Warr and Hartley (1984) who found that 60% of men who were unemployed for between six and eleven months were troubled by worries about the future. The importance of this uncertainty was examined by Fryer and McKenna (1987) who compared two groups of unemployed men, where one group knew when they would be re-employed. These men had been on temporary stand down for a period of seven weeks due to a union-management agreement, where instead of compulsory redundancy,

some would accept periods of temporary and fixed-term stand-down. The environment of this group differed from that of fully unemployed people in its level of clarity. The future was predictable and plans could be made. The results indicated that mental health of the temporarily laid off group was better than the comparison group who was unemployed. Detailed enquiries into the use of time in these two groups indicated that the temporarily laid off people exhibited more self-initiated goal directed activity and less difficulty passing the time of day, than the unemployed people. This study demonstrated the importance of this environmental feature since the environment of the two groups were very similar. The environment differed in clarity and in addition the unemployed group had lost their social position (environmental feature no. nine). Environmental clarity within the present model is linked to the other eight features for example the uncertainty surrounding an unemployed person in respect to physical security, opportunity for skill use, opportunity for interpersonal contact etc. Variations in clarity in these features is expected to be associated with low mental health.

This study measured "environmental clarity" with the variable "worries about the future".

(vi) Availability of money.

The standard of living of most adults below retirement age is mainly determined by the income received from a job, therefore unemployment means generally a considerable drop in living standard. The extent to which income is reduced after unemployment naturally varies between individuals, within and between countries and depends on the person's income while in a job, and for a number of unemployed people (eg. in unskilled jobs) income was already low. The shortage of money can give rise

to extensive psychological problems and low mental health within the individual, the family and society.

Studies of unemployed people consistently indicate that shortage of money is viewed as the greatest source of personal and family problems (e.g. Jackson & Walsh, 1987; Smith, 1980). This environmental feature, availability of money, influences many other features e.g. physical security, externally generated goals, opportunity for interpersonal contact etc. Many qualitative studies confirm this negative impact of poverty (Fagin & Little, 1984; Jahoda, 1987; Seabrook, 1982). The consequences for the individual and their family of a severely curtailed income are wide-ranging and potentially very serious. Of course this varies between countries, as unemployment benefit payments differ in each country. In Britain and New Zealand basic benefits are paid indefinitely and in addition supplementary benefits are paid according to need e. g. family size and housing needs. In Germany and the United States unemployment insurance is paid in proportion to the income to one's previous job and for a limited time period. Studies to identify the extent of financial deterioration after job loss suggested that unemployed people received on average between 45% and 60% of their employed income (Bradshaw, Cooke, & Godfrey, 1983; Payne, Warr, & Hartley, 1984; Smith, 1980; Warr & Jackson, 1984). These percentages depend partly upon the level of a person's income while in a job and for many of the unemployed people, who have been in unskilled jobs, wage levels were already very low. Warr (1987) stated that about three to five per cent earned slightly more than in their last job. White (1983) found in his study that 9% were getting about the same money and 7% had benefits higher than their last net wages. However, in general research has shown that unemployed people live close to or below the officially designated "poverty line".

In New Zealand Nicholls and Piesse (1982), Hancock (1982) and Shipley (1982) documented the financial deprivation and hardship experienced by the unemployed. As a result of this low standard of living by the unemployed across countries many people have to borrow money and get into debts in order to pay bills or to meet pressing needs. In Payne, Warr and Hartley's (1984) study 55% of their working-class sample of British men, unemployed between six and eleven months, needed to borrow money since they were unemployed. In Australia, Finlay-Jones and Eckhardt (1984) found that two-third's of the people who were unemployed for ten months were in debt. In Germany Brinkmann (1983) stated that after 18 months of unemployment, 23% of the people had borrowed money. Debts are particularly common among married men with dependent children (White, 1985). For the unemployed often regular outstanding re-payments can often not be sustained, some have to increase the debts, leading to arrears on housing rents or to sale of personal items or furniture in partial payment for the debts. In Payne, Warr and Hartley's study 41% of their unemployed men had to sell possessions as a result of being unemployed. Smith (1980) cited details of the hardship experienced by the unemployed, which included inability to keep up repayments and having the fuel supply cut off.

The shortage of money is found to be associated with reduced social contact and people may incur substantial expenses through the very fact that they live in cold climates with long winters, where heating costs extend over a nine month period (Froehlich, 1983b). Being unemployed and on a restricted income and spending more time at home means for many that they have additional heating and lighting costs, bulk shopping of cheap food is prohibited and job seeking activities demand extra money for travel, postage and self-presentation (Jahoda, 1979; Miles, 1983). Anxiety is high due to the extensiveness of these material difficulties (Daniel, 1974) and low levels of mental health are associated with worries about money (Payne,



Warr, & Hartley, 1984; Smith, 1980) and being in debt (Finlay-Jones & Eckhardt, 1984). Hobbs, Ballinger, McLure, Martin, and Greenwood (1985) found a strong association between poverty and low affective well-being. These findings for unemployed people were confirmed by D'Arcy and Siddique (1985). The environmental feature "availability of money" is closely related to "physical security".

In the present research both features are measured by the following variables: "having debts", "difficulties paying bills", "difficulties paying rent", "paying for food", "paying a mortgage", "paying for school activities", "for club and/or society fees", "car maintenance", "difficulties paying for doctors and medication" and "other financial difficulties" and "having no financial difficulties".

(vii) Physical security.

Environments need to protect a person against physical threats and have to provide an adequate level of physical security in respect of heating, facilities for food preparation, space for sleeping and a private area of personal territory. The environment needs to be reasonably permanent, providing security of tenure in the sense that occupants can feel secure staying there or can predict moving to other adequate settings.

Physical security is affected by unemployment and is related to availability of money. There are no published investigations of this individual environmental feature. Reduced income can give rise to loss of adequate accommodation, or to the chronic threat that this will happen. Individuals may either become homeless or may be forced into run down and overcrowded conditions. Alternatively, an unemployed person may remain in his/her house as before, but be unable to afford essential repairs or to pay for fuel for heating and lighting costs.

As "physical security" is linked to "availability of money" the present study measures this feature indirectly with the same variables as "availability of money".

(viii) Opportunity for interpersonal contact.

Environments differ in the opportunity provided for contact with other people. Warr lists four reasons why contact with other people is essential: a) friendship needs are met and loneliness is reduced, b) provision of social support, c) opportunity for comparison between oneself and others and d) many goals can be achieved only through the interdependent efforts of several people. In this way the opportunity for interpersonal contact provided by an environment can be seen to be linked with those features which are concerned with goals, variety, control and skill use.

According to Warr reduced opportunity for interpersonal contact after job loss is likely to cause a reduction of mental health. Social contacts during unemployment are likely to be limited in their variety and they may also be inhibited by an absence of externally generated goals and the lack of money. However, several investigators suggested that social contacts of the unemployed in comparison to the employed people increased. In Froehlich's (1983b) study, 40% of married men in Germany reported that they visited friends and neighbours more frequently since job loss. In the research study of British men, who were unemployed between six and eleven months, 32% reported spending more time with friends than when employed, compared to 16% reporting a decrease; comparable figures for "spending time with neighbours" and "spending time with the family" were 17% and 5% and 79% and 4% respectively (Warr & Payne, 1983). These findings were confirmed by Warr (1984c) in a separate study. A simple measure: "the number of days a person spent outside their home", was used by Stokes and Cochrane (1984) who in a cross-sectional study compared

interpersonal contacts between employed and unemployed British adults. They observed that the unemployed people had slightly more social contact outside the home although the difference was not significant. In New Zealand Haines and Macky (1982) found that interpersonal contact of young people did not change, due to the fact that they may have had a circle of friends from school and established leisure or sports activities. In Britain Stokes (1983) found the opposite and interpersonal contact increased significantly following the loss of a job among young people. The focus of interest was different in the two studies. The British findings compared employed and recently unemployed young people, whereas Haines and Macky were investigating unemployed school leavers.

However, generally research findings indicated that unemployed people have only limited amount of contact with others. In research with unemployed British women, Martin and Wallace (1985) found that younger women reported approximately the same amount of social contact before and after losing employment. The large majority of older women, though (often the married women with husbands in paid work) reported a reduction in contacts after becoming unemployed. They spent their time at home and were likely to report that unemployment had led to social isolation and feelings of loneliness. More accurate measurements such as daily diary recordings were used in Northern Ireland by Kilpatrick and Trew (1985). They observed that unemployed men 25-45 years old spent 32% of an average day alone and only 15% with people outside the family. If these findings are compared with observations with employed men in other countries, the corresponding figures for employed men would be about 20% and 35% respectively. This comparison needs to be considered with caution, as there are geographical and methodological differences.

Studies so far examined the reported quantity of social contact. A different approach was adopted by Miles, Howard and Henwood (1984). They investigated the diversity of people met in daily life and they found that employed people socially mixed with a much broader range of people than the unemployed. Therefore it appears that the distinction between amount of social contact and its diversity (environmental feature: variety) is important and it is possible that unemployed people tend to have more social contact, but with fewer people. Warr (1987) suggested that it seemed likely that contact with work colleagues and entertainment in social settings will decline after loss of employment, whereas contact with the family and casual meetings between friends and neighbours may increase. Froehlich (1983b) in Germany and Binns and Mars (1984) in Britain found that unemployed people maintained contact with a small number of work-colleagues, but links with other employees became fewer during unemployment. This was partly due to the fact that being at work filled most of the day, but it was the case also that many individuals even when employed had no contact with colleagues after work. Entertainment in social settings, such as visiting clubs, pubs, restaurants, going to the cinema, the theatre or on holidays was described to decline after loss of employment (Warr, 1984c; Warr & Payne, 1983) mainly because of shortage of money. However, contact with family, friends and neighbours did increase. The nature of these contacts with friends and neighbours may be casual but important as they often provided information about job opportunities (Warr & Lovatt, 1977).

All researchers found that affective well-being is positively associated with greater and more wide ranging social contacts (Kilpatrick & Trew, 1985; Miles, Howard, & Henwood, 1984; Warr, 1984b). Low scores on depression and anxiety measures used with unemployed British teenagers were significantly correlated with the amount of time spent with friends during

the past month (Warr, Banks, & Ullah, 1985). However, in a longitudinal study of unemployed men, an aggregate index of amount of contact with friends, previous work colleagues, and relatives other than wife and children was found to be unrelated to degree of deterioration over a nine month period (Warr & Jackson, 1985).

Many researchers examined social support and its effect on affective well-being. Ullah, Banks and Warr (1985) obtained measures of some qualitative aspects of interpersonal contact. Unemployed teenagers in Britain were asked e. g. whether they had someone who could suggest interesting things to do, which was found to be significantly cross-sectionally associated with lower general distress, depression and anxiety. Emotional support (in terms of someone being available to talk about problems) of unemployed British men, measured twice with a nine month period in between, was significantly associated with lower distress in cross-sectional analysis. It was not predictive of magnitude of deterioration across time (Warr & Jackson, 1985). In the Kilpatrick and Trew (1985) study from Ireland, the presence of close family members living in the neighbourhood was found to be significantly associated with lower levels of distress.

Social support was examined by Gore (1978) in the United States who measured the frequency of activity outside the home, as well as perceptions of supportive relatives and perceived opportunities to engage in activities in a group of men one month unemployed after the closure of their plant. Less supported men reported a significantly greater number of illness symptoms than did more supported respondents. Another study from the United States, however, did not find significant correlations between social support and separate measures of anxiety, depression and somatic symptoms, but there was a significant association between social support and self-esteem (Linn, Sandifer, & Stein, 1985).

In New Zealand social support has not been studied in any systematic fashion, but several qualitative studies suggested its importance to affective well-being. Redmond's (1983) study found that those reporting the least effects of unemployment on their health and moods had supportive friends and families. Wilkinson (1981) also suggested that a socially supportive group of friends helped sustain positive attitudes and external explanations of unemployment instead of self-blame. In a study on unemployed school leavers Waldegrave and Coventry (1982) reported that only 32% of them felt that society had treated them with understanding. They described that these teenagers felt the need for a supportive society, family and friends. Most cross-sectional comparisons of unemployed people suggests that affective well-being is in general better for those reporting higher levels of at least some forms of social contact.

In this study the environmental feature "opportunity for interpersonal contact" is measured by the following variables: "spending time with partner/wife or husband", "parents/close family", "with friends", "neighbours", "former workmates", "casual friends", "club/society members", "extended family", "church people", "counsellors", "spending time with other people" and "number of close friends".

(ix) Valued social position

The importance of a valued position within a social structure, which carries some esteem from others, is recognized by Warr. Many people are members of several social structures for example being a member of a family, a manufacturing company, a local community, a church and society as a whole. Esteem within a social structure is generated primarily through the value attached to activities inherent in a role and the contribution these make to the institution. Role incumbency also provides public evidence that one has certain abilities, conforms to norms and meets certain social

obligations. In turn, membership of an institution may carry with it high or low esteem in the wider community. Warr points out that external indicators of social esteem do not always coincide with the value which a person accords to his or her own contributions. But there is often agreement about the levels of social and personal esteem which derive from particular positions. This environmental feature, a valued social position and its role activities provide opportunities for social comparison, it may enhance predictability and environmental clarity and imposes goals and demands certain role related behaviours.

In most Western societies an unemployed person often feels s/he has lost a socially approved role and the positive self-evaluations which go with it (Warr, 1987). The new role of being unemployed is widely felt to be one of lower prestige, deviant, second-rate or not providing full membership of society (Kelvin & Jarrett, 1985). Even when welfare benefits remove the worst financial hardship, there may be shame attached to be on welfare and the apparent failure to provide for one's family. However, a "valued social position" may not be as strongly experienced by young people as by the older unemployed people who have had established work roles. With unemployment so widespread among young people personal responsibility and social stigma are possibly less strongly felt. This hypothesis was supported by research in New Zealand and Australia where the blame for unemployment was attributed to unfavourable economic conditions and not to personal failings (Gurney, 1981; Hesketh, 1982; Hesketh & Shouksmith, 1982). In times and in regions of high unemployment levels personal deviance and social stigma may be experienced less strongly than in the context of low local unemployment (Daniel, 1990). Furthermore, non employment roles may be more easily adopted, particularly by young unemployed women, such as becoming mothers or housewives, providing care for younger siblings or disabled or sick parents or becoming active in a

social club or church organization. This change of roles appeared to be beneficial to mental health and provide self-esteem (Banks & Ullah, 1986). Other factors may also play a role such as for example the availability of stronger support networks in such areas. In New Zealand the Unemployed Rights Centre provides information and support. However, there is little doubt that in most societies being employed rather than unemployed is a central source of public and private esteem (Garraty, 1978).

There has been little research into this environmental feature. Mental health is expected to be better in areas of high unemployment and worse in times of low unemployment (Warr, 1987). Cohn (1978) confirmed this trend on the basis of a single-item measure of dissatisfaction with self. Platt and Kreitman (1985) also supported Warr's findings in terms of parasuicide levels. There are other factors which may influence this pattern such as for example the availability of social support networks (environmental feature no. viii). In some areas of high unemployment previous mental health levels may be similar among the unemployed and employed population.

An indirect approach to a "valued social position" was followed by Miles, Howard and Henwood (1984). They examined social esteem by asking people whether "society in general respects people like me". The unemployed women and men in their investigation reported significantly less social esteem than those who were employed and this was significantly associated with greater distress.

Another indirect approach to measure this environmental feature consisted of questions about the work ethic. Warr (1978) asked unemployed people "if unemployment benefit was really high, I would still prefer to have a job". Warr found that unemployed steel workers who stated that they were actively seeking work reported poorer psychological well-being than those



who were not looking. Warr, Cook, and Wall (1979) created the concept "work involvement" or "employment commitment". The scores on this measure of unemployed people have been found to be significantly associated with low affective well-being and with anxiety and depression (Ullah, Banks, & Warr, 1985; Warr, Banks, & Ullah, 1985), with depression (Feather & Barber, 1983; Feather & Davenport, 1981) with negative self-esteem (Feather & Bond, 1983; Warr & Jackson, 1984) and with general distress (Jackson & Warr, 1984; Jackson, Stafford, Banks, & Warr, 1983; Stafford, Jackson, & Banks, 1980; Ullah, Banks, & Warr, 1985; Warr, Banks, & Ullah, 1985; Warr & Jackson, 1985). These studies demonstrate that employment commitment is a significant factor influencing mental health. Unemployed people with higher commitment to employment exhibit substantially lower well-being than those with lower commitment.

Concern about society's negative view of the unemployed person is not the only factor contributing to employment commitment, there may be negative feelings about reduced variety or lack of externally generated goals during unemployment. A strong work motivation is therefore far from psychologically beneficial to the unemployed, although it may lead to a job more rapidly than otherwise and thus improve well-being.

In the present study employment commitment was measured by asking each individual whether they wanted employment. Then four choices for self-selection were presented. These choices were: "wanting employment", "not able to work", "alternatives to employment" and "interested in training".

#### 2. 5. 4 The processes - mental health

According to Warr (1987) the general pattern of the processes of the nine environmental features' association with mental health is viewed as analogous to the effect of vitamins on physical health. The availability of vitamins is important for physical health, up to, but not beyond a certain level. At low levels of intake, vitamin deficiency gives rise to physiological impairment and ill health, but after attainment of specified levels there is no benefit derived from additional quantities. Vitamins of this kind are vitamin C and E, which can be an abbreviation for "constant effect". In addition, however, certain vitamins become harmful in very large quantities. Vitamins A and D are known to be toxic at very high levels, which can be an abbreviation for "additional decrement". In these cases the association between increased vitamin intake and health becomes negative after a broad range of moderate quantities.

Warr proposes a similar pattern for the nine environmental features. Each feature is assumed to be associated with mental health. Low values are considered harmful and those in the middle range or plateau are shown as having a constant beneficial effect on mental health. Three environmental features seem more likely to parallel vitamins C and E and having a constant effect, these are: "availability of money", "physical security" or "valued social position". There appears to be no reason to expect that a decrement in mental health will arise from high availability of these features. Warr presents six environmental features as analogues of vitamin A and D which are responsible for a decrement. These are "externally generated goals", "variety", "environmental clarity", "opportunity for control", "opportunity for skill use" and "opportunity for interpersonal contact", which impair mental health at high levels. Increments of a certain size in for example environmental "variety" or "availability of money"

seem likely to give rise to greater increases in mental health at lower values than at moderate values.

However, unemployment is usually characterized by low values of all nine environmental features and by harmful effects upon mental health (Warr, 1987). On regaining employment, the model expects a general shift towards higher environmental values and higher mental health levels. The model was supported by studies, where mental health and in particular affective well-being improved significantly when people regained employment (Jackson, Stafford, Banks, & Warr, 1983; Payne & Jones, 1987b).

#### 2. 5. 5 Nature of interactions - people and the environment

Warr (1987) considers his Vitamin Model primarily a situation centred model and therefore environmental influences outside the person are given priority in explanation for levels of mental health. However, he recognized also that people have some influence over their environment and its impact upon them. These influences are both cognitive in terms of appraisal and the imposition of meaning and behavioural, in terms of activities to create or modify environmental conditions. Just as environments are expected to differ, Warr acknowledges variations between people and he accommodates these individual differences within his conceptual frame-work. Enduring personal characteristics are grouped into four broad categories: (i) demographic variables, (ii) intellectual and skill abilities, (iii) dispositional value orientation and (iv) baseline mental health.

Within the first category are characteristics such as gender, age, nationality or ethnic group membership and socio-economic status. The other three categories of personal characteristics are more psychological, covering

differences between people in their style of perceiving, thinking and behaving. According to Warr these styles can be relatively stable over time and across situations, but they may also change within limits in response to situational pressures.

The second category of "intellectual and skill abilities" is taken to include all interpersonal, intellectual and psycho-motor skills. Although training and experience influence abilities, they are also considered relatively stable attributes.

The third category includes all types of "dispositional value orientation", which may be broad and covering moral, religious or political value systems, or they may be of a more restricted kind, dealing with attitudes and beliefs about specific objects or issues.

The fourth category, "base line mental health", is taken to include several features often considered as elements of personality, such as neuroticism, self-confidence, and hardiness which impact on the experience of negative affect in any kind of environment. These characteristic personality dispositions are similar to Warr's components of mental health and define subjective competence, autonomy and aspiration. Aversive environmental features seem to have a smaller negative impact on people with better baseline mental health since they start at a higher level. This higher level of mental health seems to protect people and to enable them to deal more effectively with difficulties and demands of their environment.

Many researchers have investigated individual differences and the effect of unemployment on mental health. Although these studies have only limited relevance to Warr's situation centred Vitamin Model, they support the findings that personal differences are important in unemployment

research. The four categories of personal characteristics and some research findings will be briefly discussed next.

### Demographic variables

#### (i) Gender

Research from overseas indicated that there appeared to be no difference in mental health between unemployed men and women (Banks & Ullah, 1986; Finley-Jones & Eckhardt, 1984; Jackson, Stafford, Banks, & Warr, 1983; Leeflang, Klein-Hesselink, & Spruit, 1992b; Martin & Wallace, 1985; Warr & Jackson, 1985). Some research findings described an overall deterioration in women's social life with many women manifesting traits of clinical depression (Coyle, 1984; Martin & Wallace, 1984) just as it affects men (Jaco, 1960; Platt, 1984). The New Zealand studies on unemployed women draw attention particularly to the social effects of unemployment (Hancock, 1982; Shipley, 1982) and no conclusions or comparisons can be made as mental health was not investigated.

#### (ii) Marital status (women)

Many researchers did not distinguish in their samples between married women and single, divorced or separated women who were assumed to be the principle wage-earners. Warr and Parry (1982) examined the available research and they found no significant difference in affective well-being between employed married women and unemployed married women. Later investigations confirmed these findings (Ballinger, Smith, & Hobbs, 1985; Cleary & Mechanic, 1983) and suggested future research of comparisons between unemployed married women and unemployed single women.

### (iii) Age

In New Zealand the high levels of unemployment over the last few years have affected many young people. Haines and Macky (1982) observed financial deprivation and lower mental health of young unemployed people in comparison to people with paid jobs. In Britain, Germany and Australia (Banks & Jackson, 1982; Doherty & Davies, 1984; Donovan & Oddy, 1982; Feather & O'Brian, 1986; Galuske, 1986; Hohmeier, 1988; Jackson, Stafford, Banks, & Warr, 1983; Krieger, 1987; Patton & Noller, 1984; Schober, 1987; Tiggeman & Winefield, 1980) research concentrated on the social and mental health effects and a significant negative impact upon young people's mental health was noted confirming Haines and Macky's (1982) findings in New Zealand.

When compared, though, to older groups of unemployed people Broomhall and Winefield (1990), Warr, Jackson and Banks (1982) and Banks (1989) stated that internationally young people showed significantly less impairment in mental health. Research findings have suggested that in particular middle aged men experience low mental health when unemployed (Broomhall & Winefield, 1990; Rowley & Feather, 1987). Daniel (1974) and Hepworth (1980) observed a significant relationship between age and low affective well-being and this pattern was confirmed by Warr and Jackson (1984; 1985).

### (iv) Ethnic origin

Ethnicity is considered a modifier of the experience of unemployment by several researchers. Warr, Banks and Ullah (1985) reported that unemployed black respondents exhibited significantly lower levels of distress and depression than whites. However, no differences were recorded between black and white teenagers in respect of anxiety, financial strain and concern over being unemployed. There has been no empirical investigation of Maori

unemployed people and mental health in New Zealand (M. Durie, personal communication, June 25, 1992).

(v) Socio-economic status

The differential impact of unemployment on middle-class and working-class people has frequently been investigated. The research evidence is controversial either suggesting that middle class people will suffer more because of the greater social stigma attached to their unemployment or they suffer less, since they might have greater access to financial resources (Kaufman, 1982). A homogenizing influence of unemployment was suggested by Payne, Warr and Hartley (1984) as socio-economic status in their study failed to have its usual impact. However, it is difficult to test these predictions in the absence of prior information about mental health during unemployment and more studies are required before firm conclusions can be made.

Intellectual and skill abilities

According to Warr (1987) it may be expected that people who possess particular skills are likely to be able to utilize them to personal advantage during unemployment. This may be possible through hobby activities or through assistance (paid or unpaid) to friends and neighbours. However, this possibility appears to have received no research attention.

Dispositional value orientation

Warr acknowledges that value orientations, motives, attitudes and specific preferences of the individual may affect the experience of unemployment. The importance of employment commitment has been described in section 2.6.3 (ix) where unemployed people who are more strongly committed to

having paid employment are likely to experience lower well-being than those with a less strong commitment. A different type of value orientation which may moderate the influence of the effects of unemployment is concerned with continuing levels of activity. Some people show a more prominent preference for goal oriented activity. Fryer and Payne (1984) illustrated in a qualitative study of 11 unemployed people that all had adopted roles in the community either in a religious or political organization, which permitted them to be active and personally satisfied despite the absence of payment for their work. Mental health was not measured in that study, although subjects had been selected on the basis of high mental health.

#### Baseline mental health

To examine the influence of baseline mental health on the impact of unemployment, the fourth category of personal characteristics, measures need to be taken before the loss of employment. However, because of the general lack of longitudinal data in this area, few studies of that kind have been reported. Liker and Elder's (1983) longitudinal study of income loss during the 1930s does draw attention to the fact that men, who were rated in 1930 and found to be unstable became even less stable between 1933 and 1935, as a result of economic stress, whereas no significant change occurred among the more stable members of the sample. Some findings by White (1985) described that people who had experienced ill-health in the three years before becoming unemployed, experienced worse health problems during long-term unemployment. White's study was supported by Warr and Jackson's (1985) results, where the presence of a chronic physical health impairment at the initial interview was associated with greater subsequent decrement in general health. Aggregate time-series investigations into community unemployment level and mental hospital admission rate



indicated that a decline in economic activity produced a notable increase in the incidence of treated psychological disorder (Cochrane, 1983; Stokes, 1991). This evidence could be interpreted in terms of differential vulnerability: People with poor baseline mental health, being on the borderline of obtaining medical treatment, may have found that in times of economic difficulties medical treatment is required. Differential vulnerability may also give rise to a process of "reprovocation" that is unemployment may be more likely to "reprovoke illness" in people who previously but not currently have been defined as ill (Warr, 1987).

The overall framework of Warr's model is not based on individual differences but upon the nine features of the environment and their relationship to mental health. This represents the focus of the present thesis and for this reason most of Warr's nine environmental features are tested. However, to account for personal characteristics the present study is attempting to measure some enduring personal features.

The first category is demographic variables such as gender, age, marital status, ethnic origin, living situation, financial support, perceived personal disadvantages and/or disabilities to obtaining employment, length of unemployment and socio-economic status.

The category of intellectual and skill abilities is measured by variables such as level of education, school certificate, post school training (six variables: skills training, apprenticeship, Polytechnic, Teachers Training College, University and no training) and training wanted now. It is acknowledged that "intellectual and skill abilities" overlaps with variables measuring environmental feature "opportunity for skill use". The distinction between the two features is blurred. "Intellectual and skill abilities" are considered innate and part of one's personality, but partly acquired through an

exchange with the environment. "Opportunity for skill use" is an environmental feature facilitating the use of innate skills (Warr, 1987).

The third category of dispositional value orientation, attitudes and perceptions is measured by inquiry into employment commitment, which overlaps with the environmental feature "valued social position". It is measured also by perceived advantages and disadvantages of unemployment and perceptions about the previous job.

Baseline mental health could not be measured as the sample consisted of already long-term unemployed people. However, initial health measures were taken, such as sickness and stress experienced during unemployment. In addition the General Health Questionnaire and the Rosenberg's Self-esteem Scale were administered. All measures were taken and re-assessed one year later in the Follow-up Study.

#### 2.5.6 Limitations of the Vitamin Model of Mental Health

(i) Measurement of most environmental features is difficult, as there is considerable conceptual and empirical overlap between them. Furthermore the environment of unemployed people is not homogenous in comparison to other more specific environments, eg. the working environment.

(ii) At the centre of Warr's model is a postulated pattern of association between the level of an environmental feature and the level of mental health. The analogy used by Warr to correspond to that specific pattern is the influence vitamins have upon physical health. However, it is in the nature of analogies in general that they have aspects which fail to correspond to the reality under examination and this applies to Warr's model.

a) Vitamin compounds are more disparate in their nature and effects than are many of the environmental features examined here. The difference being in specificity between physical and psychological processes.

b) People are continuously influencing their environment and thus the psychological impact of those environments. They act to modify the availability of situational "vitamins" whereas in respect of physical health the naturally occurring substances usually have their effects without people engaging in purposeful activity.

c) Vitamin deficiency harms people because the body needs particular chemicals for effective functioning. It is assumed that people need the environmental vitamins and that they are important for their mental health. This suggests that each of the nine features proposed by Warr should correspond to a fundamental human need. It seems that most of the environmental features correspond to a basic need except for the sixth category "availability of money", which is of a different character. The psychological importance of having money lies within society and is culture specific.

d) Vitamins are necessary, but not sufficient for good physical health. The nine environmental features are more comprehensive in their impact and as a group of features they seem to be more important to mental health.

(iii) According to Warr the model cannot be linearly associated with mental health. However, there is no empirical evidence for the existence of a plateau. Warr states, that research is in practice unlikely to be able to discriminate between a plateau and a curve of varying slope and therefore there is conceptual and practical merit in viewing environmental features as falling within two distinct classes a) those which are threatening

requiring individual action and research attention and b) those which are constantly benign in the plateau range.

However, Warr's Vitamin model provides a broad and systematic framework for viewing and comparing the unemployed and other environments. The advantage of this model, apart from its wide perspective, is the recognition that a given environmental feature can both promote and impair mental health depending on its level and duration. In that it avoids the limitations of perspectives in terms of environmental "stress" which emphasize the negative aspects of the environment. The nine features can also be used to interpret findings and make predictions within areas covered by the Latent Function Model. Some of the measurement problems of the environmental features may be overcome by multivariate analysis. The various research findings make it clear that the nine environmental characteristics are associated with mental health and therefore the present study is adopting Warr's Vitamin Model to investigate the nine environmental features and their relationship to personal characteristics and mental health in a large group of long-term unemployed people in New Zealand.

## 2.6 Summary

The above review discussed the three major psychological models of unemployment, which are the Stage Model, the Latent Function Model of Employment and the Vitamin Model of Mental Health.

Eisenberg and Lazarsfeld's (1938) Stage Model suggested that the effects of unemployment occurred in three main stages over time. These stages are: (i)

shock- optimism, (ii) pessimism and (iii) fatalism. It was acknowledged that differential vulnerability of different groups would affect the time spent in each stage, when it occurred, but not the order in which they occurred (Binns & Mars, 1984; Daniel, 1974; Daniel & Stilgoe, 1977; Hill, 1978; Jahoda, Lazarsfeld & Zeisel, 1933; 1972; Kaufman, 1982; Pilgrim Trust, 1938; Sinfield, 1979; 1980; Stokes & Cochrane, 1984; Warr, 1984a; Warr & Jackson, 1985). The findings of some researchers supported the three distinct stages of the model ( Kasl & Cobb, 1970; Kaufman, 1982; Warr & Jackson, 1984). Others, however, found the evidence controversial and they claimed that not all stages were present (Feather & Barber, 1983; Feather & Davenport, 1981; Little, 1976; Platt & Kreitman, 1985; Warr, Jackson & Banks, 1982). Furthermore the research literature provided evidence of exceptions as some unemployed people showed no sign of negative psychological deterioration (Fagin & Little, 1984; Kasl, Gore & Cobb, 1975; Kelvin & Jarrett, 1985), whereas others became psychiatrically ill (Jaco, 1960; Platt, 1984). The three main criticisms of the model were described: (i) Conceptualization was based on small sample size and controversial methodology (Bakke, 1933; Beales & Lambert, 1934; Zawadski & Lazarsfeld, 1935). (ii) Researchers offered different definitions of each stage and there was disagreement about the number of stages (Bakke, 1933; Beales & Lambert, 1934; Briar, 1977; Finley & Lee, 1981; Harrison, 1976; Kaufman, 1982; Zawadski & Lazarsfeld, 1935). (iii) The Stage Model described the experience of most unemployed people, but did not offer any explanation to why unemployment was found to be detrimental to psychological health.

Other explanations of the psychological deterioration during unemployment were briefly mentioned. However, they seemed to explain the negative experiences of unemployment in terms of the personal characteristics of the individual. They did not take sufficiently into account the environment the person lived in.

It was not until the late 1970s that Jahoda's Latent Function Model of Employment was proposed. Jahoda (1979; 1981) suggested that having a paid job has latent functions, which occur for all employed people. These functions are: (i) time structure, (ii) social contacts, (iii) experience of social purpose, (iv) status and identity and (v) regular activity. These features meet basic human needs, and the negative psychological effects of unemployment are due to the withdrawal or deprivation of some or all five functions.

Jahoda's Latent Function Model has impressionistic support (Fagin & Little, 1984; Seabrook, 1982) and empirical support (Henwood, 1983; Henwood & Miles, 1987). However, the model's implication that mental health will always be worse for the unemployed than for the employed, was not supported by the research literature (Fletcher & Payne, 1980; Locke, 1976; Warr, 1987; Warr & Payne, 1982). Physical and mental health improved for some people despite the absence of the five latent functions (Schwefel, John, Potthof, & Hechler, 1984; Warr & Jackson, 1984).

The two main criticisms of the model are: (i) Difficulties of rejecting the model, as exceptions are always explained by the latent functions themselves. (ii) The assumption that individuals are stimulated into action by the environment alone rather than by actions from within (Fryer, 1986).

As the Latent Function Model explained psychological deterioration by such general criteria, Warr (1987) proposed his Vitamin Model of Mental Health, which is wider in coverage and more detailed than Jahoda's perspective. Warr's model is termed "the Vitamin Model" as mental health is assumed to be influenced by nine environmental features in a manner analogous to the role of vitamins in physical health.

The Vitamin Model of Mental Health is adopted for the present study to provide the necessary theoretical framework. An integral part of Warr's

model is his definition of mental health and therefore the concept was briefly summarized before the model was outlined.

According to Warr mental health consists of five components which are: (i) affective well-being, (ii) competence, (iii) autonomy, (iv) aspiration and (v) integrated functioning. Although a comprehensive assessment of all five components of mental health is desirable it is difficult to achieve, particularly in non clinical settings. Researchers have to rely on self-report measures of affective well-being as indicators of wider mental health. Warr suggested that subjectively assessed levels of competence, autonomy and aspiration are major elements of self-esteem. Therefore a self-esteem measure and a self-report measure of affective well-being assess mental health as comprehensively and as widely as possible. For this reason the General Health Questionnaire (1972) (for details refer to section 4. 4. 1) and the Rosenberg Self-Esteem Scale (1965) (for details refer to section 4. 4. 2) are used in this study as a measure of mental health as defined by Warr.

The Vitamin Model of Mental Health was outlined in three parts. The first part was concerned with the nine environmental features and their relationship to mental health. The features are: (i) opportunity for control, (ii) opportunity for skill use, (iii) externally generated goals, (iv) variety, (v) environmental clarity, (vi) availability of money, (vii) physical security, (viii) opportunity for interpersonal contact and (ix) valued social position. Each environmental feature was examined separately. Research evidence supportive or non supportive of the implied relationship between each feature and mental health was cited and integrated where applicable. This was followed by the variables which measured the specific feature in the present study.

The second part of the model assumed a pattern of association between the level of an environmental feature and levels of mental health. This pattern was analogous to vitamins upon physical health. Unemployment is characterized by low values of all nine environmental features.

The third part of the model was concerned with differences between people. Four types of personal characteristics were considered: "demographic variables", "intellectual and skill abilities", "dispositional value orientation" and "baseline mental health". The relevant research, although not directly measuring Warr's situation centred model, was briefly discussed and variables which will be used in the present study were listed.

The three main criticisms of the Vitamin Model are: (i) Measurement of the nine environmental features is difficult, due to conceptual and empirical overlap. Although these difficulties may partly be overcome by multivariate analysis. (ii) The analogy of the effects of vitamins upon physical health to correspond to the pattern of association between level of an environmental feature and the level of mental health, fails to correspond closely. (iii) According to Warr the model cannot be linearly associated with mental health, but no empirical evidence exists for the presence of a plateau.

The advantages of Warr's Vitamin Model are first that it can be applied to any environment and that it offers a specific and useful frame-work for empirical study. Secondly the wide perspective of the model not only provides some explanation for the occurrence of the three psychological stages of unemployment offered by the Stage Model but as well it incorporates the five latent functions which influence mental health of Jahoda's Latent Function Model. Thirdly there is recognition within the model that a given environmental feature can both promote and impair mental health. Therefore the Vitamin Model is adopted for this study.



Before the aims of the present study in terms of the specific environmental features of the model are outlined methodological issues, involved in unemployment research, need to be considered carefully. The next chapter will address these problems.

## CHAPTER 3

METHODOLOGICAL ISSUES  
AND  
AIMS OF THE STUDY

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### 3.1 Methodological Issues

The methodology adopted in unemployment research depends to a large extent on the specific context in which the research is conducted and the circumstances under which respondents' cooperation is obtained.

The present study was conducted between July and December of 1989 and 1990 in the context of a seriously deteriorating employment situation (Collins, 1989). New Zealand had emerged in the late 1980s as the country with the worst employment outlook of all the OECD nations. Governmental policies had a severe impact on farming and agriculture, and the loss in sheep, beef, lamb, meat and wool production has been substantial. The loss of jobs due to the closure of freezing and meat works has been dramatic (Britton, Le Heron, & Pawson, 1992). There has also been a substantial change in New Zealand's industrial pattern, with labour intensive industries such as clothing and furniture, suffering large falls in exports. Factory closures in these industries have produced a significant increase in unemployment (Shirley, 1990). Formerly subsidised state enterprises have shrunk dramatically and employment fell by 64% in forestry, by 39% in transport equipment (including railway workshops), by 29% in mining, by 22% in communications (telephone and postal services), by 14% in transport (including railways) and by 12% in electricity, gas, and water (Collins, 1989). Other sectors, such as retailing, hotel and social services started to restructure in late 1987 and over a period of 12 months 40,000 jobs were lost and people were made redundant (Shirley, 1990).

These rapid changes in the New Zealand economy due to restructuring have affected the whole of New Zealand. There is no doubt that all these measures have increased economic competition both internally and overseas (Collins, 1989). However, the human costs have been apparent,

when unemployment figures rose and thousands of people became long-term unemployed. The traditional source of governmental help for the unemployed has been the Labour Department's employment service. This service changed in March 1988 when the New Zealand Employment Service replaced the Labour Department's Employment and Vocational Guidance Service. The emphasis shifted from a service for unemployed people to a referral service for employers governed by business principles. The employment service became interested in penetrating the labour market by becoming attractive to employers and the general job changer. Following the restructuring of the service, it was criticized because the long-term unemployed had become its lowest priority, whereas previously they had been the highest priority (Daniel, 1990). In addition, due to financial cuts within government departments at that time, staff was reduced despite the fact that the numbers of unemployed people were rising constantly (Department of Labour, 1989). In consequence some of its more staff-intensive services were abandoned, including the specialised vocational guidance service and the service for those with special employment needs. By these changes in structure and emphasis of the employment service the long-term unemployed person is considerably disadvantaged (Daniel, 1990). Hesketh (1982) reported in her study that at all times there are practical difficulties in working with the employment service in New Zealand. Therefore to enlist the cooperation of an understaffed, overworked and very recently restructured employment service is a major obstacle to research into unemployment.

