ADAPTING TO PRISON LIFE

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A Thesis submitted in fulfilment for the degree of

Doctor of Philosophy

Awarded by the University of Central Lancashire

December 2001

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Acknowledgements

I would like to acknowledge Professor John Archer, Dr Paul Lattimore and Dr Mike Eslea for their contributions to and supervision of this thesis. Apart from the contributions of my Director of Studies and second supervisors, the write up, empirical work and its analysis reported here were conducted entirely by myself. If there are any occasions when I have used the work of others, I have acknowledged them by the use of quotation marks and I have cited the source: otherwise, the text of the report is written entirely in my own words. I would also like to acknowledge the support of my work supervisors Dr A. McEwan, Ian Thorne, Jacquie Evans, Graham Beck and Mike Jennings in allowing me the time to complete my studies. I would also like to acknowledge the support of the Governors and staff in the prison establishments who allowed permission for the research to take place, and assisted in the collection of the data. Finally, I am indebted to the participants who willingly took part in this research. Without their assistance this research would not have been possible.

Preface

This thesis was developed as a result of an MSc dissertation in Psychology and Criminology that I completed whilst at the Manchester Metropolitan University in September 1997. This dissertation was a cross-sectional design that explored the relationships between coping strategies and maladaptive behaviours such as stress-related illnesses, self-harm and drug use in a prison population. The completion of this dissertation highlighted a need within coping research for longitudinal design to examine in more detail the relationships between coping and psychological/physical health. Further reinforcement of the need to explore how prisoners adapt to prison life arose from my work within the prison system as a Forensic Psychologist since September 1997. One of my main roles within the service has been the management of prisoner behaviour and research including bullying and satisfaction with the prison regime. There are many occasions within my line of work where some prisoners appear to cope poorly with prison life, often manifested in the form of depression and anxiety. This lead to a desire to conduct longitudinal research to help identify coping strategies early on in their sentence that may predict later levels of improved psychological health.

Abstract

This thesis examines longitudinally how young offenders cope with prison life, in particular the relationship between early coping styles and later levels of psychological health[1] and homesickness. The research was conducted in two parts. The first was a preliminary study to modify a homesickness questionnaire (Archer et al, 1998) for use within a prison population. The modified questionnaire (HQ-P) demonstrated good reliability. The second part consisted of the longitudinal study. This comprised three phases where individuals were assessed within two weeks of arriving into the prison system (phase one, N = 261), six weeks later (phase two, N = 133) and four to six months after phase one (phase three, N = 55). At each phase, individuals were asked to complete a coping styles questionnaire, psychological health and homesickness measures. A small number of the sample at phase one also took part in a semi-structured interview. This was to explore qualitatively their methods of coping, management of relationships and levels of support experienced within the first two weeks of arrival into the prison system. The results demonstrated that the use of emotional and avoidance coping within two weeks of arrival into prison was related to better levels of psychological health and lower levels of homesickness some six weeks and four to six months later. Individuals also demonstrated preferences for particular coping strategies that remained consistent across each phase. There are many implications of these findings. The first of these is the demonstration that levels of homesickness remain consistently high as time continues in prison. The study also reflects the importance of not labelling coping strategies as universally effective or ineffective, and allowing a more realistic exploration of their significance as a result. The effective early use of avoidance and emotional coping upon later levels of psychological health and homesickness would contrast against coping theory, that has previously regarded emotional and avoidance

[1] Psychological health refers to symptoms expressed in the Middlesex Hospital Questionnaire (Crown and Crisp, 1966). These include depression, free-floating anxiety, obsessional and hysteric symptoms, also somatic symptoms which has a physical base. When discussing the findings throughout this thesis, references to psychological health are a combination of the above symptoms.

coping as hindering effective management of the stressor (Zeinder and Endler, 1996 and Menaghan, 1982).

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Chapter 1

INTRODUCTION

Adapting to prison life: coping styles

1.1 Rationale for the study

1.1.1. Research examining adaptation to prison life and the impact of early coping styles on changes in psychological health and homesickness over time has been limited. Cohen and Taylor (1981) and Zamble and Porporino (1988) are the only researchers who have examined longitudinally the adaptation of prisoners to imprisonment. HM's Inspectorate (1999) criticised the Prison Service for a failure of staff awareness of the impact of prison life upon an individual. Prison issues aside, there is an increasing demand within coping literature to conduct longitudinal research to determine whether early coping styles can predict future changes in psychological health. The above combination of issues lead to the development of this thesis.

1.2 Introduction structure

1.2.1. The overall structure of this introduction is to review variables that may influence how an individual adapts to the challenges of prison life. Initially I shall describe the concept of stress, traditional approaches toward its assessment and some current stress models. I will then discuss the concept of moderator and mediator relationships involved with stress. There follows an exploration of the most commonly researched moderators in the stress-illness relationship that can buffer the

individual against the impact of stress and facilitate successful coping. These will include social support, perceived control, self-esteem and Type A and B behaviour patterns. The introduction will then progress to discuss the role of coping as a mediator in the stress-illness relationship. I will then address the development of coping research, the theories derived from these, the measures designed to examine them and the impact of ineffective coping on health. I will then explore how an individual's removal from their habitual environment may interact with their adaptation to prison life, and the overall negative consequences this may pose on their psychological health. Each of these areas will be addressed in some detail, namely stress and coping theory in Chapter one and an individual's transition into prison life in Chapter two.

1.3 Concept of stress

1.3.1. Stress is a broad term, relating to situations where an individual experiences difficulties or struggles to manage the demands made upon them (Archer, 1979). High levels of stress have been related to heart attacks, strokes, hypertension and job performance (Greenberg, 1981). From a biological perspective human stress has been likened to the physical pressure placed upon an object. Archer (1979) relates this to a piece of metal where the metal becomes distorted as pressure is placed upon it. This pressure becomes so intense and unbearable that the metal eventually breaks. Archer (1979) relates the pressure placed upon the metal to human stress, where, just as metal can break, an individual can also undergo severe stress that has a detrimental impact upon their physical and psychological health. A more specific and medical approach toward stress originates from the work of Hans Selye (1974). Here Selye regards (physical) stress as a reaction involving various systems within the body such as the adrenal cortex and the thymus, labelled the General Adaptation Syndrome. Selye's work identified increased activity in the adrenal cortex relating to a detrimental impact upon the individuals physical state as they prepare for exertion or repair in response to

physical danger. Selye describes three stages that an individual encounters whilst experiencing stress. The first of these is alarm reaction where the individuals resistance can become lowered and their defence mechanisms activate. Resistance follows, where the defence mechanism used is successful or unsuccessful. Exhaustion is the final stage where the adaptive mechanisms collapse. Whilst Selye has had a significant impact upon early research into stress, it was limited through its primary focus on the physical impact of stress to the ommitance of the psychological impact. Archer (1979) argues that Selye's approach is less compatible with the psychological impact of stress as there can be a variety of situations where an individual can show increased adrenal activity, and therefore physical reaction, and yet are not exposed to physical danger.

1.3.2. Whilst the work of Selye began discussions into stress, there has been much debate surrounding the definition of stress, with its meaning altering in response to differing interpretations and ambiguous terminology. Jemmott and Locke (1984) argue that, dependent upon interpretation, the definition of stress varies between being seen as a stimulus, a response or an interaction between the two. Archer (1979) elaborates on this further, arguing that stress has been considered within three different terms. The first of these is that stress is the demand that has been placed upon an individual, the second is that stress is a common reaction to the physiological response from such a demand, and the final is the psychological impact where stress is a result of an individual being unable to cope with the demands of the environment. Such ambiguity has prevented successful integration of stress research findings and a suggestion that the concept serves only to confuse (Cohen, Kessler and Gordon, 1995, Jemmott and Locke, 1984). Nonetheless some definitions are less complex than others, with Jemmott and Locke (1984) defining stress as a *"stimulus, an event that potentially has adverse effects on health"*. Lepore and Evans (1996) offer a more complex definition, although do not acknowledge the impact that stress can have upon

an individuals health. They define a stressor as *"physical and social environmental conditions that an average person would perceive as actually or potentially threatening, damaging, harmful or depriving"*. Cohen et al (1995) offer one of the more comprehensive definitions of stress, defining it as *"environmental demands* [that] *tax or exceed the adaptive capacity of an organism, resulting in psychological and biological changes that may place persons at risk for disease"*. Such a definition acknowledges the environmental demands, although omits social demands, which can impact upon the individual, reflected though their psychological and physical health. In addition, Cohen et al's (1995) definition acknowledges that such a demand does not necessarily have to overwhelm the individual before stress is created, but can create stress simply by the individual having to focus the majority of their resources in an attempt to resolve it. Whilst this definition is comprehensive, it does not acknowledge the importance of the individuals interpretation, as reflected by Lepore and Evans (1996), as to perceiving the demand as stressful.

1.4 Approaches to stress

1.4.1. As reflected previously, stress can have a detrimental impact upon an individuals health. The impact of stress upon an individuals health has been explored through three perspectives. These are the biological, environmental and psychological approaches. Each of these approaches will be discussed in turn.

Biological approach

1.4.2. The biological approach focuses upon physiological systems within the individual that are activated by demanding (stressful) circumstances, both physically and psychologically (Cohen et al, 1995). This approach presents that if an individual is exposed long term to such physiological systems, then their risk of poor health increases. This approach focuses on two main physiological systems, the sympathetic-

adrenal medullary system (SAM) and the hypothalamic-pituary-adrenocortical axis (HPA). The SAM system reacts toward stressful situations with an increased secretion of the hormone epinephrine, increase in blood pressure, heart rate and perspiration (Cohen et al, 1995). Prolonged or regular activation of the SAM system has been linked with poor health (Cohen et al, 1995), with excessive epinephrine being linked with depression (Lemme, 1995). The HPA system reacts to stressful events, including perceived stress, with activation of the adrenal medulla, resulting in increased secretion of catecholamines such as epinephrine and increased secretion of adrenal corticosteroids (Roger, 2000). Such increased secretions have been linked with a negative impact on cardiovascular function, with adrenal corticosteroids being linked to a decrease in the effectiveness of the immune system (Roger, 2000). The HPA system has also been linked with depression but, as with the SAM system, research is unclear as to whether the physiological response to depression is the cause or effect (Lemme, 1995).

1.4.3. Cohen et al (1995) describes the activation of the HPA system as a three stage process described earlier as the general adaptation syndrome (GAS, Selye, 1974). As briefly presented earlier, the first stage is the alarm stage where the individual's physiological changes are a result of the initial reactions required to meet the stressors demands. This involves secretion of the adrenocorticotrophic hormone which activates the adrenal cortex to secrete the afore mentioned corticosteroids. The second stage is resistance involving adaptation to thc stressor and consequent reductions in physiological arousal. The final stage is exhaustion where the stressor is of such an intensity that it depletes the available resources. This can lead to a risk of the individual being unable to manage the stressor further, leading to a return of physiological symptomology. Whilst Selye's (1974) general adaptation syndrome makes good theoretical sense, little empirical work has been conducted to examine the nature and occurrence of these stages.

1.4.4. Although the biological approach can offer some understanding as to the impact that stress can have upon an individual's physiology, it omits the influence that an individual's perceptions of the demand as stress can have upon consequent physiological states (Cohen et al, 1995). It also fails to acknowledge that different individuals have different reactions toward a stressor. Such differences would indicate that there are other variables or 'protective factors' that may impact on the biological responses toward stress. An example of such a variable that may moderate, that is affect the direction or strength of the relationship between stress and biological response, is personality. Broadbent, Broadbent, Philipotts and Wallace (1984) reported introverts to be more susceptible to colds developed experimentally than extroverts, although this was not replicated by Cohen, Tyrrell and Smith (1993). Although not replicated by Denney and Frisch (1981), Kobasa (1979) found that an internal locus of control acted as a buffer against stress. Roger (1995) reports that such discrepancies between studies can be a reflection of the measures used to explore initial protective factors. He argues that as such measures were not initially designed for use within stress research they may not be sensitive to the exploration of the impact of stress. It would also be expected for such measures not to produce significant relationships as they were not designed for exploration of protective factors. In an attempt to begin to rectify this, Roger and Najarian (1989) developed an Emotional Control Questionnaire designed to look at emotional inhibition and rumination. Using this measure, Roger and Jamieson (1988) reported that delayed heart-rate recovery was related to excessive rumination. Such findings certainly support the notion that examining the biological approach in isolation to other approaches fails to consider the individual differences that can impact upon the stress-illness relationship.

Environmental approach

1.4.5. The environmental approach focuses upon the health risk presented by environmental circumstances that demand change and adaptation (Holmes and Masuda, 1974). Traditionally this approach has assessed stress with regard to the number of life events, such as job loss and hospitalisation, experienced at any one time (Schroeder and Costa, 1984). Two main methods have been used to examine the relationship between environmental stressors and health, namely check-list measures such as life-events scales, and intensive personal interview methods. Each of these will be discussed below. One of the earliest and most influential life event scales used to determine the relationship between stress and poor health was the Social Readjustment Rating Scale (SRRS, Holmes and Rahe, 1967). This scale used a panel of judges to rate difficultly in adjusting to a variety of events. Whilst this scale advanced the field in the acknowledgement of the impact of stress when the demands of the environment become excessive, it allowed for the focus to become too channelled toward the magnitude of life changes without exploration as to whether such life events were positive or negative (Cohen et al, 1995). In addition, the method used to derive the items and their sample was unclear, with Holmes and Rahe referring to it as a "sample of convenience". It also allowed for the omission of very specific stressors not covered by life events (Wong, 1993). Turner and Wheaton (1995) argue that almost all of the events in the scale could be regarded as symptoms or consequences of stress other than pre-empters to the experience of stress. Rahe (1979) acknowledged that the SRRS did not cover all events considered meaningful in an individual's life, but attempted to ascertain a sample of these. As time progressed researchers began to modify such life event scales so as to incorporate individuals own estimations of how stressful particular events were and with greater consideration of the context in which stressful life events occurred. Whilst such modifications help to refine the environmental approach, some researchers argue that such scales fail to address an individual's management of a significantly stressful event, rather measuring how an individual manages with a situation which does not necessarily tax

their coping resources (Schroeder and Costa, 1984), or does not provide a comprehensive measure of a stressful demand (Wong, 1993). Turner and Wheaton (1995) argue that, although life-event scales have been modified, it is unrealistic to expect all possible stressful events to be identified. They further argue that problems can develop where some of the described events only occur during an individual's specific physical or health status, leading to a risk of confounding results. Whilst such events should not be disregarded as they offer insight into how an individual experiencing a particular form of poor health manages the stressful demand, their presence should be acknowledged and suitable statistical procedures utilised to minimise the risk of over-emphasising the stress-illness relationship (Turner and Wheaton, 1995). Ormel, Sanderman and Stewart (1988) conducted a longitudinal study on 296 Dutch participants from the general population. Using a structural equation model they reported that life event scales are dependent upon the participant's mood, mental state and personality, with personality factors influencing the occurrence of particular symptoms independently from the nature or occurrence of the life event. Turner and Wheaton (1995) also argue that such life event scales do not consider the time-frame of each life event, preferring to conceptualise them as the same, without differentiating between short and long-term stress, and fail to consider cultural and societal differences, with different cultures and societies interpreting different events as stressful.