Furthermore, in the middle of 1989 the Fourth Labour Government announced a pilot scheme in an attempt to provide some assistance for long-term unemployed people which was planned to operate in Kaitaia, Hastings, Oamaru and Nelson for six months. This scheme involved intensive interviewing using the "work focus" interview format and

counselling of people within the target group to identify barriers to employment or training (Staff, July, 1989). A similar scheme was introduced in Palmerston North in order to provide wider employment opportunities for the disadvantaged long-term unemployed person. Although these schemes were not designed to investigate benefit fraud, long-term unemployed people considered them as such. They felt harassed, spied upon and threatened (G. Duncan, personal communication, July 3, 1989). In addition, the Government indicated several cuts in its social expenditure, withdrawal of some of its social programmes and re-evaluation of general eligibility of social benefits (Shirley, 1990). This resulted in many unemployed people when interacting with the employment service being suspicious and apprehensive and any inquiry into their situation could arouse anger and hostility.

In the middle of 1990, when the Follow-up study was planned the situation in New Zealand appeared to be slightly different. The national elections were close (October 1990) and the Government raised the significance and extent of unemployment almost daily in people's minds through extensive media coverage. However, many of the unemployed people, who were still unemployed a year later, were as angry and disillusioned as before.

Therefore unemployment research and the methodology adopted has to take into consideration the special historical situation in New Zealand in the middle of 1989 and 1990. Apart from considering the context and the circumstances under which respondents' cooperation in research is obtained, the inherent problem with any unemployment research is a low response rate (Wallis, 1984; Daniel, 1977; Warr, 1987). All official information recorded about unemployed people is confidential and inaccessible except in aggregate form. Furthermore, unemployed people tend not to promote themselves as available for interviewing, observation

or other means of collecting psychological data (Wallis, 1984). In a New Zealand study Hesketh (1982) had a 45% response rate of the original number of people approached, which was comparable to that obtained in the New Zealand Christchurch Employment Advisory Committee "Study of Unemployed Youth in Christchurch", (1979). This low rate is similar to that of Haines and Macky (1982), although the number of responses of the unemployed in their sample is not quite clear. According to Macpherson (1983) the difficulty of gaining access to unemployed people is due to inexperience with social science research and therefore interviews arouse mistrust and even hostility. Part of the hostility exists because research into unemployment is seen as futile, fruitless and a waste of time and as a distraction from real issues (Ullah, 1987). Some unemployed people may be reluctant to be interviewed as they are not interested in paid employment and are fearful of giving the impression that they are not willing to work (Hicks, 1984). Given the hardship of the great majority of the unemployed, the idea of essentially academic research into their conditions appears almost indecent, which might easily create embarrassment, discomfort or helplessness in the inexperienced researcher. Wallis (1984) suggested that depression and social withdrawal due to multiple rejections by employers and long periods of unemployment are responsible for the high refusal rate to participate in research. However, he stated that if unemployed people participated, the majority welcomed the opportunity to discuss their situation.

Apart from the low response rate researchers into long-term unemployment experience other difficulties with social science research methods. These difficulties are: a) the general lack of educational attainments or qualifications (including verbal, listening and reading skills) of long-term unemployed people, with for example five percent being illiterate in a British sample and b) the lack of vocational skills, with the

majority being semi-skilled or unskilled workers (White,1983). As the psychological impact of unemployment has been studied almost entirely through instruments of self-report with repeated measures as the respondents go through the successive stages of continuing unemployment, the research difficulties with people with low educational levels are self evident. Questionnaires and/or instruments need to be short, simple and easily understandable. If measurement instruments have to be read out by the researcher, the advantages of easy administration are lost (Pernice, 1987). The effects of reading instruments to respondents have not been studied extensively (Kinzie & Manson, 1987), but some factors for example the pressure to provide socially desirable responses might be magnified.

In the present study an attempt is made to deal with these difficulties as explained in the Method section.

### **3.2 Aims of the Present Study**

Chapter 2 outlined Warr's Vitamin Model (for details refer to Chapter 2, section 2. 5). The nine environmental features and personal characteristics and their relationship to mental health of unemployed people were described.

The present study is based on Warr's Vitamin Model and it will be tested in the context of long-term unemployed peoples' mental health in New Zealand. The measures of mental health used in the present research are as follows: the General Health Questionnaire 12 (GHQ), the Rosenberg Self-Esteem Scale (RSE) and the Hopkins Symptom Checklist 25 (HSCL). They

are outlined in Chapter 4, section 4. 4. 1, section 4. 4. 2 and 4. 8. 4 respectively.

The following hypotheses will be tested:

### 3. 2. 1 Hypothesis 1

For long-term unemployed people in the Main Study some environmental features (Warr, 1987) and some personal characteristics will be more important predictors of mental health levels as measured by GHQ and RSE scores than others.

### 3. 2. 2 Hypothesis 2

For long-term unemployed people in the Follow-up Study some environmental features (Warr, 1987) and some personal characteristics will be more important predictors of mental health as measured by GHQ and RSE scores than others.

### 3. 2. 3 Hypothesis 3

There will be differences in mental health as measured by GHQ and RSE scores among the following four groups of the Main Study: "wanting employment", "not able to work", "alternatives to employment" and "interested in training".

### 3. 2. 4 Hypothesis 4

For long-term unemployed people in the Main Study some environmental features (Warr, 1987) and some personal characteristics will be more important predictors of mental health as measured by GHQ and RSE scores in the following four groups: "wanting employment", "not able to work", "alternatives to employment" and "interested in training".



### 3.2.5 Hypothesis 5

There will be differences in mental health as measured by GHQ and RSE scores among the following four groups who volunteered for Follow-up Study: "wanting employment", "not able to work", "alternatives to employment" and "interested in training".

### 3.2.6 Hypothesis 6

For long-term unemployed people in the Follow-up Study there will be no shift in group membership over a twelve month period and there will be no change in mental health levels.

### 3.2.7 Hypothesis 7

There will be differences in mental health as measured by Follow-up Study GHQ (FGHQ), Follow-up Study RSE (FRSE) and HSCL scores among the following five groups of the Follow-up Study: "wanting employment", "not able to work", "alternatives to employment", "interested in training" and in the "employed" group.

### 3.2.8 Hypothesis 8

There will be no differences in mental health as measured by GHQ and RSE scores across different periods of unemployment and between the Main Study and the Follow-up Study.

### 3.2.9 Hypothesis 9

There will be differences in mental health as measured by the Follow-up Study GHQ (FGHQ) and the Follow-up Study RSE (FRSE) scores between continuously unemployed people and employed people in the Follow-up Study.

### 3. 2. 10 Hypothesis 10

There will be no differences in mental health as measured by GHQ and RSE scores between long-term unemployed women and long-term unemployed men in the Main Study.

### 3. 2. 11 Hypothesis 11

There will be differences in mental health as measured by GHQ and RSE scores between long-term unemployed single women and long-term unemployed married women in the Main Study.

### 3. 2. 12 Hypothesis 12

There will be differences in mental health as measured by GHQ and RSE scores between long-term unemployed young people and middle aged people in the Main Study.

### 3. 2. 13 Hypothesis 13

There will be differences in mental health as measured by GHQ and RSE scores among long-term unemployed European New Zealanders, Maori New Zealanders and Pacific Islanders and other ethnic groups in the Main Study.

## CHAPTER 4

### METHOD

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#### 4. 1. Introduction

In the present study Warr's (1987) Vitamin Model (for details refer to Chapter 2) will be examined. To assess some of the nine environmental features which may effect mental health, a large cross-sectional sample of long-term unemployed people was selected (for details of selection process refer to section 4. 2). Once environmental features and personal characteristics were measured and recorded, a smaller representative sample of long-term unemployed people was followed up one year later (for details of selection process refer to section 4. 7). Figure 4. 1. 1 is a visual representation of the data collection process.

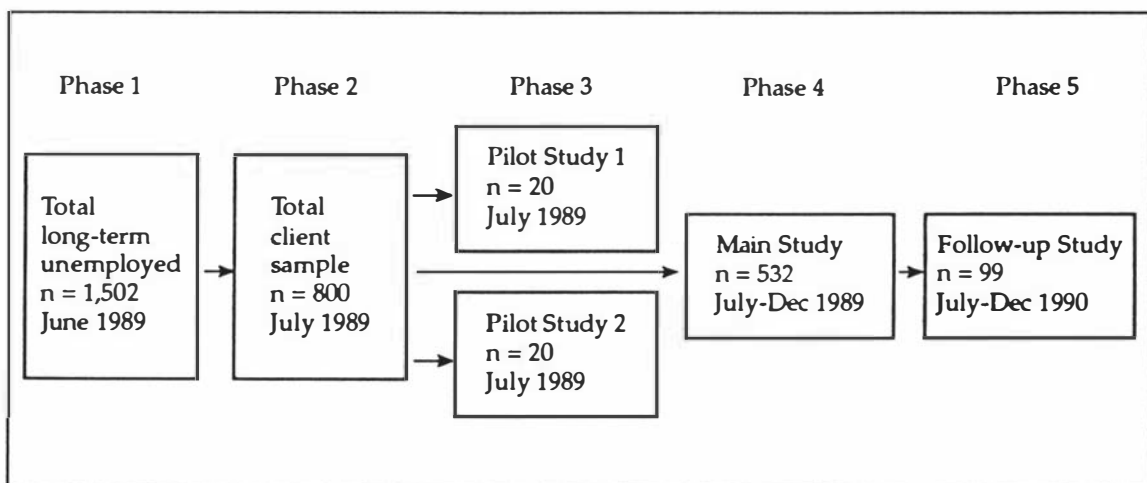


Figure 4. 1. 1 Visual representation of the data collection process

The research was reviewed and approved by the Ethics Committee, Massey University and all ethical considerations of the New Zealand Psychological Society (1985) were observed.

## 4.2 The Sample

### 4.2.1 Phase 1

In June to December 1989 the New Zealand Employment Service in Palmerston North registered an average number of 3,153 unemployed people per month, from which an average number of 1,502 (47.6%) per month were long-term unemployed (six months and above). The national figure for the long-term unemployed in June to December 1989 was an average number of 67,830 (43.3%) from an average total of 156,650 nationally registered unemployed (Department of Labour, 1989). There is however, some variation in the level of long-term unemployment according to geographical region over the same period. In Auckland and Hamilton, an average of 21,967 (49.2%) and 11,216 (49.2%) respectively of the registered unemployed were long-term unemployed, whereas only 6,630 (34.4%) in Dunedin and 10,053 (41%) in Christchurch were registered long-term unemployed (Department of Labour, 1989). Therefore the long-term unemployed people from Palmerston North are representative of the long-term unemployed population in New Zealand and the obtained values fall within the range of the New Zealand regions.

The Advisory Officer for People with a Disadvantage based in the Lower Hutt Area Office of the New Zealand Employment Service, who was responsible for the lower part of the North Island identified names and addresses of all long-term unemployed people in the Palmerston North region. In June 1989 1,502 people were registered as being unemployed for longer than six months.

### 4.2.2 Phase 2

From these 1,502 long-term unemployed people 800 were seen by the Advisory Officer for People with a Disadvantage and her staff. The people

were selected randomly using a table of random numbers (J. Sneddon, personal communication, June 27, 1989).

#### 4. 2. 3 Phase 3

From the sample of 800 long-term unemployed people, 40 were randomly selected for the pilot studies by the researcher in consultation with the Advisory Officer for People with a Disadvantage, using a table of random numbers.

#### 4. 2. 4 Phase 4

Of the 800 long-term unemployed people seen by the Advisory Officer for People with a Disadvantage and her staff, 532 (66.5%) participated in the Main Study and 228 did not. Of the latter group, 11 decided not to take part after reading the questionnaire and 6 people were under the influence of drugs or alcohol at the time of the interview and were not able to participate.

#### 4. 2. 5 Phase 5

Of the 532 participants in the Main Study, 99 people were followed up one year later (for details of selection process of Follow-up Sample refer to section 4. 7).

### 4. 3 The Pilot Studies

Two pilot studies were conducted in July 1989.

In the first pilot study the Mental Health Inventory (Veit & Ware, 1983) (for details refer to Appendix A 1. 3. 2) and the Semantic Differential (Osgood, Suci & Tannenbaum, 1957) (for details refer to Appendix A 1. 3. 3) as a self-

esteem measure were used with the main questionnaire (for details refer to section 4. 4. 3) with 20 long-term unemployed people. Difficulties immediately arose because of the length of the measures and the sequence of their administration (for details of Pilot Study 1 refer to Appendix A 1).

In order to overcome these difficulties a second pilot study was conducted in which the General Health Questionnaire 12 (Goldberg, 1972) (for details refer to section 4. 4. 1) and the Rosenberg Self-Esteem Scale (Rosenberg, 1965) (for details refer to section 4. 4. 2) were administered with the revised main questionnaire (for details refer to section 4. 4. 3) to another group of 20 long-term unemployed people. As no difficulties were encountered these two measures were considered more appropriate for use in the Main Study (for details of Pilot Study 2 refer to Appendix A 2).

#### **4.4 Main Study - research instruments and format**

Four instruments were used. The General Health Questionnaire 12 (Goldberg, 1972), the Rosenberg Self-Esteem Scale (Rosenberg, 1965), a questionnaire which measured Warr's nine environmental features and personal characteristics and an interview.

A covering letter was included at the beginning of the instruments and this gave brief information on the purposes of the research and asked participants' consent and assured their privacy and confidentiality (for all measures and covering letter refer to Appendix A 3).

#### 4. 4. 1 General Health Questionnaire (Goldberg, 1972)

The General Health Questionnaire was developed by Goldberg (1972) as a self-administered community research tool to detect mild or just clinically significant psychiatric illness (Goldberg & Huxley, 1980). The original 60 items of the General Health Questionnaire covered recent functioning in areas such as general health, sleep, subjective feelings of self-confidence, tension, depression and anxiety. This version has a high split half and test-retest reliability as well as internal consistency (Goldberg, 1972). The conventional method of scoring the questionnaire is known as the GHQ score. For each item, subjects must rate the occurrence of a particular symptom on a 4-point scale, of "less than usual", "no more than usual", "more than usual" and "much more than usual". The GHQ score treats only the last two response categories as indicating pathological deviation from the usual pattern (Huppert, Gore, & Elliott, 1988). Therefore a score of 0 is assigned for endorsing either of the first two categories and 1 for endorsing the third or fourth option. Several shortened versions (GHQ 30; GHQ 20; and GHQ 12) have been developed by selecting the most discriminatory items (Christensen, 1980). The General Health Questionnaire 12 (GHQ) was selected for this study.

The psychometric properties of the General Health Questionnaire 12 have been examined by Worsley and Gribben (1977) in Australia and Banks et al. (1980) in three separate investigations of British occupational groups. Factor analysis identified three significant factors: anhedonia-sleep disturbance, social performance and loss of confidence (Worsley & Gribben, 1977). Banks et al. (1980) evaluated also the scoring method of the GHQ finding the Likert scoring (0-3, with a maximum score of 36 and higher scores on the items indicating lower mental health) preferable since its distribution more closely approximated the normal distribution. They found that the Likert method produced in the unemployed sample "consistently higher item-



whole correlations than the GHQ method" p. 190, and demonstrated better psychometric properties for multivariate analyses. They reported alpha coefficients, an index of internal consistency (Cronbach, 1951), ranging between .82 and .90. Factor analysis suggested that in all three samples, use of the Likert-method showed a slightly stronger first major factor than the GHQ method. This supported Goldberg's (1972) findings that a first major factor accounted for 45.6% of the variance in the items. For this reason the scale was considered a unidimensional measure appropriately used as a single assessment of the degree of minor psychiatric disturbance.

The original validation of the scale, described in Goldberg (1972), was based on correlations between the scale and independent clinical ratings which were in the region of .70. The significant difference between employed and unemployed subjects found by Banks et al. (1980) in Britain, by Haines and Macky (1982) and Hesketh (1982) in New Zealand, provides additional validity for its use among unemployed people. The Likert 0-3 scoring method was adopted for the purposes of this study.

The General Health Questionnaire 12 has been widely used as a measure of psychological health in occupational stress studies (Cox, Thirlaway, Gotts, & Cox, 1983; Fletcher & Payne, 1980; Liff, 1981; Pankhurst, 1982; Payne & Arroba, 1980; Pratt, 1978; Warr, Cook, & Wall, 1979). It has been used to study stress and well-being in unemployed men (Hepworth, 1980), caregivers of severely disabled young adults (Hirst, 1985), nurses (Monro, 1985), young school leavers (Haines & Macky, 1982; Stafford, Jackson, & Banks, 1980), prison officers and their wives (Voges, Long, Roache, & Shouksmith, 1982) and the families of five occupational groups (Voges, 1983).

#### 4.4.2 The Rosenberg Self-Esteem Scale (Rosenberg, 1965).

The Rosenberg Self-Esteem Scale has been designed to achieve a unidimensional index of global self-esteem. Bachman, Omalley, and Johnston (1978) modified the Rosenberg scale. The first six items were adapted directly from it, the other four items, very similar in content, were developed by Cobb, Brooks, Kasl, and Connelly (1966). This modified Rosenberg Self-Esteem Scale (RSE) was used in the present study.

The scale consists of ten statements, six of which are phrased in a positive direction, with the other four in a negative direction to control for acquiescence. Respondents were asked to indicate on a five-point scale how often each item was true of them. The five response categories: "almost always", "often", "sometimes", "seldom" and "never" are assigned codes from 1 to 5, with higher values assigned to responses reflecting higher self-esteem. Some researchers suggest the calculation of a mean index of self-esteem (Bachman et al., 1978). Others present the self-esteem score as the total score (maximum score of 50) (Feather, 1987; Feather & Tiggemann, 1984), with scores being classified above 42 as high self-esteem and below 36 as low self-esteem (Feather, 1987). In the present study the self-esteem score is the total score.

Factor analysis performed by Bachman, Omalley and Johnston (1978) revealed a strong first factor, explaining 69% of the common variance. Coefficient alpha was .81 and reliability coefficient was .71. Furthermore, evidence of construct validity was provided by self-esteem being related to other measures of intellectual ability, somatic symptoms, negative affective states, and happiness in the expected directions (Bachman et al., 1978). Good reliability of the self-esteem scale was confirmed by test-retest values of .85 and .75 by Silber and Tippett (1965) and Robinson and Shaver (1973) respectively. Demo's (1985) comparative study of eight measures of self-

esteem examined intercorrelations between the measures and performed a factor analysis. This substantiated the validity of the modified version of the Rosenberg (1965) scale.

The Rosenberg Self-Esteem Scale and its modified version have been used widely in self-esteem research (Burns, 1979; Demo, 1985; Feather, 1987; Feather & Tiggemann, 1984), with adolescents, school and/or college students (Bachman, Omalley, & Johnston, 1978; Fleming, & Watts, 1980; Silber & Tippett, 1965) and with young unemployed school leavers (Winefield, & Tiggemann, 1989a).

#### 4.4.3 The questionnaire

The questionnaire was designed to measure Warr's nine environmental features (Warr, 1987) and some personal characteristics from the literature which were likely to influence the experience of unemployment. The questionnaire was pilot tested twice on 20 people each (for details on pilot studies refer to Appendix A 1 and A 2). After some adjustments the final version was prepared.

The questionnaire contained 36 items referring to demographic features, information on education and training, on occupation and recent jobs, personal disadvantages to employment, the advantages and disadvantages of unemployment, interpersonal contact and activities during the day and questions related to wanting employment. Socio-economic status was defined by using the classification index by Elley and Irving (1976) and Irving and Elley (1977) (for questionnaire and covering letter refer to Appendix A 3). In Table 4.4.3 the grouping of the questionnaire variables are outlined.

Table 4. 4. 3  
Grouping of the questionnaire variables

Demographic	gender age stated ethnic origin marital status living situation unemployment benefit length of unemployment
Education & training	school education school certificate post school training (six variables) training during unempl. (seven variables) training wanted now
Occupation & recent job	socio economic status reasons for leaving employment (ten variables) satisfaction with the last job
Reported disadvantages to obtaining employment	physical disability psychiatric disability conviction alcohol or drug problem time spent in mental institution disadvantage in appearance lack of education age disadvantage length of unemployment gang membership economic situation
Activities during the day	time spent doing nothing time spent watching TV time spent listening to music time spent sleeping doing jobs at home helping neighbours and friends volunteering at schools/clubs/societies involvement with interests and hobbies nature of interests and hobbies number of interests and hobbies

Table 4. 4. 3 (continued)

Interpersonal contact	time spent with partner time spent with parents time spent with friends time spent with neighbours time spent with former workmates time spent with casual friends time spent with club/society members time spent with extended family time spent with counsellors time spent with church people time spent with others number of close friends
Advantages & disadvantages of unemployment	leisure time with family & friends time for further training time for other things lack of money ill health depression/anxiety worries about the future loss of friends breakdown of marriage/relationship other diff., not app. (three variables) reported diff. during unempl. (seven variables) financial difficulties (ten variables) debts stress sickness
Future job needs & employment commitment	type of job wanting employment result of group selection

#### 4. 4. 4 The interview

As there was a suspected low reading level among the sample and little opportunity to assess the person's uniform understanding of the questions, the scales and the questionnaire were administered face-to-face to those with literacy problems. Those people who had no difficulty in understanding the instruments completed them independently. At the conclusion all the responses made were reviewed face-to-face. Each person

taking part in the research was then asked to comment in more detail on the following questions of the questionnaire. This served to check their understanding of the questions and to provide a more complete understanding of the meaning and implications these had for the person.

- 1) Does an employer think you have problems in getting a job?
- 2) Do you feel you have problems in getting a job?
- 3) Why did you leave your last job?
- 4) Since being unemployed have you had difficulties in making ends meet?
- 5) What were the worst aspects of being unemployed for you?
- 6) What were the best aspects of being unemployed for you?
- 7) Has unemployment pressured you at any time into .....?
- 8) What are your interests and hobbies?
- 9) During unemployment have you attended training courses?
- 10) What job do you want?

The questionnaire questions were followed by asking all long-term unemployed people more details on "employment commitment". The responses made were recorded by the researcher. Each person was then asked to choose an appropriate group (out of four) which would reflect as accurately as possible the selection made. These groups were: (1) "wanting employment", (2) "not able to work", (3) "alternatives to employment" and (4) "interested in training" (for details of groups refer to Appendix A 4).

#### 4.5 Main Study - procedure

The Advisory Officer for People with a Disadvantage from the New Zealand Employment Service, Lower Hutt Area Office identified the long-term unemployed people in the Palmerston North region. She initiated a special project to assess the needs of the long-term unemployed people and to assist them if necessary with government subsidies into employment. This project was conducted independently of the local NZ Employment Office and was located in a different building. The researcher gained permission from the Advisory Officer to approach clients when reporting and to ask them to participate in the research. The data of the Main Study was collected between July and December 1989.

The data collection was conducted in three phases:

- a. reception
- b. administration of the instruments
- c. the interview

##### a. Reception

When the long-term unemployed person reported at the reception, the purpose of the research was explained either by the Advisory Officer for People with a Disadvantage or by the secretary, and the unemployed person was asked if s/he was willing to participate. The importance of reading the covering letter before filling out the scales and questionnaire was stressed (to some people the covering letter was read). When informed consent was given data collection proceeded.

##### b. Administration of Instruments.

The administration of the instruments and the interview were conducted in a separate office in the same building. The long-term unemployed people

were reassured that the research study was totally independent of the New Zealand Employment Service and they could not be affected in any way by refusal to participate in the study. The researcher introduced herself using the same format (refer to Appendix A 5) with each person. Voluntary participation and confidentiality were stressed.

The administration of the instruments was undertaken in two ways:

(i) For those people who had literacy problems or experienced difficulties understanding the questions, all the instruments were administered face-to-face.

(ii) The people who had no difficulties in understanding the scales and questionnaire questions, completed all measures independently. However, this was followed by a face-to-face review of most responses made to the instruments as this served to check the understanding of the questions.

#### c. The Interview

The administration of the scales and the questionnaire was followed by a more detailed discussion of some of the questionnaire questions (for details refer to section 4. 4. 4). Many people took the opportunity to talk about personal issues during the interview. Others expressed their anger, hopelessness and sadness about the employment situation in general. Some interviews developed into extensive counselling sessions.

At the conclusion of the interview reassurance on confidentiality was given. Information was provided to some respondents on sources of help in the community. For those people who requested further assistance referrals were made to the vocational guidance officer of the New Zealand Employment Service, to the Alcohol and Drug Centre, to Manawaroa Centre for Psychological Medicine and to Methodist Social Services for



counselling. Interviews ranged in length from one hour to two and a half hours, with an average time of one hour and a half.

#### **4. 6 Follow-up Study - introduction**

A Follow-up Study was conducted between July to December 1990 to test the hypotheses of the present research. The Main Study in 1989 had identified four groups of long-term unemployed people (for details refer to section 4. 4. 4). The Advisory Officer for People with a Disadvantage informed the researcher that in July to December 1989, 20 people had found employment. The intention was to follow-up the employed group and compare them with people who were still unemployed one year later.

#### **4. 7 Follow-up Study - the sample**

The aim was to have approximately 20 people from each group (for details of groups refer to section 4. 4. 4) to match the 20 employed people and that each person selected be interviewed exactly 12 months (plus or minus one week) after the initial interview date in 1989. For this reason letters were sent out by the researcher (for details refer to Appendix A 6) to 130 people who were selected randomly from groups 1 - 4 and to the 20 employed people. Of a total of 150 people approached, 38 could not be contacted due to change of address or leaving the district and 10 people failed to attend or chose not to participate. Three people were excluded from the study, two because their period of employment consisted of less than one year

(although at the time of data collection they were still employed) and one person because employment was terminated after eight months.

Therefore the results of 99 (66%) people were included for data analysis. This included four of the 20 employed people who had left employment within the first month and were unemployed for another 11 months. The response rate resulted in uneven numbers becoming available in each group.

#### **4. 8 Follow-up Study - research instruments and format**

Five instruments were used. The General Health Questionnaire 12 (Goldberg, 1972), the Rosenberg Self-Esteem Scale (Rosenberg, 1965), the questionnaire, the Hopkins Symptom Checklist 25 (Parloff, Kelman & Frank, 1954) and the interview.

##### **4. 8. 1 The General Health Questionnaire 12 (Goldberg, 1972)**

The same as for Main Study (for details refer to section 4. 4. 1).

##### **4. 8. 2 The Rosenberg Self-Esteem Scale (Rosenberg, 1965)**

The same as for Main Study (for details refer to section 4. 4. 2).

##### **4. 8. 3 The questionnaire**

The questionnaire was reduced in size and instead of 36 questions only 17 were asked. The questions on demographic details, on education and training and on some disadvantages of unemployment were omitted because this information had already been recorded.

A covering letter was attached to the questionnaire which gave information on the Follow-up Study (for questionnaire and covering letter refer to Appendix A 7).

#### 4. 8. 4 The Hopkins Symptom Checklist 25 (Parloff, Kelman & Frank, 1954)

It was noted by the researcher that a number of unemployed people responded consistently by ticking "the same as usual" or "no more than usual", and therefore had a relatively low GHQ score indicating higher mental health (as measured by the GHQ). However, behaviours and physical symptoms as expressed in the interview and observed by the researcher, who was a clinically trained Registered Psychologist, clearly indicated that some of the respondents were chronically depressed and/or anxious. It appeared that a ceiling effect may have been reached with the General Health Questionnaire. Previous researchers have had similar results and reported the relatively large proportion of respondents with chronic complaints that fell within the group of false negatives (Finlay-Jones & Murphy, 1979; Hobbs, Ballinger, & Smith, 1983). A revised scoring system to the conventional GHQ score method was proposed by Goodchild and Duncan-Jones (1985) and they reported an improvement of the screening capacity of the General Health Questionnaire. However, in the community survey by Vazquez-Barquero, Diez-Manrique, Pena, Quintanal, and Lopez (1986) the revised scoring system failed to provide better prediction of chronicity than conventional scoring. The question whether the revised scoring procedure of the GHQ will result in an improved detection of chronic disorders has yet to be settled (Koeter, Van Den Brink, & Ormel, 1989).

For this reason it was considered appropriate to include the Hopkins Symptom Checklist 25 (HSCL) in the Follow-up Study in addition to the General Health Questionnaire 12 (GHQ).

The Hopkins Symptom Checklist was originally designed in 1954 by Parloff, Kelman and Frank at John Hopkins University, as a self-report symptom inventory to be used for measuring change in the clinical status of psychotherapy patients (Parloff, Kelman & Frank, 1954). The earliest version, called the Discomfort Scale comprised 41 symptom questions, most of which were taken from the Cornell Medical Index (CMI). Several versions have been developed ranging from 25 - 90 items. Karl Rickels and his colleagues shortened the Hopkins Symptom Checklist 58 and demonstrated the usefulness of a 25-item version in family practice and family planning service settings in identifying patients with previously unrecognized clinically significant emotional distress (Hesbacher, Rickels, Morris, Newman, & Rosenfeld, 1980). The 25-item version uses 10 items from the Hopkins Symptom Checklist 58 anxiety cluster ("being suddenly scared for no reason"; "feeling fearful"; "faintness, dizziness or weakness"; "nervousness or shakiness inside"; "heart pounding or racing"; "trembling"; "feeling tense or keyed up"; "headaches"; "spells of terror or panic"; "feeling restless, not being able to sit still") and 13 items from the depression cluster ("feeling low in energy, slowed down"; "blaming oneself for things"; "crying easily"; "loss of sexual interest or pleasure"; "feeling lonely"; "feeling hopeless about the future"; "feeling blue"; "thoughts of ending one's life"; "feeling trapped or caught"; "worrying too much about things"; "feeling no interest in things"; "feeling everything is an effort"; "feelings of worthlessness"). It also includes two additional somatic symptoms ("poor appetite"; "difficulty falling asleep or staying asleep"). The scale includes four categories of response ("not at all", "a little", "quite a bit", "extremely") in keeping with its primary use as a measure of symptom

intensity. The four categories of response are assigned values from 1-4. A mean score is calculated and people with a mean score higher than 1.75 are considered as having significant emotional distress (Mollica, Wyshak, Marneffe, Khuon, & Lavelle, 1987; Pernice, 1987). This scoring method was adopted for the present study.

Validation was accomplished by measuring the degree of sensitivity and specificity of the HSCL by comparing the scores with the DSM III diagnosis given by a psychiatrist blind to the HSCL results (Winokur, Winokur, Rickels, & Cox, 1984). The sensitivity and specificity correlation values for the presence of depression (based on scores higher than 1.75 on the 15 depression items of the Hopkins Symptom Checklist 25) according to the DSM III diagnosis of major depression were .88 and .73 respectively. These findings are consistent with previous validations of the HSCL, where patients who indicated the greatest improvement also had the lowest symptom levels after six months of treatment (Rickels, Lipman, Garcia, & Fisher, 1972). The Hopkins Symptom Checklist 25 has been used in New Zealand with managers (Brook & Brook, 1989) and with refugees and immigrants (Pernice, 1987).

#### **4.9 Follow-up Study - procedure**

The Adult Reading and Learning Assistance (ARLA) centre in Palmerston North had provided office space for the Follow-up Study of long-term unemployment. At least five attempts were made to contact the long-term unemployed people:

- (i) Letters explaining the Follow-up Study were sent out together with an appointment date and time.
- (ii) Telephone calls were made on average two or three days before the due date for the interview. This served to ask people individually to volunteer and as a reminder. If necessary or preferred arrangements were made for home visits.
- (iii) People without a telephone were visited and if they were willing to participate, interview location, date and time were confirmed or changed or if preferred, home interviews were scheduled.
- (iv) Telephone calls and visits to new addresses when these were available were made and either interview location, date and time confirmed/changed or home visits organized.
- (v) The long-term unemployed people living in Himatangi, Foxton, Tangimoana, Levin, Wanganui and Danniverke who were volunteering to participate, were interviewed in their homes.

The Follow-up Study was conducted in three phases:

- a. reception
- b. administration of the instruments
- c. interview.

a. Reception

The researcher received the respondent in the ARLA office and explained the purpose of the Follow-up Study. She emphasised voluntary participation and confidentiality.

In the home situation the same format was followed. When informed consent was given data collection proceeded.

b. Administration of the instruments.

The administration of the instruments was conducted in two ways:

(i) For those long-term unemployed people who had literacy problems or experienced difficulties understanding the questions, all the instruments were administered face-to-face.

(ii) The people who had no difficulties in understanding the scales and the questionnaire questions, completed all measures independently. However, this was followed by a face-to-face review of most responses made to the instruments as this served to check the understanding of the questions.

c. The Interview

The administration of the scales and questionnaire was followed by a discussion of issues associated with unemployment during the last 12 months. For those people who requested help referrals were made to Manawaroa Centre for Psychological Medicine and the Methodist Social Services for counselling. Interviews ranged in length from one hour to two and a half hours, with an average time of one hour.

#### 4.10 Statistical analysis

Computer analysis involved processing data with SPSS-X, the Advanced Statistics Package for the Social Sciences (Norusis, 1985).

(i) Descriptive Statistics, summarizing the information obtained, were computed.

(ii) Analysis of Variance and t-tests and appropriate statistical tests were used to establish, whether mean differences between the groups were significant.

(iii) Multivariate Analyses with Warr's nine environmental features and personal characteristics were performed. The General Health Questionnaire 12 (Goldberg, 1972) and the Rosenberg Self-Esteem Scale (Rosenberg, 1965) scores were the dependent variables.



## CHAPTER 5

## RESULTS

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<b>5.11</b>	<b>Hypothesis 10 .....</b>	<b>163</b>
<b>5.12</b>	<b>Hypothesis 11 .....</b>	<b>164</b>
<b>5.13</b>	<b>Hypothesis 12 .....</b>	<b>165</b>
<b>5.14</b>	<b>Hypothesis 13 .....</b>	<b>167</b>

Descriptive characteristics of the long-term unemployed people in the Main Study and Follow-up Study are followed by both univariate and multivariate analyses to test the hypotheses outlined in Chapter three.

## 5.1 Descriptive statistics

The distribution of the major demographic variables of the Main Study such as "gender", "age", "stated ethnic origin", "marital status", "living situation", "financial support", "length of unemployment", "education", "reported personal disadvantages to obtaining employment", "involvement with interests and hobbies", "number of interests and hobbies" and "socio-economic status" are outlined in Table B-1 (refer to Appendix B). These characteristics are compared with the Follow-up Study and attention drawn to similarities and differences.

### 5.1.1 Gender

Male unemployed outnumbered female unemployed in both studies. There were 322 (60.5%) men and 210 (39.5%) women in the Main Study and 55 (55.6%) men and 44 (44.4%) women in the Follow-up Study (refer to Appendix B, Table B-1).

### 5.1.2 Age distribution

In both studies the majority (71.3% and 70.7% respectively) of the unemployed people belonged to the young adult and below middle thirties age group. Of the 532 long-term unemployed people in the Main Study, 231 (43.5%) were aged between 17 and 25 and 148 (27.8%) were aged between 26 and 35. The opposite trend was evident in the Follow-up Study where only 27 (27.3%) belonged to the young adult group and 43 (43.4%) were aged between 27 to 36. There was a similar percentage of people in both studies in

the early middle aged group, 14.8% and 14.1% respectively. The later middle aged group of the Main Study had 61 (11.5%) and the Follow-up Study had 13 (13.1%) people, but in the over 55 age group both studies had similar percentages of 2.4% and 2.1% respectively (refer to Appendix B, Table B-1).

### 5. 1. 3 Stated Ethnic origin

In both studies the majority of the unemployed people, 398 (74.8%) in the Main Study and 81 (81.8%) in the Follow-up Study were of European origin. There were 106 (19.9%) people who considered themselves as Maori in comparison to 12 (12.1%) in the Follow-up Study. In the Main Study there were 10 (1.9%) Pacific Islanders whereas there was only one (1%) Pacific Islander in the Follow-up Study. Other ethnic origins were stated by 18 (3.4%) in the Main Study and by 5 (5.1%) in the Follow-up Study (refer to Appendix B, Table B-1).

### 5. 1. 4 Marital status

In both studies the majority of the unemployed people were single (excluding the divorced and separated people) that is 336 (63.2%) in the Main Study and 61 (61.6%) in the Follow-up Study. In the Main Study 66 (12.4%) were married and a similar percentage 13 (13.1%) was married in the Follow-up Study. There were the same percentages in both studies of 16.2% in the divorced and separated category (refer to Appendix B, Table B-1).

### 5. 1. 5 Living situation

A large number of unemployed people 196 (36.8%) in the Main Study and 42 (42.4%) in the Follow-up Study, lived with their parents or close family. In the Main Study 94 (17.7%) and 16 (16.2%) of the Follow-up Study lived with their partner/wife/husband. In both studies similar percentages of people 15% and 15.2% respectively, lived with flatmates. The same percentage of people 14.1% lived alone in both studies. In the Main Study 12 (2.3%) and 3

(3%) in the Follow-up Study lived in hostels or boarding houses (refer to Appendix B, Table B-1).

#### 5. 1. 6 Financial support

Most long-term unemployed in both studies 502 (94.3%) and 94 (95%) respectively received the unemployment benefit. In the Main Study 19 (3.5%) were on ACC but only two (2%) in the Follow-up Study. The sickness benefit and the invalid benefit were received by eight (1.6%) in the Main Study and by two (2%) in the Follow-up Study. The Domestic Purposes Benefit was received by three (.6%) unemployed people in the Main Study and one person (1%) in the Follow-up Study (refer to Appendix B, Table B-1).

#### 5. 1. 7 Length of unemployment

For easy comparisons between the Main Study and Follow-up Study, the length of unemployment figures are stated at 1989 levels, although most of the people (n=77) in the Follow-up Study were another year unemployed at the time of the Follow-up Study data collection.

Nearly half 262 (49.3%) of the 532 people in the Main Study were unemployed between six months to two years, whereas over half 58 (58.6%) of the Follow-up Study were unemployed for the same period in 1989. A minority of people 28 (5.3%) were unemployed for six months in the Main Study, whereas there were 11 (11.1%) in the Follow-up Study. There were 111 (20.8%) respondents unemployed for three years in the Main Study, whereas only 14 (14.2%) in the Follow-up Study were unemployed for that time. In the Main Study and in the Follow-up Study similar percentages 74 (13.9%) and 12 (12.2%) were unemployed for four years. Some 33 (6.2%) in the Main Study and five (5.1%) of the Follow-up Study had been out of work for five years and 15 (2.8%) and three (3%) respectively were

unemployed for six years. A similar percentage of people 7% and 7.1% respectively were unemployed above six years in the Main Study and Follow-up Study (refer to Appendix B, Table B-1).

#### 5. 1. 8 Education

In the Main Study only 300 (56.3%) had attended either fifth, sixth or seventh form in comparison with the Follow-up Study where well over half 68 (68.7%) had attended school for the same period. In the Main Study only 17.3% had school certificate in three subjects, whereas in the Follow-up Study 35.4% had the certificate (refer to Appendix B, Table B-1).

#### 5. 1. 9 Post school training

Over half 269 (50.6%) of the unemployed people in the Main Study had no training after leaving school, in the Follow-up Study only 34 (34.3%) had no training (refer to Appendix B, Table B-1).

#### 5. 1. 10 Training while unemployed

In the Main Study nearly half of the people 261 (49.1%) attended training courses during unemployment, whereas in the Follow-up Study over half of the people 56 (56.6%) attended training courses. In the Main Study 72 (13.5%) attended Polytechnic and 142 (26.7%) had received Access training, in comparison to 19 (19.2%) and 23 (23.2%) respectively in the Follow-up Study (refer to Appendix B, Table B-1).

#### 5. 1. 11 Reported disadvantages to obtaining employment

In the Main Study a physical disability was reported by 131 (24.6%) people, as a personal disadvantage to obtaining employment. In the Follow-up Study only 22 (22.2%) stated this disadvantage. A psychiatric disadvantage to employment was reported by 44 (8.27%) people in the Main Study, whereas in the Follow-up Study a higher percentage 12 (12.1%) stated this

disadvantage. Having little education was reported by 150 (28.2%) in the Main Study and 22 (22.2%) in the Follow-up Study. There were 39 (7.3%) people in the Main Study and 5 (5.1%) in the Follow-up Study who were unable to read or write (refer to Appendix B, Table B-1).