1.4.6. The interview method to determine the stress-illness relationship differs from life event check-lists in that it is qualitative in design, allowing for a greater abundance of information. Unlike life-event scales, the interview method is designed to gather specific information about an event that may be responsible for the onset of an illness, with a greater opportunity to probe for further information (Wethington, Brown and Kessler, 1995). Such probing can assist the researcher in determining whether the stressful events given are related or work in isolation. By doing so this

can minimise the risk of over-reporting where some participants can describe the same event a number of times (Wethington et al, 1995). One of the most widely used personal interview method is the Life Events and Difficulties Schedule (Brown and Harris, 1978). With this schedule there are no firm guidelines as to the level of probing to be given by the interviewer (Wethington et al, 1995). A lack of strict guidelines may minimise the risk of the interview becoming rigid and controlled, but the level of information gathered is dependent upon the skill of the interviewer. Whilst the interview method can provide an abundance of detailed information, they are time-consuming to administer. As a result they can be more suited to longitudinal than cross-sectional research (Wethington et al, 1995).

1.4.7. Although the environmental approach has limitations, such as its failure to consider psychological or biological factors that may influence risk of illness, one of the most influential directions to derive from the environmental approach was the consideration of vulnerability factors. Such factors would be defined as long term characteristics of an individual that influence their susceptibility to illness (Linville, 1987). Their importance was identified from the persistent and strong finding that, although environmental stressors are associated with poor health, the majority of individuals are able to manage such stressful events with little negative impact on their well-being (Cohen et al, 1995). Such vulnerability cues would include negative affectivity where individuals tend to react emotionally to demands (Wong, 1993). This is similar to neuroticism (Roger and Jamieson, 1988) and type A behaviour patterns where the individual can tend to exaggerate appraisal of the stressor (Cohen et al, 1995). By contrast high levels of social support and perceived control can be important protective factors against poor health (Cohen et al, 1995). Such vulnerability cues and protective factors are discussed in sections 1.7 to 1.11 of this chapter.

Psychological approach

1.4.8. The psychological approach focuses upon an individual's interpretation of their ability to cope with the demands presented to them (Cohen et al, 1995). This approach regards an individual's appraisal of a demand as stressful to be fundamental, with the individuals perception of stress as a subjective interpretation: *"It is the individual's assessment of a situation, such as speaking before a large audience, that determines whether or not the situation is stressful for that individual"* (Lemme, 1995). One of the most influential concepts of appraisal within the psychological approach is that of Lazarus (1980). According to this concept the method by which an individual evaluates and deals with the stressor can occur in two interacting stages. In order to activate these stages a problematic situation must occur, one that offers a sufficient threat to the health of the individual both psychologically and physically. This problematic situation must be of an intensity that attracts the individual's attention. If all these conditions are satisfied then primary appraisal will occur. This is the first stage in the coping process (Lazarus, 1980). It comprises two alternatives. Firstly, the individual can appraise the situation as either harmless or irrelevant and not requiring any action. Secondly, the individual can appraise the situation as threatening to themselves, which initiates a response to the stressor in the form of coping. The second stage of the coping process is secondary appraisal (Lazarus, 1980). In order to act upon the stressor the individual considers a variety of available options. This is based upon their initial primary appraisal of the severity of the stressor and their perceptions that they can resolve or reduce it. Psychosocial stress can be caused when the individual appraises the problem as a threat and considers their personal resources for dealing with the stressor to be ineffective (Holahan and Moos, 1987). Although the terminology of the different stages suggests a hierarchy of importance, this is in fact not the case. The different stages represent different aspects of an individual's appraisal of a stressor, which interact and influence one another (Lazarus, 1980), with an individual perception of their ability to cope being evaluated throughout (Lazarus, 1980).

1.4.9. Within Lazarus's concept, once the situation has been appraised the individual will respond to it. The type of response depends upon what is available to the individual, and is based on their previous experience. For example, if a prisoner has been involved in a number of fights through being provoked, it would be expected that when faced with further provocation of physical violence the prisoner would choose to fight rather than flee. This would be based on the history of their previous experience where to fight rather than flee is their most common reaction to physical threats (Zamble and Porporino, 1988). The use of a particular coping response may not automatically equate to the removal or reduction of the stressor. It can create another stressor that can vary in its severity. For example, the prisoner who copes with the stressor by fighting may find further retaliation from his opponent's associates if he wins the fight (Zamble and Porporino, 1988). Whilst the psychological models, such as those of Lazarus (1980), offer a comprehensive understanding of how individuals may manage stress, they can be complex and rely heavily upon the subjective interpretation of an individual's perception and ability to cope. Evaluation of this can be problematic (Schroeder and Costa, 1984). Similarly, such an approach fails to acknowledge the biological links between psychological states and physical illness and environmental causes which have led to an appraisal of the demand (Cohen et al, 1995). With these restrictions considered, this thesis examines stress within the context of the psychological approach.

1.5 Integrative models of stress

1.5.1. Historically the biological, environmental and psychological approaches have been examined in isolation from one another. As time has progressed such approaches have been considered within a multidimensional model of stress and coping (Biggam and Power, 1997). Cohen et al (1995) attempted to merge these approaches together. By doing so, they developed a comprehensive and interactive model of stress. The initial stage in this model incorporates the environmental approach with the presence

of an environmental demand. Using a psychological perspective, the individual then appraises this demand to determine if it poses a threat, and if so, if they have the resources to cope with it. If they perceive the demand to be threatening, but their resources to manage the threat is inadequate, they can perceive themselves to be in a stressful state. This can lead to inappropriate emotional responses that Cohen et al (1995) argue can result in consequent physiological or behavioural responses. This can increase an individual's risk of physical or psychiatric illness, with the physical illness incorporating the biological perspective. Although this model can appear to demonstrate the impact of stress in a sequential manner, various elements of the model can be omitted dependent upon the stressor. Cohen et al (1995) argue that environmental demands can create physiological or behavioural responses, and hence place an individual at risk of illness even when the individual does not interpret the demands as stressful. In addition they argue the potential of feedback loops in the model. For example, an individual's inappropriate emotional responses as a result of their appraisal of the demand and perceived stress can negatively feedback into appraisal so that the individual perceives that their resources to manage the demand are inadequate and/or continue to appraise the demand in a negative light. Although Cohen et al's (1995) model is theoretical with little empirical basis, it does provide a comprehensive starting point to exploring stress from an integrated perspective, moving away from examining each approach toward stress in isolation from the other.

1.5.2. Wong (1993) developed a less comprehensive model of stress termed a cognitive-relational model. Whilst this model has parallels with that of Cohen et al (1995), it offers a more simpler approach to stress. Wong (1993) describes in this model how an individuals appraisal of a demand determines whether it is stressful or not and how such an appraisal is related toward various outcomes. Wong (1993) regards coping as a mediator within this model, that is coping will account for the relationship between stress and its outcome. Wong (1993) describes how coping

efforts attempt to resolve the problem created by the stress. This model would contrast with Cohen et al's (1995) suggestion that an individual may be placed at risk of illness even if they do not perceive the demand as being stressful. Wong's (1993) model does not acknowledge this as a possibility, nor does it attempt to clearly incorporate the biological approach to stress, with limited acknowledgement of the environmental approach. In addition, both Wong's (1993) model, and that of Cohen et al (1995), fail to acknowledge the positive effects of stress. Although discussed later in this chapter, Folkman and Moskowitz (2000) argue that such an omission fails to examine the adaptational significance of the positive effects and a failure to explore the strategies used by the individual that enables them to regard the stress positively.