#### 5. 1. 12 Socio-economic status

Socio-economic status was collected using the Elley and Irving (1976) and Irving and Elley (1977) revised socio-economic index for the female and male labour force in New Zealand. The percentage of professionals (3%) was higher in the Follow-up Study in comparison to only (.9%) in the Main Study. However, there were fewer unskilled people 48 (48.5%) in the Follow-up Study, than in the Main Study 296 (55.6%). In the Follow-up Study more respondents 17 (17.2%) had never had a job in comparison to 69 (13%) in the Main Study (refer to Appendix B, Table B-1).

#### 5. 1. 13 Interests and hobbies

In the Main Study a higher percentage of people 78 (14.7%) had no interests or hobbies in comparison to the Follow-up Study 8 (8.1%). This trend was reversed for interests and hobbies in the arts. In the Main Study 64 (12%) people reported this interest in contrast to 18 (18.2%) in the Follow-up Study. The distribution for all other interests and hobbies was similar in both groups, except for social interests and hobbies. The Follow-up Study had a higher percentage reporting interests of a social nature 12 (12.1%), whereas in the Main Study only 40 (7.5%) belonged to that group (refer to Appendix B, Table B-1).

#### 5. 1. 14 Number of interests and hobbies

In the Main Study 305 (57.4%) respondents stated one or two interests and hobbies, whereas in the Follow-up Study the number was lower, 47 (47.5%). In the Follow-up Study the percentage of people having three, four, five and

six interests and hobbies was considerably higher than in the Main Study (refer to Appendix B, Table B-1).

## 5.2 Hypothesis 1

For long-term unemployed people in the Main Study some environmental features (Warr, 1987) and some personal characteristics will be more important predictors of mental health levels as measured by GHQ and RSE scores than others.

Two multiple regression analyses (standard-all in) were run, using GHQ and RSE scores as the dependent variable. There were 103 predictor variables and these measured Warr's nine environmental features and personal characteristics (refer to chapter 4, section 4. 4. 3 for a full listing of variables). Results of the evaluation of assumptions of normality, homogeneity of variance-covariance matrices, linearity and multicollinearity were satisfactory (Tabachnick & Fidell, 1989).

### GHQ results

The results in Table 5. 2. 1 indicated that depression/anxiety, which were considered some of the worst aspects of unemployment and that stress, no training attended while unemployed, being female, little activity, attendance of a polytechnic after leaving school, not considering leisure one of the best aspects of unemployment, worries about the future, which were considered some of the worst aspects of unemployment, difficulties paying for food, spending little time with a partner/husband or wife, time for further training which was not considered one of the best aspects of unemployment, having debts, spending little time with clubs/societies and church people, taking correspondence courses during unemployment and

experiencing the loss of friends as one of the worst aspects of unemployment were significantly correlated to higher GHQ scores (high GHQ scores indicated lower mental health).

Table 5. 2. 1

Regression analysis results with GHQ scores as dependent variable

(Main Study, N = 532)

<u>Predictor</u>	<u>Beta</u>	<u>sig.</u>
depression/anxiety (Note 1)	.224184	.0000
stress	.214518	.0000
no training while unemployed	.178080	.0346
gender	-.144151	.0011
no activity	.137085	.0032
polytechnic after leaving school	.136944	.0229
leisure (Note 2)	-.130626	.0103
worries about the future (Note 1)	.119060	.0053
difficulties paying for food	.117009	.0091
time with partner/husband/wife	-.102938	.0372
further training (Note 2)	-.102849	.0225
debts	.102097	.0294
time with club/society members	-.088510	.0469
time with church people	-.084374	.0358
correspondence courses	.083981	.0358
loss of friends (Note 1)	.079318	.0427

$N = 532$ ,  $R^2 = .53334$ ,  $F(103, 424) = 4.704$ ,  $p < .001$

Note 1: worst aspects of unemployment

Note 2: best aspects of unemployment



RSE results

The results in Table 5. 2. 2 indicated that post school training, being male, being active, involvement with interests and hobbies, less stress, to be older, ill health, which was considered one of the worst aspects of unemployment, being Maori/Pacific Islander, having close friends, having no personal disadvantages and/or disabilities, depression/anxiety, which were not considered some of the worst aspects of unemployment, higher levels of school education, spending time with a partner/husband or wife, spending little time with counsellors, time for further training being considered one of the best aspects of unemployment, more interests and hobbies and higher socio-economic status were significantly correlated to higher RSE scores (high RSE scores indicated higher (better) mental health).

Table 5. 2. 2

Regression analysis results with RSE scores as dependent variable(Main Study, N = 532)

<u>Predictor</u>	<u>Beta</u>	<u>sig.</u>
no post school training	-.218410	.0356
gender	.196287	.0000
no activity	-.169335	.0004
involvement with interests & hobbies	.160470	.0004
stress	-.149347	.0015
age	.145688	.0079
ill health (Note 1)	.138642	.0012
ethnicity	.136559	.0013
number of close friends	.131547	.0016
no personal disadvantages/disabilities	.130046	.0045
depression/anxiety (Note 1)	-.112740	.0106

Table 5. 2. 2 (continued)

<u>Predictor</u>	<u>Beta</u>	<u>sig.</u>
school education	.111458	.0396
time with partner/husband/wife	.103469	.0432
time with counsellors	-.101790	.0185
further training (Note 2)	.098416	.0349
number of interests and hobbies	.090377	.0376
socio-economic status	.082824	.0441

$N = 532$ ,  $R^2 = .49954$ ,  $F(103,424) = 4.10889$ ,  $p < .001$

Note 1: worst aspects of unemployment

Note 2: best aspects of unemployment

From the 103 variables used in both multiple regression analyses, 33 variables were significantly correlated with mental health levels (either with the GHQ or RSE scores). Six of these variables were common predictors in both analyses, which resulted in 27 significant predictor variables. These 27 variables were entered into two further multiple regression analyses, using GHQ and RSE scores as the dependent variable.

#### GHQ results

The results in Table 5. 2. 3 indicated that stress, depression/anxiety, which were considered some of the worst aspects of unemployment, little activity, worries about the future, which were considered some of the worst aspects of unemployment, being older, being female, the loss of friends, which was considered one of the worst aspects of unemployment, no training while unemployed, debts, spending little time with church people and with a

partner/husband or wife, spending time with counsellors, not considering leisure as one of the best aspects of unemployment and being a European New Zealander were significantly correlated to higher GHQ scores (high GHQ scores indicated lower mental health).

Therefore the results from this multivariate regression analysis, using the GHQ scores as the dependent variable suggested that from Warr's nine environmental features, five features were significantly correlated to lower mental health. These five environmental features were: (i) "externally generated goals", (ii) "environmental clarity", (iii) "opportunity for skill use", (iv) "availability of money" and (v) "opportunity for interpersonal contact" (refer to Chapter 2, section 2. 5. 3 for full listing of variables, which measured each individual feature). The four categories of personal characteristics were represented by three categories, such as "demographic variables", "baseline mental health" and "dispositional value orientations" variables (refer to Chapter 2, section 2. 5. 5 for full listing of variables, which measured each category).

Table 5. 2. 3

Regression analysis results with 27 variables and GHO scores as dependent variable (Main Study, N = 532)

<u>Predictor</u>	<u>Beta</u>	<u>sig.</u>
stress	.225482	.0000
depression/anxiety (Note 1)	.220656	.0000
no activity	.160867	.0000
worries about the future (Note 1)	.139789	.0002
age	.139357	.0004
gender	-.120219	.0010

Table 5. 2. 3 (continued)

<u>Predictor</u>	<u>Beta</u>	<u>sig.</u>
loss of friends (Note 1)	.116855	.0010
no training while unemployed	.116519	.0025
debts	.106683	.0052
time with church people	-.090883	.0103
time with partner/husband/wife	-.088481	.0124
time with counsellors	.079922	.0252
leisure (Note 2)	-.074335	.0393
ethnicity	-.070655	.0482

$N = 532$ ,  $R^2 = .44730$ ,  $F(27, 504) = 15.10710$ ,  $p < .001$

Note 1: worst aspects of unemployment

Note 2: best aspects of unemployment

### RSE results

The results in Table 5. 2. 4 indicated that being male, less stress, being active, being older, having close friends, involvement with interests and hobbies, no personal disadvantages and/or disabilities, being Maori/Pacific Islander, ill health, which was considered one of the worst aspects of unemployment, higher levels of school education, depression/anxiety, which were not considered some of the worst aspects of unemployment, more interests and hobbies, spending little time with counsellors, spending time with a partner/husband or wife, higher socio-economic status, having training after leaving school and time for further training being considered one of the best aspects of unemployment were significantly correlated to higher RSE scores (high RSE scores indicated higher mental health).

Therefore the results from this multivariate regression analysis, using the RSE scores as the dependent variable suggested that from Warr's nine environmental features, three features were significantly correlated to higher mental health. The three features were: (1) "externally generated goals", (ii) "opportunity for interpersonal contact" and (iii) "opportunity for skill use" (refer to Chapter 2, section 2. 5. 3 for full listing of variables, which measure each individual feature). From the four categories of personal characteristics, three were represented such as "demographic variables", "dispositional value orientations" and "baseline mental health" variables (refer to Chapter 2, section 2. 5. 5 for full listing of variables, which measured each category).

Table 5. 2. 4

Regression analysis results with 27 variables and RSE scores as dependent variable (Main Study, N = 532)

<u>Predictor</u>	<u>Beta</u>	<u>sig.</u>
gender	.217310	.0000
stress	-.186990	.0000
no activity	-.172423	.0000
age	.166404	.0000
number of close friends	.159593	.0000
involvement with interests & hobbies	.156913	.0001
no personal disadvantages/disabilities	.142571	.0001
ethnicity	.133355	.0003
ill health (Note 1)	.109075	.0032
school education	.100217	.0171
depression/anxiety (Note 1)	-.096279	.0135
number of interests and hobbies	.094985	.0135

Table 5. 2. 4 (continued)

<u>Predictor</u>	<u>Beta</u>	<u>sig.</u>
time with counsellors	-.093181	.0109
time with partner/husband/wife	.091277	.0118
socio-economic status	.091102	.0122
no training after leaving school	-.088770	.0274
further training (Note 2)	.076239	.0362

$N = 532$ ,  $R^2 = .41958$ ,  $F(27, 504) = 13.49398$ ,  $p < .001$

Note 1: worst aspects of unemployment

Note 2: best aspects of unemployment

### Summary of GHQ and RSE results

From the 27 variables used in each of the last two multiple regression analyses, 31 variables were significantly correlated with mental health (14 with GHQ scores and 17 with RSE scores). Eight of these variables were common predictors in both analyses, which resulted in 23 significant predictor variables.

The results suggested that from Warr's nine environmental features five features were significantly correlated to GHQ scores and three to RSE scores. Three environmental features were common to both measures. Therefore five environmental features were predictors of mental health (GHQ and RSE scores). These features were: (i) "externally generated goals", (ii) "opportunity for interpersonal contact", (iii) "opportunity for skill use", (iv) "availability of money" and (v) "environmental clarity" (refer to Chapter 2,

section 2. 5. 3 for full listing of variables, which measured each individual feature).

Three categories of personal characteristics were predictors of mental health levels with GHQ scores and RSE scores. The categories were: (i) "demographic variables", (ii) "baseline mental health" and (iii) "dispositional value orientations" (refer to Chapter 2, section 2. 5. 5 for full listing of variables, which measured each category).

### 5.3 Hypothesis 2

**For long-term unemployed people in the Follow-up Study some environmental features (Warr, 1987) and some personal characteristics will be more important predictors of mental health as measured by GHQ and RSE scores than others.**

The Follow-up Study (n = 77, people who were still unemployed one year later) was selected and two multiple regression analyses were run, using Follow-up Study GHQ (FGHQ) and Follow-up Study RSE (FRSE) scores as the dependent variable. It was intended to run both analyses with 23 predictor variables, which had been significantly correlated one year previously to mental health levels in the Main Study (N = 532) (for selection of these variables refer to section 5. 2). However, in the Follow-up Study (n=77) numbers were too small to run a meaningful regression analysis. In order to perform this regression, a maximum of 15 predictor variables were acceptable. Therefore 15 variables with the largest Beta values from both analyses were selected (Tabachnik & Fidell, 1989). The assumption of homogeneity of variance-covariance matrices and normality appeared to be violated with the FGHQ variable. A square root

transformation was performed to meet the assumptions (Norusis, 1985). As the improvement was negligible, the results, which are reported are for untransformed variables. All other assumptions were met (Tabachnick & Fidell, 1989).

### FGHQ results

The results in Table 5. 3. 1 indicated that little activity and stress were significantly correlated to higher FGHQ scores (high FGHQ scores indicated lower mental health).

Therefore the results from this multivariate regression analysis, using the FGHQ scores as the dependent variable suggested that from Warr's nine environmental features, one feature was significantly correlated to lower mental health. This environmental feature was (i) "externally generated goals" (refer to Chapter 2, section 2. 5. 3 for full listing of variables, which measured this individual feature). "Baseline mental health" was the only category of personal characteristics which was a predictor of lower mental health levels (refer to Chapter 2, section 2. 5. 5 for full listing of variables, which measured this category).

Table 5. 3. 1

Regression analysis results with 15 variables and FGHQ scores as dependent variable (Follow-up Study, n = 77)

<u>Predictor</u>	<u>Beta</u>	<u>sig.</u>
no activity	.287136	.0216
stress	.281557	.0258

$N = 77, R^2 = .42477, F(15, 61) = 3.00299, p < .001$



### FRSE results

The results in Table 5. 3. 2 indicated that having close friends, being active and being male is significantly correlated to higher FRSE scores (high FRSE scores indicated higher mental health).

Therefore the results from this multivariate analysis using the FRSE scores as the dependent variable suggested that from Warr's nine environmental features, two were significantly correlated with higher mental health. The two features were: (i) "externally generated goals" and (ii) "opportunity for interpersonal contact" (refer to Chapter 2, section 2. 5. 3 for full listing of variables, which measure each individual feature). One category of personal characteristics was a predictor of higher mental health. This category was "demographic variables" (refer to Chapter 2, section 2. 5. 5 for full listing of variables, which measured this category).

Table 5. 3. 2

Regression analysis results with 15 variables and FRSE scores as dependent variable (Follow-up Study, n = 77)

<u>Predictor</u>	<u>Beta</u>	<u>sig.</u>
number of close friends	.310184	.0109
no activity	-.307017	.0185
gender	.231203	.0380

$N = 77, R^2 = .37565, F(15, 61) = 2.44680, p < .01$

### Summary of FGHQ and FRSE results

From the 15 variables used in both multiple regression analyses, five variables were significantly correlated with mental health (either with FGHQ or FRSE scores). One of these variables was a common predictor in both analyses, which resulted in four significant predictor variables.

The results suggested that from Warr's nine environmental features one feature was significantly correlated to FGHQ scores and two to FRSE scores. One environmental feature was common to both measures. Therefore two environmental features were predictors of mental health. These features were: (i) "externally generated goals" and (ii) "opportunity for interpersonal contact" (refer to Chapter 2, section 2. 5. 3 for full listing of variables, which measured each individual feature).

Two categories of personal characteristics were predictors of mental health levels with FGHQ and FRSE scores. The categories were: (i) "baseline mental health" and (ii) "demographic variables" (refer to Chapter 2, section 2. 5. 5 for full listing of variables, which measured each category).

#### **5.4 Hypothesis 3**

**There will be differences in mental health as measured by GHQ and RSE scores among the following four groups of the Main Study: "wanting employment", "not able to work", "alternatives to employment" and "interested in training".**

Two Analyses of Variance were performed to test differences in GHQ and RSE scores across four groups (refer to section 5. 6, Figure 5. 6. 1 for

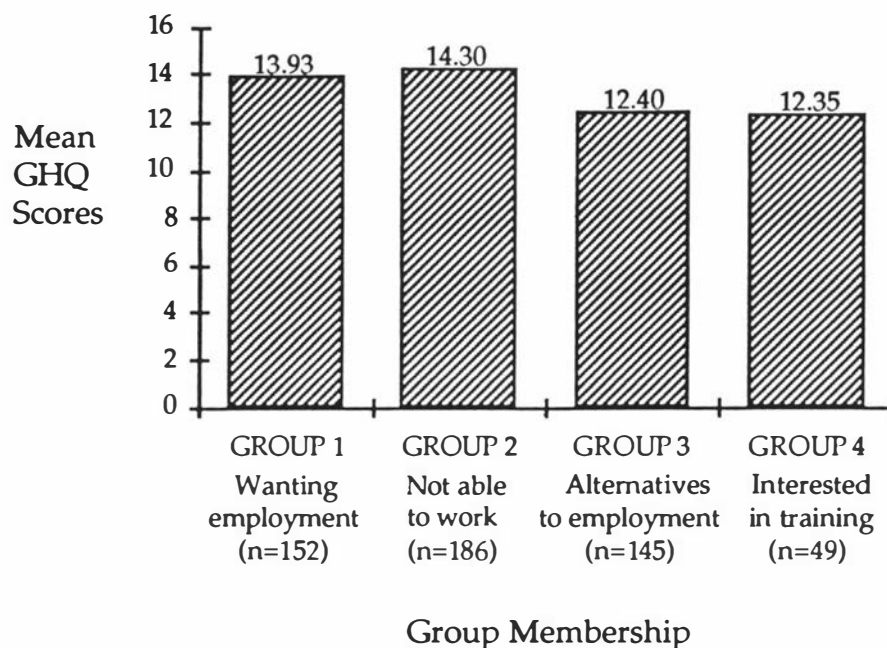
schematic representation of the sample). Group 1 consisted of 152 people wanting employment and in group 2 there were 186 people who considered themselves not able to work. Group 3 consisted of 145 people having alternatives to employment and group 4 had 49 people who were interested in training. The data was further analysed by computing a contrast coefficient matrix to test differences between the four groups (Norusis, 1985).

#### GHQ results (Anova)

Figure 5. 4. 1 presents a graphical illustration of mean GHQ score differences between the four groups. These differences in mean GHQ scores were significant across the four groups,  $F(3, 528) = 3.39, p < .05$  (for summary of Anova Table refer to Appendix B, Table B-2).

#### GHQ results (contrast coefficient)

There was a significant difference in mean GHQ scores between group 1 ( $M = 13.93$ ) and group 3 ( $M = 12.40$ ),  $t(528) = 2.14, p < .05$ , a significant difference between group 2 ( $M = 14.30$ ) and group 3 ( $M = 12.40$ ),  $t(528) = 2.78, p < .01$  and a significant difference in mean GHQ scores between group 2 ( $M = 14.30$ ) and group 4 ( $M = 12.35$ ),  $t(528) = 2.00, p < .05$ .



**FIGURE 5.4.1**

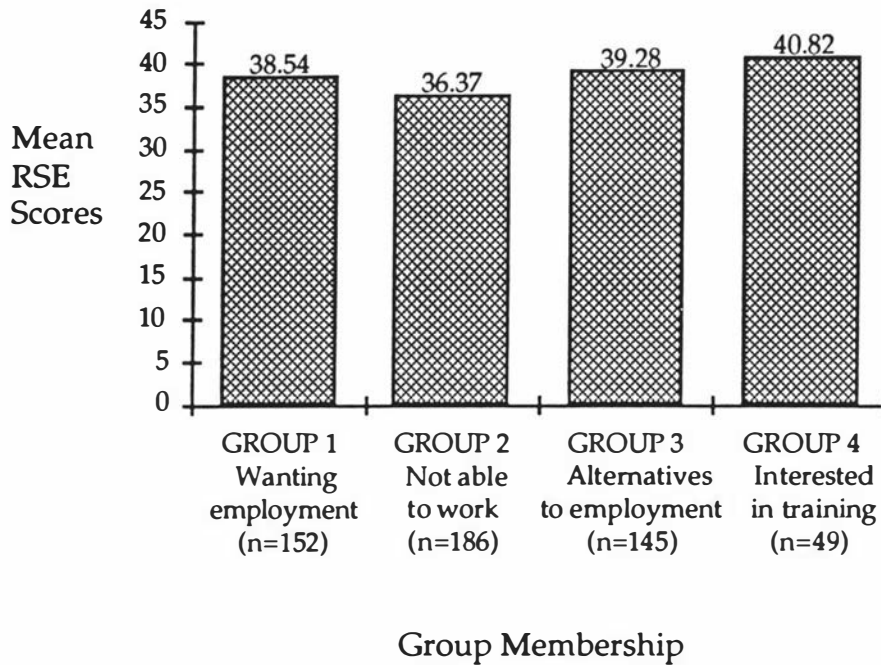
Mean GHQ scores for groups of long-term unemployed people.

#### RSE results (Anova)

Similarly Figure 5. 4. 2 illustrates the differences in mean RSE scores. These differences were significant across the four groups,  $F(3, 528) = 10.09, p < .001$  (for summary of Anova Table refer to Appendix B, Table B-3).

#### RSE results (contrast coefficient)

There were significant differences in mean RSE scores between the following groups: group 1 ( $M = 38.54$ ) and group 2 ( $M = 36.37$ ),  $t(528) = 3.23, p < .01$ , between group 1 ( $M = 38.54$ ) and group 4 ( $M = 40.82$ ),  $t(528) = 2.26, p < .05$ , between group 2 ( $M = 36.37$ ) and group 3 ( $M = 39.28$ ),  $t(528) = 4.27, p < .001$  and between group 2 ( $M = 36.37$ ) and group 4 ( $M = 40.82$ ),  $t(528) = 4.51, p < .001$ .



**FIGURE 5.4.2.**

Mean RSE scores for groups of long-term unemployed people.

### 5.5 Hypothesis 4

For long-term unemployed people in the Main Study some environmental features (Warr, 1987) and some personal characteristics will be more important predictors of mental health as measured by GHQ and RSE scores in the following four groups: "wanting employment", "not able to work", "alternatives to employment" and "interested in training".

Group 1 "wanting employment" (n = 152) was selected and two multiple regression analyses with 23 predictor variables were run, using GHQ and RSE scores as the dependent variable. These 23 variables had been identified as significant variables in the Main Study (N = 532) (refer to section 5. 2 for selection of variables). Evaluation of assumptions were satisfactory (Tabachnick & Fidell, 1989).

GHQ results

The results in Table 5. 5. 1 indicated that stress, little activity, spending little time with a partner/husband or wife, depression/anxiety, which were considered some of the worst aspects of unemployment and worries about the future, which were considered some of the worst aspects of unemployment were significantly correlated to higher GHQ scores (high GHQ scores indicated lower mental health).

Table 5. 5. 1

Regression analysis results of group 1: "wanting employment". with 23 variables and GHQ scores as dependent variable (Main Study)

<u>Predictor</u>	<u>Beta</u>	<u>sig.</u>
stress	.252973	.0022
no activity	.187304	.0193
time with partner/husband/wife	-.184222	.0173
depression/anxiety (Note 1)	.168705	.0317
worries about the future (Note 1)	.149962	.0492

$N = 152, R^2 = .39763, F(23, 128) = 3.67363, p < .001$

Note 1: worst aspects of unemployment

RSE results

The results in Table 5. 5. 2 indicated that being male, involvement with interests and hobbies, ill health, which was considered one of the worst aspects of unemployment, to be older, having no personal disadvantages

and/or disabilities, being active and less stress were significantly correlated to higher RSE scores (high RSE scores indicated higher mental health).

Table 5. 5. 2

Regression analysis results of group 1: "wanting employment", with 23 variables and RSE scores as dependent variable (Main Study)

<u>Predictor</u>	<u>Beta</u>	<u>sig.</u>
gender	.243461	.0011
involvement with interests & hobbies	.231731	.0060
ill health (Note 1)	.200009	.0045
age	.171772	.0181
no personal disadvantages/disabilities	.164646	.0171
no activity	-.151881	.0357
stress	-.151544	.0403

$N = 152$ ,  $R = .71144$ ,  $R^2 = .41740$ ,  $F(23, 128) = 5.70360$ ,  $p < .001$

Note 1: worst aspects of unemployment

Group 2 "not able to work" (n=186) was selected and two multiple regression analyses with 23 predictor variables (for selection of variables refer to section 5. 2) were run, using GHQ and RSE scores as the dependent variable. Evaluation of assumptions were satisfactory (Tabachnick & Fidell, 1989).

### GHQ results

The results in Table 5. 5. 3 indicated that stress, depression/anxiety, which were considered some of the worst aspects of unemployment, being older, debts, worries about the future, which were considered some of the worst aspects of unemployment, no training while unemployed, being female and little activity were significantly correlated to higher GHQ scores (high GHQ scores indicated lower mental health).

Table 5. 5. 3

Regression analysis results of group 2: "not able to work", with 23 variables and GHQ scores as dependent variable (Main Study)

<u>Predictor</u>	<u>Beta</u>	<u>sig.</u>
stress	.275291	.0000
depression/anxiety (Note 1)	.214485	.0012
age	.194872	.0023
debts	.158163	.0144
worries about the future (Note 1)	.152072	.0188
no training while unemployed	.145751	.0190
gender	-.125807	.0360
no activity	.120034	.0465

$N = 186$ ,  $R^2 = .53910$ ,  $F(23, 162) = 8.23845$ ,  $p < .001$

Note 1: worst aspects of unemployment

### RSE results

The results in Table 5. 5. 4 indicated that little time with counsellors, being male, less stress, having no personal disadvantages and disabilities, having close friends, being Maori/Pacific Islander, being older, being active and ill



health, which was considered one of the worst aspects of unemployment were significantly correlated with higher RSE scores (high RSE scores indicated higher mental health).

Table 5. 5. 4

Regression analysis results of group 2: "not able to work", with 23 variables and RSE scores as dependent variable (Main Study)

<u>Predictor</u>	<u>Beta</u>	<u>sig.</u>
time with counsellors	-.231838	.0007
gender	.222297	.0013
stress	-.219364	.0037
no personal disadvantages/disabilities	.211030	.0015
number of close friends	.198164	.0039
ethnicity	.185746	.0067
age	.180553	.0125
no activity	-.154698	.0244
ill health (Note 1)	.134942	.0488

$N = 186, R^2 = .40277, F(23, 162) = 4.75011, p < .001$

Note 1: worst aspects of unemployment

Combined group 3 "alternatives to employment and interested in training" (n=194). Group 3 and 4 consisted of people who indicated that they did not want employment. Group 4 "interested in training" consisted of low numbers (n=49), which prohibited a separate multivariate regression analysis. As the results of the univariate analyses showed (refer to section 5.

4) both groups have higher mental health levels than group 1 and 2, therefore group 3 "alternatives to employment" was combined with group 4 "interested in training" into Combined group 3 (n=194). Two multiple regression analyses with 23 predictor variables (refer to section 5. 2 for selection of variables) were run, using GHQ and RSE scores as the dependent variable. Evaluation of assumptions were satisfactory (Tabachnik & Fidell, 1989).

### GHQ results

The results in Table 5. 5. 5 indicated that depression/anxiety, which were considered some of the worst aspects of unemployment, stress, little activity, spending little time with church people, the loss of friends which was considered one of the worst aspects of unemployment, worries about the future, which were considered some of the worst aspects of unemployment and time for further training which was not considered one of the best aspects of unemployment are significantly correlated with higher GHQ scores (high GHQ scores indicated lower mental health).

Table 5. 5. 5

Regression analysis results of Combined group 3: "alternatives to employment and interested in training" with 23 variables and GHQ scores as dependent variable (Main Study)

<u>Predictor</u>	<u>Beta</u>	<u>sig.</u>
depression/anxiety (Note 1)	.288199	.0001
stress	.1862072	.0119
no activity	.176058	.0080
time with church people	-.171016	.0078
loss of friends (Note 1)	.167275	.0097

Table 5. 5. 5 (continued)

<u>Predictor</u>	<u>Beta</u>	<u>sig.</u>
worries about the future (Note 1)	.136157	.0439
further training (Note 2)	-.135075	.0414

$N = 194$ ,  $R^2 = .44015$ ,  $F(23, 170) = 5.81106$ ,  $p < .001$

Note 1: worst aspects of unemployment

Note 2: best aspects of unemployment

### RSE results

The results in Table 5. 5. 6 indicated that having close friends, higher socio-economic status, involvement with interests and hobbies, being male, time for further training, which was considered one of the best aspects of unemployment, less stress, being active and being Maori/Pacific Islander were significantly correlated to higher RSE scores (high RSE scores indicated higher mental health).

Table 5. 5. 6

Regression analysis results of Combined group 3: "alternatives to employment and interested in training" with 23 variables and RSE scores as dependent variable (Main Study)

<u>Predictor</u>	<u>Beta</u>	<u>sig.</u>
number of close friends	.236044	.0005
socio-economic status	.206469	.0017
involvement with interests & hobbies	.186940	.0066

Table 5. 5. 6 (continued)

<u>Predictor</u>	<u>Beta</u>	<u>sig.</u>
gender	.181537	.0058
further training (Note 2)	.172550	.0108
stress	-.169876	.0240
no activity	-.169055	.0123
ethnicity	.141133	.0275

$N = 194$ ,  $R^2 = .41947$ ,  $F(23, 170) = 5.34061$ ,  $p < .001$

Note 2: best aspects of unemployment

#### Common variables to the three groups (GHQ)

Table 5. 5. 7 states the common variables to the three groups which were significantly correlated to higher GHQ scores (lower mental health). The results indicated that stress, little activity, depression/anxiety, which were considered some of the worst aspects of unemployment and worries about the future, which were considered some of the worst aspects of unemployment, were common variables to the three groups and were significantly correlated to higher GHQ scores.

The results suggested that from Warr's nine environmental features, two features were common features to the three groups and were significantly correlated to higher GHQ scores (lower mental health). These features were: (i) "externally generated goals" and (ii) "environmental clarity" (refer to Chapter 2, section 2. 5. 3 for full listing of variables, which measured each individual feature).

Two categories of personal characteristics were common categories to the three groups and were significantly correlated to higher GHQ scores. The categories were: (i) "baseline mental health" and (ii) "dispositional value orientations" (refer to Chapter 2, section 2. 5. 5 for full listing of variables, which measured each category).

Table 5. 5. 7

Common variables to the three groups which were significantly correlated to GHQ scores

<u>wanting employment</u>	<u>Not able to work</u>	<u>Combined group</u>
stress	stress	stress
no activity	no activity	no activity
depression/anxiety	depression/anxiety	depression/anxiety
worries - future	worries - future	worries - future

Unique variables to the three groups (GHQ)

Table 5. 5. 8 states the unique variables which were significantly correlated to higher GHQ scores (lower mental health). The results indicated that for group 1 spending little time with partner/husband or wife was the unique variable. For group 2 several variables were unique and correlated to higher GHQ scores. These variables were: to be older, having debts, no training attended while unemployed and to be female. The unique variables of the Combined group 3 were: little time with church people, the experience of loss of friends as one of the worst aspects of unemployment and time for further training, which was not considered one of the best aspects of unemployment.

The results suggested that from Warr's nine environmental features, one feature, "opportunity for interpersonal contact", was unique to both group 1 and to Combined group 3 and was significantly correlated with higher GHQ scores (lower mental health). There were two environmental features: (i) "availability of money" and (ii) "opportunity for skill use", which were unique features to group 2 (refer to Chapter 2, section 2. 5. 3 for full listing of variables, which measured each individual feature) and were significantly correlated with higher GHQ scores (lower mental health).

One category of personal characteristics, "demographic variables", was a unique category to group 2 and was significantly correlated to higher GHQ scores (lower mental health). Combined group 3 had one unique category, which was: "dispositional value orientations", which was significantly correlated to higher GHQ scores (lower mental health) (refer to Chapter 2, section 2. 5. 5 for full listing of variables, which measure each category).

Table 5. 5. 8

Unique variables to the three groups which were significantly correlated to GHQ scores

<u>wanting employment</u>	<u>Not able to work</u>	<u>Combined group</u>
time with partner	age	time - church people
	debts	loss - friends (Note 1)
	no train. - unempl.	further train. (Note2)
	gender	

Note 1: worst aspects of unemployment

Note 2: best aspects of unemployment

### Common variables to the three groups (RSE)

Table 5. 5. 9 states the common variables to the three groups which were significantly correlated to higher RSE scores (higher mental health). The results indicated that being male, being active and less stress were common variables to all three groups. Ill health, which was considered one of the worst aspects of unemployment, to be older and no personal disadvantages and/or disabilities were common variables to both group 1 and group 2. Having close friends and being Maori/Pacific Islander were common variables to group 2 and the Combined group 3. Group 1 and Combined group 3 had the common variable of involvement with interests and hobbies.

The results suggested that from Warr's nine environmental features, one feature was common to the three groups and was significantly correlated to higher GHQ scores (lower mental health). This feature was: (i) "externally generated goals". "opportunity for interpersonal contact" was the environmental feature common to both, group 2 and Combined group 3. Group 1 and Combined group 3 had one feature in common: "opportunity for skill use" (refer to Chapter 2, section 2. 5. 3 for full listing of variables, which measured each individual feature).

Two categories of personal characteristics were common to the three groups and were significantly correlated to higher RSE scores. The categories were: (i) "demographic variables" and (ii) "baseline mental health". Two categories of personal characteristics were common to group 1 and group 2. The categories were: (i) "demographic variables" and (ii) "dispositional value orientations". One category, "demographic variables", was common to group 2 and Combined group 3 (refer to Chapter 2, section 2. 5. 5 for full listing of variables, which measured each category).

Table 5. 5. 9

<u>Common variables to the three groups which were significantly correlated to RSE scores</u>		
<u>wanting employment</u>	<u>Not able to work</u>	<u>Combined group</u>
gender	gender	gender
no activity	no activity	no activity
stress	stress	stress
interests & hobbies		interests & hobbies
ill health (Note 1)	ill health (Note 1)	
age	age	
no disadvantages	no disadvantages	
	number of friends	number of friends
	ethnicity	ethnicity

Note 1: worst aspects of unemployment

#### Unique variables to the three groups (RSE)

Table 5. 5. 10 states the unique variables to the three groups which were significantly correlated to higher RSE scores (higher mental health). The results indicated that there was no unique variable to group 1 and spending little time with counsellors was the unique variable to group 2. The unique variables to the Combined group 3 were higher socio-economic status and time for further training being considered one of the best aspects of unemployment.

The results suggested that from Warr's nine environmental features, one feature was unique to group 2 and was significantly correlated to higher RSE scores (higher mental health). This feature was: (i) "opportunity for



interpersonal contact" (refer to Chapter 2, section 2. 5. 3 for full listing of variables, which measured each individual feature).

Two categories of personal characteristics were unique to Combined group 3 and were significantly correlated to higher RSE scores. The categories were: (i) "demographic variables" and (ii) "dispositional value orientations".(refer to Chapter 2, section 2. 5. 5 for full listing of variables, which measured each category).

Table 5. 5. 10

Unique variables to the three groups which were significantly correlated to RSE scores

<u>wanting employment</u>	<u>Not able to work</u>	<u>Combined group</u>
	time - counsellors	socio-econ. status
		further train. (Note 2)

Note 2: best aspects of unemployment

Summary - common features (GHQ and RSE scores)

The results suggested that from Warr's nine environmental features two features were common to the three groups and were significantly correlated to higher GHQ scores (lower mental health). One feature was common to RSE scores. One environmental feature was common to both measures. Therefore two environmental features were common predictors of mental health to the three groups. These features were: (i) "externally generated goals" and (ii) "environmental clarity" (refer to Chapter 2, section 2. 5. 3 for full listing of variables, which measured each individual feature).

Two categories of personal characteristics were common categories to the three groups and were common predictors of mental health levels with GHQ scores. Two categories were common predictors of mental health levels with RSE scores. One category was common to both measures. Therefore three categories were common predictors of mental health levels. The categories were: (i) "baseline mental health", (ii) "demographic variables" and (iii) "dispositional value orientations" (refer to Chapter 2, section 2. 5. 5 for full listing of variables, which measured each category).

#### Summary - unique features (GHQ and RSE scores)

The results suggested that from Warr's nine environmental features three features were unique features and were significantly correlated with GHQ scores (lower mental health). One feature was a unique feature and was significantly correlated to RSE (higher mental health). One feature was common to both measures. Therefore three environmental features were unique predictors of mental health to the three groups: (i) "opportunity for interpersonal contact", (ii) "availability of money" and (iii) "opportunity for skill use" (refer to Chapter 2, section 2. 5. 3 for full listing of variables, which measured each individual feature).

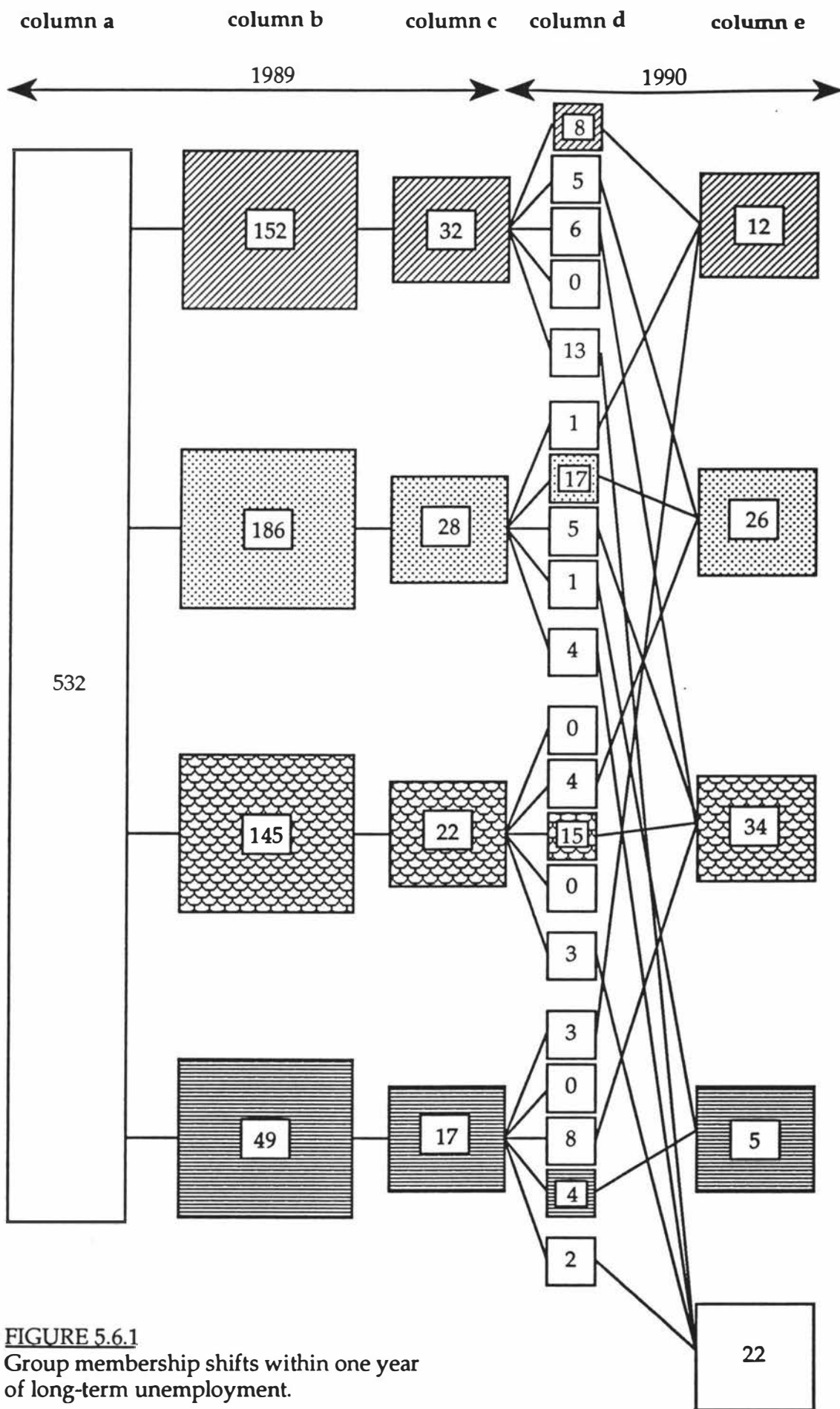
Two categories of personal characteristics were unique categories and were significantly correlated to higher GHQ scores (lower mental health). Two categories of personal characteristics were unique categories and were significantly correlated to higher RSE scores. Two categories were common to both measures. Therefore two categories of personal characteristics were unique predictors of mental health levels (GHQ and RSE scores). These categories were: (i) "demographic variables" and (ii) "dispositional value

orientations" (refer to Chapter 2, section 2. 5. 5 for full listing of variables, which measured each category).

## 5.6 Hypothesis 5

**There will be differences in mental health as measured by GHQ and RSE scores among the following four groups who volunteered for Follow-up Study: "wanting employment", "not able to work", "alternatives to employment" and "interested in training".**

Two Analyses of Variance were performed to test differences in GHQ and RSE scores across four groups who volunteered for Follow-up Study. Figure 5. 6. 1 presents a visual representation of self-selected group membership shifts within one year of long-term unemployment and clarifies the process of analysis. Group 1 consisted of 32 people wanting employment and group 2 had 28 people who considered themselves not able to work. Group 3 consisted of 22 people having alternatives to employment and group 4 had 17 people interested in training. The data was further analysed by computing a contrast coefficient matrix to test differences between the four groups (Norusis, 1985).



**FIGURE 5.6.1**  
Group membership shifts within one year  
of long-term unemployment.

-  Wanting employment
-  Not able to work
-  Alternatives to employment
-  Interested in training

### GHQ results (Anova)

Figure 5. 6. 2 presents a graphical illustration of mean GHQ score differences between the four groups. The differences in mean GHQ scores were significant across the four groups,  $F(3, 95) = 5.26, p < .01$  (for summary of Anova Table refer to Appendix B, Table B-4).

### GHQ results (contrast coefficient)

There was a significant difference in mean GHQ scores between group 1 ( $M = 14.91$ ) and group 3 ( $M = 9.59$ ),  $t(95) = 3.21, p < .01$  and between group 2 ( $M = 15.61$ ) and group 3 ( $M = 9.59$ ),  $t(95) = 3.53, p < .001$  and group 2 ( $M = 15.61$ ) and group 4 ( $M = 11.94$ ),  $t(95) = 1.99, p < .05$ .



**FIGURE 5.6.2**

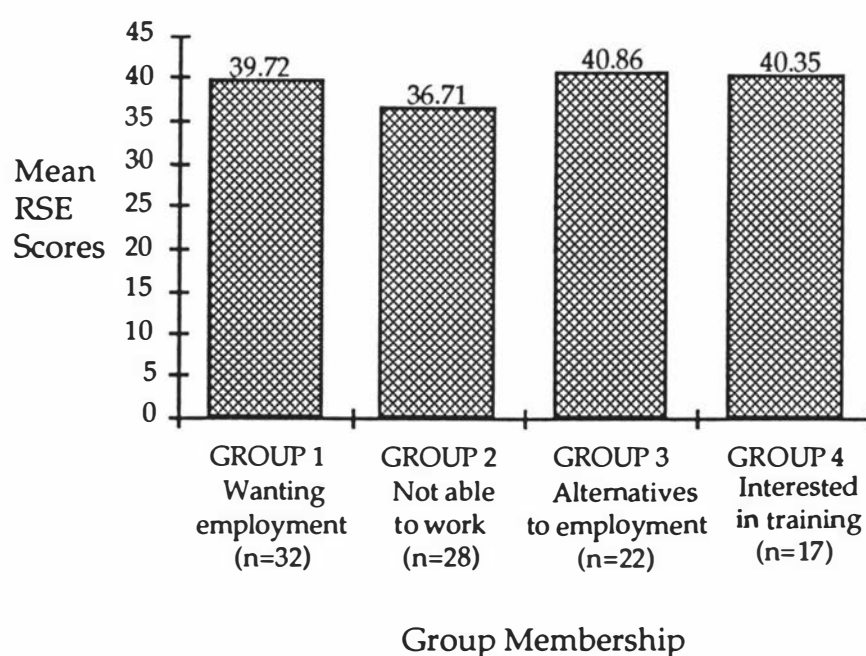
Mean GHQ scores for groups of long-term unemployed people who volunteered for the Follow-up-Study.

### RSE results (Anova)

Figure 5. 6. 3 illustrates the mean RSE score differences between the four groups. The differences in mean RSE scores were not significant across the four groups  $F(3, 95) = 2.47, p = ns$  (for summary of Anova Table refer to Appendix B, Table B-5).

### RSE results (contrast coefficient)

There was a significant difference in mean RSE scores between group 2 ( $M = 36.71$ ) and group 3 ( $M = 40.86$ ),  $t(95) = 2.43, p < .05$ .



**FIGURE 5.6.3**

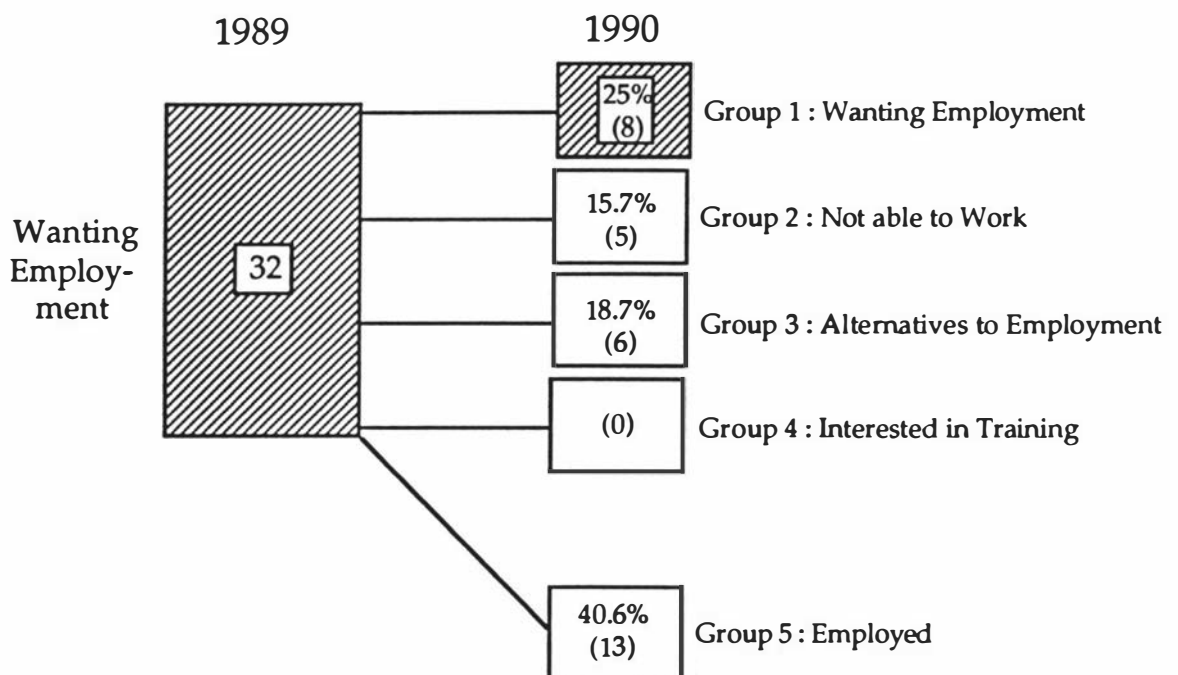
Mean RSE scores for groups of long-term unemployed people who volunteered for the Follow-up Study.

## 5.7 Hypothesis 6

For long-term unemployed people in the Follow-up Study there will be no shift in group membership over a twelve month period and there will be no change in mental health levels.

### Group 1 "wanting employment"

The results in Figure 5.7.1 illustrate that 40.6% of the people who wanted employment in 1989 were in paid employment in 1990. Only 25% still wanted employment in 1990, while 18.7% have alternatives to employment and 15.7% consider themselves not able to work.



**FIGURE 5.7.1**

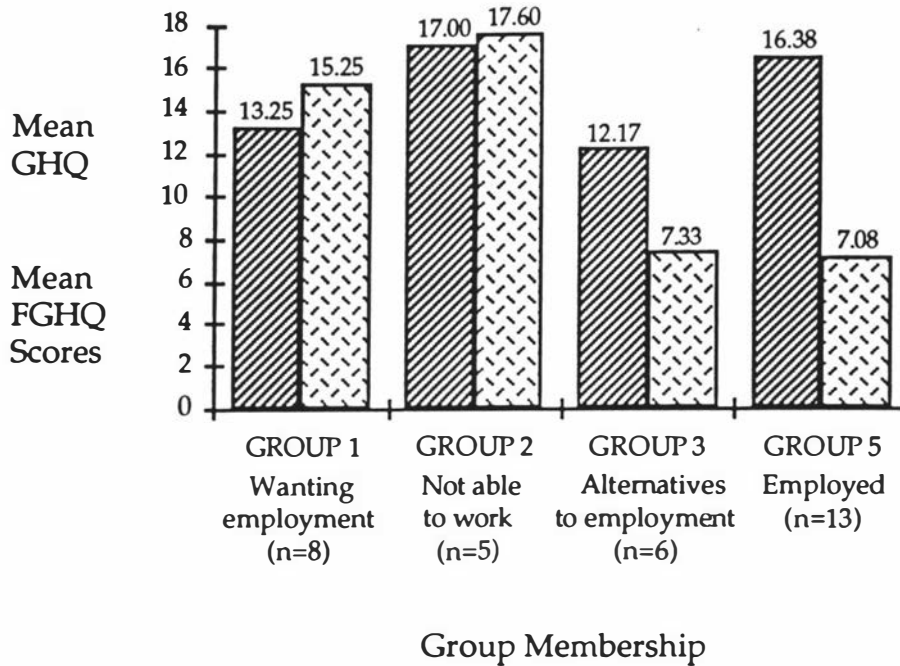
Group membership shifts from group 'wanting employment' (n=32, 1989) into five groups (1990).

Six t-tests were performed to test differences in mean GHQ, RSE and FGHQ and FRSE scores in three groups. Group membership numbers were low and statistical results have to be considered with caution. For group 2 a t-value and probability level was not established as group membership was too low for meaningful results (Blalock, 1960). Therefore the comparisons were between: (i) people who wanted employment in 1989 and still wanted employment in 1990, (ii) people who wanted employment in 1989, but in 1990 had alternatives to employment and (iii) people who wanted employment in 1989 and in 1990 were employed for approximately one year.

#### GHQ and FGHQ results (t-tests)

As illustrated in Figure 5. 7. 2 the difference in mean GHQ ( $\bar{M} = 13.25$ ) and mean FGHQ scores ( $\bar{M} = 15.25$ ),  $t(7) = 1.41$ ,  $p$  ns., was not significant in group 1 "wanting employment". In group 3 "alternatives to employment" and in group 5 "employed" the differences in mean GHQ ( $\bar{M} = 12.17$ ) and FGHQ scores ( $\bar{M} = 7.33$ ),  $t(5) = 2.66$ ,  $p < .05$  and in mean GHQ ( $\bar{M} = 16.38$ ) and FGHQ scores ( $\bar{M} = 7.08$ )  $t(12) = 4.40$ ,  $p < .001$  respectively were significant (for summary of t-tests refer to Appendix B, Tables B-6, B-8 and Table B-10).





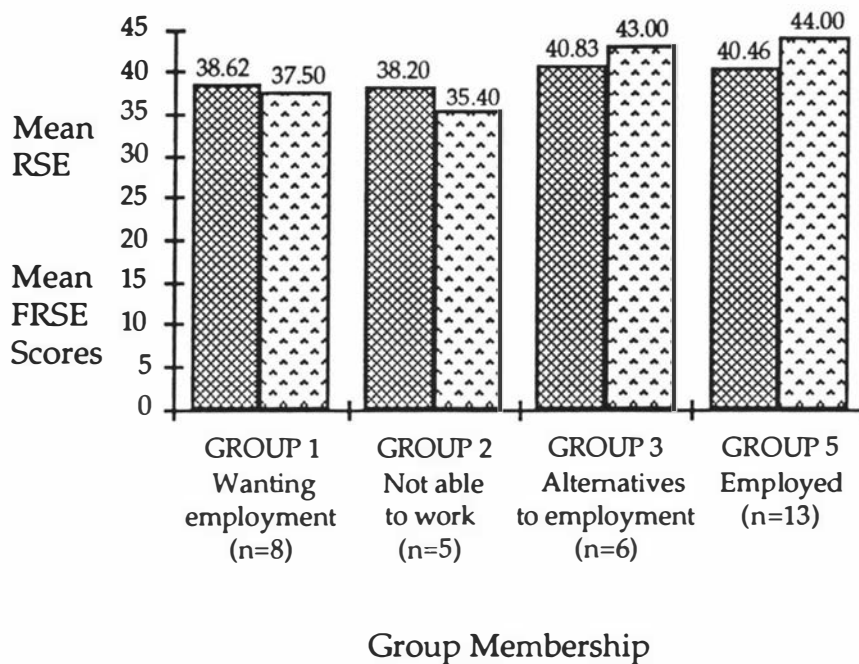
**FIGURE 5.7.2**

Change in mean GHQ (1989) scores of group 'wanting employment' and FGHQ (1990) scores in self-selected groups of long-term unemployed and employed people.

 GHQ    
  FGHQ

RSE and FRSE results (t-tests)

As illustrated in Figure 5. 7. 3 the difference in mean RSE ( $\bar{M} = 38.62$ ) and mean FRSE scores ( $\bar{M} = 37.50$ ),  $t(7) = 0.85$ ,  $p$  ns., was not significant in group 1 "wanting employment". In group 3 "alternatives to employment" and in group 5 "employed" the difference in mean RSE ( $\bar{M} = 40.83$ ) and FRSE scores ( $\bar{M} = 43.00$ ),  $t(5) = 1.16$ ,  $p$  ns and in mean RSE ( $\bar{M} = 40.46$ ) and FRSE scores ( $\bar{M} = 44.00$ )  $t(12) = 1.95$ ,  $p$  ns, respectively was not significant (for summary of t-tests, refer to Appendix B, Table B-7, B-9 and Table B-11 ).



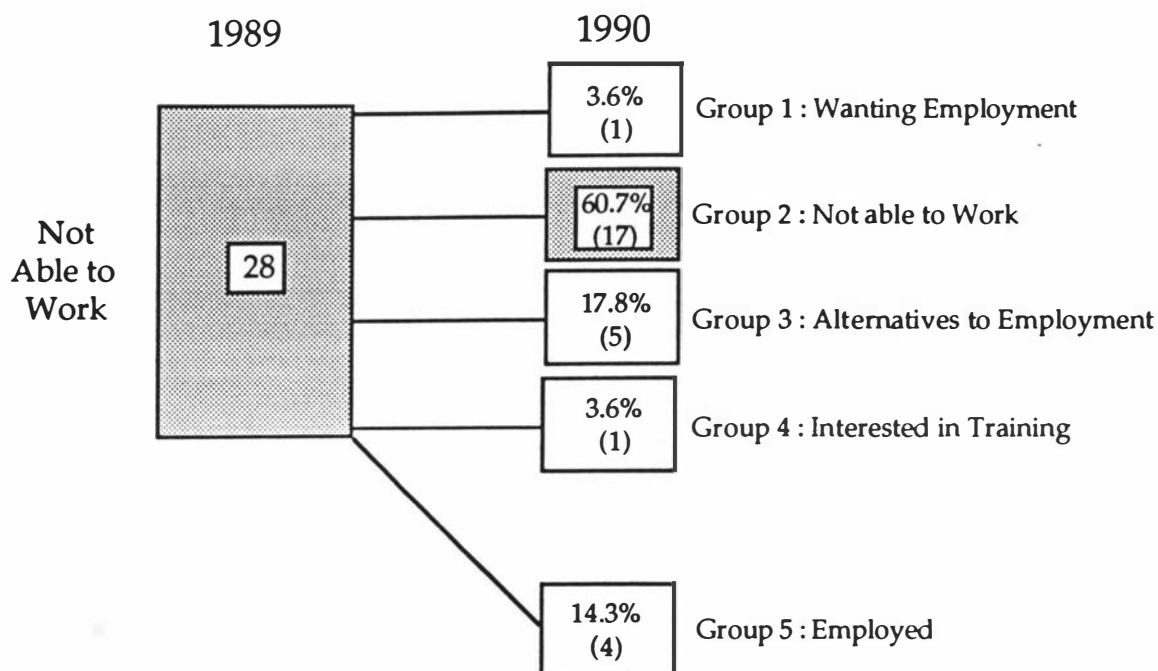
**FIGURE 5.7.3**

Change in mean RSE (1989) scores of group 'wanting employment' and FRSE (1990) scores in self-selected groups of long-term unemployed and employed people.

 RSE    
  FRSE

#### Group 2 "not able to work"

Figure 5. 7. 4 indicates that over half of long-term unemployed people considered themselves not able to work. After one year 60.7% were staying in the same group. One person (3.6%) wanted employment and 14.3% were employed in 1990.



**FIGURE 5.7.4**

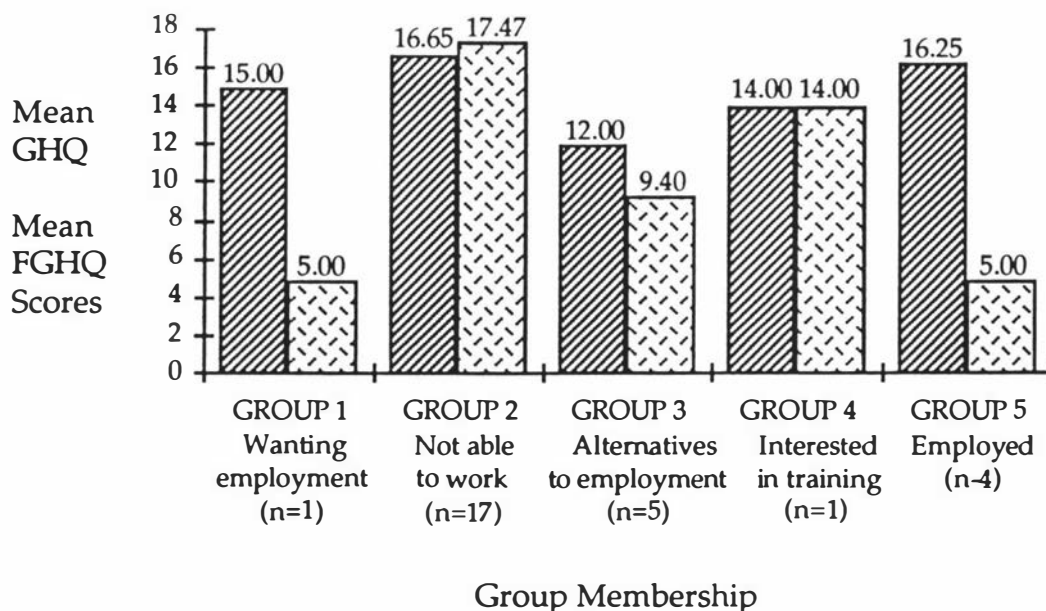
Group membership shifts from group 'not able to work' (n=28, 1989) into five groups (1990).

Two t-tests were performed to test differences in mean GHQ, RSE and FGHQ and FRSE scores in one group. For group 1, group 3, group 4 and group 5 a t-value and probability level could not be established as group membership was too low for meaningful results (Blalock, 1960). Therefore the comparison was between: people who were not able to work in 1989, and in 1990 considered themselves still unable to work.

#### GHQ and FGHO results (t-tests)

As illustrated in Figure 5. 7. 5 there was a 10 score difference between the GHQ score ( $M = 15.00$ ) and the FGHQ score ( $M = 5.00$ ) in group 1 "wanting employment". In group 2 "not able to work" the difference in mean GHQ ( $M = 16.65$ ) and FGHQ scores ( $M = 17.47$ ) was not significant  $t(16) = 0.74$ ,  $p$  ns (for summary of t-test refer to Appendix B, Table B-9). In group 3

"alternatives to employment" the difference in mean GHQ ( $\underline{M} = 12.00$ ) and FGHQ scores ( $\underline{M} = 9.40$ ) consisted of 2.6 scores. There was no score difference between GHQ ( $\underline{M} = 14.00$ ) and FGHQ ( $\underline{M} = 14.00$ ) score in group 4 "interested in training", and in group 5 "employed" the difference in mean GHQ ( $\underline{M} = 16.25$ ) and FGHQ scores ( $\underline{M} = 5.00$ ) consisted of 11.25 scores.



**FIGURE 5.7.5**

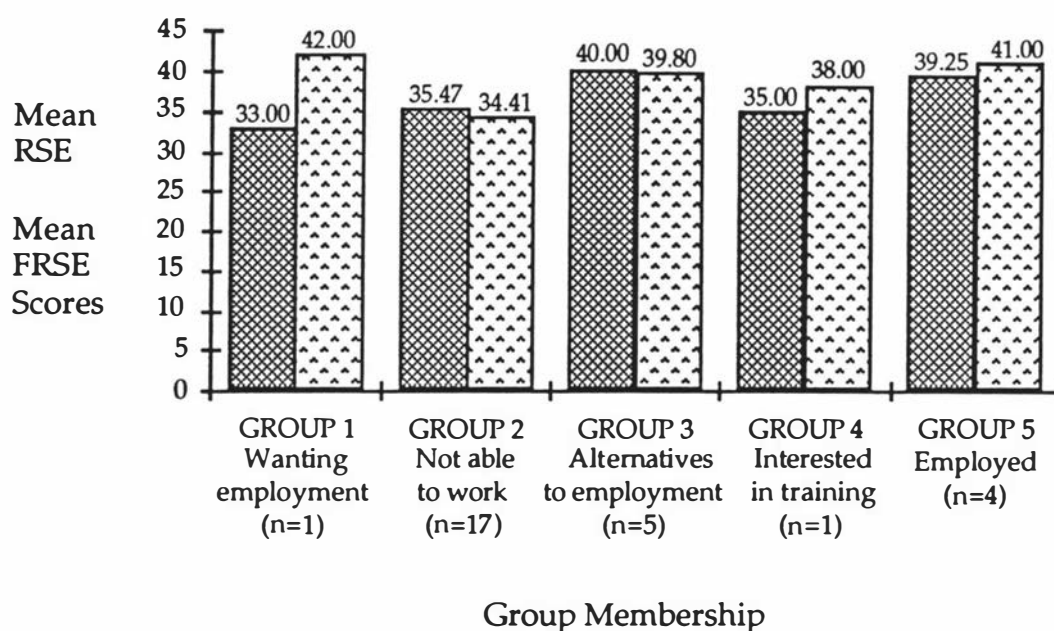
Changes in mean GHQ (1989) scores of group 'not able to work' and FGHQ (1990) scores in self-selected groups of long-term unemployed and employed people.

▨ GHQ    ▩ FGHQ

#### RSE and FRSE results (t-tests)

Figure 5. 7. 6 indicates that there was a 9 score difference between the RSE score ( $\underline{M} = 33.00$ ) and the FRSE score ( $\underline{M} = 42.00$ ) in group 1 "wanting employment". In group 2 "not able to work" the difference in mean RSE ( $\underline{M} = 35.47$ ) and FRSE scores ( $\underline{M} = 34.41$ ) was not significant  $t(16) = 0.84, p$  ns (for

summary of t-test refer to Appendix B, Table B-13). In group 3 "alternatives to employment" the difference in mean RSE ( $\underline{M} = 40.00$ ) and FRSE scores ( $\underline{M} = 39.80$ ) consisted of 0.20 scores. There was a 3.00 score difference between RSE ( $\underline{M} = 35.00$ ) and FRSE ( $\underline{M} = 38.00$ ) score in group 4 "interested in training", and in group 5 "employed" the difference in mean RSE ( $\underline{M} = 39.25$ ) and FRSE scores ( $\underline{M} = 41.00$ ) consisted of 1.75 scores.



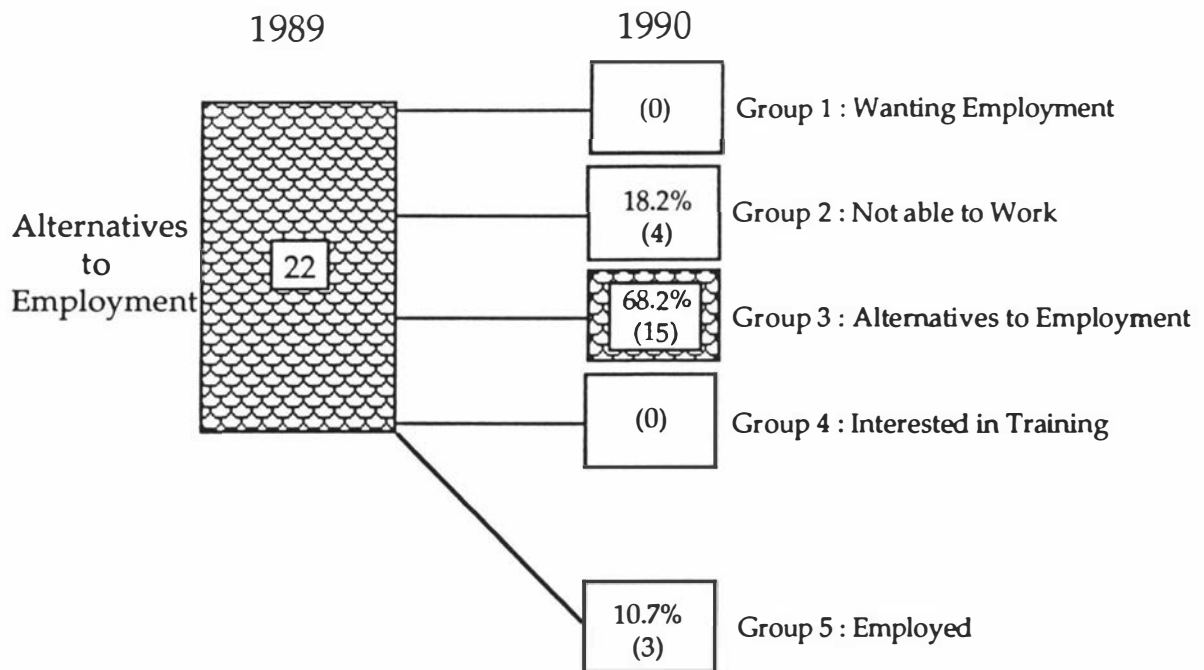
**FIGURE 5.7.6**

Changes in mean RSE (1989) scores of group 'not able to work' and FRSE (1990) scores in self-selected groups of long-term unemployed and employed people.

RSE
  FRSE

### Group 3 "alternatives to employment"

Figure 5. 7. 7 illustrates that of the long-term unemployed people who had alternatives to employment, over half (68.2%) were staying in the same group. There were three people or 10.7% who have been employed in 1990.



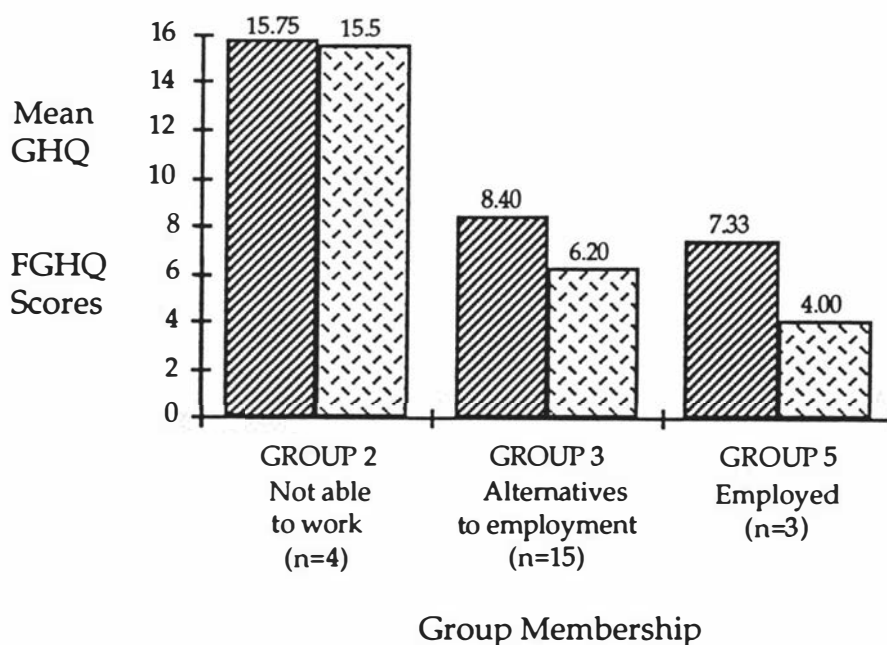
**FIGURE 5.7.7**

Group membership shifts from group 'alternatives to employment' (n=22, 1989) into five groups (1990).

Two t-tests were performed to test differences in mean GHQ, RSE and FGHQ and FRSE scores in group 3. For group 2 and group 5 a t-value and probability level could not be established as group membership was too low for meaningful results (Blalock, 1960). Therefore the comparison was only between people who had alternatives to employment in 1989, and in 1990 considered themselves as still having alternatives to employment.



### GHQ and FGHO results (t-tests)

As illustrated in Figure 5.7.8 there was a 0.25 score difference between the GHQ score ( $\bar{M} = 15.75$ ) and the FGHO score ( $\bar{M} = 15.50$ ) in group 2 "not able to work". In group 3 "alternatives to employment" the mean difference in GHQ ( $\bar{M} = 8.40$ ) and FGHO scores ( $\bar{M} = 6.20$ ) was significant  $t(14) = 2.40$ ,  $p < .05$  (for summary of t-test refer to Appendix B, Table B-14). In group 5 "employed" the difference in mean GHQ ( $\bar{M} = 7.33$ ) and FGHO scores ( $\bar{M} = 4.00$ ) consisted of 3.33 scores.



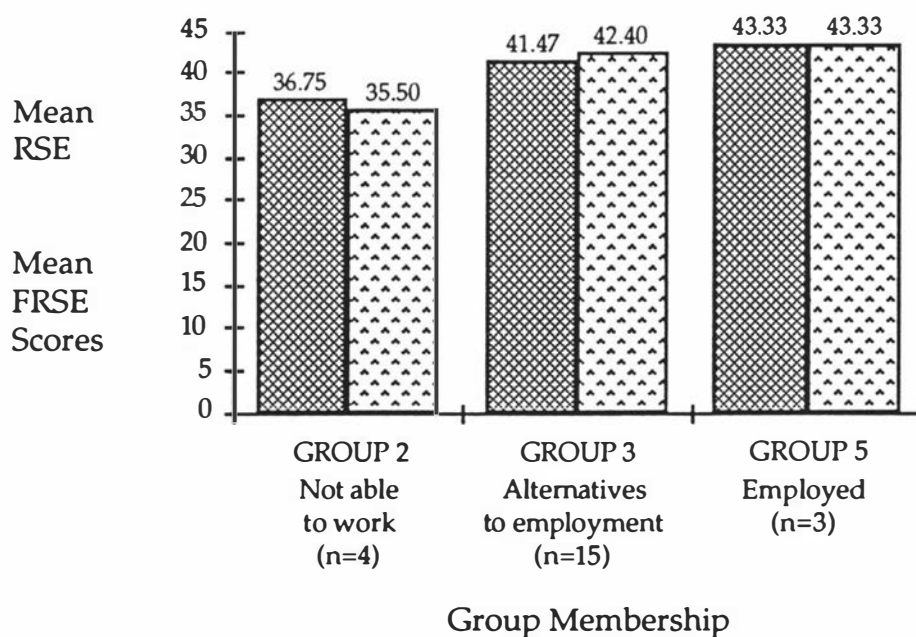
**FIGURE 5.7.8**

Change in mean GHQ (1989) scores of group 'alternatives to employment' and FGHO (1990) scores in self-selected groups of long-term unemployed and employed people.

 GHQ
  FGHO


### RSE and FRSE results (t-tests)

In Figure 5.7.9 the results indicated that there was a 1.25 score difference between the RSE score ( $\underline{M} = 36.75$ ) and the FRSE score ( $\underline{M} = 35.50$ ) in group 2 "not able to work". In group 3 "alternatives to employment" the mean difference in RSE ( $\underline{M} = 41.47$ ) and FRSE scores ( $\underline{M} = 42.40$ ) was not significant  $t(14) = 0.90, p$  ns (for summary of t-test refer to Appendix B, Table B-15). In group 5 "employed" there was no difference in mean RSE ( $\underline{M} = 43.33$ ) and FRSE scores ( $\underline{M} = 43.33$ ).



**FIGURE 5.7.9**

Changes in mean RSE (1989) scores of group 'alternatives to employment' and FRSE (1990) scores in self-selected groups of long-term unemployed and employed people.

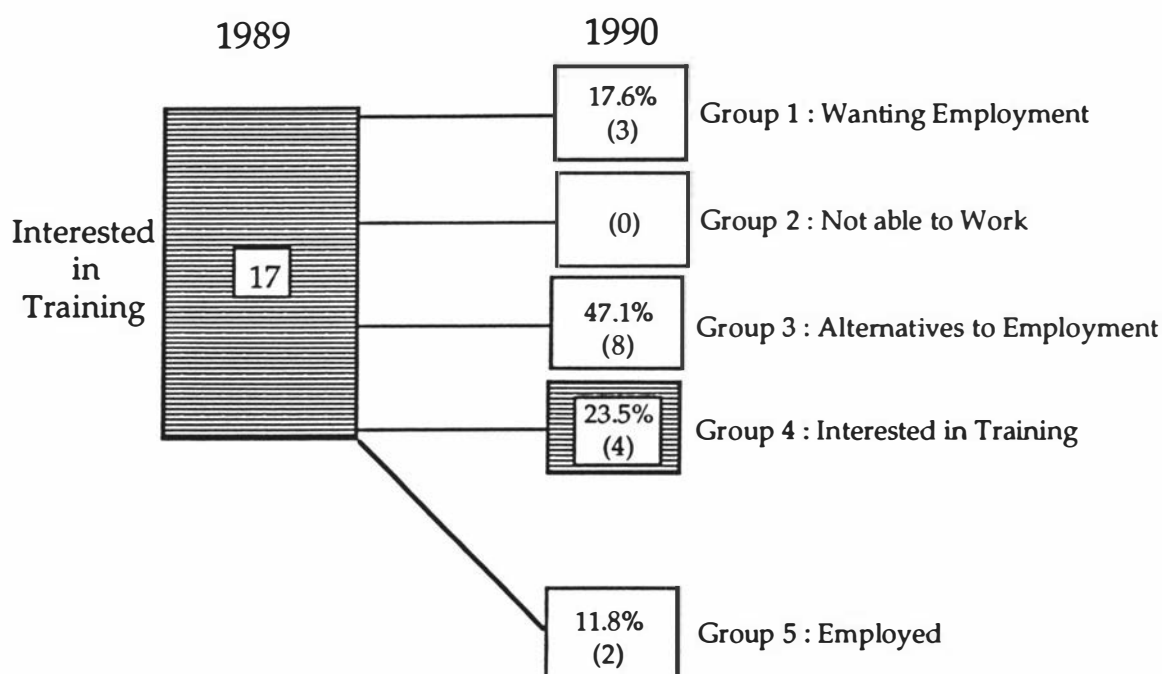
 RSE    
  FRSE

### Group 4 "interested in training"

Figure 5.7.10 indicates that of the long-term unemployed people who were interested in training, only 23.5% were staying in the same group. Nearly



half 47.1% shifted group and in 1990 had alternatives to employment. Three people or 17.6% wanted employment.



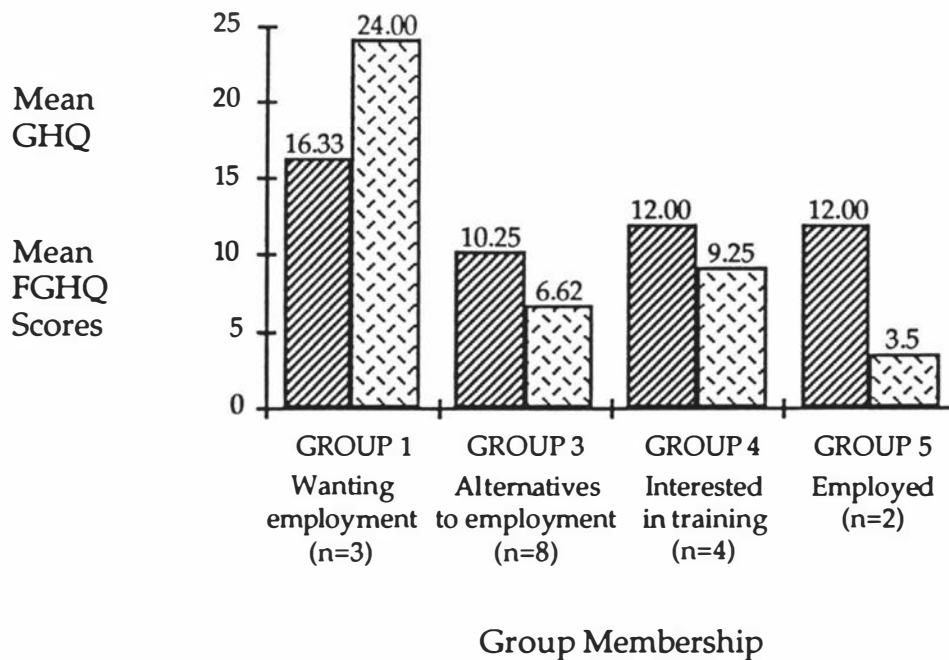
**FIGURE 5.7.10**

Group membership shifts from group 'interested in training' (n=17, 1989) into five groups (1990).

Two t-tests were performed to test differences in mean GHQ, RSE and FGHQ and FRSE scores in group 3. For group 1, group 4 and group 5 a t-value and probability level could not be established as group membership was too low for meaningful results (Blalock, 1960). Therefore the comparison was only between people who were interested in training in 1989, and in 1990 considered themselves as having alternatives to employment.

### GHO and FGHO results (t-test)

As illustrated in Figure 5.7.11 there was a 7.67 score difference between the GHQ score ( $\underline{M} = 16.33$ ) and the FGHQ ( $\underline{M} = 24.00$ ) score in group 1 "wanting employment". In group 3 "alternatives to employment" the mean difference between GHQ ( $\underline{M} = 10.25$ ) and FGHQ scores ( $\underline{M} = 6.62$ ) is significant  $t(7) = 2.93, p < .05$  (for summary of t-test refer to Appendix B, Table B-16). There was a 2.75 score difference between GHQ ( $\underline{M} = 12.00$ ) and the FGHQ ( $\underline{M} = 9.25$ ) score in group 4 "interested in training". In group 5 "employed" the difference in mean GHQ ( $\underline{M} = 12.00$ ) and FGHQ ( $\underline{M} = 3.5$ ) consisted of a difference of 8.5 scores.