1.6 Moderators/mediators of stress

1.6.1. Within stress research, many variables have been found to impact upon the stress-illness relationship. Some of the most researched include social support, personality such as perceived control, and coping. Each of these variables will be discussed in turn, with greater concentration on coping as this is the foundation of the thesis. Although briefly discussed in sections 1.4 and 1.5, time will be taken to discuss the definition of moderator and mediator variables. It is not unusual for researchers to use the terms moderator and mediators interchangeably, when in fact they have different meanings (Baron and Kenny, 1986). An example of this would be the research by Gentry and Kobasa (1984) where they begin by describing factors that impact on the stress-illness relationship as mediators, only later to describe the same factors as moderators. A moderator is a variable that affects the direction or strength of a relationship between an independent and dependent variable, and always functions as an independent variable. With regard to theories of stress, a moderator is believed to impact upon how an individual appraises a demand as stressful (Cohen et al, 1995). For example, self-esteem may moderate the effect of stress on physical illness by the individuals appraisal of the stressor. This would be influenced by

whether they have high or low self-esteem. By contrast, a mediator is the extent to which a variable can account for the relationship between an independent and dependent variable. Perfect mediation is found when the independent variable has no significant effect when the mediator is controlled (Baron and Kenny, 1986). Moderator variables are utilised when there is a weak or inconsistent relationship between the independent and dependent variable, whereas mediator variables are utilised when the relationship between the independent and dependent variable is consistently strong (Baron and Kenny, 1986). Cohen et al (1995) and Cohen and Edwards (1989) argue that the correlations between life events and illness can be low, with such correlations rarely rising above .30. These low relationships have led to an exploration of potential moderators in the stress-illness relationship. In line with the argument of Baron and Kenny (1986), within stress research it is usual to examine potentially influencing factors called stress-buffering resources, such as personality and social support, as moderators. The impact of stress-buffering resources will be discussed in a sections 1.7 to 1.11. Due to an individual having to regard a demand as stressful before coping strategies are activated, the manner in which someone copes with a stressful demand is regarded as a mediator. Similarly in their longitudinal study on optimism, coping and distress, Carver, Pozo, Harris, Noriega, Scheier, Robinson, Ketcham, Moffat and Clark (1993) report that coping strategies acted as a mediator between optimism and distress. As a result, coping is examined as a mediator in the stress-illness relationship.

1.7 Stress-buffering

1.7.1 There are a number of personal and social factors that are thought to moderate and protect an individual against the impact of stress, and facilitate successful coping with the stress or reactions toward the stress. Cohen and Edwards (1989) argue that there is some evidence of buffers which impact the manner in which a stressful demand is appraised and coped with, although such research has been affected by poor

methodology, inappropriate statistical analysis and limited replication. Nonetheless, they identify a number of stress-buffering factors, the main of these being social support and other personality characteristics, such as perceived control, self-esteem and type-A behaviour patterns. Cohen and Edwards (1989) argue that stress-buffers can be used during the process of appraisal and the emotional response toward a stressful event. Each of the main stress-buffers will be discussed below in sections 1.8 to 1.11.

1.8 Social support

1.8.1. Social support is a complex concept with a generally positive impact upon the stress-illness relationship, dependent upon the appropriateness of the support. Roy and Steptoe (1994) report that availability of social support has a significant buffering effect. They found that fire fighters who had small social networks and high levels of daily stress reported the highest levels of depression. Pierce, Sarson and Sarason (1996) define three types of social support; perceived social support, supportive relationships and supportive networks. Perceived social support incorporates the general belief that individuals are available to offer support if so desired. Supportive relationships are an individuals social bonds where they can derive support from them if required. Such supportive relationships and perceived social support make up an individual's support network. Gentry and Kobasa (1984) argue that social support is a multidimensional concept involving at least four dimensions that often get omitted in research, leading to a restricted measurement of social support. The first of these is emotional concern, where concern for the individual is offered. The second is instrumental aid where assistance such as financial aid is offered. The third is information where advice and suggestions are provided. The final dimension is appraisal where the supporter offers feedback to the individual on their self-evaluation.

1.8.2. A good support system can provide an opportunity for more positive outcomes for an individual. Sarason, Pierce, Shearin, Sarason, Waltz and Poppe (1991) conducted two studies with undergraduates to determine how their perceptions of social support related to how they compared themselves with others and the importance of how others regarded them. They report that individuals with high levels of perceived social support were able to appraise themselves and others much more positively. They argue that such positive appraisal can allow for an individual to develop more realistic and efficient strategies for coping with stress. Although one of the main issues with their research is that some of the sub-scales of the measures they used reflected low reliabilities, such as .55, with no indication of how many items comprised some of the sub-scales. Pierce et al (1996) report that perceived social support can allow for an individual to confront stressful demands more readily and effectively, as they are confident that others will come to their assistance if they begin to struggle. In an experimental design using undergraduates, Sarason and Sarason (1986) report that individuals who were offered support performed better on problem solving tasks than individuals who were not offered support. The support was offered to the participants in the experimental group by an offer of assistance during the problem-solving task by the experimenter. Whilst this was experimentally manipulated, it was some demonstration of support. The results also indicated that those participants who perceived themselves to have a large support group performed better in the problem solving task regardless of whether they were offered support by the experimenter. This would suggest that other types of support may also have influenced their findings. Pierce et al (1996) argues that individuals high in perceived social support reduce the risk of adverse reactions toward stress by structuring events so that stressors are less likely to occur, develop effective coping strategies and turn to others for help when required.

1.8.3. As with perceived support, supportive relationships have been found to enhance an individual's health and general well-being. Dakof and Taylor (1990) found that

effective coping strategies and well-being was more pronounced in cancer patients who had a partner, although inappropriate support can enhance the stress experienced by chronically ill patients (Coyne and Delongis, 1986). In a study on young offenders Biggam and Power (1997) found that anxious and depressed prisoners reported inadequate practical and emotional support from those around them. They also found that those prisoners with high levels of hopelessness felt they received less emotional and practical support from prison officers. Supportive relationships and perceived social support compare with Revenson and Majerovitz (1990) study on partners of patients with rheumatoid arthritis. They found that the level of support offered to the patient was dependent upon the perceived support available to the patients partner. In a similar comparison to perceived support, Pierce et al (1996) argues that an individual with high levels of appropriate supportive relationships are less vulnerable to experiencing a stressful demand, and if a stressor does appear, are more able to seek assistance in its appropriate management.

1.8.4. Supportive networks also have an impact upon the health of individuals. Pierce et al (1996) report that communities where the social bonds are close and cohesive are associated to lower death rates and heart attacks. Ruberman, Weinblatt, Goldberg and Chaudhary (1984) found men who had experienced heart attacks had a risk of dying that was four times higher if they were experiencing life stress and a lack of social support.

1.8.5. Whilst social support has been predominantly examined as a moderator in the stress-illness relationship, there is some evidence of its influence being more as a direct independent or interactional effect (Roy and Steptoe, 1994). In support of this, in their review of the literature, Cohen and Wills (1985) argue that the different types of social support may equate to different relationships, with a buffering effect being

more apparent with perceived social support, and a direct effect resulting from supportive networks.