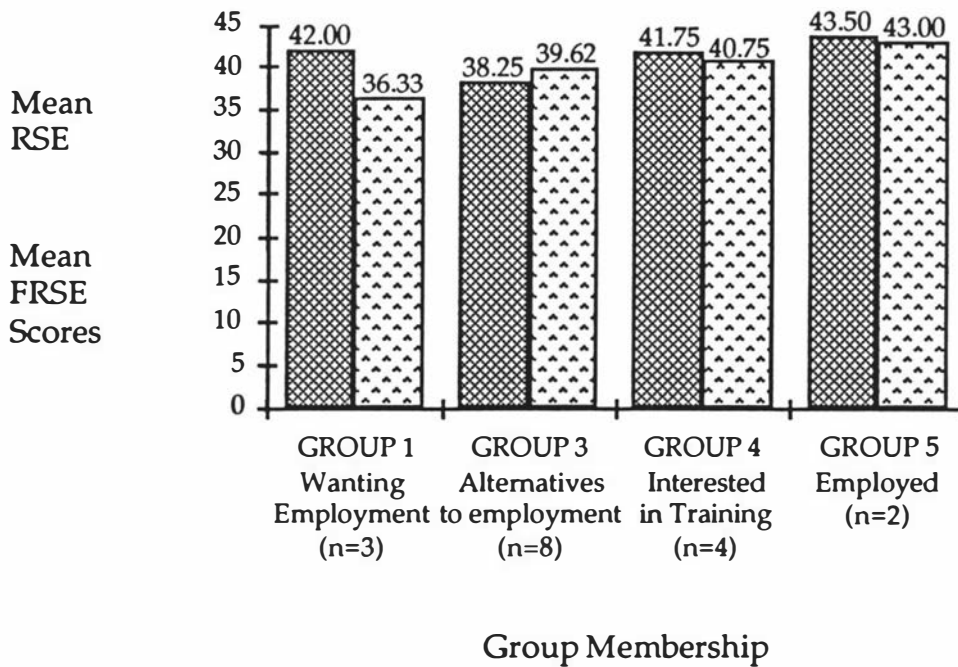
**FIGURE 5.7.11**

Change in mean GHQ (1989) scores of group 'interested in training' and FGHQ (1990) scores in self-selected groups of long-term unemployed and employed people.

▨ GHQ    ▩ FGHQ

### RSE and FRSE results (t-test)

Figure 5.7.12 shows that there was a 5.67 score difference between the RSE score ( $\bar{M} = 42.00$ ) and the FRSE score ( $\bar{M} = 36.33$ ) in group 1 "wanting employment". In group 3 "alternatives to employment" the mean difference of RSE ( $\bar{M} = 38.25$ ) and FRSE scores ( $\bar{M} = 39.62$ ) is not significant  $t(7) = 0.56$ ,  $p$  ns (for summary of t-test refer to Appendix B, Table B-17). There was 1.00 score difference between RSE ( $\bar{M} = 41.75$ ) and FRSE score ( $\bar{M} = 40.75$ ) in group 4 "interested in training". In group 5 "employed" the difference in mean RSE ( $\bar{M} = 43.50$ ) and FRSE ( $\bar{M} = 43.00$ ) consisted of a difference of 0.50 scores.



**FIGURE 5.7.12**

Change in mean RSE (1989) scores of group 'interested in training' and FRSE (1990) scores in self-selected groups of long-term unemployed and employed people.

RSE
  FRSE

## 5.8 Hypothesis 7

There will be differences in mental health as measured by Follow-up Study GHQ (FGHQ), Follow-up Study RSE (FRSE) and HSCL scores among the following five groups of the Follow-up Study: "wanting employment", "not able to work", "alternatives to employment", "interested in training" and in the "employed" group.

Three analyses of variance were performed to test differences in FGHQ, FRSE and HSCL scores across five groups. Group 1 consisted of 12 people wanting employment and in group 2 there were 26 people who considered themselves as not able to work. Group 3 consisted of 34 people having alternatives to employment, group 4 had five people who were interested in further training. Group 5 had 22 people who were employed. The data was further analysed by computing a contrast coefficient matrix to test differences between the five groups (Norusis, 1985).

Ten t-tests were performed to test differences between mean GHQ, RSE (in 1989) and FGHQ and FRSE (in 1990) scores of the people who had self-selected themselves in 1990 into five groups.

### FGHQ results (Anova)

Figure 5. 8. 1 presents a graphical illustration of mean GHQ and FGHQ score differences. The differences in mean FGHQ scores were significant  $F(4, 94) = 23.06$ ,  $p < .001$  across the five groups (for summary of Anova Table refer to Appendix B, Table B-18).

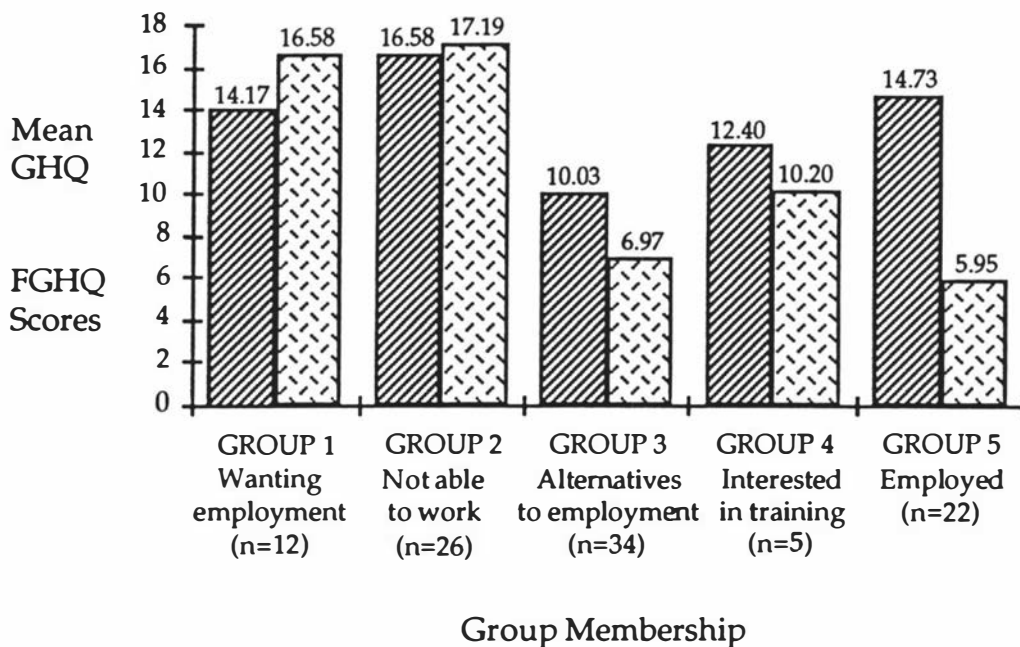
### FGHQ results (contrast coefficient)

There was a significant difference in mean FGHQ score between group 1 ( $M = 16.58$ ) and group 3 ( $M = 6.97$ ),  $t(94) = 5.52$ ,  $p < .001$ , between group 1 ( $M = 16.58$ ) and group 4 ( $M = 10.20$ ),  $t(94) = 2.31$ ,  $p < .05$ , between group 1 ( $M =$

16.58) and group 5 ( $M = 5.95$ )  $t(94) = 5.71$ ,  $p < .001$ , between group 2 ( $M = 17.19$ ) and group 3 ( $M = 6.97$ ),  $t(94) = 7.57$ ,  $p < .001$ , between group 2 ( $M = 17.19$ ) and group 4 ( $M = 10.20$ ),  $t(94) = 2.76$ ,  $p < .01$  and between group 2 ( $M = 17.19$ ) and group 5 ( $M = 5.95$ ),  $t(94) = 7.48$ ,  $p < .001$ .

#### GHQ and FGHQ results (t-tests)

The results of the t-tests suggested that differences between mean GHQ ( $M = 10.03$ ) and FGHQ ( $M = 6.97$ ) of group 3  $t(33) = 4.74$ ,  $p < .001$  and group 5 mean GHQ ( $M = 14.73$ ) and mean FGHQ ( $M = 5.95$ ),  $t(21) = 5.45$ ,  $p < .001$  were significant (for summary of t-tests refer to Appendix B, Table B-19, B-21, B-23, B-25 and Table B-27).



**FIGURE 5.8.1**

Change in mean GHQ (1989) and FGHQ (1990) scores in self selected groups of long-term unemployed and employed people.

▨ GHQ    ▩ FGHQ

### FRSE results (Anova)

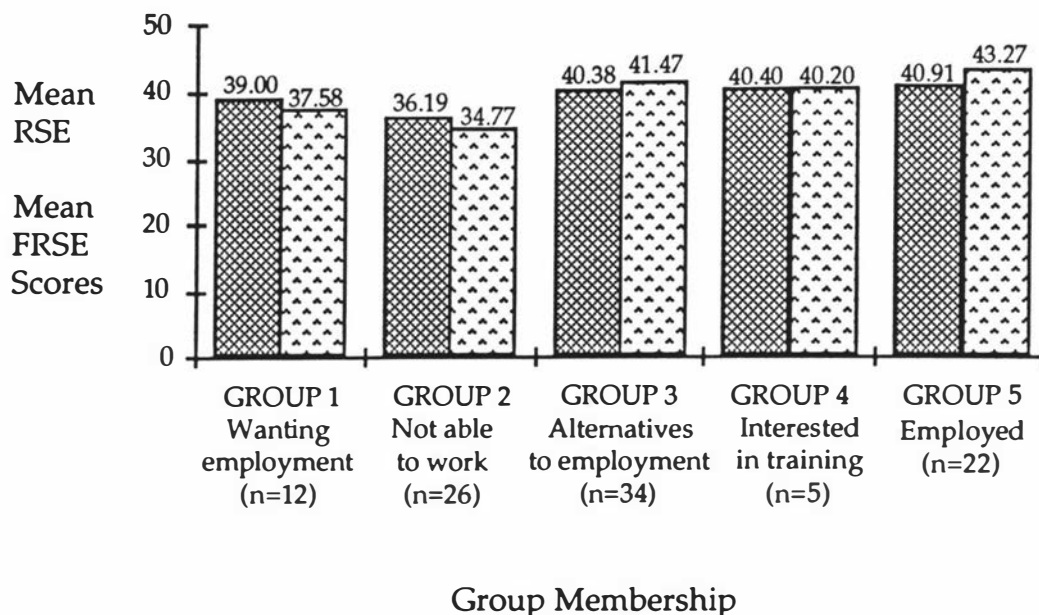
Similarly Figure 5. 8. 2 illustrates differences in mean RSE and FRSE scores of five groups. The differences in mean FRSE scores were significant  $F(4, 94) = 10.42, p < .001$  across the five groups (for summary of Anova Table refer to Appendix B, Table B-29).

### FRSE results (contrast coefficient)

There was a significant difference in mean FRSE scores between group 1 ( $M = 37.58$ ) and group 3 ( $M = 41.47$ ),  $t(94) = 2.28, p < .05$ , between group 1 ( $M = 37.58$ ) and group 5 ( $M = 43.27$ ),  $t(94) = 3.13, p < .01$ , between group 2 ( $M = 34.77$ ) and group 3 ( $M = 41.47$ ),  $t(94) = 5.07, p < .001$ , between group 2 ( $M = 34.77$ ) and group 4 ( $M = 40.20$ ),  $t(94) = 2.19, p < .05$  and between group 2 ( $M = 34.77$ ) and group 5 ( $M = 43.27$ ),  $t(94) = 5.79, p < .001$ .

### RSE and FRSE results (t-tests)

The results of the t-tests suggested that differences between mean RSE (1989) and FRSE (1990) scores were not significant (for summary of t-tests refer to Appendix B, Table B-20, B-22, B-24, B-26 and Table B-28).



**FIGURE 5.8.2**

Change in mean RSE (1989) and FRSE (1990) scores in self selected groups of long-term unemployed and employed people.

 RSE
  FRSE

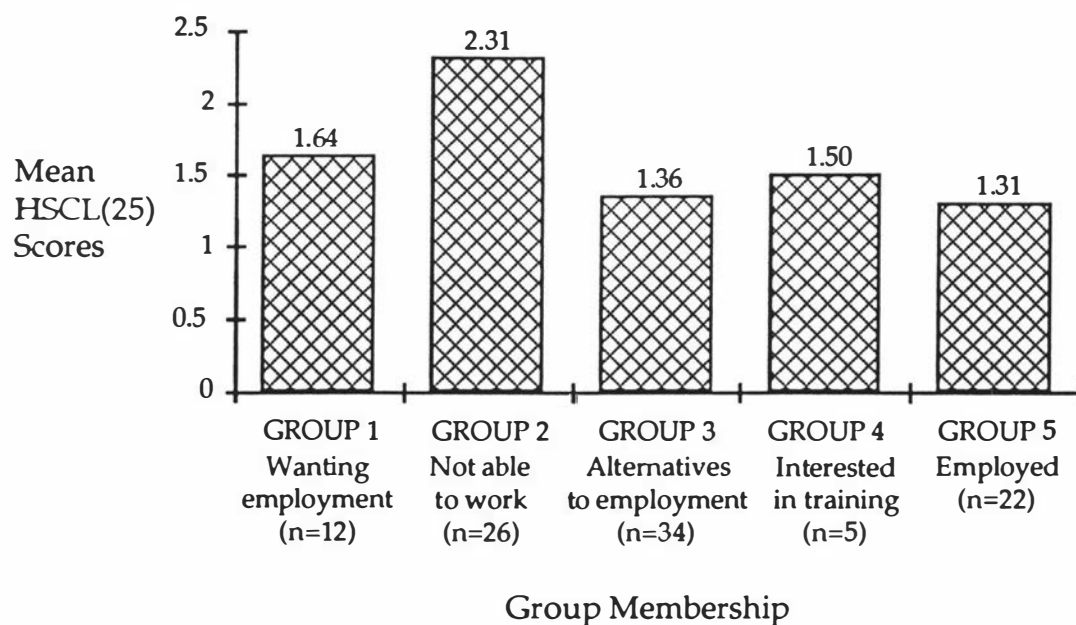
### HSCL results (Anova)

Figure 5. 8. 3 presents an illustration of mean HSCL score differences between the five groups. The differences in mean HSCL scores were significant  $F(4, 94) = 34.35, p < .001$ , across the five groups (for summary of Anova Table refer to Appendix B, Table B-30).

### HSCL results (contrast coefficient)

There were significant differences in mean HSCL scores between the following groups: group 1 ( $M = 1.64$ ) and group 2 ( $M = 2.31$ )  $t(94) = 5.59, p < .001$ , group 1 ( $M = 1.64$ ) and group 3 ( $M = 1.36$ ),  $t(94) = 2.36, p < .05$ , group 1 ( $M = 1.64$ ) and group 5 ( $M = 1.31$ )  $t(94) = 2.66, p < .01$ , group 2 ( $M = 2.31$ ) and

group 3 ( $M = 1.36$ ),  $t(94) = 10.39$ ,  $p < .001$ , group 2 ( $M = 2.31$ ) and group 4 ( $M = 1.50$ ),  $t(94) = 4.72$ ,  $p < .001$  and group 2 ( $M = 2.31$ ) and group 5 ( $M = 1.31$ ),  $t(94) = 9.90$ ,  $p < .001$ .



**FIGURE 5.8.3**

Mean HSCL(25) scores for groups of long-term unemployed and employed people in 1990.

### 5.9 Hypothesis 8

There will be no differences in mental health levels as measured by GHQ and RSE scores across different periods of unemployment and between the Main Study and the Follow-up Study.

Six t-tests were performed to test differences in mean GHQ and RSE scores across three different periods of unemployment. The comparisons were



between groups of people unemployed for: (i) six months and above six months (ii) seven to nine months and above nine months and (iii) ten to twelve months and above twelve months.

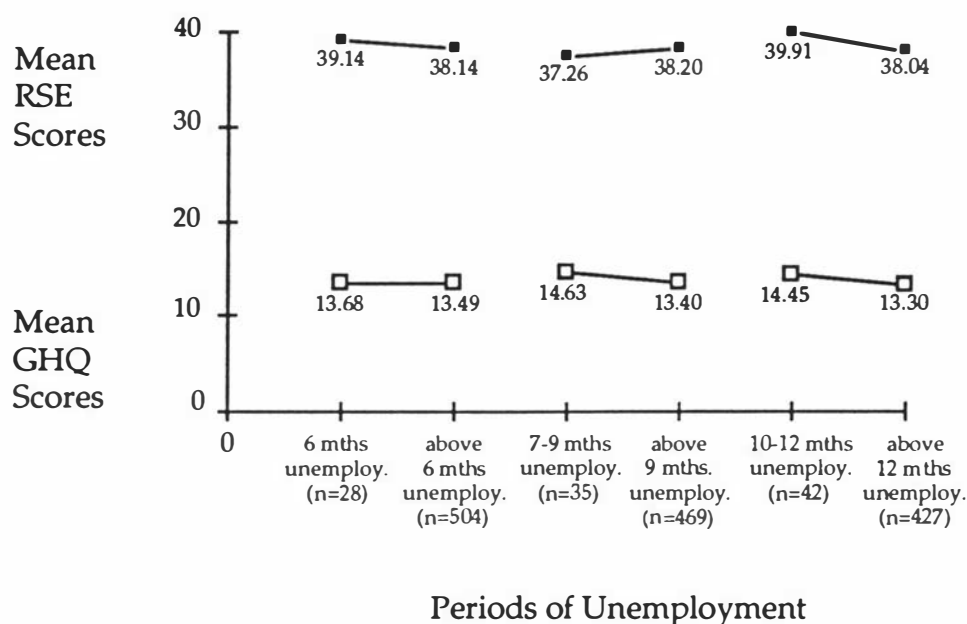
#### GHQ and RSE results (t-tests)

As illustrated in Figure 5. 9. 1 the differences in mean GHQ ( $\underline{M} = 13.68$  and  $\underline{M} = 13.49$ ),  $t(530) = 0.16$ ,  $p$  ns, and RSE scores ( $\underline{M} = 39.14$  and  $\underline{M} = 38.14$ ),  $t(530) = 0.82$   $p$  ns, between people six months unemployed ( $n=28$ ) and above six months unemployed ( $n=504$ ) were not significant (for summary of t-tests refer to Appendix B, Table B-31).

The differences in mean GHQ scores ( $\underline{M} = 14.63$  and  $\underline{M} = 13.40$ ),  $t(502) = 1.13$ ,  $p$  ns, and mean RSE scores ( $\underline{M} = 37.26$  and  $\underline{M} = 38.20$ ),  $t(502) = 0.85$ ,  $p$  ns, between people seven to nine months unemployed ( $n=35$ ) and above nine months unemployed ( $n=469$ ) were not significant (for summary of t-tests refer to Appendix B, Table B-32).

#### GHQ and RSE results (t-tests)

The differences in mean GHQ scores ( $\underline{M} = 14.45$  and  $\underline{M} = 13.30$ ),  $t(467) = 1.15$ ,  $p$  ns, and RSE scores ( $\underline{M} = 39.91$  and  $\underline{M} = 38.04$ ),  $t(467) = 1.82$ ,  $p$  ns, between people ten to twelve months unemployed ( $n=45$ ) and above twelve months unemployed ( $n=427$ ) were not significant (for summary of t-tests refer to Appendix B, Table B-33).



**FIGURE 5.9.1**

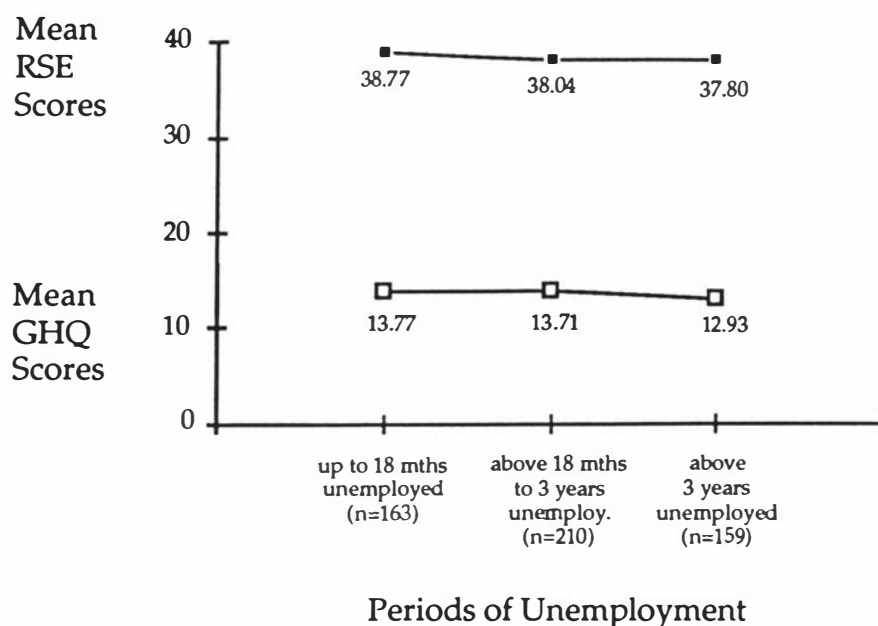
Mean GHQ and RSE scores in groups of long-term unemployed people across periods of unemployment.

GHQ □ — □    RSE ■ — ■

Two Analyses of Variance were run to test differences in mean GHQ and RSE scores across three time periods of unemployment. There were 163 people unemployed up to 18 months in group 1, group 2 consisted of 210 people unemployed above 18 months and up to three years and 159 people belonged to group 3 and were unemployed above three years.

#### GHQ and RSE results (Anova)

The results of the Analysis of Variance, as presented in Figure 5.9.2 suggested no significant difference in either the mean GHQ scores ( $\underline{M} = 13.77$ ,  $\underline{M} = 13.71$  and  $\underline{M} = 12.93$ ),  $F(2, 529) = 0.94$ ,  $p$  ns, nor the mean RSE scores ( $\underline{M} = 38.77$ ,  $\underline{M} = 38.04$ ,  $\underline{M} = 37.80$ ),  $F(2, 529) = 1.04$ ,  $p$  ns, across the three periods of unemployment (for summary of Anova Tables refer to Appendix B, Table B-34 and Table B-35).



**FIGURE 5.9.2**

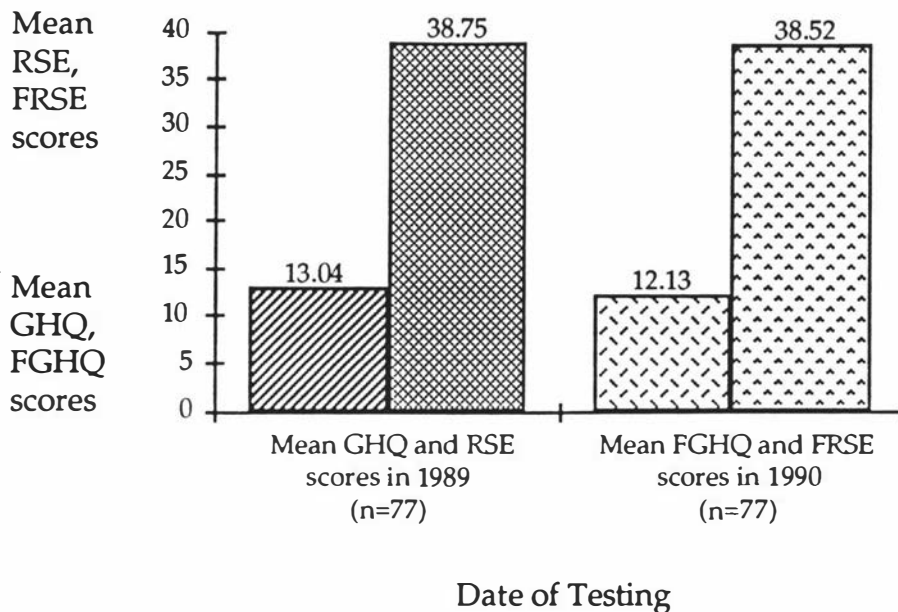
Mean GHQ and RSE scores in groups of long-term unemployed people across periods of unemployment.

GHQ  $\square$ — $\square$  RSE  $\blacksquare$ — $\blacksquare$

Two t-tests were performed to test differences between mean Main Study GHQ and RSE scores and mean Follow-up Study FGHQ and FRSE scores.

#### GHQ, RSE and FGHQ and FRSE results (t-tests)

Figure 5. 9. 3 illustrates the mean differences of Main Study GHQ and Follow-up Study FGHQ and RSE and FRSE scores of long-term unemployed people still unemployed in 1990 (n=77). The differences between the mean GHQ ( $M = 13.04$ ) and mean FGHQ ( $M = 12.13$ )  $t(76) = 1.57$ ,  $p$  ns, and between RSE ( $M = 38.75$ ) and FRSE scores ( $M = 38.52$ )  $t(76) = 0.41$ ,  $p$  ns, were not significant (for summary of t-tests refer to Appendix B, Tables B-36 and B-37).



**FIGURE 5.9.3**

Change in mean GHQ (1989), FGHQ (1990) and RSE (1989), FRSE (1990) scores in Main Study and Follow-up Study.

 GHQ, 
  FGHQ, 
  RSE, 
  FRSE

### 5.10 Hypothesis 9

There will be differences in mental health as measured by the Follow-up Study GHQ (FGHQ) and the Follow-up Study RSE (FRSE) scores between continuously unemployed people and employed people in the Follow-up Study.

Two t-tests were performed to test differences in mean FGHQ and mean FRSE scores of people who are unemployed for another year and people who have been employed for approximately one year.


### FGHQ results (t-tests)

Figure 5. 10. 1 presents a graphical illustration of mean FGHQ and mean FRSE scores of unemployed and employed people. The differences between the two groups in FGHQ scores ( $\bar{M} = 12.13$  and  $\bar{M} = 5.95$  respectively) were significant  $t(97) = 3.81, p < .001$  (for summary of t-tests refer to Appendix B, Table B-38). The differences between the groups in mean FRSE scores ( $\bar{M} = 38.52$  and  $\bar{M} = 43.27$  respectively) were significant,  $t(97) = 3.47, p < .001$  (for summary of t-tests refer to Appendix B, Table B-38).



**FIGURE 5.10.1**

Mean FGHQ (1990) and FRSE (1990) scores for long-term unemployed and employed people.

 FGHQ
  FRSE

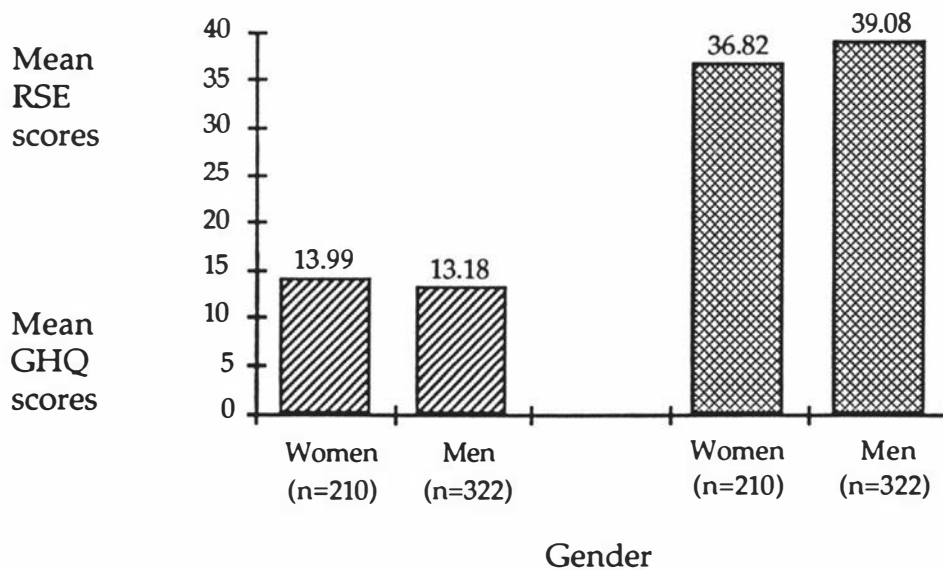
### 5.11 Hypothesis 10

There will be no differences in mental health as measured by GHQ and RSE scores between long-term unemployed women and long-term unemployed men in the Main Study.

Two t-tests were performed to test differences in mean GHQ and RSE scores of unemployed women and unemployed men.

#### GHQ and RSE results (t-tests)

Figure 5.11.1 presents a graphical illustration of mean GHQ and RSE scores of unemployed women and men. The differences in mean GHQ scores between women ( $M = 13.99$ ) and men ( $M = 13.18$ ) were not significant  $t(530) = 1.47$ ,  $p$  ns (for summary of t-tests refer to Appendix B, Table B-39). The differences in mean RSE scores between women ( $M = 36.82$ ) and men ( $M = 39.08$ ) were significant  $t(530) = 4.10$ ,  $p < .001$  (for summary of t-tests refer to Appendix B, Table B-39).



**FIGURE 5.11.1**

Mean GHQ and RSE scores in long-term unemployed women and men.

▨ GHQ    ▩ RSE

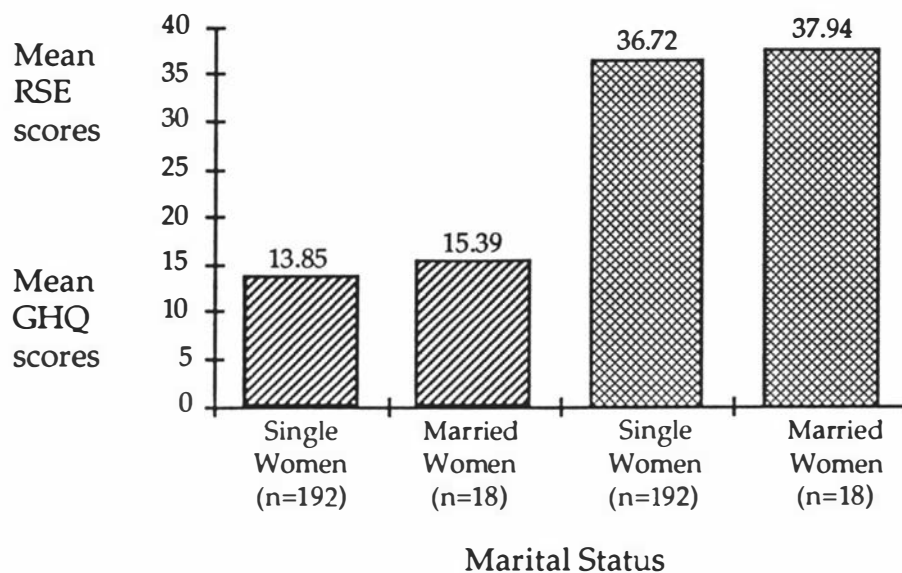
## 5.12 Hypothesis 11

There will be differences in mental health as measured by GHQ and RSE scores between long-term unemployed single women and long-term unemployed married women in the Main Study.

Two t-tests were performed to test differences in mean GHQ and RSE scores of unemployed single women (including divorced and separated women) and unemployed married women.

### GHQ and RSE results (t-tests)

Figure 5. 12. 1 presents a graphical illustration of mean GHQ scores of unemployed single women and unemployed married women. The differences in mean GHQ scores between single women ( $M = 13.85$ ) and married women ( $M = 15.39$ ) were not significant  $t(208) = 0.96$ ,  $p$  ns (for summary of t-tests refer to Appendix B, Table B-40). The differences in mean RSE scores between single women ( $M = 36.72$ ) and married women ( $M = 37.94$ ) were not significant,  $t(208) = 0.76$ ,  $p$  ns, (for summary of t-tests refer to Appendix B, Table B-40).



**FIGURE 5.12.1**

Mean GHQ and RSE scores of long-term unemployed single and married women.

▨ GHQ    ▩ RSE

### 5.13 Hypothesis 12

There will be differences in mental health as measured by GHQ and RSE scores between long-term unemployed young people and middle aged people in the Main Study.

Four t-tests were performed to test differences in mean GHQ and RSE scores of unemployed young people (age 17 - 25) and two groups of unemployed middle aged people (group 1: age 36 - 45; group 2: age 46 - 60).

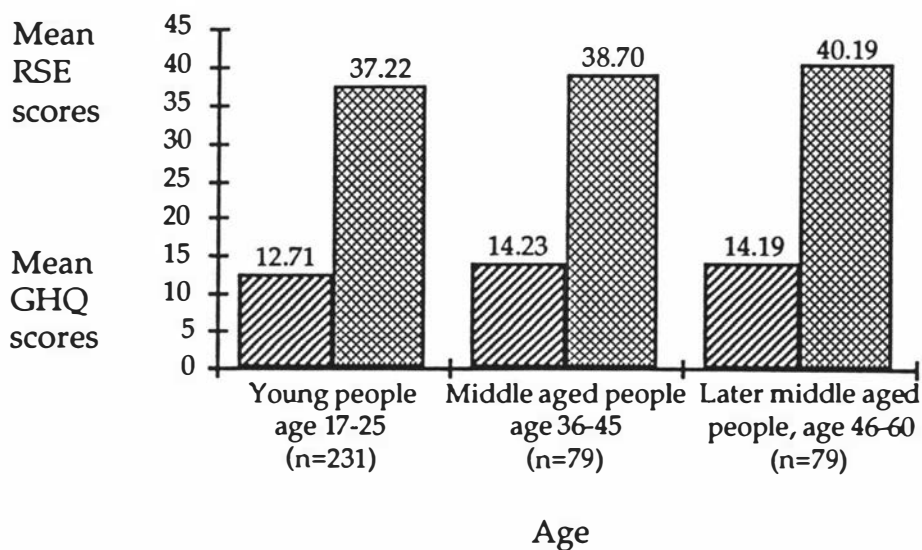
#### GHQ and RSE results (t-tests)

The results are illustrated in Figure 5. 13. 1. The difference in mean GHQ scores between young people ( $\bar{M}$  = 12.71) and middle aged people ( $\bar{M}$  = 14.23)



was significant,  $t(308) = 2.02, p < .05$ . The difference in mean RSE scores between young ( $M = 37.22$ ) and middle aged people ( $M = 38.70$ ) was not significant,  $t(308) = 1.84, p$  ns (for summary of t-tests refer to Appendix B, Table 41).

The difference in mean GHQ scores between young people ( $M = 12.71$ ) and older middle aged people ( $M = 14.19$ ) was not significant,  $t(303) = 1.80, p$  ns. The differences in mean RSE scores between young ( $M = 37.22$ ) and older middle aged people ( $M = 40.19$ ) was significant,  $t(303) = 3.59, p < .001$  (for summary of t-tests refer to Appendix B, Table 42).



**FIGURE 5.13.1**

Mean GHQ and RSE scores of long-term unemployed people across three different age groups.

▨ GHQ    ▩ RSE

### 5.14 Hypothesis 13

There will be differences in mental health as measured by GHQ and RSE scores among long-term unemployed European New Zealanders, Maori New Zealanders and Pacific Islanders and other ethnic groups in the Main Study.

Two Analyses of Variance were run to test differences in mean GHQ and RSE scores across three different ethnic groups. There were 398 European New Zealanders in group 1, group 2 consisted of 106 Maori New Zealanders and group 3 had 28 Pacific Islanders and other ethnic groups.

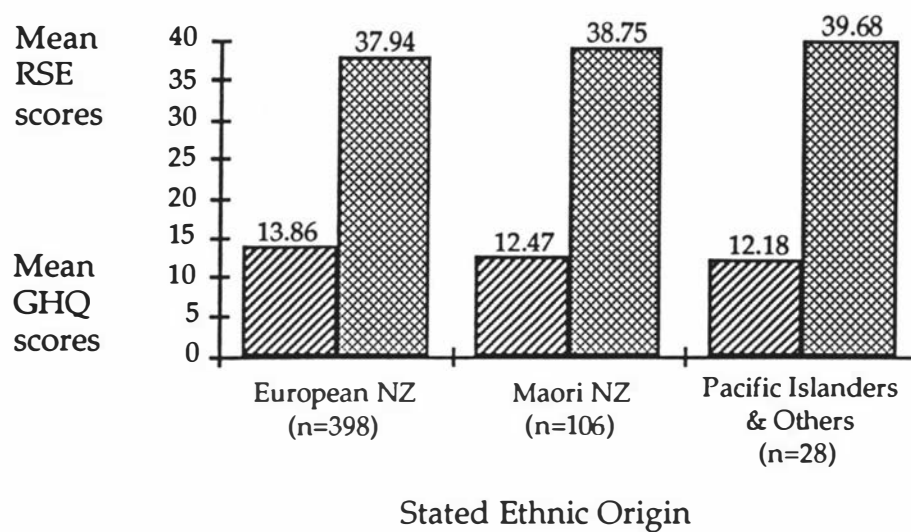
The data was further analysed by computing a contrast coefficient matrix, to test differences between group 1 and group 3, between group 1 and group 2 and between group 2 and group 3 (Norusis, 1985).

#### GHQ and RSE results (Anova)

The results of the Analysis of Variance, as presented in Figure 5. 14. 1 suggested no significant difference in either the mean GHQ scores (European New Zealanders  $\bar{M} = 13.86$ ; Maori New Zealanders  $\bar{M} = 12.47$  and Pacific Islanders and other ethnic groups  $\bar{M} = 12.18$ ),  $F(2, 529) = 2.78$ ,  $p$  ns, nor in mean RSE scores (in order:  $\bar{M} = 37.94$ ;  $\bar{M} = 38.75$ ;  $\bar{M} = 39.68$ ),  $F(2, 529) = 1.53$ ,  $p$  ns, across the three groups (for summary of Anova Tables refer to Appendix B, Tables B-43 and B-44).

#### GHQ results (contrast coefficient)

There was a significant difference in mean GHQ scores between European New Zealanders ( $\bar{M} = 13.86$ ) and Maori New Zealanders ( $\bar{M} = 12.47$ ),  $t(529) = 2.06$ ,  $p < .05$ . For RSE scores no two groups were significantly different at the .05 level.



**FIGURE 5.14.1**

Mean GHQ and RSE scores of long-term unemployed European NZ, Maori NZ and Pacific Islanders and other ethnic groups.

 GHQ     RSE

## CHAPTER 6

## DISCUSSION

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The purpose of the present study has been to measure mental health levels and their relationship to Warr's model and his nine environmental features and personal characteristics. Thirteen specific hypotheses have been tested.

### 6.1 Hypothesis 1

For long-term unemployed people in the Main Study some environmental features (Warr, 1987) and some personal characteristics will be more important predictors of mental health levels as measured by GHQ and RSE scores than others.

The findings of this research supported hypothesis 1 that some environmental features and some personal characteristics are more important predictors of mental health than others.

The results indicated that from Warr's nine environmental features, five were significantly correlated to higher GHQ scores (lower mental health) and three were significantly correlated to higher RSE scores (higher mental health). Three environmental features were common features in both mental health measures, two were unique to GHQ levels only and this resulted in five environmental features. These five features were (i) "externally generated goals", (ii) "opportunity for interpersonal contact", (iii) "opportunity for skill use", (iv) "availability of money" and (v) "environmental clarity". Each individual feature will be discussed in turn.

Externally generated goals: In the present study "externally generated goals" were measured by questions related to time spent watching TV, time spent listening to music, time spent sleeping during the day and doing nothing. The findings suggested that doing nothing was predictive of lower mental

health of the long-term unemployed people (higher GHQ scores and lower RSE scores).

These results not only supported Haines and Macky's (1982) findings of young school leavers in New Zealand, where low activity levels were significantly associated with poorer affective mental health but also those of other researchers from overseas (Fagin & Little, 1984; Froehlich, 1983b; Kilpatrick & Trew, 1985; Miles, 1983; Warr & Payne, 1983; Warr, 1984a, 1984c). Financial constraints are of course influential, since enjoyable activities may well require money. In the present study watching TV, listening to music and sleeping during the day were not associated with mental health levels. This may be due to a number of factors such as warmer climatic conditions in New Zealand which may permit more outdoor activities. Another possible explanation may be the preference of some long-term unemployed young people (nearly half of the present sample was below the age of 25) to spend time in town with unemployed friends looking around shops without buying anything (Warr, 1984a). The availability of various Drop-in Centres for unemployed people, the Workers Unemployed Rights Centre or various church centres in town may possibly provide other alternatives to staying at home and doing nothing. This issue will be discussed further in section 6. 2.

The feature opportunity for interpersonal contact was measured by spending "time with partner/husband or wife", "parents/close family", with "friends", "neighbours", "former work mates/colleagues", "casual friends", "club/society members", "extended family", "church people", "counsellors", with "other people" and "the number of close friends".

The results suggested that the unemployed person who spends time in his/her relationship, with church people, has close friends and spends little

time with counsellors has higher mental health. No significant relationship was found between mental health and other interpersonal contacts such as neighbours and/or friends, casual friends and former work colleagues. This may indicate that only close and intimate contacts are of major importance to mental health levels of long-term unemployed people in New Zealand and seem to ameliorate the impact of unemployment. When considering these results one needs to take into account that the majority of long-term unemployed people in this study were single who may not have a partner. The present findings are only partially supportive of overseas studies where researchers for example in Britain and Germany (Froehlich, 1983b; Stokes & Cochrane, 1984; Warr, 1984a; Warr & Payne, 1983) have observed that generally the amount of social contact with family, neighbours and friends increased once people were unemployed and this was related to lower levels of distress. Most of these studies were concerned with recently unemployed people, who were compared to employed people. As the present research investigated mental health of long-term unemployed people who were on average nearly three years unemployed, comparisons are difficult to make. However, Binns and Mars (1984) study of social relations of unemployed men in Glasgow found evidence that most unemployed people in their study "turned inward to the social and cultural resources of the family" p. 676. Only few workers once unemployed continued contact with casual friends, neighbours and former workmates. According to the Glasgow study, kin relationships which seemed to be weakened were reactivated by mass unemployment. The findings of the present study in New Zealand are consistent with their research.

Opportunity for skill use was measured by "doing jobs at home", "helping neighbours and friends", "volunteering at schools, clubs and societies", "involvement with interests and hobbies", "number of interests and hobbies" and training during unemployment (measured by six variables:

"correspondence courses", "access training courses", "polytechnic courses", "university", "salvation army/red cross", "other training while unemployed").

It is interesting to note that in New Zealand during long-term unemployment neither the use of skills at home, with neighbours and in the community nor the learning of new skills through training courses showed a relationship with mental health levels. These findings are consistent with Stokes (1983) and Fryer and Payne's (1983) results who noted that only a minority of unemployed people would be involved in further training during unemployment, although mental health levels were not measured. From all the variables only "involvement with interests and hobbies" and "number of interests and hobbies" were related to higher self-esteem scores (higher mental health). As the environmental feature "variety" was measured by the same variables as "opportunity for skill use" the results of the present study suggest that being involved in a variety of interests and hobbies is significantly correlated to higher self-esteem. This relationship to self-esteem is supported by a New Zealand study on work/nonwork perceptions and attitudes (Brook, 1991). In her review Brook suggests that people with a positive self-concept tend to choose challenging activities of greater variety.

However, comparisons of these findings with overseas research is difficult. Most researchers in Europe investigated changes in leisure activities eg. use of libraries, increases or decreases in book borrowing and changes in social contacts of employed and unemployed people (Bakke, 1933; Fryer & Payne, 1983; Jahoda, Lazarsfeld, & Zeisel, 1933; 1972). Furthermore these studies did not specifically investigate the relationship to mental health or self-esteem. It was reported by both Jahoda, Lazarsfeld and Zeisel (1933; 1972) and Fryer and Payne (1983) that book borrowing, although freely available and at no



cost did not increase. Jahoda (1979) considered the period of unemployment to be too unsettling to be used constructively and she noted that attendance at clubs and voluntary organizations was reduced. Fryer and Payne (1983) suggested it was unrealistic to expect unemployed people to use libraries, when borrowing books may never have been part of their lives while employed. They stated that in their study in England only a minority of unemployed people would pursue leisure activities.

The findings from Australia by O'Brien and Kabanoff (1979) are more relevant to the present research. Their comparative study of employed and unemployed people, reported the frequencies with which different leisure activities were engaged in. They concluded that unemployed people participated significantly more in varied and skilled activities such as sewing, handicrafts, photography, cooking, reading, playing music, walking and letter writing than the employed group. Employed people were more socially active, they entertained more at home and their activities involved more interaction with others. The present study is supportive of the suggestion that the majority of unemployed people have a great variety of interests and hobbies. Of the long-term unemployed people 48.2% were interested in art and crafts, collections of various items of interest, nature pursuits and technical subjects (refer to Appendix B, Table B-1 for details). However, a considerable percentage (29.7%) of unemployed people participated in sports activities such as team sport or sports which mainly involved interaction with others. In addition 7.5% were involved socially with other people (refer to Appendix B, Table B-1). Therefore in this study a large percentage of unemployed people (37.2%) were engaged in leisure activities involving social contacts and a clear distinction between interests of a more solitary and/or social nature such as identified in the Australian data cannot be made. Most long-term unemployed people in the present

study seemed to have varied interests and only a small minority (13.9%) had no interests or hobbies at all.

Availability of money. This feature was measured by a number of variables related to "having debts" and financial difficulties (measured by nine variables: "difficulties paying bills", "difficulties paying rent", "paying for food", "paying for mortgage", "paying for children's school activities", "paying for club and/or society fees", "car maintenance", "difficulties paying for doctors and medication" and "other financial difficulties"). From the many variables measuring this feature only one "having debts" was related to higher GHQ scores (lower mental health) but not to RSE scores. The result suggested that apart from "having debts", every day financial difficulties appeared not to be of major importance for mental health and in particular not important for self-esteem levels. As "physical security" and "opportunity for control" were measured by the same variables as "availability of money", it is assumed that these two features were not of great significance to mental health levels in long-term unemployed people in New Zealand.

One explanation may be that 43.5% of the long-term unemployed people consisted of young people (age 17-25), whose income differential between having a job and being unemployed is often not very great, especially for those with few qualifications and little employment experience. In addition one needs to remember that in 1989 when the study was conducted even people aged 17 were receiving unemployment benefit. Furthermore 63.2% of the people interviewed were single people and 36.8% still lived with their parents at home. This may indicate that a large number of the young people may still be supported by their family and therefore experience less financial difficulties such as paying for rent, food, mortgage etc. In addition, in 1989 NZ Housing Corporation houses were generally available to low income

families for subsidized rent, which may have helped to alleviate stress and people may have considered themselves as having "physical security" and "opportunity for control". It should also be noted that the present study took place before the benefit cuts.

In New Zealand during restructuring in 1989 many people were made redundant and received redundancy payments. At that time every unemployed person was entitled to register with Social Welfare for an unemployment benefit. Although most unemployed people may not consider the lump sum as a source of supplement to the weekly budget (Fryer & McKenna, 1987), it may be argued that redundancy pay may have helped to alleviate the most pressing financial problems at that time. Furthermore, many of the unemployed people were unskilled and the income while employed may have been low. Therefore if people had high family needs they may have been financially better off being unemployed. Another reason why daily financial difficulties were not of overall importance may be due to New Zealand's temperate climate. This tends to keep heating and lighting costs low for many people and for a shorter period of time than in Britain or Northern Europe. Such climatic conditions allow for the possibility of the cultivation of small private vegetable gardens. However, the finding that "having debts" is associated with lower affective well-being is consistent with earlier research in the area (D'Arcy & Siddique, 1985; Finlay-Jones & Eckhardt, 1984; Hobbs, Ballinger, McLure, Martin & Greenwood, 1985).

Environmental clarity was measured by asking whether the unemployed person was "worried about the future". A significant relationship existed between that question and lower mental health. The present study supported fully Warr's (1984a) and Payne, Warr and Hartley's (1984) findings that during long-term unemployment environmental clarity is

reduced. The recognition that one might stay indefinitely in a socially stigmatized position may influence mental health (Warr, 1987). In fact the environment is perceived as extremely threatening if unemployment continues for some extended period (Payne, Warr & Hartley, 1984). This uncertainty of the future, the fear and frustrations of being unable to plan realistically and to develop contingencies to deal with the unknown is considered by Fryer and McKenna (1987) to be the reason for lower mental health of people who are made redundant. Their investigation into the experience of temporary stand-down and redundancy suggested that the most central issue and most obvious difference between the two groups was the temporary and circumscribed nature of the former and the uncontrolled and limitless nature of the latter. For this reason the present research about long-term unemployed people is fully supportive of their findings.

As already stated previously some of Warr's nine environmental features were measured by the same variables. These were "variety" which was measured by "opportunity for skill use" and "opportunity for control" and "physical security" which were measured by the same variables as "availability of money". Therefore the only environmental feature which was not significantly correlated with mental health at the multivariate level was a "valued social position".

However, it is important to note that only six variables represented Warr's environmental features. The results suggested that "no activity", "the number of close friends", "having debts" and having "worries about the future" are significant predictors of mental health (GHQ scores). "Involvement with interests and hobbies" and the "number of interests and hobbies" were significantly related to self-esteem scores (RSE scores).

From the four categories of personal characteristics measured in the present study three categories such as "demographic variables", "baseline mental health" and "dispositional value orientation" were significantly related to mental health levels.

Demographic variables were measured by "gender", "marital status", "age", "stated ethnic origin", "living situation", "personal disadvantages or disabilities", "financial support", "period of unemployment", "level of school education", "school certificate", "post school training" and "socio-economic status".

From these variables "gender", "age", "stated ethnic origin", "education", "personal disadvantages or disabilities", "level of school education", "post school training" and "socio-economic status" were significantly related to mental health levels. Although some of the demographic variables will be discussed in depth later when univariate analyses are considered, attention is drawn to the fact that the results of the multivariate analysis suggested that being a woman, being older and being a European New Zealander was significantly related to higher GHQ scores (lower mental health). The long-term unemployed people in the present study consisted of 210 (39.5%) women and most of them 192 (91.4%) were single, divorced, separated or widowed. The findings are an indication that for older European women in New Zealand more so than for men the experience of long-term unemployment is particularly stressful. As the majority (91.4%) of women of the long-term unemployed people were single, it may be reasonable to assume that the older single women are more likely to be divorced, separated or widowed. Their particular vulnerability to the negative effects of being unemployed seems evident in the present research. Some older women may still have children in their care and the role of solo parent with no income may be particularly distressing. If children are grown up, the

older woman's identity may have to be redefined and during times of high levels of unemployment this is a difficult task. Another explanation for these particular findings may be that Maori and Pacific Island women have a wider family network for material and emotional support during times of crisis. It may be possible too, that older European women adhere to a more rigid and pronounced work ethic and therefore may have lower mental health. At that time in New Zealand many older single parent women who had teenage children, realized that their Domestic Purpose's Benefit would terminate once their youngest child reached the age of either 16 or went on to tertiary education. For many single parents this may appear to be quite threatening and worrying. It meant they had to get employment, and this applied even if they had never worked before or started a new career. The uncertainty about the future may have been a contributing factor to lower mental health.

The evidence from overseas is controversial with Fryer (1986) reporting differences in mental health between women and men, with women having lower affective well-being than men. However, other researchers who investigated mental health effects of registered unemployed women and men stated that the effects of unemployment are similar for both sexes (Banks & Ullah, 1986; Finely-Jones & Eckhardt, 1984; Martin & Wallace, 1985).

The findings suggested that being male, being older, having no personal disadvantages or disabilities, being Maori or Pacific Islander, having higher levels of school education, having post school training and higher socio-economic status was significantly related to higher self-esteem (RSE scores) and therefore to higher mental health. Among the long-term unemployed, few people (17.3%) had school certificate in three subjects, only (49.4%) had some kind of training which included on the job training and 69.3% were

either unskilled manual labourers or had never had a job. For this reason those who had attained higher levels of school education and who had higher socio-economic status may have been more confident and self-assured for achieving it. Furthermore the findings that Maori or Pacific Islanders are more self-assured may be related to Maori and Pacific Islander's having different values from European New Zealanders (Rangihau, 1975). Maori values and the whanau may provide identity and self-esteem among older Maori rather than Western work values (Durie, 1986). Furthermore high unemployment among Maori and Pacific Island people (although not always reported to Social Welfare Offices) has been a common occurrence for longer than for European New Zealanders (M. Palmer, personal communication, November 22, 1990). The prospects of unemployment may never have become threatening neither to their survival nor to their self-esteem. Self-esteem is a relatively enduring organisation of affective and evaluative beliefs about oneself (Burns, 1979).

Baseline mental health, was measured by variables related to the experience of "stress" and "sickness" during unemployment.

The findings of the Main Study indicated that people who experienced stress during unemployment had lower mental health. The opposite was true for people experiencing no stress, who had subsequently higher self-esteem. Physical health such as sickness during unemployment did not seem to be an important variable in the relationship to mental health. These findings are supportive of some overseas findings that unemployment is a stressful and distressing experience for most people (Daniel, 1974; Kieselbach, 1986)

Dispositional value orientation was measured by perceived best aspects and perceived worst aspects of unemployment and by "reasons for leaving employment" (ten variables) and "satisfaction with the last job". The

perceived best aspects were: "more leisure", "time with family/friends", "time for further training" and "time for other things". The perceived worst aspects were: "lack of money", "ill health", "depression/anxiety", "worries about the future", "loss of friends", "breakdown of marriage or relationship" and "other disadvantages".

From these variables "depression and/or anxiety", "worries about the future" and the "loss of friends" were considered the worst aspects of unemployment and these were related to lower mental health. In addition having "time for leisure" during unemployment was not regarded as one of the best aspects and was also related to higher GHQ scores and therefore lower mental health. The opposite trend was evident in the relationship to self-esteem scores. "Depression and/or anxiety" were not considered one of the worst aspects of unemployment, but "ill health" was considered one of the worst aspects. One of the best aspects of unemployment was "further training", which was related to higher self-esteem which is considered consistent with findings of previous research (Brook, 1991). "Reasons for leaving employment" and the "satisfaction experienced with the last job", were not related to mental health levels.

It is interesting to note that in the present research neither the lack of money nor the breakdown of marriages or relationships was perceived as some of the worst aspects of unemployment and were related to lower mental health. This is consistent with the above mentioned findings, where every day financial difficulties did not constitute a major variable in the relationship to mental health possibly due to the fact that the majority of people interviewed were young, single and living at home. These results do not confirm overseas findings. The literature on unemployment refers to lack of money, which contributes towards tensions and breakdown of marriages and/or relationships as one of the worst aspects which is related



to lower well-being (Bakke, 1933; Banks & Ullah, 1986; Briar, 1977; Fagin & Little, 1984; Feather & Barber, 1983; Komarovsky, 1940).

The findings of the present study suggested that the variables which represented Warr's environmental features and the variables which represented the personal characteristics of the long-term unemployed were important predictors of mental health levels. Both sets of variables contribute towards an understanding of the effects of unemployment.

## 6.2 Hypothesis 2

**For long-term unemployed people in the Follow-up Study some environmental features (Warr, 1987) and some personal characteristics will be more important predictors of mental health levels as measured by GHQ and RSE scores than others.**

The findings of this research supported hypothesis 2, that some environmental features and some personal characteristics are more important predictors of mental health than others.

From Warr's nine environmental features only one feature was significantly correlated to higher GHQ scores (lower mental health) and two to higher RSE scores (higher mental health) one year later in the Follow-up Study. As one environmental feature was common to both measures, two features were significantly related to mental health levels. These two features were: (i) externally generated goals and (ii) opportunity for interpersonal contact. Two categories of personal characteristics were related to mental health levels. The categories were: (i) baseline mental health and (ii) demographic variables. As the variables measuring each individual

feature and personal category have been listed in the previous section, this process will be omitted here. Some discussion of comparisons of similarities and differences between the results of the Main Study and the Follow-up Study is the main objective of this section.

The findings of the Follow-up Study suggested that the variables: "no activity", "stress", "number of close friends" and "gender" were the most significant predictors of mental health. These variables were already important in the Main Study. From the six variables representing Warr's environmental features in the Main Study, only two were left in the Follow-up Study. This indicated that "no activity" and "number of close friends" were of major significance in the relationship to mental health. Most researchers overseas found that either activity levels or how unemployed people structured their time and social support from either close family or friends were the most important moderator variables in the experience of unemployment (Fryer & Warr, 1984; Henwood, 1983; Henwood & Miles, 1987; Miles, 1983; Seabrook, 1982). This study confirmed their findings.

From the variables representing the categories of the personal characteristics in the Main Study only "gender" and "stress" were related to mental health in the Follow-up Study. Both variables were already significant in the Main Study. It seems obvious that the individual vulnerability to experience stress is related to mental health. The importance of this variable and of gender differences in unemployment research has been reported in the literature (Cleary & Mechanic, 1983; Coyle, 1984; Gatchel, Baum, & Krantz, 1989; Kaufman, 1982; Selye, 1956).

Although there were four significant predictor variables of mental health in the Follow-up Study, the variable "no activity" was the only one

significantly related to both GHQ and RSE scores. This suggests its major importance in unemployment research and confirms the results of the literature. Already in the 1930s researchers reported the difficulties unemployed people had with passing time (Jahoda, Lazarsfeld, & Zeisel, 1933; 1972). Later Jahoda (1982) referred to this occurrence as loss or disintegration of the sense of time. Time was categorized into unstructured and structured time, with an increase in unstructured time during unemployment (Fagin & Little, 1984). These findings complemented those of a more quantitative nature. Fryer and Warr (1984) found in their investigation of nearly a thousand unemployed men that difficulties to spend one's time became more common as the length of unemployment increased.

### **6.3 Hypothesis 3**

**There will be differences in mental health as measured by GHQ and RSE scores among the following four groups of the Main Study: "wanting employment", "not able to work", "alternatives to employment" and "interested in training".**

The findings of this research supported Hypothesis 3 that there are differences in mental health levels (GHQ and RSE scores) between the four groups of the Main Study.

In the present study mental health levels of all groups are low (high GHQ scores and lower RSE scores) and psychological impairment of the long-term unemployed is evident, confirming long established research evidence from overseas (Bakke, 1933; Beales & Lambert, 1933; Brinkmann, 1983; Harrison, 1976; Wallis, 1984; Warr, 1984a). However, within the range of low mental

health scores both group 1 "wanting employment" and group 2 "not able to work" have similar and lower mental health levels than the other two groups. This suggests that job search activities over a long period of time and the commitment to paid work may produce high levels of anxiety, emotional instability, stress, depression, general loss of morale and lower self-esteem. Feather and Davenport's (1981) findings that people who are highly motivated to find paid work, are more depressed and anxious than those who have given up hope, are supported by this research.

Group 2 "not able to work" has not only low mental health but also appears to have lost, in addition, all motivation to want to participate in the "working society" (Donovan & Oddy, 1982; Fagin & Little, 1984; Fryer, 1986; Warr & Jackson, 1985). They may also feel physically, emotionally and psychologically not able to be employed. The high GHQ levels in this particular group suggests that some may have psychiatric disorders, such as found in a study by Finley-Jones and Eckhardt (1981) in Australia.

However, as previous research has noted (Fryer, 1986; Schwefel, John, Potthof, & Hechler, 1984; Warr & Jackson, 1984), some unemployed people cope better with unemployment than others. There was evidence of this trend in the present study, where group 3 "alternatives to employment" and group 4 "interested in training" have higher mental health levels (lower GHQ and higher RSE scores) than the other two groups. The findings suggested that unemployment is not an homogeneous problem and that the differences in the experience of unemployment may be either due to personal differences of the unemployed people, or to varying life situations and individual circumstances or to a combination of all two of them. These results will be further discussed in section 6. 5 and section 6. 7.

#### 6.4 Hypothesis 4

For long-term unemployed people in the Main Study some environmental features (Warr, 1987) and some personal characteristics will be more important predictors of mental health as measured by GHQ and RSE scores in the following four groups: "wanting employment", "not able to work", "alternatives to employment" and "interested in training".

The findings of this research supported hypothesis 4, that some environmental features and some personal characteristics are more important predictors of mental health than others in the four groups.

The results indicated that five variables: "stress", "no activity", "gender", "depression/anxiety" and "worries about the future" being considered some of the worst aspects of unemployment, were common predictor variables of mental health (GHQ and RSE scores) for all four groups. As these variables were already significant variables in the Main Study and the Follow-up Study, it was not surprising to find that they were common to all groups. As mentioned previously, the literature is supportive of the present findings (Fryer & McKenna, 1987; Henwood, 1983; Henwood & Miles, 1987).

In group 1 "wanting employment" and group 2 "not able to work" the common variables related to higher mental health were to be older, having no personal disadvantages and/or disabilities and ill health being considered as one of the worst aspects of unemployment. Part of the results seemed to reflect common sense. If some unemployed people considered themselves not able to work and had higher mental health, it may seem plausible that no disadvantage and/or disability may apply to them and that ill health was seen as the worst aspect of unemployment. The same applied to people who wanted a job. If ill health was considered as one of the worst aspects of unemployment and additionally having a disadvantage and/or

disability, this may exclude them from looking for a job or taking up a job. Although the results reflected what intuitively made sense, it is interesting to note that the variable "age" is common to these two groups. It was expected that some older people may not consider themselves able to work anymore, due to health problems and that the older unemployed person who wants employment may experience lower mental health.

Group 1 "wanting employment" and the Combined group 3 "alternatives to employment and interested in training" had one variable in common which was related to higher mental health: "involvement in interests and hobbies". Both groups, which consisted of people who either wanted employment or who did not, had higher mental health when involved with their personal interests and activities. The present results provide support for what has been reported overseas, that being active and involved with leisure activities is conducive to higher mental health levels (Fryer, 1986; Jahoda, 1979; 1981).

Group 2 "not able to work" and Combined group 3 "alternatives to employment and interested in training" had two variables in common, which were related to higher mental health, which were number of friends and ethnicity. The results indicated that having close friends and being Maori was related to higher RSE scores (higher mental health).

The unique variable to group 1 which was related to lower mental health was spending little time with one's partner/husband or wife. The results as already mentioned previously, may be explained by the majority of unemployed people being single and therefore not having the opportunity to spend time with a partner. If they do have a partner and spend little time with her/him, this may be indicative of problems in the relationship which may be related to lower mental health. Another possible explanation may be

that people in group 1 "wanting employment" are very active and involved in looking for employment so that they would spend little time at home with their partners.

Group 2 had a number of unique variables related to lower mental health, which were to be older and being a woman, having debts and attending no training courses while unemployed. It is not surprising that women, who selected themselves into the group of "not able to work", have lower mental health if they are older, if they have not attended training courses during unemployment and if they have debts. One needs to remember too that most women in the present study were single. However, higher self-esteem scores and therefore higher mental health was related to spending little time with counsellors, which seems to be an obvious result.

"Little time with church people", considering the "loss of friends" as one of the worst aspects of unemployment and not considering "time for further training" as one of the best aspects of unemployment were the unique variables related to lower mental health (higher GHQ scores) in the Combined group 3. It needs to be remembered that Combined group 3 consisted of people who had stated that they had alternatives to employment and were interested in training. It seems reasonable that for many of the long-term unemployed people who were in this combined group, higher socio-economic status and further training being considered as one of the best aspects of unemployment, were related to higher self-esteem scores.

## 6.5 Hypothesis 5

There will be differences in mental health as measured by GHQ and RSE scores among the following four groups who volunteered for Follow-up Study: "wanting employment", "not able to work", "alternatives to employment" and "interested in training".

The findings of this research partly supported Hypothesis 5 that there are overall significant differences in mental health among the four groups.

The groups who volunteered to take part in the Follow-up Study had a very similar pattern of mental health levels to that found in the groups of the Main Study (refer to section 6. 3). Group 1 "wanting employment" and group 2 "not able to work" had lower mental health levels, whereas group 3 "alternatives to employment" and group 4 "interested in training" had higher mental health (lower GHQ scores). The overall differences in RSE scores between the four groups were not significant, although there was a difference between group 2 and group 3, with group 3 having higher self-esteem. For this reason the results only partly supported the hypothesis.

As already mentioned in section 6. 3 the present study tended to confirm the findings in the literature that the experience of unemployment is not homogeneous. In overseas studies a very small minority appeared to cope better with the effects of unemployment than the majority (Fryer & Payne, 1983; 1986; Fryer, 1986; Fryer & McKenna, 1987). In the present study a substantial number of people had higher mental health. One explanation could be that some long-term unemployed people, who have chosen "alternatives to employment" may have some self directedness and independence and/or more financial and material security and therefore cope better with unemployment. Some researchers suggested that the loss of employment may be compensated for by an expansion of informal work in



the "informal economy" (Jahoda, 1982). However, Miles (1983) showed that while 23% of the unemployed had done jobs for other people, only 4% had received payment in cash. Wallace and Pahl (1986) supported Miles' (1983) findings with their data. They demonstrated that the unemployed were poor and unable to engage in any more than marginal informal work activities. It is also possible that the work ethic in New Zealand, which holds that "hard and steady work is worthy and unwillingness to work is seen as a symptom of absence of grace or sinful" (p. 278) (Furnham, 1982) is weakening. These results will be discussed further in section 6. 7.

## **6.6 Hypothesis 6**

**For long-term unemployed people in the Follow-up Study there will be no shift in group membership over a twelve month period and there will be no change in mental health levels.**

Hypothesis 6 was only partly supported in the present research, as there was some evidence of changes in group membership and changes in mental health levels for some groups.

One of the main advantages of a longitudinal study of the long-term unemployed is that it allows the possibility of measurement of changes in behaviour and mental health that occur over a period of unemployment and the identification of the implications of such changes. Therefore in the present study the results are considered firstly from the point of view of group membership shifts which occurred between 1989 and 1990. Secondly the implications these group shifts have had on mental health levels in 1990 in comparison to 1989.

Research suggested in the 1930s and in the late 1970s that the greatest changes in behaviour and in mental health levels occurred in the early stages of unemployment (Bakke, 1933; Eisenberg & Lazarsfeld, 1938; Feather, 1982; Harrison, 1976). In the present study, as the people interviewed were long-term unemployed people it was expected that most of them would not shift group within one year of further unemployment. It seemed reasonable to assume that the life situation of long-term unemployed people would not change dramatically over a short period of one year. The only exceptions being the people who found employment.

The findings suggested that this was certainly true of group 2 "not able to work" and group 3 "alternatives to employment" where the majority of people stayed in the same group (60.7% and 68.2% respectively). In both groups a very small minority wanted employment or training (3.6% in group 2 and nobody in group 3) and only a small percentage in both groups did get employment (14.3% and 10.7% respectively). This pattern of group shifts is supportive of hypothesis 6.

However, the results of group 1 "wanting employment" and group 4 "interested in training" showed quite a different trend. In group 1 nearly half (40.6%) who wanted employment in 1989 were in paid employment in 1990, which was expected. It is anticipated that wanting a job is an important criteria for obtaining one. However, only a minority (25%) stayed in the same group and still wanted employment one year later. In group 4 nearly half (47.1%) of the people selected group 3 "alternatives to employment". These findings do not support the hypothesis and are surprising, as one might have expected that once people completed training they would be wanting employment. In group 4 only 17.6% wanted employment. One possible explanation for this considerable shift into the "alternatives to employment" group could be that the long-term unemployed people who

in 1989 stated that they were interested in training, suggested this as a more acceptable option, rather than stating that they had alternatives to employment. An examination of mental health levels of people, who were in group 4 in 1989 and who selected group 3 in 1990, could be supportive of this argument. GHQ levels were slightly lower than the levels of the "interested in training" group and are comparable with people of the "alternatives to employment" group. Another explanation for the findings could be that this shift of people into "alternatives of employment" reflects a genuine trend in New Zealand society. Gold and Webster's (1989) study on values in New Zealand reported that young people seem to believe that they have a right to be supported in their life style and that "affluence is possible without either hard work or competition" (p.50). Overseas literature has repeatedly pointed out that only a minority of unemployed people are interested in training which is supportive of the present findings (Fryer & Payne, 1983; Stokes, 1983). Furthermore this study has found that involvement with interests and hobbies and having more interests and hobbies were important predictor variables for higher self-esteem in combined group 3 "alternatives to employment and interested in training". This suggested that the two groups seem to have common variables. It may therefore be reasonable to assume that nearly half of the "interested in training" group selected in 1990 the "alternatives to employment".

Group 3 "alternatives to employment" was the only group except for the employed group, who had the highest membership increase of 54.5% within a twelve month period. In 1989 there were 22 people in that group which increased to 34 people in 1990. The other three groups (with the exception of the employed group) all decreased in size. The largest decreases were evident in group 1 "wanting employment" (62.5%) and in group 4 (70.5%), the smallest decrease (7.1%) was found in group 2 "not able to work".

These results have three implications: (i) only a small minority of the long-term unemployed people (12.1%) in the Follow-up Study are still looking for employment one year later, (ii) the percentage of people who stated that they are not able to work stay approximately the same and (iii) the percentage of people who have found some alternatives to employment increased quite substantially. It would not be appropriate to comment on the percentage of people in employment. They were people who between July and December 1989 found employment, informed the New Zealand Employment Service project office about it and for this reason were selected for the Follow-up Study. Therefore they are not representative of all long-term unemployed people who get jobs over a twelve month period.

The findings of this research only partly supported hypothesis 6, that mental health levels did not change within the one year period. For some groups mental health stayed the same, for others it significantly changed. This change depended largely on group membership. The overall trend of high GHQ scores (low mental health) appeared to be evident one year later, with some variations within these high levels with the exception of mental health levels in 1990 in group 4 and 5. Group 2 "not able to work" always had the highest GHQ scores in both 1989 and 1990. Whereas group 3 "alternatives to employment" had the lowest GHQ scores (higher mental health) in 1989 and significantly lower levels in 1990 of all unemployed groups. In the employed group GHQ scores were significantly higher in 1989 and significantly lower in 1990. The self-esteem scores in both the 1989 and 1990 groups were stable and did not show any evidence of significant changes neither between groups nor across time. Levels of self-esteem were not significantly affected by change of life circumstances (Burns, 1979; Demo, 1985) and do not show the extreme fluctuations as GHQ levels, which supported the findings of the present research.

In summary it can be stated that (i) mental health levels overall either stayed the same over time or changed according to group membership (ii) In 1990 group 3 "alternatives to employment" and group 5 "employed" had significantly higher levels of mental health than the other three groups

The six major results in relation to hypothesis 6 are:

(i) All long-term unemployed people who changed group between 1989 and 1990 changed mental health levels according to the new group membership. This meant, that long-term unemployed people who selected themselves into group 1 and group 2 would have lower mental health than group 3 and group 4. The employed people had the highest level of mental health.

(ii) In this Follow-up Study only a small minority was still looking for employment. Their mental health was low (high GHQ and lower RSE scores) and stayed low over a twelve month period. The present findings support overseas research which suggested that the long-term unemployed person becomes increasingly discouraged over time which could be possibly due to depression, apathy and resignation to unemployment, and as a result no longer searches for a job (Daniel, 1990; Kaufman, 1982; Warr & Jackson, 1984).

(iii) Group 2 which consisted of people, who stated that they were not able to work stayed approximately the same in size. Mental health levels were the lowest (both high GHQ and lower RSE scores) of all groups and stayed this way over time. Several researchers suggested similar results, where the long-term unemployed person remains permanently scarred by the experience (Tiffany, Cowan & Tiffany, 1970; Kaufman, 1982; Payne & Jones, 1987a; Wallis, 1984). Furthermore, some of the people in group 2 showed evidence of severe emotional distress and of some psychiatric disorders,

which supported findings by Jaco (1960) and Platt (1984) in Scotland and Finley-Jones and Eckhardt (1981) in Australia.

(iv) Group 3 "alternatives to employment" increased by 54.5 % over time, which is accompanied by significantly improved mental health. These results do not support what is generally described in the literature, where the negative effects of unemployment are claimed to be widespread and nearly always psychologically destructive (Daniel, 1974; Hill; 1978, Sinfield, 1979; 1980). Some researchers (Fryer & Payne, 1984; Schwefel, John, Potthof, & Hechler, 1984; Warr & Jackson, 1984) found a small minority of people, who seemed to be significantly less affected by some or all of the pressures of prolonged unemployment.

(v) From the group "interested in training" only a very small percentage (5.1%) wanted training in 1990, which is supportive of overseas findings (Fryer & McKenna, 1987). Mental health for this group was low and it stayed that way over time.

(vi) The employed people's mental health improved significantly over twelve months, which suggests strong support for research with similar findings (Macky & Haines, 1982; Warr, 1987). A small percentage of people in each group had stated in 1989 that they either were not able to work, or were interested in training, or they had alternatives to employment. In 1990 however, they had found and accepted employment and were employed for one year full-time at the time of data collection for the Follow-up Study. The results may mean that if the right job is available to the unemployed person it may be considered and accepted. An alternative view may be that although people had given up hope of finding employment and did not look anymore, any vacant job would be taken.

## 6.7 Hypothesis 7

There will be differences in mental health as measured by Follow-up Study GHQ (FGHQ), Follow-up Study RSE (FRSE) and HSCL scores among the following five groups of the Follow-up Study: "wanting employment", "not able to work", "alternatives to employment", "interested in training" and in the "employed" group.

The findings of this research supported Hypothesis 7 that there were overall significant differences in mental health (FGHQ, FRSE and HSCL (25) scores) among the five groups at the end of the Follow-up Study in 1990.

The pattern of mental health levels of the groups was similar to that found in both the Main Study and the groups, who volunteered for Follow-up Study. Attention was drawn in section 6.5 to group 3 "alternatives to employment" which tended to have slightly higher mental health levels than the other groups. This trend became even more obvious at the end of 1990 in the Follow-up Study.

The findings suggested that FGHQ levels of the groups are high (lower mental health), with the exception of group 3 "alternatives to employment" and group 5 "employed". Within the range of high FGHQ scores (lower mental health), group 1 "wanting employment" and group 2 "not able to work" had both significantly higher FGHQ levels than group 4 "interested in training". It is interesting to note that unemployed people, who were "interested in training" have lower FGHQ scores. The findings confirmed studies which stated that activities, interests and training contributed to higher mental health levels (Fryer & Payne, 1984). In the present research group 3 "alternatives to employment" and group 5 "employed" have significantly lower FGHQ scores than the other three groups, with group 5 having the lowest scores. As in most unemployment research which

compares mental health of employed people with unemployed people, employed people demonstrated significantly higher mental health (Layton, 1986; O'Brien & Kabanoff, 1979; Warr, 1987). This was true in the present study, although the unemployed group 3 "alternatives to employment" had similarly high levels of mental health to that of the employed group. The pattern of FRSE scores across the five groups tended to follow the FGHQ levels. Group 1 and group 2 having the lowest self-esteem scores and having significantly lower levels of self-esteem than the other three groups.

A similar trend has been observed with HSCL scores, with one important exception. Group 1 and group 2 were significantly different from each other with group 2 "not able to work" having the highest scores and therefore by far the lowest mental health from all the other groups. Group 1 and group 4 have similar score levels and therefore similar low mental health. The results indicated that the full extent of low mental health of group 2 may have been underestimated. The HSCL scores were within the clinically significant range of psychiatric disorders of severity comparable to that found in psychiatric in-patient and out-patient clinics. Comparing the present results with data obtained on the HSCL in a previous study of refugees and immigrants in New Zealand (Pernice, 1987) where mean levels did not exceed 1.57, the mean level of 2.31 of the long-term unemployed people in the Follow-up Study is remarkable. They provide additional evidence and support of Finlay-Jones and Eckhardt's (1981) findings in Australia where a high proportion of young unemployed people had psychiatric disorders.

Comparisons between mental health in 1989 and 1990 showed no differences except in group 3 "alternatives to employment" and group 5 "employed", both groups having higher mental health in 1990.



## 6.8 Hypothesis 8

**There will be no differences in mental health as measured by GHQ and RSE scores across different periods of unemployment and between the Main Study and the Follow-up Study.**

The findings of the present study confirmed hypothesis 8 that there are no significant differences in mental health levels across different periods of unemployment and between the Main Study and Follow-up Study.

Since the 1930s researchers, who studied the effects of unemployment noticed the steady decline in psychological health, which occurred in three main stages (Eisenberg & Lazarsfeldt, 1938). Psychological symptoms may be evident within the first few months of unemployment and they stabilize at a low level (Warr, 1987). It was acknowledged that differences between individuals may affect the period spent in each stage, but not the development of these stages. The findings of Kaufman (1982), Warr (1984a) and Jackson and Warr (1984) who stated that mental health of long-term unemployment would not deteriorate any further over time was fully confirmed by the present results of both cross-sectional data (Main Study) and longitudinal data (Follow-up Study one year later).

## 6.9 Hypothesis 9

There will be differences in mental health as measured by the Follow-up Study GHQ (FGHQ) and the Follow-up Study RSE (FRSE) scores between continuously unemployed people and employed people in the Follow-up Study.

Hypothesis 9, that there are differences between mental health levels between continuously unemployed and employed people was supported by the present findings.

As the GHQ has been used in other studies investigating psychological aspects of unemployment, it is worth examining the results from other studies and comparing them with the present research. Table 6. 9. 1 summarises these findings.

In the present study the mean GHQ scores of the Main Study and the Follow-up Study, using the Likert scoring method were higher than the mean obtained by Hesketh (1982) on 82 unemployed people. Both mean values of the present study were lower than the mean obtained by Banks et al. (1980) on 81 young people and 80 adults. However, it is important to note that within the 77 long-term unemployed people in the present study, group 3 "alternatives to employment" with low GHQ scores was included. Therefore it was to be expected that the data on the GHQ fell approximately midway between the people quoted in the literature. The mean score of the 22 employed people of this study obtained lower GHQ scores in comparison to both Hesketh's (1982) and Banks et al. (1980) study. One possible explanation for these differences may be how soon after being unemployed or after obtaining employment mental health measurements are taken. Hesketh's (1982) research applied to recently unemployed people with a one month follow-up study. Banks et al's (1980) data was based on cross-sectional

research with employed people and recently made redundant people in an engineering plant in England. In comparison, this research was cross-sectional and longitudinal (one year) and concerned with long-term unemployed people (six months and above), whose mental health may have stabilized at a low level when data collection occurred. Furthermore the employed people in the present study had already been employed for one year when measurements were taken. This methodological difference between the studies may account for the differences in mental health levels evident in the other studies.

However, the GHQ levels in the present study of long-term unemployed and employed people follows a similar trend as in the literature, with employed people having significantly lower GHQ scores (higher mental health) than the unemployed (Banks et al., 1980; Hesketh, 1982; Jackson, Stafford, Banks, & Warr, 1983; Payne & Jones, 1987). This evidence suggests that the majority of re-employed people experience great beneficial changes in their mental health when in employment.

Table 6. 9. 1

GHQ results from other studies for unemployed and employed people

UNEMPLOYED	Sample size	GHQ (12) Likert Scoring	
		Mean	SD
Present Study			
(i) Main Study	532	13.49	6.21
(ii) Follow-up Study	77	12.13	7.34
Hesketh (1982)	82	11.62	6.27
Banks et al. (1980)	young 81	14.06	6.79
	adults 80	15.16	7.86

Table 6. 9. 1 (continued)

	Sample size	GHQ (12) Likert Scoring	
		Mean	SD
EMPLOYED			
present study	22	5.95	3.51
Hesketh (1982)	24	8.78	5.60
Banks et al. (1980)	youth 431	8.67	5.07
	adults 630	8.76	3.97

As the RSE scale has been used in a number of studies, the data concerning self-esteem scores is presented in Table 6. 9. 2.

When comparing these scores, the data obtained on the RSE in the present study was very similar to scores in other research (Bachman, Omalley, & Johnston, 1978; Feather, 1987). Employed people had consistently higher self-esteem scores than the unemployed despite methodological differences between the present study and overseas data.

Table 6. 9. 2

RSE results from other studies for young (school leavers), University students and unemployed and employed people

UNEMPLOYED		RSE (Bachman et al.'s scoring modification)	
		Mean	SD
	Sample size		
Present Study			
(i) Main Study	532	38.19	6.30
(ii) Follow-up Study	77	38.52	5.95
Bachman et al. (1978)	young 1622	37.40	5.20
	young 1492	38.80	5.00
Feather (1987)	students 248	38.95	6.59
	students 196	38.85	6.06
EMPLOYED			
present study	22	43.27	4.45
Bachman et al. (1978)	1594	42.20	4.80

Note: Bachman et al's (1978) scores have been transformed to conform with the presentation of other data in this table.

## 6.10 Hypothesis 10

**There will be no differences in mental health as measured by GHQ and RSE scores between long-term unemployed women and long-term unemployed men in the Main Study.**

The results of the present research supported hypothesis 10 that there is no difference in mental health between women and men.