1.9 Perceived control

1.9.1. Control is an individual's perception of their ability to influence the various demands that are placed upon them (Cohen and Edwards, 1989). Steptoe (1989) argues that perceived control can be both over an event or emotional reactions that may leave the event unchanged. As with the concept of stress, control itself has many different interpretations. As argued by Lazarus and Folkman (1984): *"There is no single construct of control; rather, it has many meanings and is used differently by different writers and even by the same writer at different times"*. Locus of control is one of the most researched theories of control, deriving from the social learning perspective (Lemme, 1995). Based on locus of control, an internal locus of control is where the individual believes that situations are under their own influence, whereas an external locus of control is where situations are perceived to be outside of their control, often down to chance, luck or others. One of the most well known measures for examining control has been Rotter's (1966) locus of control scale.

1.9.2. Control is part of the personality construct of hardiness, a construct first identified by Kobasa (1979). This construct consists of three appraisals. The first of these is personal internal control, and the second is a characteristic of commitment where an individual has an interest in situations around them and does not alienate from work or life. The final appraisal is that of a challenge characteristic where the individual views life as testing rather than a threat, which can promote personal growth (Kobasa, 1979). The concept of hardiness as a stress-buffer is weak as a result of poor internal consistency of the hardiness measure (Cohen and Edwards, 1989). General locus of control is the only concept within hardiness to have the strongest,

although moderate, evidence of being a stress-buffer (Cohen and Edwards, 1989). Therefore only control will be considered in detail below and in isolation of the other appraisals, namely commitment and challenge.

1.9.3. Regarding control, if an individual perceives that they have control over a demand, this should give them the ability to actively attempt to manage it (Nowack, 1989), and should reduce the threat posed by the demand (Fisher, 1989). An individual who does not perceive control, or who loses control over their environment can develop feelings of helplessness and depression as a result (Fisher and Hood, 1987). Janis (1983) taught patients awaiting surgical procedures that if they focused their thoughts of surgery on the positive aspects they would be more able to control their pain and discomfort. They found that patients who did this requested fewer medications for their pain and were less distressed and anxious than patients who had not been given this technique. Fisher (1989) also found in their sample of homesick individuals that a loss of perceived control within a highly threatening situation can lead to a greater risk of physical illness through greater production of hormones responsible for suppressing the immune system, such as cortisol and adrenocorticotropic. By contrast, a similar individual who is homesick and in a highly threatening situation but with a high level of perceived control experiences less distress and less risk of physical illness (Fisher 1989).

1.9.4. Fisher (1986) developed a theoretical model of control describing how levels of control may influence physical health. In this model Fisher (1986) presents that situations of high demand have a detrimental impact upon risk of poor physical health, but an individual's levels of perceived control can influence the severity of this risk and consequent physical illness. For example an individual who perceives high control over a highly demanding stressor, engages in the problem. Such an engagement can create anxiety through raised effort and increase the hormones responsible for amplifying the physical risk of ulcers or heart disease, such as through

epinephrine hormones. By contrast, an individual who perceives they have little control over the demanding stressor struggles for control and experiences helplessness. Such an engagement can create anxiety, as with those who have high perceived control, but also depression. As with those who perceive high control, those with low control also increase the afore mentioned hormone that can lead to physical risk. In addition to this, unlike the high control individuals, they also demonstrate secretion of cortisol and adrenocorticotropic hormones that leads to a breakdown in the immune system and greater risk of cancerous disease and infectious illness. Whilst this model attempts to conceptualise the impact of control on physical health, it is theoretical in its basis and little empirical evidence has been conducted test its claims.

1.9.5. The role that perceived control can play in moderating the stress-illness relationship can sometimes be masked by an individual's reluctance to be forthcoming in their acknowledgement of negative life events. Krause (1985) reported that individuals who sought social approval, under-reported negative life events such as financial problems. In a study of married women they found that an internal locus of control acted as a stress-buffer only once social desirability was controlled. This would suggest that factors such as social approval may sometimes conceal the strength of control as a moderator in the stress-illness relationship.

1.9.6. Cohen and Edwards (1989) report that researchers examining control and its relationship between stress and consequent illness are mixed in their conclusions, with some studies reporting control as a buffer against the impact of stress, and others finding inconclusive evidence. They argue that the determination of control as a stress-buffer is dependent upon the measure used to determine control. They argue that most studies using Rotter's (1966) scale where control has been investigated as a moderator have used inappropriate statistical analysis and insufficient data. For example, Sandler and Lakey (1982) found that participants with an external locus of control, and therefore less perceived control, demonstrated the highest levels of

depression and anxiety. Cohen and Edwards (1989) argue that the analysis conducted was not appropriate to determine if control was a stress-buffer. Moreover the locus of control and personal control over the life events were not correlated, and therefore did not support the assumption that an internal locus of control leads to more effective coping as a result of greater personal control over life events. Ormel and Sanderman (1989) further argue that confusion can result from an uncertainty as to what type or level of control is being examined and an assumption that control is always productive during a stressful situation, when on some occasions it may be counterproductive. In conclusion, whilst there is evidence of control as a buffer of the relationship between stress and illness, such evidence should be regarded as tentative.

1.9.7. A tendency to explore control globally has also added confusion as to the role that control plays within the stress-illness relationship, and hence its role as a stress-buffer. Hewitt and Flett (1996) argue that research has tended to examine control in a general sense, such as Rotter's scale (1966), and by doing so has made its role less clear. They argue that more specific scales, such as a health locus of control and coping with a health problem may yield more conclusive and robust evidence when examining control as a stress-buffer. Examination of control in a general and non-specific context can lead to problems when determining its impact on specific stress-illness relationships, such as poor strength of results. Adding to this confusion is the tendency for a large proportion of the research examining locus of control as a moderator in the stress-illness relationship to be cross-sectional. Such research may risk over emphasising the relationship of locus of control within the stress-illness relationship, calling for more longitudinal research to determine the significance of control (Rector and Roger, 1996). The concept of perceived control is linked closely associated with theories of homesickness, and a more detailed exploration of perceived control within the context of homesickness is discussed later in chapter 2, section 2.6.

1.10 Self-esteem

1.10.1. The concept of self-esteem is complex and outside full exploration in this thesis. General consensus is that high levels of self esteem can act as a buffer against the consequences of stressful demands, whereas low levels of self-esteem have been associated with negative self-appraisal and high levels of depression (Ormel and Sanderman, 1989, Roger, 2000). Using a sample of university students in a longitudinal study, Rector and Roger (1994) examined the role of self-esteem and coping styles on a personally relevant demand. They reported that individuals with high self-esteem had the ability to detach themselves from the demand and re-examine it, often examining it in a positive light and overcoming its negative impact. Although longitudinal, this study was relatively short in its time span, with an initial exploration of cognitive style, and a follow up some eight weeks later. Nonetheless, one of the main advantages of this study was the use of baseline measures to determine the health changes over time. In a similar study, Rector and Roger (1997) examined the role of self-esteem as a stress-buffer in 53 female first year undergraduate students. Levels of self-esteem were manipulated by participants being read fabricated personality reports that were either favourable or neutral. They found that although self-esteem was relatively stable, it could be manipulated. They reported that those participants who had been exposed to the positive information as opposed to the neutral, reported increased self-esteem. Such individuals demonstrated a stronger performance on a stroop test and experienced less personal threat. Although the sample used in this study was relatively small and focused only on females, it nonetheless yields promising results.