The focus of most unemployment research has been on male unemployment. This is not only due to the structure of the labour force where participation by women for example during the 1950s and 1960s was relatively low (Warr, 1987) and is still low in most countries (Adamy, 1987) but also is mainly due to problems of definition (for details refer to Chapter 1, section 1. 2). Although many jobless women want paid employment (thus being unemployed) others have no wish to be employed (and are therefore non-employed). There exists a third group where ambivalence may be strong and self-definition as either in or out of the labour market depends largely on the availability of suitable jobs.

Despite these problems of definition, the literature on unemployment suggested that the overall deterioration in psychological health is the same for women and men if they were the principal wage earners and were registered as unemployed (Ballinger, Smith & Hobbs, 1985; Banks & Jackson, 1982; Barnett & Baruch, 1985; Cleary & Mechanic, 1983; Martin & Wallace, 1985). The present research largely confirms these findings, although there was a difference in self-esteem scores between women and men, with men having higher self-esteem levels.

### 6.11 Hypothesis 11

There will be differences in mental health as measured by GHQ and RSE scores between long-term unemployed single women and long-term unemployed married women in the Main Study.

The findings of this research did not support hypothesis 11, that there are differences between long-term unemployed single women and married women.

It was expected that married women without a job were more likely to be non-employed and therefore to have higher mental health than those who are single, divorced or separated. However, the results showed no differences in mental health between the two groups and in that way highlighted the controversy of this issue.

Some researchers found that unemployed married women have higher mental health than single, divorced or separated women (Coyle, 1984; Krause & Markides, 1985). It was suggested that this may be due to married women experiencing some financial security from their marriage, whereas single women may have family responsibilities. However, it is noted that the number of married women in this study was very low and not representative of unemployed married women in the community. The majority in the study were single and tended to live at home. Furthermore, married women may have unemployed husbands and/or partners and therefore they may consider themselves as the sole breadwinner. This may be one of the reasons why both groups experience low mental health and why there was no difference between them.

## 6.12 Hypothesis 12

**There will be differences in mental health as measured by GHQ and RSE scores between long-term unemployed young people and middle aged people in the Main Study.**

Hypothesis 12 was partly confirmed, that middle aged long-term unemployed people had lower mental health than young unemployed people. In the present study young people are regarded as those under the age of 25.

The high levels of unemployment over the last few years has affected many young people and their low mental health has been demonstrated by many researchers in New Zealand and overseas (Banks & Jackson, 1982; Feather & O'Brien, 1986; Haines & Macky, 1982; Winefield & Tiggeman, 1989a; 1989b). When compared though to older groups of unemployed people, Broomhall and Winefield (1990) and Banks (1989) stated that internationally young people showed significantly less psychological deterioration than older people.

The findings of the present study showed that all long-term unemployed people have low mental health (high GHQ scores). Within this range of high scores, young people have significantly higher mental health (lower GHQ levels) than the middle aged people (age 36 -45), whereas their RSE scores were not significantly different. Compared to the older middle aged group (age 46-60), the results were reversed. This group had significantly higher self-esteem than the young unemployed, which was expected as self-esteem appears to increase with age (Bachman, Omalley, & Johnston, 1978).

The findings support overseas research and higher levels of distress are experienced by older age groups (Warr, 1987; Parry, 1986). The financial



demands upon the middle aged if they are the sole supporter of the family, might be especially great as many have still growing children who are in need of support (Warr & Jackson, 1984). It may be further argued that some older unemployed people experienced a particularly large drop in income, having been able to work overtime or receiving extra pay for raised output on piecework schemes (Warr, 1987). The loss of the role as provider for the family and the loss of work roles within ones work place may affect the mental health of this group of unemployed people. Furthermore, anxieties about the future in the short-term and long-term such as retirement and old age may contribute to an exacerbation of the midlife crisis (Kieselbach, 1986).

### **6. 13 Hypothesis 13**

**There will be differences in mental health as measured by GHQ and RSE scores among long-term unemployed European New Zealanders, Maori New Zealanders and Pacific Islanders and other ethnic groups in the Main Study.**

Hypothesis 13, that there are differences in mental health levels between the groups was not supported in the present research.

Given that being non-white in a dominant white society may lead to a whole range of disadvantages, it was expected that being unemployed may create different psychological reactions in members of different ethnic groups. However, the findings in this study showed no differences in either GHQ or RSE scores across the three groups. It appears that long-term unemployment has similar mental health effects across different ethnic groups in New Zealand. All groups had low mental health, although there was some variation in GHQ score levels. There was a difference in GHQ

level between European and Maori New Zealanders with the latter group having lower GHQ scores and therefore higher mental health. No comparable data on Maori unemployment and mental health is available (Durie, personal communication, June 25, 1992) and as mentioned before the higher mental health (lower GHQ scores) of Maori New Zealanders may be due to an acceptance of high unemployment rates. High unemployment appears to have been a common occurrence for longer than for European New Zealanders.

Overseas findings are inconclusive with some researchers indicating no significant mental health differences in the experience of long-term unemployment among different ethnic groups (Cochrane, 1979), others suggesting whites having higher GHQ scores (lower mental health) than blacks (Warr, Banks & Ullah, 1985). Jamaican and Indian youths for example in Britain (Banks & Ullah, 1986) had similar levels of psychological distress, depression and anxiety. After a one year follow-up, mental health for these groups did not change. However, Warr, Banks and Ullah (1985) reported that unemployed black respondents exhibited significant lower levels of distress and depression than whites, which seem to confirm the present results.

#### **6.14 Methodological limitations**

##### **(i) GHQ, RSE and HSCL scales**

The comprehensive approach to mental health as outlined by Warr (1987) (refer for details to Chapter 2, section 2.5.1) is an ideal, which is not easily achievable in non clinical settings. As already mentioned partial definitions of mental health are more common. In the present study the General

Health Questionnaire, the Rosenberg Self-esteem Scale and the Hopkins Symptom Checklist have been used as indicators of wider mental health.

These three measures rely on self-report and on the Western definition of mental health. It seemed appropriate that affective well-being and self-esteem were measured by self-report, since they are inherently subjective in nature. Nevertheless, they rely on the assumption that respondents are able and willing to honestly state their feelings. They also assume that the respondent attaches equal importance to each scale item and that those items or characteristics are in fact those used in evaluating him or herself. Despite these difficulties, the validity of self-reported affective well-being has often been demonstrated in behavioural terms, either by ratings of friends, colleagues or partners of the individual (Diener, 1984; Voges, Long, Roache, & Shouksmith, 1982) or by independent psychiatric assessments (Mellinger et al., 1983).

However, self-report measures may have some limitations with people from other cultures. The judgements of emotions in terms of degree of well-being may be strongly influenced by cultural expectations about what is desirable and appropriate in a given environment. In addition the concept of mental health assessed in the present research is Western and Maori and Pacific Islanders perceptions of health (refer for details to Chapter 1, section 1. 4) may not be fully or adequately reflected in either the GHQ, the RSE and the HSCL scores.

Apart from the use of the HSCL with a sample of Pacific Islanders living in New Zealand (Pernice, 1987), there have been no studies with Maori and Pacific Islanders, involving self-rating mental health, depression and/or anxiety measures (M. Durie, personal communication, June 25, 1992). Therefore the use of measures which have been developed and normed in a

Western population presents some difficulties. The responses of the long-term unemployed Maori and Pacific Islanders have to be considered with some caution.

(ii) The Questionnaire

No comprehensive measurement instrument existed to measure each of the nine environmental features of Warr's Vitamin model. Therefore the selection of variables was based on the findings in the literature. An attempt was made, despite the difficult circumstances of data collection in 1989, to investigate the long-term unemployed people's environment in great detail.

As a result, it was inevitable that some variables overlapped and that some environmental features had to be measured indirectly by the same variables. For example "physical security" was measured by the environmental feature "availability of money". This seemed to be justified (although unsatisfactory) as the two features are closely related to each other. However, a "valued social position" was measured by "employment commitment" which cannot be considered a fully satisfactory operationalization of the concept. Furthermore, although the present study focused on the environment, personal characteristics were included. The measurement of these characteristics, with the exception of the demographic variables presented similar problems. Some variables measuring the Vitamin Model's environmental features such as for example "opportunity for skill use" overlapped with "intellectual and skill abilities". There were difficulties as well to delineate between an environmental feature, such as a "valued social position" and a "dispositional value orientation". Both items could be considered either an environmental feature or a personal category. The conceptual distinctions by Warr are in some instances artificial

and presented problems of operationalization. Furthermore, as stated in Chapter 2, section 2. 5. 5 "baseline mental health" could not be measured before a person became unemployed. Therefore it is acknowledged that the sickness and stress variables represent an unsatisfactory operationalization of "baseline mental health". To overcome these difficulties, the results were discussed, referring to specific variables such as for example "no activity", rather than adhere to Warr's label of it such as "externally generated goals" which in any case it only partly represents.

(iii) The Follow-up Study

The size of the Follow-up Study (N=99) was small and the results of the multivariate analysis and of Hypothesis 2, have to be considered with caution (for details refer to Chapter 5, section 5. 3). This applied as well to some t-tests, which compared small group membership means with other group means (refer for details to Chapter 5, section 5. 7 and 5. 8).

## CHAPTER 7

## CONCLUSION

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## 7.1 Conclusion

Warr's Vitamin Model of unemployment provided the theoretical framework for the present research. The nine environmental features and personal characteristics and their relationship to mental health have been investigated in this cross-sectional/longitudinal study with long-term unemployed people in New Zealand.

One of the major findings related to Warr's model suggested that out of the nine environmental features, five features were associated with mental health levels in the Main Study. These five features were represented by six variables with only two of them being related to mental health one year later in the Follow-up Study. From these two variables only one "no activity" was related to both GHQ and RSE scores. For this reason "no activity" or how the long-term unemployed person occupied time, was considered the most important and consistent variable in the relationship to mental health in both the Main Study and Follow-up Study. Personal characteristics of the long-term unemployed people had some importance also, with "stress" and "gender" being predictor variables for either GHQ or RSE scores in the Main Study and one year later. Thus the results of this research supported overseas findings and extends it to New Zealand conditions (Fagin & Little, 1984; Hepworth, 1980; Jahoda, Lazarsfeld & Zeisel, 1933; 1972; Jahoda, 1982).

Although Warr's Vitamin Model was supported by this study, its usefulness and practical application in the context of long-term unemployment have some limitations. Warr's model was selected and tested, as it offered a wider and more comprehensive perspective as an explanation of the negative effects of unemployment. It allowed for both the promotion and impairment of mental health in comparison to Jahoda's Latent Function

Model. These aspects of the Vitamin Model appeared attractive. However, as this study has shown, only six variables were significant predictors in the relationship to mental health, with only one of major importance in both the Main Study and the Follow-up Study. For this reason a simpler approach would have been adequate and the advantages of the model of suggesting a wider differentiated environment of nine features had limitations in the present context of long-term unemployment.

Another significant result of this study demonstrated that mental health of long-term unemployed people was generally very low and this significantly improved on re-employment. This was consistent with overseas findings (Warr, 1984b) which suggests that the situation in New Zealand was similar to overseas.

The literature suggested, however, that the negative experience of unemployment and in particular long-term unemployment is moderated by length of unemployment, age, gender, marital status and ethnic group. These hypotheses were tested in this research. It was found that both the cross-sectional and longitudinal study, supported the findings that after six months the negative mental health consequences of being unemployed remained fairly stable over time and stayed at a low level (Warr & Jackson, 1985). Furthermore, the data on the effects of age on reactions to unemployment confirmed a curvilinear relationship (Daniel, 1974; Hepworth, 1980; Jackson & Warr, 1984). Middle-aged groups have lower mental health than either the younger groups or the older people. In addition no gender differences were evident in this study. Women and men report comparably low mental health levels when registered with the New Zealand Employment Service. Thus Warr and Payne's (1982) findings were supported. Marital status of women made no difference as mental health levels were similar and low for both groups. Overseas findings were



controversial in this respect with the majority reporting higher mental health for unemployed married women (Coyle, 1984; Krause & Markides, 1985). It was expected that belonging to an ethnic minority in New Zealand may produce different psychological responses to long-term unemployment in the three different ethnic groups investigated. However, there was no evidence for this as similar mental health levels were observed. The only difference in GHQ levels existed between European New Zealanders and Maori New Zealanders, with Europeans having higher GHQ scores (lower mental health) than Maoris. These results supported similar cross-cultural empirical evidence from Britain (Cochrane, 1979; Warr, Banks, & Ullah, 1985).

Unemployment research has shown that employment commitment (Warr, Cook, & Wall, 1979) moderates consistently the association between unemployment and mental health. In the present study a novel approach to the measurement of this feature was undertaken. Instead of relying on measuring instruments, a personal interview format was adopted. In this way four groups were identified. Only one group or 28.6% of the people interviewed wanted employment, 35% felt unable to work, 27.2% stated having alternatives to employment and a small minority of 9.2% were interested in training. After one year the percentage of people wanting employment decreased, whereas the percentage of people having alternatives to employment increased. Low mental health levels were present in the people who wanted employment, in those who felt unable to work and in those who were interested in training and this is consistent with overseas research (Warr, 1984a). However, the group who had alternatives to employment had similar mental health levels to people who obtained employment.

Therefore the major contribution of this thesis to the literature of long-term unemployment is the identification of a large group of long-term unemployed people who stated having "alternatives to employment". It was found that this group was not actively looking for employment, had higher mental health than the other unemployed groups, and furthermore, its size increased over time. Regression analysis identified their particular involvement with interests and hobbies which supported anecdotal evidence of a highly active and busy group, involved with many work and leisure activities. Very little overseas research has found similar evidence of positive reactions to unemployment (Fryer, 1986; Fryer & Payne, 1984). The present study shows that there is a large number of people in New Zealand, who are active and self-directed and appear to make self-determined choices to suit personal and individual needs although long-term unemployed and materially deprived.

These findings have a number of theoretical and conceptual implications. Jahoda explained the negative effects of unemployment due to the lack of the supportive circumstances of employment. Her Latent Functions Model assumes that the main motivational forces in employment are extrinsic, that these extrinsic motivators are absent in unemployment and that, lacking extrinsic motivation, the unemployed person is unmotivated and inactive. Warr's Vitamin Model is basically a more differentiated extension of Jahoda's model. Low levels of the environmental features are generally detrimental to mental health, but high levels are either harmful or have no additional impact. Therefore the negative effects of unemployment are explained by the presence or absence of Warr's nine environmental features. When the present findings are considered in this context, Warr's model does not offer a satisfactory explanation of higher mental health in people who had alternatives to employment. The examination of variables representing Warr's environmental features which were related to mental

health in the four groups, suggested one variable "involvement with interests and hobbies" to be present in both groups "wanting employment" and in the Combined group "alternatives to employment and interested in training". As this variable was identified in both groups, it cannot explain why one group has high mental health whereas the other has low and why one group is still wanting employment and the other is not.

However, Fryer's (1986) conceptual framework of viewing human nature as basically active and self directing, offers one explanation for the findings. He suggested that a minority of people partly due to internal predisposition, but largely due to the social environment in which the person develops, were able to be self directed, were active and made self-determined choices to suit personal needs. This "proactive behaviour" (Fryer & Payne, 1984) was evident in a substantial group in the present study. It is therefore proposed that intrinsic factors in human nature, together with societal values and attitudes (Gold & Webster, 1989) determine largely how people respond to unemployment.

Warr suggested that the level of each feature in his Vitamin Model is determined primarily by the environment, that is extrinsic factors, including societal and economic conditions. However, the present research has shown that the major component in the relationship between unemployment and mental health consisted of an **intrinsic** factor which enabled long-term unemployed people to initiate activities, make choices and be self-directed. This **intrinsic** factor or "proactive behaviour" as suggested by Fryer and Payne (1984) which was observed in 11 people in Britain, seemed to be present in a large number of New Zealanders. This **intrinsic** factor is demonstrated by how time was occupied by the unemployed people and their interests and activities. These were in a wide range of areas. In addition specific New Zealand conditions, its climate and

its society appear to foster individual self-reliance and proactive behaviour. For this reason a model of unemployment and mental health is suggested in which these intrinsic factors are a central component in addition to Warr's environmental or extrinsic features. Whether this situation, where a large number of people have decided not to actively look for employment, is a unique trend in New Zealand and due to the weakening of the work ethic, or due to societal norms and values in the late 1980s and early 1990s, is for future research to determine.

## 7.2 Future research recommendations

Empirical studies have focused generally on the negative effects of unemployment and have explained these by assuming an homogeneously negative impact. In view of the present findings the examination of the less negative aspects of the effects of unemployment is recommended. The group who had alternatives to employment is of particular interest and a qualitative research approach is suggested. Questions such as leisure activities, friendship and support patterns, values and attitudes, personal meaning of unemployment and the meaning of work in contrast to employment could be explored.

In addition, the qualitative study of the group who is wanting employment would be valuable. This may offer explanations why this group despite being apparently active has such low mental health levels and why it persists in looking for employment over long periods of time.

Furthermore, the group who is not able to work, needs the most urgent research attention. This group seems to represent the typical casualties of

unemployment. The various psychological disorders would need to be identified in order to target this group more effectively with professional counselling and individual care.

It is recommended also, that research should target ethnic minorities in New Zealand, particularly Maori New Zealanders. Comparative studies of Maori and their responses to unemployment and Pacific Islanders, Asian refugees and other ethnic groups may contribute to an understanding of the effects of unemployment in New Zealand.

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## APPENDIX A

## APPENDIX A1 - PILOT STUDY 1

### METHOD

#### A 1.1 Introduction

The literature on long-term unemployment indicated that difficulties may arise in assessing mental health effects of unemployment by questionnaire and measuring instruments because of low educational and literacy levels. For this reason not only the questionnaire (for details refer to Chapter 4, section 4. 4. 3) but also the instruments were pilot tested on a small representative sample of the long-term unemployed.

Two well-validated quantitative instruments were selected from those shown to be effective in studies investigating affective states and self-esteem (Ballinger, Smith & Hobbs, 1985; Banks, 1983; Banks & Jackson, 1982; Burns, 1979; Chamberlain & Zika, 1989; Chamberlain & Zika, 1990; Cobb, Brooks, Kasl, & Connelly, 1966; Doherty & Davies, 1984; Hesbacher, Rickels, Morris, Newman, & Rosenfeld, 1980; Kilpatrick & Trew, 1985; Layton, 1986; Long & Voges, 1987; Ostell & Divers, 1987; Parloff, Kelman & Frank, 1954). The specific instruments chosen were the Mental Health Inventory (Veit & Ware, 1983) and the self concept Semantic Differential Scale (Osgood, Suci & Tannenbaum, 1957).

#### A 1.2 Sample

The pilot sample of twenty people was randomly selected by the researcher in consultation with the Advisory Officer for People with a Disadvantage from the Lower Hutt area office, using a table of random numbers from a

population of people who had been unemployed for six months or longer. This was a good cross-sectional sample of all long-term unemployed people in the region.

### A 1. 3 Research instruments and format

A 1. 3. 1 The questionnaire was designed to assess Warr's Vitamin model (Warr, 1987) (for details refer to Chapter 4, section 4. 4. 3)

A 1. 3. 2 The Mental Health Inventory (Veit & Ware, 1983), a 38 item measure of psychological distress and well-being, was developed for use in general populations by Veit and Ware, 1983. This measure was based on the General Well-being Schedule (GWB) developed by Dupuy (1972). The GWB represents several psychological distress constructs but as well includes items measuring well-being. Its content emphasizes symptoms of psychological distress that are most prevalent in general populations (eg. anxiety and depression). As 15 items of the GWB showed good discriminant validity of the four underlying factors such as anxiety, depression, general health, general positive affect, loss of behavioural/emotional control, another 20 additional items based on instruments developed by others (Beck, 1967; Comrey, 1970; Costello & Comrey, 1967; Dohrenwend, Shrout, Egri, & Mendelsohn, 1980) were included. Three items were added to the inventory by Ware, Johnston, Davies-Avery and Brook (1979) to represent a fifth factor such as emotional ties. This measure can be scored to provide an overall mental health score, or two broad subscores on dimensions labelled by Viet and Ware as psychological well-being (PWB) and psychological distress (PD). Viet and Ware (1983) report internal consistency measures of .92 for PWB and .94 for PD, with one year stability coefficients of .63 and .62 respectively. The Viet and Ware (1983) Mental Health Inventory has been

used in New Zealand both with the elderly and mothers (Chamberlain & Zika, 1990).

A 1. 3. 3 The Self Concept Semantic Differential Scale (Osgood, Suci & Tannenbaum, 1957) was originally developed to measure the meaning systems of individuals, essentially connotative meaning. The method consists of a fixed set of polar adjectives, e.g. good-bad, happy-sad, reliable-unreliable, listed down every page. Each page is headed with a stimulus word or phrase. The pairs of adjectives are listed as endpoints of a continuum divided into an uneven number, usually 5 or 7 of response gradations. Subjects are requested to consider the stimulus in terms of each of the scales, and place a check-mark in one of the divisions on the continuum to indicate the relative applicability of the polar terms. Factor analysis has revealed three distinct orthogonal factors: evaluation, potency and activity, of which the evaluative is the dominant one (Warr & Knapper, 1968). Osgood believed that the attitudinal variable in human thinking is primary and therefore the semantic differential could be employed as an attitude-measuring device, provided scales loaded only on the evaluative dimension were used. Since the self concept is a set of attitudes to the self, this instrument appears a most appropriate device to measure the self concept, the ideal self, the other self. The reliability and validity of the Semantic Differential is well documented (Warr & Knapper, 1968). The Semantic Differential has been used with secondary and grammar school children (Hardstaffe, 1973), students (Burns, 1975) and children (Oles, 1973).

#### **A 1. 4 Procedure**

The Advisory Officer of People with a Disadvantage from the Lower Hutt area office had identified the long-term unemployed people and assisted

them if necessary with government subsidies into employment. The project was conducted independantly of the local employment office and was located in a different building. The researcher gained permission from the Advisory Officer of People with a Disadvantage to approach clients when reporting and to ask them to participate in the research. Pilot Study 1 took place over a one week period at the beginning of July 1989.

Pilot Study 1 was conducted in two phases:

- a. reception
- b. the interview

a. Reception

The researcher introduced herself to each client, who reported at the reception and explained the research and asked for volunteers to participate. Confidentiality was stressed. Those agreeing to be interviewed were asked by the researcher into a separate office and were given the questionnaire together with the covering letter and the two measures. Help with answering the questions of the instruments was offered.

b. The interview

The researcher reviewed the responses made to the instruments with the unemployed person. The majority of the clients had not completed the questionnaire and not even attempted the Mental Health Inventory and the Semantic Differential Scale. These difficulties were discussed and the interview was discontinued.

### A 1.5 Results

Of the twenty people who took part in Pilot Study 1, none completed any of the measures. By the time the questionnaire had been filled there was impatience and irritation about the length of the Mental Health Inventory (Veit & Ware, 1983) (38 items) and the "strangeness" of the Semantic Differential Scale (Osgood, Suci & Tannenbaum, 1957). Some questions of the questionnaire were not answered due to reading and often comprehension difficulties. The Mental Health Inventory was given up by nine people half way through and 11 people did not even attempt it. Nobody went further than the first concept with the Semantic Differential Scale. It was felt that the Mental Health Inventory and the Semantic Differential Scale would have been best to be answered first, followed by the questionnaire.



## APPENDIX A2 - PILOT STUDY 2

### METHOD

#### A 2.1 Introduction

The results of the first pilot study indicated that a second pilot study was necessary. The following changes were made:

1. Some of the questions of the questionnaire were rephrased and shortened.
2. In order to minimize fatigue effects the order of administration was changed. The mental health measures preceded the questionnaire.
3. The briefer General Health Questionnaire 12 (Goldberg, 1972) and the Rosenberg Self-Esteem Scale (Rosenberg, 1965) and modified by Bachman, Omalley and Johnston (1978) replaced the Mental Health Inventory and the Semantic Differential Scale.
4. The researcher administered the instruments either face-to-face or reviewed most of the responses made with the unemployed person.

#### A 2.2 Sample

The researcher in consultation with the Advisory Officer for People with a Disadvantage from the Lower Hutt area office randomly selected twenty

subjects using a table of random numbers from a population of people who had been unemployed for six months or longer.

### **A 2.3 Research instruments and format**

A 2.3.1 General Health Questionnaire 12 (Goldberg, 1972) (for details refer to chapter 4, section 4.4.1).

A 2.3.2 The Rosenberg Self-Esteem Scale (Rosenberg, 1965) (for details refer to Chapter 4, section 4.4.2).

A 2.3.3 The questionnaire (for details refer to Chapter 4, section 4.4.3).

### **A 2.4 Procedure**

The Advisory Officer of People with a Disadvantage from the Lower Hutt area office had identified the long-term unemployed people. She initiated a special project to assess the needs of the long-term unemployed people and to assist them if necessary with government subsidies into employment. The researcher gained permission from the Advisory Officer to approach clients when reporting and to ask them to participate in the research. Pilot Study 2 took place during the second week of July 1989.

The pilot study was conducted in three phases:

- a. reception
- b. administration of instruments
- c. the interview

#### a. Reception

When the unemployed person reported at the reception, the Advisory Officer for People with a Disadvantage explained the research and asked the client to participate. If the client agreed the questionnaire was given to the client. Confidentiality was stressed and the importance of reading the covering letter (to some people the covering letter was read). Once informed consent was given the client waited to be seen by the researcher and started to answer the questionnaire, if wanted.

#### b. Administration of instruments

The administration of instruments and the interview with the client took place in a separate office. The researcher introduced herself using the same format with each client (see Appendix A 5). The questionnaire and the scales were administered in two ways:

(i) For those who had literacy problems all the instruments were administered face-to-face.

(ii) The clients who had no difficulties understanding the questions of the scales and the questionnaire, completed them independently. After completion of the instruments, all answers were reviewed face-to-face with the researcher which served to check the client's understanding of the questions.

#### c. The interview

Most of the questions of the questionnaire (for details refer to Chapter 4, section 4. 4. 4) were discussed in more detail. After these questions the issues associated with long-term unemployment were talked about. The average interview lasted for one hour to one and a half hours.

## A 2.5 Results

All long-term unemployed people completed the General Health Questionnaire 12 (Goldberg, 1972), the Rosenberg Self-Esteem Scale (Rosenberg, 1965) modified by Bachman, Omalley and Johnston (1978) and the questionnaire. It was felt that the procedure would not benefit from further modification and the measuring instruments were appropriate measures for this population. This format together with these instruments was followed in the Main Study.

## APPENDIX A3 - QUESTIONNAIRE - MAIN STUDY

Name:.....

Address:.....

.....

.....

Tel.....

Dear Participant,

I am a researcher and I compiled the questionnaire to explore the effects of long-term unemployment. I need your consent and assistance to gather some information which will give me a better understanding of some of the difficulties and worries you have and are experiencing.

Because you are the only one who can give an accurate picture of this experience I would like you to answer frankly and honestly.

I might have to contact you again in about three to six months to see whether any changes have occurred.

Your answers will be totally private and confidential and only I will have access to the information.

Thank you very much for your time and I greatly appreciate your help and co-operation.

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I would like to know if you have had any medical complaints, and how your health has been in general, over the past few weeks. Please answer all questions below simply by ticking the answer.

**Have you recently been able to concentrate on whatever you're doing?**

Better than usual	Same as usual	Less than usual	Much less than usual	<input type="checkbox"/> 4
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**Have you recently lost much sleep over worry?**

Not at all	No more than usual	Rather more than usual	Much more than usual	<input type="checkbox"/> 5
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**Have you recently felt that you are playing a useful part in things?**

More so than usual	Same as usual	Less useful than usual	Much less useful	<input type="checkbox"/> 6
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**Have you recently felt capable at making decisions about things?**

More so than usual	Same as usual	Less so than usual	Much less capable	<input type="checkbox"/> 7
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**Have you recently felt constantly under strain?**

Not at all	No more than usual	Rather more than usual	Much more than usual	<input type="checkbox"/> 8
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**Have you recently felt that you couldn't overcome your difficulties?**

Not at all	No more than usual	Rather more than usual	Much more than usual	<input type="text"/> 9
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**Have you recently been able to enjoy your normal day-to-day activities?**

More so than usual	Same as usual	Less so than usual	Much less than usual	<input type="text"/> 10
--------------------	---------------	--------------------	----------------------	-------------------------

**Have you recently been able to face up to your problems?**

More so than usual	Same as usual	Less able than usual	Much less able	<input type="text"/> 11
--------------------	---------------	----------------------	----------------	-------------------------

**Have you recently been feeling unhappy or depressed?**

Not at all	No more than usual	Rather more than usual	Much more than usual	<input type="text"/> 12
------------	--------------------	------------------------	----------------------	-------------------------

**Have you recently been losing confidence in yourself?**

Not at all	No more than usual	Rather more than usual	Much more than usual	<input type="text"/> 13
------------	--------------------	------------------------	----------------------	-------------------------

**Have you recently been thinking of yourself as a worthless person?**

Not at all	No more than usual	Rather more than usual	Much more than usual	<input type="text"/> 14
------------	--------------------	------------------------	----------------------	-------------------------

**Have you recently been feeling reasonably happy, all things considered?**

More so than usual	About same as usual	Less so than usual	Much less happy	<input type="text"/> 15
--------------------	---------------------	--------------------	-----------------	-------------------------

Please show how often the following statements are true for you. and please tick your answer.

**I feel that I'm a person of worth, at least on an equal plane with others**

Almost always true	Often true	Sometimes true	Seldom true	Never true	<input type="checkbox"/> <sub>16</sub>
-----------------------	---------------	-------------------	----------------	---------------	--

**I feel that I have a number of good qualities**

Almost always true	Often true	Sometimes true	Seldom true	Never true	<input type="checkbox"/> <sub>17</sub>
-----------------------	---------------	-------------------	----------------	---------------	--

**I am able to do things as well as most other people**

Almost always true	Often true	Sometimes true	Seldom true	Never true	<input type="checkbox"/> <sub>18</sub>
-----------------------	---------------	-------------------	----------------	---------------	--

**There is not much about me to be proud of**

Almost always true	Often true	Sometimes true	Seldom true	Never true	<input type="checkbox"/> <sub>19</sub>
-----------------------	---------------	-------------------	----------------	---------------	--

**I take a positive attitude toward myself**

Almost always true	Often true	Sometimes true	Seldom true	Never true	<input type="checkbox"/> <sub>20</sub>
-----------------------	---------------	-------------------	----------------	---------------	--

**Sometimes I think I am no good at all**

Almost always true	Often true	Sometimes true	Seldom true	Never true	<input type="checkbox"/> <sub>21</sub>
-----------------------	---------------	-------------------	----------------	---------------	--

**I am a useful sort to have around**

Almost always true	Often true	Sometimes true	Seldom true	Never true	<input type="checkbox"/> <sub>22</sub>
-----------------------	---------------	-------------------	----------------	---------------	--



**I feel that I can't do anything right**

Almost always true	Often true	Sometimes true	Seldom true	Never true	<input type="text"/> <sub>23</sub>
-----------------------	---------------	-------------------	----------------	---------------	------------------------------------

**When I do a job, I do it well**

Almost always true	Often true	Sometimes true	Seldom true	Never true	<input type="text"/> <sub>24</sub>
-----------------------	---------------	-------------------	----------------	---------------	------------------------------------

**I feel that my life is not very useful**

Almost always true	Often true	Sometimes true	Seldom true	Never true	<input type="text"/> <sub>25</sub>
-----------------------	---------------	-------------------	----------------	---------------	------------------------------------

--	--	--

Sex (please tick)

Female

Male

Date of birth.....


How would you describe yourself? (please tick)

European NZ

Maori NZ

Pacific Islander

other.....

Are you at present (please tick)

single

married

divorced

separated

in a de facto relationship

other

Do you (please tick)

live alone

live with partner/wifehusband

live with parents,close family

live with friends

live with flat mates

live in a hostel/boarding house

Do you get unemployment benefit?*(please tick)*

yes <sub>1</sub> no <sub>2</sub>

<sub>14</sub>

Do you get any other form of assistance?

*(please state)*.....

<sub>15</sub>

How long have you been unemployed?

years  months

<sub>17</sub>

<sub>19</sub>

When did you leave school? *(please tick)*

Form 1 <sub>1</sub>

<sub>20</sub>

Form 2 <sub>2</sub>

Form 3 <sub>3</sub>

Form 4 <sub>4</sub>

Form 5 <sub>5</sub>

Form 6 <sub>6</sub>

Form 7 <sub>7</sub>

Have you got School Cert?

yes <sub>1</sub> no <sub>2</sub>

<sub>21</sub>

In how many subjects? .....

<sub>22</sub>

After leaving school did you have any training? *(please tick)*

no

<sub>23</sub>

skills training

<sub>24</sub>

apprenticeship

<sub>25</sub>

Polytechnic

<sub>26</sub>

Teachers Training College

<sub>27</sub>

University

<sub>28</sub>

Do you want any training now?(please tick)

- |                           |                          |                          |
|---------------------------|--------------------------|--------------------------|
| no                        | <input type="checkbox"/> | <input type="checkbox"/> |
| skills training           | <input type="checkbox"/> |                          |
| apprenticeship            | <input type="checkbox"/> |                          |
| Polytechnic               | <input type="checkbox"/> |                          |
| Teachers Training College | <input type="checkbox"/> |                          |
| University                | <input type="checkbox"/> |                          |

Does an employer think you have problems in getting a job because of (please tick)

- |  |                          |                          |
|--|--------------------------|--------------------------|
| a physical disability                          | <input type="checkbox"/> | <input type="checkbox"/> |
| a mental problem                               | <input type="checkbox"/> | <input type="checkbox"/> |
| a conviction                                   | <input type="checkbox"/> | <input type="checkbox"/> |
| an alcohol or drug problem                     | <input type="checkbox"/> | <input type="checkbox"/> |
| time spent in mental hospital                  | <input type="checkbox"/> | <input type="checkbox"/> |
| personal appearance<br>eg. obesity,tatoos etc. | <input type="checkbox"/> | <input type="checkbox"/> |
| lack of education/training                     | <input type="checkbox"/> | <input type="checkbox"/> |
| age  | <input type="checkbox"/> | <input type="checkbox"/> |
| length of unemployment                         | <input type="checkbox"/> | <input type="checkbox"/> |
| gang membership                                | <input type="checkbox"/> | <input type="checkbox"/> |
| other (please state) .....                     | <input type="checkbox"/> | <input type="checkbox"/> |
| does not apply to me                           | <input type="checkbox"/> | <input type="checkbox"/> |

Do you feel you have problems in getting a job because of (please tick)

- |                               |                          |                          |
|-------------------------------|--------------------------|--------------------------|
| a physical disability         | <input type="checkbox"/> | <input type="checkbox"/> |
| a mental problem              | <input type="checkbox"/> | <input type="checkbox"/> |
| a conviction                  | <input type="checkbox"/> | <input type="checkbox"/> |
| an alcohol or drug problem    | <input type="checkbox"/> | <input type="checkbox"/> |
| time spent in mental hospital | <input type="checkbox"/> | <input type="checkbox"/> |

- personal appearance eg.  47
- obesity,tatoos etc.  48
- lack of education/training  49
- age  50
- length of unemployment  51
- gang membership  52
- present economic situation  53
- other (*please state*) .....  54
- does not apply to me

**What was your last job? (*please state*)**

.....

  56

**How much did you like your last job?(*please tick*)**

- I liked it a lot  1  57
- I liked it sometimes  2
- It was o.k  3
- I did not like it much  4
- I did not like it at all  5
- does not apply to me  6

**Why did you leave your last job? (*please tick*)**

- it was a seasonal job  58
- it was a temporary job  59
- it was a part-time job  60
- got the sack  61
- made redundant  62
- personal reasons  63
- difficulties with the employer  64
- difficulties with work mates  65
- other (*please state*).....  66
- does not apply to me  67

Since being unemployed have you been sick more often?(*please tick*)

no, not at all

 1

 68

yes, a little

 2

yes, quite a bit

 3

yes, a lot more often

 4

no change

 5

Since being unemployed have you got into debt?(*please tick*)

yes

 1

no

 2

 69

Since being unemployed have you had difficulties in making ends meet such as (*please tick*)

paying bills?

 70

paying rent?

 71

paying for food?

 72

paying for mortgage?

 73

paying for children's school activities?

 74

paying club (eg. sports clubs) and society fees?

 75

paying for car maintenance?

 76

paying for doctors and medication?

 77

other (*please state*).....

 78

does not apply to me

 79

Since being unemployed have you experienced strain, stress or difficulties within your family or your relationships eg. because of money worries or feelings of failure? (*please tick*)

very often

 1

 80

fairly often

 2

sometimes

 3

never

 4

**What were the worst aspects of being unemployed for you?(please tick)**

- |   |                          |                          |    |
|---|--------------------------|--------------------------|----|
| lack of money                             | <input type="checkbox"/> | <input type="checkbox"/> | 4  |
| ill health                                | <input type="checkbox"/> | <input type="checkbox"/> | 5  |
| depression/being anxious                  | <input type="checkbox"/> | <input type="checkbox"/> | 6  |
| worries about the future                  | <input type="checkbox"/> | <input type="checkbox"/> | 7  |
| loss of friends                           | <input type="checkbox"/> | <input type="checkbox"/> | 8  |
| break down of marriage<br>or relationship | <input type="checkbox"/> | <input type="checkbox"/> | 9  |
| other (please state).....                 | <input type="checkbox"/> | <input type="checkbox"/> | 10 |
| does not apply to me                      | <input type="checkbox"/> | <input type="checkbox"/> | 11 |

**What were the best aspects of being unemployed for you?(please tick)**

- |                                |                          |                          |    |
|--------------------------------|--------------------------|--------------------------|----|
| more leisure (eg. for hobbies) | <input type="checkbox"/> | <input type="checkbox"/> | 12 |
| time with family/friends       | <input type="checkbox"/> | <input type="checkbox"/> | 13 |
| time for further training      | <input type="checkbox"/> | <input type="checkbox"/> | 14 |
| other (please state).....      | <input type="checkbox"/> | <input type="checkbox"/> | 15 |
| does not apply to me           | <input type="checkbox"/> | <input type="checkbox"/> | 16 |

**Has unemployment at any time pressured you into (please tick )**

- |                           |                          |                          |    |
|---------------------------|--------------------------|--------------------------|----|
| dishonesty (eg. theft)    | <input type="checkbox"/> | <input type="checkbox"/> | 17 |
| violence                  | <input type="checkbox"/> | <input type="checkbox"/> | 18 |
| drink (alcohol)           | <input type="checkbox"/> | <input type="checkbox"/> | 19 |
| gambling                  | <input type="checkbox"/> | <input type="checkbox"/> | 20 |
| drugs                     | <input type="checkbox"/> | <input type="checkbox"/> | 21 |
| other (please state)..... | <input type="checkbox"/> | <input type="checkbox"/> | 22 |
| does not apply to me      | <input type="checkbox"/> | <input type="checkbox"/> | 23 |

**During unemployment were you able to do jobs at home eg. looking after kids, repairs and/or painting the house, gardening?(please tick)**

yes, a little

 1

 24

yes, quite a bit

 2

yes, a lot

 3

no, not at all

 4

does not apply to me

 5

**Were you able to help neighbours and friends in their homes eg. looking after kids, repairs and/or painting the house, gardening?(please tick)**

yes, a little

 1

 25

yes, quite a bit

 2

yes, a lot

 3

no, not at all

 4

does not apply to me

 5

**Were you able to help as a volunteer with the administration and management of clubs, schools, societies etc. (please tick)**

yes, a little

 1

 26

yes, quite a bit

 2

yes, a lot

 3

no, not at all

 4

does not apply to me

 5

**During unemployment have you continued to be involved with your own interests and hobbies? (please tick)**

yes, a little

 1

 27

yes, quite a bit

 2

yes, a lot

 3

no, not at all

 4

does not apply to me

 5



What are your interests and hobbies? *(please state)*

.....