1.10.2. The concept of self-esteem appears to take two forms, stable and unstable. In an extensive review of the literature, Roger (2000) argues that these forms are very distinct, with individuals with high unstable self-esteem responding well to positive but not negative feedback. Those with high unstable self-esteem also demonstrate a poorly developed concept of self than those with high stable self-esteem but low

unstable self-esteem. Roger (2000) argues that stable self-esteem is resistant to change, whereas unstable self-esteem is more susceptible to external variables. Roger (2000) argues that within research the distinctions between the different types of self-esteem and consequent impact upon the stress-illness relationship has been overlooked, with a tendency for most research to use global measures of self-esteem rather than measures that examine more specific types of self-esteem.

1.10.3. There has been much research into the role of self-esteem in the stress-illness relationship. Brown and Harris (1978) found that low self esteem characterised working-class domestic housewives who were depressed. Roger and Rector (1994) found that high self-esteem acted as a buffer, with participants who had high self-esteem reporting less stress, less negative emotions such as anger and demonstrated fewer mistakes on a stress-inducing stroop task. Brown and McGill (1989) found that self-esteem acted as a moderator between stress and short-term illnesses such as colds. Unfortunately this study assessed stress through a 12 month retrospective account by participants of life events. Larson (1992) reports in a retrospective study on undergraduates, that long-term retrospective analysis of life events can be affected by recall biases such as neuroticism where there is a tendency toward emotional sensitivity. Whilst Larson (1992) presents this study as longitudinal, it was only two months in length and comprised of a small sample. More longer term work and a larger more representative sample would be needed to replicate and confirm the results. Also, the study requested participants to indicate physical symptoms using a checklist three times a day for two months. Such a high frequency may have increased a risk of fatigue and less accurate recall of symptoms.

1.10.4. There has been much speculation as to where self-esteem impacts upon the stress-illness relationship. Rector and Roger (1996) argue that most literature regards self-esteem as impacting on health outcomes through influencing the coping responses. Linville (1987) examined self-complexity and its impact upon the health of

106 undergraduates. They found that high self-esteem allows the individual to believe that they can cope with the stressor. Linville's study, as with a significant number of studies examining self-esteem, used a student sample. By doing this it can restrict the generalisability of such results. Rector and Roger (1996) argue that such claims are not empirically strong, and it may well be that self-esteem moderates the stress-illness relationship at primary appraisal. Rector and Roger (1994) were able to demonstrate this in that individuals with high self-esteem were able to apply more effective coping strategies to manage the stressful demand. Similarly, Aspinwall and Taylor (1992) in a student sample examining adjustment to college life, report that the impact of self-esteem may be confounded by a stable dimension of personality termed negative affect or neuroticism. This dimension consists of a range of negative emotions such as anger, hostility, anxiety and depression. Aspinwall and Taylor (1992) report that the high levels of self-esteem found in their student sample predicted good psychological and physical health purely because they are indicative of an absence of neuroticism. Whilst there is a clear link between low self-esteem and neuroticism, a similar link with perceived control is as yet unclear (Aspinwall and Taylor, 1992).

1.11 Type-A behaviour pattern

1.11.1. Type-A behaviour pattern is regarded as a moderator in the stress-illness relationship. It can parallel self-esteem in that a failure for a Type-A individual to meet the high expectation of themselves, leads to a low self-esteem (Roger, 2000). Type-A behaviour is characterised by competitiveness, hostility, impatience, anger and an accelerated pace of activities, and has been linked with coronary heart disease (Friedman and Rosenman, 1959, Birks and Roger, 2000) and a main predictor in poor health (Rosenman, Brand, Jenkins, Friedman, Straus and Wurm, 1975). Type-B behaviour pattern is defined as the absence of such characteristics (Cohen and Edwards, 1989). The evidence of the role that Type-A behaviour patterns play in the stress-illness relationship has been mixed, with most research yielding inconclusive

results (Cohen and Edwards, 1989). Hewitt and Flett (1996) argue that Type-A behaviour patterns have been linked with ineffective management of a demanding situation. Here the individual is rigid in their management of the problem that is indicative of a poor level of control over the stressor. Pittner, Houston and Spiridigliozzi (1983) found that Type-A individuals tend to use denial and projection to manage the demand rather than attempting to rationalise the situation. Jackson and Gray (1989) also reported that such individuals prefer to avoid the demand rather than acknowledge and manage it. This would contrast with the work of Vingerhoets and Flohr (1984) who report that in a sample of 300 male participants, Type-A individuals demonstrated a preference for the more rational and effective coping strategies. Hewitt and Flett (1996) argue that such inconsistencies may be a result of the differing measures used to examine type-A behaviour. For example, Cohen and Edwards (1989) report that the two main measures used to determine Type-A behaviour are the structured interview (SI, Rosenman et al, 1975) and the Jenkins Activity Survey (JAS, Jenkins, Rosenman and Zyzanski, 1974). Cohen and Edwards (1989) report that whilst both measures possess appropriate reliabilities, there is only a moderate correlation between the two. This could suggest that they are measuring different constructs. Birks and Roger (2000) also report that the structured interview (Rosenman et al, 1975) is subjective and requires extensive training in its scoring. In an examination of the literature, Cohen and Edwards (1989) argue that some research examining Type-B patterns as a buffer against stress and Type-A as a risk of heightened stress or poor health has used inappropriate statistical analysis to interpret the buffering hypothesis, such as inappropriate use of structural equation modelling, leaving such results as speculative.

1.11.2. Birks and Roger (2000) argue in their study of over 632 participants of differing backgrounds that the inconclusive findings of the buffering effect of Type-A behaviour on the stress-illness relationship is a result of an inadequate distinction

between the two components in the Type-A behaviour scales. Birks and Roger (2000) refined these components as 'toxic' and 'non-toxic' based on a factor analysis of the Jenkins Activity Survey (Jenkins et al, 1974). 'Non-toxic' comprises of Achievements Striving (AS) that is associated with positive outcomes and the 'toxic' component comprising of Impatience Irritability (II) that is associated with poor physical and psychological health. Earlier acknowledgement that the 'toxic' component is related to poor health led Burns and Bluen (1992) to develop a scale called the Multidimensional Type-A Behaviour Scale (MTABS) to take the 'toxic' component into consideration. Unfortunately, Birks and Roger (2000) argue that the MTABS sub-scales are small and the 'non-toxic' scale demonstrated a positive correlation with two out of the four 'toxic' scales. As a result, Birks and Roger (2000) developed two measures to determine 'toxic' and 'non-toxic' behaviour, one measure for students (Student Toxic Achieving Questionnaire, STAQ) and the other for working adults (Working Adult Toxic Achieving Questionnaire, WATAQ). Unlike the MTABS, the 'toxic' and 'non-toxic' scales on these measures correlated negatively with one another (Birk and Roger, 2000). Using this scale they found that 'toxic' behaviours were associated with poor health, whereas 'non-toxic' behaviours acted as a protective and buffering effect against the stress-illness relationship.

1.12 Coping overview

1.12.1. Whilst a number of factors that moderate the stress-illness relationship have been discussed, coping is considered a mediator in the stress-illness relationship (Wong, 1993 and Carver et al, 1993). There is some current exploration of the role of coping as a stress-buffer and moderator. As yet, the role of coping as a buffer is, if at all, inconclusive, with only a limited number of researchers who have begun to explore this as a possibility (Cohen and Edwards, 1989). Coping is one of the most widely studied areas within health psychology (Hobfoll, Schwarzer and Chon, 1998). The main focus of coping research is to identify the most effective forms of coping for

mediating between the stress-illness relationship and for dealing with stressful experiences, in an effort to use this knowledge to assist psychological intervention in the management of the stress (Somerfield and McCrae, 2000).

1.12.2. Definitions of coping are generally comparable across studies. Fleishman (1984) defines coping as behavioural, although omits the cognitive strategies used by an individual to manage the stressful experience: *"overt and covert behaviours that are taken to reduce or eliminate psychological distress or stressful conditions"*. Folkman and Lazarus (1980) recognise the cognitive and define coping as *"cognitive and behavioural efforts made to master, tolerate, or reduce external and internal demands and conflicts among them"*.

1.13 Coping development

1.13.1. Freud's (1933) psychodynamic approach presents one of the first approaches that theorists used to examine coping, concentrating on threats and stressors internal to the individual. Freud's concepts of the Id, Ego and Super-Ego, serve as the unconscious processes that distort reality and reduce tension as a means of defending the individual from potential psychological harm (Zeinder and Endler, 1996). These processes appear in the form of defence mechanisms. Examples are 'repression' where an individual removes a threatening desire from their conscious into their unconscious, or 'rationalisation' where an individual attempts to find an acceptable excuse for an unacceptable behaviour. The mechanisms can be used by an individual when faced with an internal threat or conflict.

1.13.2. The importance of this approach within coping theory is questionable as it lacks empirical robustness. It fails to acknowledge the external stressors with which

an individual may be faced and in addition, one of the major shortcomings of this theory is the subjectivity behind individual clinician's interpretations of the defence mechanism. For example, Vaillant (1977) defines the defence mechanism of reaction formation as *"behaviour in a fashion diametrically opposed to an unaccepted instinctual impulse"*. An example of this defence mechanism would be caring for someone when the real desire is to be cared for yourself (Folkman and Lazarus, 1980). Such a mechanism has strong parallels with altruism. Altruism is described as *"vicarious but constructive and instinctually gratifying service to others"* (Vaillant, 1977). Yet it differs from reaction formation in that *"it leaves the person using the defence partly gratified"* (Vaillant, 1977). The problem in determining which of these two defences is being used by the individual lies in the gratification felt by the individual. It is difficult for a clinician to determine whether the person was genuinely gratified, in which case it would be altruism, or pretending to be gratified, which would be reaction formation (Folkman and Lazarus, 1980). As a result, interpretation of defence mechanisms is not always consistent amongst clinicians (Folkman and Lazarus, 1980).

1.13.3. An additional problem with viewing coping as a defence mechanism is the purpose of these mechanisms. They are intended to reduce and stop the stress and tension felt by the individual (Folkman and Lazarus, 1980). As a result of this, the theory tends to concentrate on strategies that eliminate the stress, and does not necessarily consider all the different types of coping that may be available (Folkman and Lazarus, 1980), such as avoidance of the stressor and restoration of emotional balance. Folkman and Lazarus (1980) argue that coping must not only attempt to restore emotions to a desirable level, as proposed by Freud's theory, but it must also examine methods by which an individual can problem-solve in relation to the stressor.

1.13.4. During the 1970s and 1980s research into coping became much more focused on the conscious processes involved in coping (McCrae, 1984). Coping began to be examined in relation to external rather than internal stressors (Parker and Endler, 1992). One of the primary reasons for this shift was the effort to make psychological research into coping a more scientific discipline (Coyne and Racioppo, 2000). Such a discipline requires vigorous psychometric testing of theories and approaches, something that Freud's (1933) psychodynamic approach cannot withstand.

1.14 Current coping theories

1.14.1. Coping theories have become conceptualised into two main approaches, process and trait-orientated approaches (Porter and Stone, 1996). The process approach views an individual's use of particular coping strategies as being capable of change over time, and in relation to specific stressful encounters (Porter and Stone, 1996), rather than a direct result of the individual's stable personality (Holohan and Moos, 1987). It is argued that individuals possess a wide repertoire of coping styles, and the style they select depends on the stressor at hand (Zeinder and Endler, 1996). The transactional theory of coping fits with this approach. This theory regards coping as that which is continually changing as a response to situational modifications and the individual's perception of how they interact with their environment (Porter and Stone, 1996, Lazarus, 1993). As highlighted by Lazarus (1993): *"Coping changes over time and in accordance with the situational context in which coping took place"*.

1.14.2. A problem with this approach is that it regards the coping styles used within one situation are not able to be generalised to the next (Folkman and Lazarus, 1980). This view is not supported by a large scale research study conducted by Pearlin and Schooler (1978). In contrast to the majority of situation-orientated coping research, they did not concentrate on traumatic events, but instead chose to examine stressors in

everyday life such as financial responsibilities, marriage and work. They found that individuals used a wide repertoire of coping styles, some of which were specific to certain stressors, and others that were more universal. One limitation of this study was Pearlin and Schooler's measurement of coping (Folkman and Lazarus, 1980). It was based upon how individuals usually coped with general sources of stress as opposed to how they actually coped in specific situations and to unusual or unexpected crises. This may offer an unrealistic or superficial coping style in that the stressor is not examined in any great depth (Folkman and Lazarus, 1980). Secondly, asking an individual to indicate how they *usually* cope can run the risk of the individual reporting how they believe they cope and not necessarily how they actually cope (Folkman and Lazarus, 1980). The study also classified effective copers as those who demonstrated a reduction in the stress they felt whilst experiencing a demand. By doing so, they omitted those individuals who, through successful coping, managed to reduce the severity of the demand and therefore were not exposed to the stress (Pearlin and Schooler, 1978). The study also failed to acknowledge the possibility that the experience of stress may in itself create demands and restrict the coping strategies that an individual believes they have access to (Pearlin and Schooler, 1978).

1.14.3. Trait-orientated theorists argue that an individual acts in a similar and consistent way regardless of the situation. In contrast to the process approach the choice of coping response is not viewed as mediated by the situation in which the stressor can be found or the intensity of the stressor itself, but it is a stable and habitual part of an individual's personality (Folkman, Lazarus, Dunkel-Schetter, DeLongis and Gruen, 1986). Patterson and McCubbin (1987) argue that *"coping style is a generalised strategy or habitual preference for approaching problems irrespective of their source or nature"*. Nowack (1989) argues that individuals tend to be relatively consistent in the coping styles that they use both over time and with a variety of different stressors. The psychodynamic approach parallels the trait-

orientated approach, although the trait approach concentrates on the influence of the individual's personality on their coping style (Folkman and Lazarus, 1980). This aside, psychodynamic coping models involve defence mechanisms, which are relatively stable traits within the individual (McCrae and Costa, 1986). Although these models consider an individual's method of coping when faced with a stressful situation to be relatively fixed, they do recognise that these can be subject to change as the individual matures (Zeinder and Endler, 1996).

1.14.4. An important consideration is the assumption with the trait-orientated approach that an individual acts in a similar and consistent way regardless of the situation. Such an assumption has neither been greatly supported within the research literature (Folkman and Lazarus, 1980), or been extensively researched (Folkman and Lazarus, 1980). This aside, there are some studies that support the trait-orientated approach. In a longitudinal study, McCrae and Costa (1986) found an adult's coping strategy preference predicted how well they coped in future stressful situations, with more effective coping being linked to higher life satisfaction. This study appears to support the trait-orientated notion that the coping strategy an individual chooses, and its level of success, results from their personality and not from the nature of the stressful situation. Although the correlations between coping preference and future coping prediction were, in some instances, low in magnitude. Although process-orientated researchers have argued that an individual's choice of coping response can change in relation to the type of stressor (Lazarus, 1993), more recent evidence has found this not to be the case. In their study of prisoners, Zamble and Porporino (1988) report little evidence to support the notion that an individual's coping response changes in relation to the type of stressor. They found little increase in a prisoner's use of additional coping strategies when compared to strategies they used outside prison, even though a prison offers different types of stressors than on the outside. For example, a prisoner's use of both problem-focused coping, which involves the

resolution of a stressor through rational thought (Roger, Jarvis and Najarian, 1993), and avoidance strategies, which involve a denial of a stressor's existence (Zeinder and Endler, 1996), show little change in level from before they enter prison to their time spent in prison. Overall, the stability in the prisoner's use of coping strategies before and during prison certainly seems to support the trait-orientated view that coping styles are relatively stable traits (Zamble and Porporino, 1988). Although the environment of a prison can restrict the use of coping strategies, such as allowing less opportunity for problem-focused strategies to be used (Zamble and Porporino, 1988). Such restrictions on the type of strategies that can be used may not reflect a reliable comparison as to the strategies used before and during prison. Nonetheless it should be acknowledged that the level of problem-focused strategies used before entering prison remained the same in prison. This would suggest that the individual's preference for using the same types and levels of coping strategies may not be restricted solely by the prison environment, as a reduction in such problem-focused strategies would be expected when in prison rather than for them to remain at the same level.