		29
		31
		33

During unemployment have you attended training courses? *(please tick)*

correspondence courses	<input type="checkbox"/>	<input type="checkbox"/>	34
access training courses	<input type="checkbox"/>	<input type="checkbox"/>	35
Polytechnic courses	<input type="checkbox"/>	<input type="checkbox"/>	36
University	<input type="checkbox"/>	<input type="checkbox"/>	37
salvation army, red cross	<input type="checkbox"/>	<input type="checkbox"/>	38
other <i>(please state)</i> .....	<input type="checkbox"/>	<input type="checkbox"/>	39
does not apply to me	<input type="checkbox"/>	<input type="checkbox"/>	40

During unemployment how much time have you spent during the day

	no time	a little	quite a bit	a lot	
doing nothing?					41
watching TV/videos?					42
listening to music?					43
sleeping in the day?					44

Since being unemployed how much time have you spent *(please tick)*

	no time	a little	quite a bit	a lot	
with partner/wife/husband					45
with parents/close family					46
with friends					47
with neighbours					48
with former work mates					49
with casual friends					50

	no time	a little	quite a bit	a lot	
with club/society members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 51
with extended family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 52
with church people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 53
with counsellors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 54
with others ( <i>please state</i> )	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 55

How many people (including family and friends) can you talk to about personal problems?(*please tick*)

- nobody  1  56
- 1 friend  2
- 2 - 3 friends  3
- 4 - 6 friends  4
- 7 - 9 friends  5
- more than 9 friends  6

Do you want a job now?(*please tick*)

- no  1  57
- yes  2
- yes, but only the job I like  3
- yes, but only the job I was trained for  4
- does not apply to me  5

What job do you want? (*please state*)

- .....    59
- does not apply to me   60
- 62

## APPENDIX A4 - INTERVIEW

**Interview results:** Examples of responses offered by long-term unemployed people to explain group selection.

**Group 1: "wanting employment"**

I want a full-time job.

I want to be self-employed.

I really want a job, but I don't quite know what I am capable of doing, I have a disability.

I might have a job offer.

I don't need any help, I am looking for a job myself.

I am looking for a job, nobody can help me with that.

**Group 2: " not able to work"**

I lack confidence, I could not work anymore full-time.

I lack confidence, I cannot get up in the mornings anymore.

I am too old and lack confidence to start a job.

I have a drug problem, I am not able to work.

I have an alcohol problem, I can't hold down a job.

I am not well, I am not able to work.

I have a health problem, I am not able to work at this point in time.

I am looking after my sick mother, and I cannot go to work.

My mother left and I am looking after Dad and the kids.

I am having treatment and I am not well enough to work.

I have been unemployed for ages, can't get back into the habit of working.

Can't imagine to work in a job from 9 to 5, I would not be capable of it, even if I wanted to.

**Group 3: "alternatives to employment"**

I don't want to work at the moment, I am fine as it is.

I have some things to do and I don't want a job at this point in time.

I am happy with what I have got, my wife has a part-time job and I have some jobs sometimes, nothing illegal.

I don't pay rent and go fishing once a week, I am fine, don't want a job at the moment.

I am always busy, it does not worry me that I am unemployed.

I have plenty of things to do, and don't want a job just yet.

I have worked hard all my life, overtime all the time, I missed out on seeing the kids grow up. Now I have had enough, I want some time at home.

**Group 4: "interested in training"**

I am attending University.

I am interested to get training.

I am waiting for a place to get training.

I want some help to decide what training I can get.

## APPENDIX A5

**Introduction of the Researcher**

- 1) I am a post-graduate student from Massey University and I am interested in the effects of long-term unemployment. I am not a NZ Employment Service employee.
  
- 2) I use the data to report group information only. I am asking for your name and address as I hope to contact some of you again in a few months time for Follow-up Study purposes only.
  
- 3) This interview is totally confidential.
  
- 4) You can pull out of the interview any time you want to. If you have answered the questionnaire and you feel uneasy about it, I will destroy the questionnaire in front of you.
  
- 5) Have you understood this and are you comfortable with this?

## APPENDIX A 6

Regina Pernice  
 Psych. Department  
 Massey University  
 Palmerston North

Dear

My name is Regina and I am studying some of the effects of unemployment. You will remember that you filled my questionnaire and talked to me a year ago in the ISA building in 301 Church Street.

For the research to be completed it is important that I talk to some of the people I saw twelve months ago and ask them a few more questions about how they feel now. There is no special reason why I selected you. I have randomly chosen your name from all the people I saw last time (it is like pulling your name out of a hat).

I would really appreciate if you would be kind enough to help me complete this research and come and see me again. I am using an office in 122 Taonui Street, the local ARLA (Adult Reading and Learning Assistance) centre and I would be able to see you there

on .....

at.....

Of course, some of you might have found a job since I last talked to you. In this case I could arrange to see you at lunch time or after work, or if you have moved out of town, I could come and see you there.

In any case, if the appointment is not convenient to you, I would be glad, if you could give me a ring at the centre or leave a message there: Tel. 551169. If I have your telephone no., I will ring you to ask, if you would prefer me to come and see you at home.

Sincerely,

## APPENDIX A7 QUESTIONNAIRE-FOLLOW-UP STUDY

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**Study of the effects of unemployment.**

Dear Participant,

a year ago you were kind enough to fill in a questionnaire about the physical and emotional effects of unemployment.

Today I would be grateful if you would answer a similar follow-up questionnaire. Most information concerning your personal details is not required this time, but I have included some more questions on your well-being and how you feel now.

Remember that all the information you give me is totally private and confidential and I alone will see your answers. The information gathered will be used only for the purposes of this study. When I analyse the results I will pool all the data together, such that no responses will be able to be identified as those of any particular individual.

If you are interested in the results of this research place a tick into the box  and I will be happy to post you a summary when I have finished.

Thank you very much for your time and I greatly appreciate your help.

**I have read this letter (informed consent form) and agree to participate in this study on effects of unemployment.**

**Signature.....**

--	--	--

I would like to know if you have had any medical complaints, and how your health has been in general, over the past few weeks. Please answer all questions below simply by ticking the answer.

**Have you recently been able to concentrate on whatever you're doing?**

Better than usual	Same as usual	Less than usual	Much less than usual	<input type="checkbox"/> 4
-------------------	---------------	-----------------	----------------------	----------------------------

**Have you recently lost much sleep over worry?**

Not at all	No more than usual	Rather more than usual	Much more than usual	<input type="checkbox"/> 5
------------	--------------------	------------------------	----------------------	----------------------------

**Have you recently felt that you are playing a useful part in things?**

More so than usual	Same as usual	Less useful than usual	Much less useful	<input type="checkbox"/> 6
--------------------	---------------	------------------------	------------------	----------------------------

**Have you recently felt capable at making decisions about things?**

More so than usual	Same as usual	Less so than usual	Much less capable	<input type="checkbox"/> 7
--------------------	---------------	--------------------	-------------------	----------------------------

**Have you recently felt constantly under strain?**

Not at all	No more than usual	Rather more than usual	Much more than usual	<input type="checkbox"/> 8
------------	--------------------	------------------------	----------------------	----------------------------

**Have you recently felt that you couldn't overcome your difficulties?**

Not at all	No more than usual	Rather more than usual	Much more than usual	<input type="checkbox"/> 9
------------	--------------------	------------------------	----------------------	----------------------------



**Have you recently been able to enjoy your normal day-to-day activities?**

More so than usual	Same as usual	Less so than usual	Much less than usual	<input type="text"/> <sub>10</sub>
-----------------------	------------------	-----------------------	-------------------------	------------------------------------

**Have you recently been able to face up to your problems?**

More so than usual	Same as usual	Less able than usual	Much less able	<input type="text"/> <sub>11</sub>
-----------------------	------------------	-------------------------	-------------------	------------------------------------

**Have you recently been feeling unhappy or depressed?**

Not at all	No more than usual	Rather more than usual	Much more than usual	<input type="text"/> <sub>12</sub>
---------------	-----------------------	---------------------------	-------------------------	------------------------------------

**Have you recently been losing confidence in yourself?**

Not at all	No more than usual	Rather more than usual	Much more than usual	<input type="text"/> <sub>13</sub>
---------------	-----------------------	---------------------------	-------------------------	------------------------------------

**Have you recently been thinking of yourself as a worthless person?**

Not at all	No more than usual	Rather more than usual	Much more than usual	<input type="text"/> <sub>14</sub>
---------------	-----------------------	---------------------------	-------------------------	------------------------------------

**Have you recently been feeling reasonably happy, all things considered?**

More so than usual	About same as usual	Less so than usual	Much less happy	<input type="text"/> <sub>15</sub>
-----------------------	------------------------	-----------------------	--------------------	------------------------------------

Please show how often the following statements are true for you. and please tick your answer.

**I feel that I'm a person of worth, at least on an equal plane with others**

Almost always true	Often true	Sometimes true	Seldom true	Never true	<input type="checkbox"/> <sub>16</sub>
-----------------------	---------------	-------------------	----------------	---------------	--

**I feel that I have a number of good qualities**

Almost always true	Often true	Sometimes true	Seldom true	Never true	<input type="checkbox"/> <sub>17</sub>
-----------------------	---------------	-------------------	----------------	---------------	--

**I am able to do things as well as most other people**

Almost always true	Often true	Sometimes true	Seldom true	Never true	<input type="checkbox"/> <sub>18</sub>
-----------------------	---------------	-------------------	----------------	---------------	--

**There is not much about me to be proud of**

Almost always true	Often true	Sometimes true	Seldom true	Never true	<input type="checkbox"/> <sub>19</sub>
-----------------------	---------------	-------------------	----------------	---------------	--

**I take a positive attitude toward myself**

Almost always true	Often true	Sometimes true	Seldom true	Never true	<input type="checkbox"/> <sub>20</sub>
-----------------------	---------------	-------------------	----------------	---------------	--

**Sometimes I think I am no good at all**

Almost always true	Often true	Sometimes true	Seldom true	Never true	<input type="checkbox"/> <sub>21</sub>
-----------------------	---------------	-------------------	----------------	---------------	--

**I am a useful sort to have around**

Almost always true	Often true	Sometimes true	Seldom true	Never true	<input type="checkbox"/> <sub>22</sub>
-----------------------	---------------	-------------------	----------------	---------------	--

**I feel that I can't do anything right**

Almost always true	Often true	Sometimes true	Seldom true	Never true	<input type="text"/> <sub>23</sub>
-----------------------	---------------	-------------------	----------------	---------------	------------------------------------

**When I do a job, I do it well**

Almost always true	Often true	Sometimes true	Seldom true	Never true	<input type="text"/> <sub>24</sub>
-----------------------	---------------	-------------------	----------------	---------------	------------------------------------

**I feel that my life is not very useful**

Almost always true	Often true	Sometimes true	Seldom true	Never true	<input type="text"/> <sub>25</sub>
-----------------------	---------------	-------------------	----------------	---------------	------------------------------------

**Did you get a job in the last twelve months?**

**If not, please turn to top of next page.**

**If yes, what is (or was) your job? (please state)**

.....

		56
--	--	----

**How much do (or did) you like your job?(please tick)**

I like(d) it a lot

I like(d) it sometimes

It is (was) o.k

I do (did) not like it much

I do (did) not like it at all

does not apply to me

**If you are still in a job please turn to top of next page.**

**If not, why did you leave your job? (please tick)**

it was a seasonal job

it was a temporary job

it was a part-time job

got the sack

made redundant

personal reasons

difficulties with the employer

difficulties with work mates

other (please state).....

**Since I talked to you last, how many months have you been unemployed?**

months

		19
--	--	----

Since I talked to you last, have you been sick more often?(please tick)

no, not at all

 1 68

yes, a little

 2

yes, quite a bit

 3

yes, a lot more often

 4

no change

 5

Since I talked to you last, have you got into debt?(please tick)

yes

 1

no

 2 69

Since I talked to you last, have you had difficulties in making ends meet such as (please tick)

paying bills?

 70

paying rent?

 71

paying for food?

 72

paying for mortgage?

 73

paying for children's school activities?

 74

paying club (eg. sports clubs) and society fees?

 75

paying for car maintenance?

 76

paying for doctors and medication?

 77

other (please state).....

 78

does not apply to me

 79

Since I talked to you last, have you experienced strain, stress or difficulties within your family or your relationships eg. because of money worries or feelings of failure? *(please tick)*

very often

 1

 80

fairly often

 2

sometimes

 3

never

 4

Since I talked to you last, were you able to do jobs at home eg. looking after kids, repairs and/or painting the house, gardening? *(please tick)*

yes, a little

 1

 24

yes, quite a bit

 2

yes, a lot

 3

no, not at all

 4

does not apply to me

 5

Since I talked to you last, were you able to help neighbours and friends in their homes eg. looking after kids, repairs and/or painting the house, gardening? *(please tick)*

yes, a little

 1

 25

yes, quite a bit

 2

yes, a lot

 3

no, not at all

 4

does not apply to me

 5

Since I talked to you last, were you able to help as a volunteer with the administration and management of clubs, schools, societies etc. *(please tick)*

- |                      |                          |                          |
|----------------------|--------------------------|--------------------------|
| yes, a little        | <input type="checkbox"/> | <input type="checkbox"/> |
| yes, quite a bit     | <input type="checkbox"/> |                          |
| yes, a lot           | <input type="checkbox"/> |                          |
| no, not at all       | <input type="checkbox"/> |                          |
| does not apply to me | <input type="checkbox"/> |                          |

Since I talked to you last, have you continued to be involved with your own interests eg. hobbies? *(please tick)*

- |                      |                          |                          |
|----------------------|--------------------------|--------------------------|
| yes, a little        | <input type="checkbox"/> | <input type="checkbox"/> |
| yes, quite a bit     | <input type="checkbox"/> |                          |
| yes, a lot           | <input type="checkbox"/> |                          |
| no, not at all       | <input type="checkbox"/> |                          |
| does not apply to me | <input type="checkbox"/> |                          |

Since I talked to you last, have you attended training courses? *(please tick)*

- |                                   |                          |                          |
|-----------------------------------|--------------------------|--------------------------|
| correspondence courses            | <input type="checkbox"/> | <input type="checkbox"/> |
| access training courses           | <input type="checkbox"/> | <input type="checkbox"/> |
| Polytechnic courses               | <input type="checkbox"/> | <input type="checkbox"/> |
| University                        | <input type="checkbox"/> | <input type="checkbox"/> |
| salvation army, red cross         | <input type="checkbox"/> | <input type="checkbox"/> |
| other <i>(please state)</i> ..... | <input type="checkbox"/> | <input type="checkbox"/> |
| does not apply to me              | <input type="checkbox"/> | <input type="checkbox"/> |

Since I talked to you last, how much time have you spent during the day

	no time	a little	quite a bit	a lot	
doing nothing?					<input type="text"/> 41
watching TV/videos?					<input type="text"/> 42
listening to music?					<input type="text"/> 43
sleeping in the day?					<input type="text"/> 44

Since I talked to you last, how much time have you spent (*please tick*)

	no time	a little	quite a bit	a lot	
with partner/wife/husband					<input type="text"/> 45
with parents/close family					<input type="text"/> 46
with friends					<input type="text"/> 47
with neighbours					<input type="text"/> 48
with former work mates					<input type="text"/> 49
with casual friends					<input type="text"/> 50
with club/society members					<input type="text"/> 51
with extended family					<input type="text"/> 52
with church people					<input type="text"/> 53
with counsellors					<input type="text"/> 54
with others ( <i>please state</i> )					<input type="text"/> 55

If you have not got a job now  
do you want a job?(*please tick*)

no	<input type="text"/> 1	<input type="text"/> 57
yes	<input type="text"/> 2	
yes, but only the job I like	<input type="text"/> 3	
yes, but only the job I was trained for	<input type="text"/> 4	
does not apply to me	<input type="text"/> 5	



What job do you want? (*please state*)

.....

does not apply to me

		59
--	--	----

		60
--	--	----

		62
--	--	----

			3
--	--	--	---

Listed below are some symptoms or problems that people sometimes have. Please read each one carefully and decide how much the symptoms bothered or distressed you in the last week, including today. (*Tick the box in the appropriate column*).

Part I	1 not at all	2 a little	3 quite a bit	4 extremely	
Suddenly scared for no reason					<input type="checkbox"/> 4
Feeling fearful					<input type="checkbox"/> 5
Faintness, dizziness or weakness					<input type="checkbox"/> 6
Nervousness or shakiness inside					<input type="checkbox"/> 7
Heart pounding or racing					<input type="checkbox"/> 8
Trembling					<input type="checkbox"/> 9
Feeling tense or keyed up					<input type="checkbox"/> 10
Headaches					<input type="checkbox"/> 11
Spells of terror or panic					<input type="checkbox"/> 12
Feeling restless, can't sit still					<input type="checkbox"/> 13

Part II	1 not at all	2 a little	3 quite a bit	4 extremely	
Feeling low in energy, slowed down					<input type="text"/> 14
Blaming yourself for things					<input type="text"/> 15
Crying easily					<input type="text"/> 16
Loss of sexual interest or pleasure					<input type="text"/> 17
Poor appetite					<input type="text"/> 18
Difficulty falling asleep, staying asleep					<input type="text"/> 19
Feeling hopeless about the future					<input type="text"/> 20
Feeling blue					<input type="text"/> 21
Feeling lonely					<input type="text"/> 22
Thoughts of ending your life					<input type="text"/> 23
Feelings of being trapped or caught					<input type="text"/> 24

Part II (continued)	1 not at all	2 a little	3 quite a bit	4 extremely	
Worrying too much about things					<input type="text"/> 25
Feeling no interest in things					<input type="text"/> 26
Feeling everything is an effort					<input type="text"/> 27
Feelings of worthlessness					<input type="text"/> 28

APPENDIX B

Table B-1

Major demographic data of long-term unemployed people for Main and  
Follow-up Studies

<u>Main Study, N = 532</u>		<u>Follow-up Study, N = 99</u>		
<u>Gender</u>	Female	210 (39.5 %)	44 (44.4 %)	
	Male	322 (60.5 %)	55 (55.6 %)	
<u>Age (in years)</u>	17 - 25	231 (43.5 %)	18 - 26	27 (27.3 %)
	26 - 35	148 (27.8 %)	27 - 36	43 (43.4%)
	36 - 45	79 (14.8 %)	37 - 46	14 (14.1 %)
	46 - 55	61 (11.5 %)	47 - 56	13 (13.1 %)
	56 - 60	13 (2.4 %)	57 - 61	1 (2.1 %)
	Mean = 30 years		Mean = 32 years	
<u>Stated ethnic origin</u>	European NZ	398 (74.8 %)	81 (81.8 %)	
	Maori NZ	106 (19.9 %)	12 (12.1 %)	
	Pacific Islander	10 (1.9 %)	1 (1 %)	
	other	18 (3.4 %)	5 (5.1 %)	
<u>Marital status</u>	single	336 (63.2 %)	61 (61.6 %)	
	married	66 (12.4 %)	13 (13.1 %)	
	divorced	33 ( 6.2 %)	7 (7.1 %)	
	separated	53 (10 %)	9 (9.1 %)	
	de facto	31 (5.8 %)	6 (6.1 %)	
	other	13 (2.4 %)	3 (3 %)	
<u>Living situation</u>	alone	75 (14.1 %)	14 (14.1 %)	
	with partner	94 (17.7 %)	16 (16.2 %)	
	with parents	196 (36.8 %)	42 (42.4 %)	
	with friends	75 (14.1 %)	9 (9.1 %)	
	with flatmates	80 (15 %)	15 (15.2 %)	
	hostel	12 (2.3 %)	3 (3 %)	

Table B-1 (continued)

<u>Main Study, N = 532</u>		<u>Follow-up Study, N = 99</u>	
<u>Financial support</u>	unempl. benefit	502 (94.3 %)	94 (95 %)
	ACC	19 (3.5 %)	2 (2 %)
	sickness benefit	4 (.8 %)	2 (2 %)
	invalid benefit	4 (.8 %)	0
	DPB	3 (.6 %)	1 (1 %)
<u>Length of unemployment</u>	6 mths	28 (5.3 %)	11 (11.1 %)
	7 - 9 mths	35 (6.6 %)	6 (6.1 %)
	10 - 12 mths	42 (7.9 %)	7 (7.1 %)
	up to 2 years	157 (29.5 %)	34 (34.3 %)
	up to 3 years	111 (20.8 %)	14 (14.1 %)
	up to 4 years	74 (13.9 %)	12 (12.1%)
	up to 6 years	48 (9 %)	8 (8.1 %)
	over 6 years	37 (7 %)	7 (7.1 %)
	Mean = 33 mths		Mean = 29 mths
<u>Education</u>	Form 1	12 (2.3 %)	0
	Form 2	34 (6.4 %)	4 (4 %)
	Form 3	59 (11.1 %)	5 (5.1 %)
	Form 4	127 (23.9 %)	22 (22.2 %)
	Form 5	197 (37 %)	29 (29.3 %)
	Form 6	71 (13.3 %)	28 (28.3 %)
	Form 7	32 (6 %)	11 (11.1 %)
<u>School cert.</u>	in 3 subjects	92 (17.3 %)	35 (35.4 %)
<u>Post school training</u>	no training	269 (50.6 %)	34 (34.3 %)
	some training	263 (49.4 %)	65 (65.7 %)

Table B-1 (continued)

<u>Main Study, N = 532</u>		<u>Follow-up Study, N = 99</u>	
<u>Training while</u>	training	261 (49.1 %)	56 (56.6 %)
<u>unemployed*</u>	University	14 (2.6 %)	6 (6.1 %)
	Polytechnic	72 (13.5 %)	19 (19.2 %)
	Access training	142 (26.7 %)	23 (23.2 %)
	red cross	18 (3.4 %)	1 (1 %)
	Corresp. Course	28 (5.3 %)	8 (8.1 %)
	other training	47 (8.8%)	12 (12.1 %)
<u>Reported</u>	Physical disab.	131 (24.6 %)	22 (22.2 %)
<u>disadvantages</u>	Psychiatric disab.	44 (8.27 %)	12 (12.1 %)
<u>to obtaining</u>	Conviction	89 (16.7 %)	10 (10.1 %)
<u>employment*</u>	Alcohol-drug	49 (9.2 %)	3 (3 %)
	Time in mental		
	institution	6 (1.1 %)	1 (1 %)
	disadvantages in		
	appearance	63 (11.8 %)	10 (10.1 %)
	little education	150 (28.2 %)	22 (22.2 %)
	illiterate	39 (7.3 %)	5 (5.1 %)
	age disadvantage	118 (22.2 %)	23 (23.2 %)
	length of unempl.		
	disadvantage	145 (27.3 %)	32 (32.3 %)
	gang membership	11 (2.1 %)	1 (1 %)
	present economic		
	situation	76 (14.3 %)	26 (26.3 %)
	other disadvan.	18 (3.4 %)	5 (5.1 %)

\* Frequencies are greater than 100% because of multiple responding



Table B-1 (continued)

<u>Main Study, N = 532</u>		<u>Follow-up Study, N = 99</u>	
<u>Socio-economic status</u>	professional	5 (0.9%)	3 (3 %)
	intermediate	2 (0.4%)	0
	clerical-sales	29 (5.5 %)	8 (8.1 %)
	skilled manual	47 (8.8 %)	8 (8.1 %)
	semi-skilled man.	84 (15.8%)	15 (15.2 %)
	unskilled man.	296 (55.6 %)	48 (48.5 %)
	never had a job	69 (13 %)	17 (17.2 %)
<u>Interests and hobbies</u>	no interests	78 (14.7 %)	8 (8.1 %)
	art	64 (12 %)	18 (18.2 %)
	collection	9 (1.7 %)	1 (1 %)
	crafts	95 (17.9 %)	15 (15.2 %)
	nature	43 (8.1 %)	8 (8.1 %)
	social	40 (7.5 %)	12 (12.1 %)
	sport	158 (29.7 %)	27 (27.3 %)
	technical	45 (8.5 %)	10 (10.1 %)
<u>Number of interests/hobbies</u>	no interests	78 (14.7 %)	8 (8.1 %)
	one	151 (28.5 %)	22 (22.2 %)
	two	154 (28.9 %)	25 (25.3 %)
	three	96 (18.2 %)	24 (24.2 %)
	four	23 (4.4 %)	12 (12.1 %)
	five	17 (3.2 %)	4 (4 %)
	six	15 (2.8 %)	4 (4 %)

Nature of interests and hobbies

Art: playing music (piano, guitar, drums, electronic music, flute, recorder), music, country and Western music, drama, theatre, make-up effects, acting, art, arts and crafts, singing, choir member, reading, reading fashion magazines, reading science fiction, reading newspapers/magazines, writing, writing letters, photography, making videos, pottery, painting, drawing, drawing cartoons, airbrushing, ceramics.

Table B-1 (continued)

Nature of interests and hobbies

Collection: smoke packets, stamps, match boxes, miniture spirit bottles, coins, spoons, plates, soft toys, weird things that stand out.

Crafts: sewing, dress making, cooking, Chinese cooking, baking, bread making, handicrafts, patchwork, rug making, knitting, embroidery, crocheting, making mocassins and rugs, kitset model, carving, sculpturing, making things out of matches, hobby tex painting, glass painting, making earrings, model buildings, model railways, woodwork, tapestry, sign writing, floral work, leatherwork, wine making, making picture frames, house renovating, doing up own house, carpentry, home decoration, home alterations.

Nature: animals, horses, training horses, dogs, training dogs, breeding German shepherds, tropical fish, breeding birds, bird watching, conservation work, volunteering at the SPCA, growing plants, vegetable growing, landscaping, gardening

Social: meeting people, going to town with friends, going out with the family, going with friends to the movies, gambling (horses, lotto), hanging out with mates, playing backgammon with friends, travel around with mates, social club, church life, fund raising for World Vision, vvisiting friends, having a good time with my friends, work with mates, buying clothes with my sister, playing cards at the Drop-in Centre, going out with the kids, driving around parents, feminist activities, the gay group, going with friends to horse shows, Schizophrenic Fellowship, Disabled Persons Assembly, Advocacy Movement, AA meetings, Soroptimists, St. John's Ambulance, Lions, First Aid, Island dancing, teaching Bible classes, going to Bible study groups, going to language classes, war games, watch sport, going to Labour Party meetings, go to library, watching sports in the parcs, miniature car racing in the club, Jaycee organization, helping to estabilish Kohanga Reo, playing snooker/pool, playing darts, radio broadcasting, volunteering at rape crisis, member of Salvation Army.

Table B-1 (continued)

Nature of interests and hobbies

Sport: soccer, aerobics, bowls, netball, riding competitions, fishing, bike riding, motorbike riding, motorbike races, mountain biking, playing squash, trout fishing, walley ball, table tennis, cycling, walking, hunting, deer stalking, pig hunting, running, swimming, scuba diving, keep fit, softball, sky diving, stock cars, racing pigeons, weight lifting, supercircuits, tramping, martial arts, Tai Chi, Karate, Tai Kwon Do, rugby league, rugby coaching, boxing, boxing coach, marching, climbing, rafting, cricket, tennis, bedmington, table tennis, ten pin bowling, kayaking, skiing.

Technical: electronics, computers, fixing cars, motorbikes, restoring vehicles, restoring vintage cars, amateur radio, engineering, welding cars, British bikes, guns, crossbows.

Table B-2

Summary Anova Table for GHQ scores (Main Study - four groups)

<u>Source</u>	<u>D. F.</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Between Groups	3	387.0118	129.0039	3.3932*	.0178
Within Groups	528	20073.9807	38.0189		
Total	531	20460.9925			

Table B-3

Summary Anova Table for RSE scores (Main Study - four groups)

<u>Source</u>	<u>D. F.</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Between Groups	3	1142.9648	380.9883	10.0927***	.0000
Within Groups	528	19931.4788	37.7490		
Total	531	21074.4436			

Table B-4

Summary Anova Table for GHQ scores (groups selected for Follow-up Study)

<u>Source</u>	<u>D. F.</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Between Groups	3	564.3635	188.1212	5.2569*	.002
Within Groups	95	3399.6567	35.7859		
Total	98	3964.0202			

Table B-5

Summary Anova Table for RSE scores (groups selected for Follow-up Study)

<u>Source</u>	<u>D. F.</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Between Groups	3	265.0003	88.3334	2.4677	.0668
Within Groups	95	3400.6563	35.7964		
Total	98	3665.6566			

Table B-6

Change in mean GHQ and FGHO scores for people who wanted employment  
in 1989 and still want employment in 1990.

GHQ scores (1989)				FGHQ scores (1990)			<u>t value</u>	<u>p</u>
<u>Group</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>		
Want empl.	13.25	1.98	8	15.25	4.20	8	1.41	.200

Table B-7

Change in mean RSE and FRSE scores for people who wanted employment in  
1989 and still want employment in 1990.

RSE scores (1989)				FRSE scores (1990)			<u>t value</u>	<u>p</u>
<u>Group</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>		
Want empl.	38.62	5.45	8	37.50	5.93	8	0.85	.425

Table B-8

Change in mean GHQ and FGHO scores for people who wanted employment in 1989 and in 1990 have alternatives to employment.

GHQ scores (1989)				FGHQ scores (1990)			<u>t value</u>	<u>p</u>
<u>Group</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>		
Alt. to empl.	12.17	7.30	6	7.33	3.72	6	2.66*	.045

Table B-9

Change in mean RSE and FRSE scores for people who wanted employment in 1989 and in 1990 have alternatives to employment.

RSE scores (1989)				FRSE scores (1990)			<u>t value</u>	<u>p</u>
<u>Group</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>		
Alt. to empl.	40.83	6.14	6	43.00	4.86	6	1.16	.299

Table B-10

Change in mean GHQ and FGHO scores for people who wanted employment in 1989 and in 1990 are employed.

GHQ scores (1989)				FGHQ scores (1990)			<u>t value</u>	<u>p</u>
<u>Group</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>		
Employed	16.38	7.46	13	7.08	3.75	13	4.40***	.000

Table B-11

Change in mean RSE and FRSE scores for people who wanted employment in 1989 and in 1990 are employed.

RSE scores (1989)				FRSE scores (1990)			<u>t value</u>	<u>p</u>
<u>Group</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>		
Employed	40.46	8.43	13	44.00	4.14	13	1.95	.075

Table B-12

Change in mean GHQ and FGHO scores for people who considered themselves not able to work in 1989 and in 1990 are still not able to work.

GHQ scores (1989)				FGHQ scores (1990)			t value	p
<u>Group</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>		
Not able	16.65	7.03	17	17.47	8.30	17	0.74	.467

Table B-13

Change in mean RSE and FRSE scores for people who considered themselves not able to work in 1989 and in 1990 are still not able to work.

RSE scores (1989)				FRSE scores (1990)			t value	p
<u>Group</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>		
Not able	35.47	5.70	17	34.41	5.93	17	0.84	.415

Table B-14

Change in mean GHQ and FGHO scores for people who had alternatives to employment in 1989 and in 1990 still have alternatives to employment.

GHQ scores (1989)				FGHQ scores (1990)			t value	p
<u>Group</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>		
Alt. to empl.	8.40	3.56	15	6.20	2.21	15	2.40*	.031

Table B-15

Change in mean RSE and FRSE scores for people who had alternatives to employment in 1989 and in 1990 still have alternatives to employment.

RSE scores (1989)				FRSE scores (1990)			t value	p
<u>Group</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>		
Alt. to empl.	41.47	3.85	15	42.40	3.11	15	0.90	.384

Table B-16

Change in mean GHQ and FGHO scores for people who were interested in training in 1989 and in 1990 have alternatives to employment.

GHQ scores (1989)				FGHQ scores (1990)			t value	p
<u>Group</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>		
Alt. to empl.	10.25	6.43	8	6.62	4.07	8	2.93*	.022

Table B-17

Change in mean RSE and FRSE scores for people who were interested in training in 1989 and in 1990 have alternatives to employment.

RSE scores (1989)				FRSE scores (1990)			t value	p
<u>Group</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>		
Alt. to empl.	38.25	6.92	8	39.62	4.84	8	0.56	.595

Table B-18

Summary Anova Table for FGHO scores

<u>Source</u>	<u>D. F.</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Between Groups	4	2480.5016	620.1254	23.0614***	.0000
Within Groups	94	2527.6803	26.8902		
Total	98	5008.1818			

Table B-19

Change in mean GHQ and FGHO scores for people who want employment.

GHQ scores (1989)				FGHQ scores (1990)			t value	p
<u>Group</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>		
Want empl.	14.17	3.01	12	16.58	7.35	12	1.32	.214



Table B-20

Change in mean RSE and FRSE scores for people who want employment.

RSE scores (1989)				FRSE scores (1990)					
<u>Group</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>t value</u>	<u>p</u>	
Want empl.	39.00	5.80	12	37.58	6.46	12	0.85	.414	

Table B-21

Change in mean GHQ and FGHO scores for people who were not able to work.

GHQ scores (1989)				FGHQ scores (1990)					
<u>Group</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>t value</u>	<u>p</u>	
Not able	16.58	6.57	26	17.19	7.16	26	0.62	.538	

Table B-22

Change in mean RSE and FRSE scores for people who were not able to work.

RSE scores (1989)				FRSE scores (1990)					
<u>Group</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>t value</u>	<u>p</u>	
Not able	36.19	5.87	26	34.77	6.03	26	1.43	.165	

Table B-23

Change in mean GHQ and FGHO scores for people who had alternatives to employment.

GHQ scores (1989)				FGHQ scores (1990)					
<u>Group</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>t value</u>	<u>p</u>	
Alternatives	10.03	5.40	34	6.97	3.07	34	4.74***	.000	

Table B-24

Change in mean RSE and FRSE scores for people who had alternatives to employment.

RSE scores (1989)				FRSE scores (1990)			<u>t value</u>	<u>p</u>
<u>Group</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>		
Alternatives	40.38	5.15	34	41.47	3.95	34	1.30	.202

Table B-25

Change in mean GHQ and FGHO scores for people who were interested in training.

GHQ scores (1989)				FGHQ scores (1990)			<u>t value</u>	<u>p</u>
<u>Group</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>		
Inter.Train.	12.40	2.30	5	10.20	4.50	5	1.24	.282

Table B-26

Change in mean RSE and FRSE scores for people who were interested in training.

RSE scores (1989)				FRSE scores (1990)			<u>t value</u>	<u>p</u>
<u>Group</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>		
Alternatives	40.40	6.88	5	40.20	5.50	5	0.17	.871

Table B-27

Change in mean GHQ and FGHO scores for people who are employed.

GHQ scores (1989)				FGHQ scores (1990)			<u>t value</u>	<u>p</u>
<u>Group</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>		
Employed	14.73	7.25	22	5.95	3.51	22	5.45***	.000

Table B-28

Change in mean RSE and FRSE scores for people who are employed.

RSE scores (1989)				FRSE scores (1990)			<u>t value</u>	<u>p</u>
<u>Group</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>		
Employed	40.91	6.95	22	43.27	4.453	22	2.02	.056

Table B-29

Summary Anova Table for FRSE scores

<u>Source</u>	<u>D. F.</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Between Groups	4	1073.0155	268.2539	10.4234***	.0000
Within Groups	94	2419.1663	25.7358		
Total	98	3492.1818			

Table B-30

Summary Anova Table for HSCL scores

<u>Source</u>	<u>D. F.</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Between Groups	4	5.4643	1.3661	7.7971***	.0000
Within Groups	94	16.4692	.1752		
Total	98	21.9335			

Table B-31

Change in mean GHQ and RSE scores for people unemployed for six months and above six months.

Unemployed for six months				Unemployed above six months				
<u>Variable</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>t value</u>	<u>p</u>
GHQ	13.68	6.61	28	13.49	6.19	504	0.16	.873
RSE	39.14	5.63	28	38.14	6.34	504	0.91	.369

Table B-32

Change in mean GHQ and RSE scores for people unemployed seven to nine months and above nine months.

Unemployed seven to nine months				Unemployed above nine months				
<u>Variable</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>t value</u>	<u>p</u>
GHQ	14.63	6.10	35	13.40	6.20	469	1.13	.258
RSE	37.26	6.25	35	38.20	6.34	469	0.85	.394

Table B-33

Change in mean GHQ and RSE scores for people unemployed ten to twelve months and above twelve months.

Unemployed for ten to twelve months				Unemployed above twelve months				
<u>Variable</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>t value</u>	<u>p</u>
GHQ	14.45	6.60	45	13.30	6.15	427	1.15	.249
RSE	39.91	6.60	45	38.04	6.30	427	1.82	.069

Table B-34

Summary Anova Table for GHQ scores - three periods of unemployment

<u>Source</u>	<u>D. F.</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Between Groups	2	72.8713	36.4357	.9454	.3892
Within Groups	529	20388.1212	38.5409		
Total	531	20460.9925			

Table B-35

Summary Anova Table for RSE scores - three periods of unemployment

<u>Source</u>	<u>D. F.</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Between Groups	2	82.6513	41.3256	1.04	.3537
Within Groups	529	20991.7923	39.6820		
Total	531	21074.4436			

Table B-36

Change in mean GHQ and FGHO scores between Main Study and Follow-up Study.

GHQ scores (1989)				FGHQ scores (1990)					
<u>Group</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>t value</u>	<u>p</u>	
unempl.	13.04	6.08	77	12.13	7.34	77	1.57	0.121	

Table B-37

Change in mean RSE and FRSE scores between Main Study and Follow-up Study.

RSE scores (1989)				FRSE scores (1990)					
<u>Group</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>t value</u>	<u>p</u>	
unempl.	38.75	5.81	77	38.52	5.95	77	0.41	0.686	

Table B-38

Change in mean FGHO and FRSE scores of unemployed and employed people.

Still unemployed in 1990				Employed for approx. one year					
<u>Variable</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>t value</u>	<u>p</u>	
FGHQ	12.13	7.34	77	5.95	3.51	22	3.81***	.000	
FRSE	38.52	5.95	77	43.27	4.45	22	3.47***	.000	

Table B-39

Change in mean GHQ and RSE scores of unemployed women and men.

Women				Men			<u>t value</u>	<u>p</u>
<u>Variable</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>		
GHQ	13.99	6.51	210	13.18	5.99	322	1.47	.142
RSE	36.82	6.56	210	39.08	5.97	322	4.10***	.000

Table B-40

Change in mean GHQ and RSE scores of unemployed single women and married women.

Single women				Married women			<u>t value</u>	<u>p</u>
<u>Variable</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>		
GHQ	13.85	6.48	192	15.39	6.90	18	0.96	.34
RSE	36.72	6.60	192	37.94	6.17	18	0.76	.45

Table B-41

Change in mean GHQ and RSE scores of unemployed young (17-25) and middle aged people (36-45)

Young people				middle aged people			<u>t value</u>	<u>p</u>
<u>Variable</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>		
GHQ	12.71	5.81	231	14.23	5.59	79	2.02	.045
RSE	37.22	6.16	231	38.70	6.08	79	1.84	.067

Table B-42

Change in mean GHQ and RSE scores of unemployed young (17-25) and later  
middle aged people (46-60)

Young people				middle aged people			<u>t value</u>	<u>p</u>
<u>Variable</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>	<u>Mean</u>	<u>SD</u>	<u>N</u>		
GHQ	12.71	5.81	231	14.19	7.12	79	1.80	.074
RSE	37.22	6.16	231	40.19	6.27	79	3.59***	.000

Table B-43

Summary Anova Table for GHQ scores - Pakeha NZ - Maori NZ - Pacific

<u>Source</u>	<u>D. F.</u>	<u>Islanders/others</u>			
		<u>SS</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Between Groups	2	213.0707	106.5354	2.78	.0627
Within Groups	529	20247.9217	38.2758		
Total	531	20460.9925			

Table B-44

Summary Anova Table for RSE scores - Pakeha NZ - Maori NZ - Pacific

<u>Source</u>	<u>D. F.</u>	<u>Islanders/others</u>			
		<u>SS</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Between Groups	2	121.2842	68.0764	1.53	.2173
Within Groups	529	20953.1594	39.6090		
Total	531	21074.4436			