1.15 Adaption to the environment

1.15.1. Before the different types of coping styles are considered, their adaptiveness as a whole must be examined. An individual's adaptation to the environment consists of strategies they use in order to deal with demands/situations (Zeinder and Saklofske, 1996). The effectiveness of an individual's attempts to resolve or eliminate the stressor can be dependent upon the appropriateness of the coping style to the stressor. Generally, coping has been divided into two main categories: effective and ineffective. Effective coping is where the individual demonstrates both strength and resilience with the use of constructive action to successfully cope with stressful situations (Zeinder and Endler, 1996). Lazarus (1993) defines effective coping as that which *"improves the adaptational outcome"*. As a result of the use of effective coping the

problem or stressful situation is usually permanently removed, maintaining the good psychological health of the individual (Pearlin and Schooler, 1978). Ineffective coping occurs when the individual copes poorly with environmental demands and the stressful situation remains unresolved (Zeinder and Endler, 1996), leading to a detrimental effect on the individual's psychological and physical health.

1.16 Coping strategies and their effectiveness

1.16.1. There are many strategies an individual may adopt in order to deal with a stressor, and the same individual can use more than one type of strategy. In Folkman and Lazarus's (1980) study they found that individuals used a combination of coping strategies in virtually every stressful situation they examined. Out of the 1,332 stressful situations they analysed, less than two per cent of these involved individuals using only one type of coping. Endler and Parker (1990) report that researchers tend to examine two main coping styles, namely problem-focused and emotional coping. Some researchers have identified two more consistent styles, avoidance coping and detached coping (Zeinder and Endler, 1996 and Roger et al, 1993). These coping styles will be discussed in the following paragraphs. One of the issues with coping theories is the tendency to label coping strategies as effective or ineffective regardless as the type of stressful situation. As a result, individual coping strategies will be presented below, but their effectiveness will be discussed in relation to specific stressors.

1.16.2. Problem-focused coping occurs when an individual attempts to resolve or eliminate the stressor by minimising its impact through instrumental actions such as information seeking (Zeinder and Endler, 1996) and rational thinking (Roger et al, 1993). Billings and Moos (1981) describe problem-focused coping as *"attempts to eliminate the sources of stress through one's own behaviour"*. An example of

problem-focused coping in action is highlighted in Zamble and Porporino's (1988) study. Prisoner 'X' was missing his family. In order to cope with the stress he felt as a result, he wrote a number of letters to them. He realised that he would be writing letters for the next five years. As a result he designed an action plan for early release. This involved keeping out of trouble, working well and actively working towards his parole (Zamble and Porporino, 1988). Individuals who use problem-focused coping, such as designing plans of action and problem solving, tend to deal much more effectively and adapt to the stressor more readily. Gal and Lazarus (1975) found that most individuals prefer active coping such as problem-focused, and its use allows for a reduction in stress. The individual's use of problem-focused strategies serves to deflect the majority of the negative effects that a stressor can have on their psychological health (Zeinder and Endler, 1996). With regard to personality, an internal locus of control has been associated with problem-focused coping (Hewitt and Flett, 1996). Yet, Aldwin and Revenson (1987) argue that researchers tend to assume that if an individual has used some form of problem-focused coping, such as making an action plan, then it has been used appropriately. This assumption may be flawed in that the action plan may not have been effective or may have been unrealistic (Aldwin and Revenson, 1987). They also argue that researchers can assume that simply using problem-focused coping is a sign of good coping, without examining the effectiveness and appropriateness of the strategy to the stressor. However, (Schwarzer and Schwarzer, 1996) report that it is important to consider that the individual attempted to resolve the situation through problem-focused coping. They argue the strategy does not have to of successfully deflected the negative effects, what is essential is that the individual attempted to resolve the stress through problem-focused strategies. Beehr and McGrath (1996) argue that the overall effectiveness of problem-focused coping can depend very much on the type of stressor, with problem-focused coping working best when the stressor is very clear and specific.

1.16.3. Another form of coping that is distinct from problem-focused coping is detached coping (Roger et al, 1993). Roger et al (1993) designed a trait-orientated 'coping styles questionnaire' (CSQ) on the basis of their research with undergraduate samples. Upon its construction they identified a new coping style which they labelled 'detached coping'. This type of coping occurs when the individual believes that the less involved they become with the stressor the more effectively they can cope with it. They attempt to resolve the stressor by detaching themselves from the situation and considering how an ideal coper would react in this situation (Wong, 1993), being clear-headed and taking nothing personally (Roger et al, 1993). This type of coping is not to be confused with avoidance coping and it is distinct from both this and problem-focused coping (Roger et al, 1993).

1.16.4. Another coping style is emotional coping. Researchers also label this strategy as 'emotion-focused', but within this thesis it will only be referred to as emotional coping, in line with the Coping Styles Questionnaire used in the longitudinal study of this research. Emotional coping involves mostly cognitive strategies that can hinder resolution or elimination of the stressor, by re-labelling it and giving it a new meaning (Zeinder and Endler, 1996). Billings and Moos (1981) further describe emotional coping as *"behavioural or cognitive responses whose primary function is to manage the emotional consequences of stressors and to help maintain one's emotional equilibrium"*. Research in the area of emotional coping is contradictory. Some researchers argue emotional coping increases stress (Zeinder and Saklofske, 1996) and others argue the opposite (Baum, Fleming and Singer, 1983). These contradictions may be explained by Aldwin and Revenson's (1987) argument that the type of stressor plays a role in the effectiveness of the chosen coping strategy. On the whole, an individual using emotional coping may tackle the stressor poorly as a result of becoming too emotionally involved with it. It may also be a result of using this strategy in an inappropriate situation (Aldwin and Revenson, 1987). Inappropriate use

can result in self-preoccupation, fantasy and involvement in activities that affect regulation (Zeinder and Endler, 1996). Although emotional coping can help to maintain an emotional balance, problem-focused coping is still required in order to deal actively and directly with the stressor (Zeinder and Saklofske, 1996). Yet, Folkman and Lazarus (1980), Folkman, Lazarus, Dunkel-Schetter, DeLongis and Gruen, (1986) and Lazarus (1993) argue that if the individual perceives that they can do little to adapt to or resolve the stressor, they will use emotional rather than problem-focused coping. Malcarne and Fondacaro (1988) examined stress throughout an individual's childhood and adolescence. They found that problem-focused coping was most effective when the individual felt they could control the stressful situation, whereas emotional coping worked best where the individual felt they had less control over the stressful situation. As a result, in a study of children and adolescents, Compas et al (1988) reports that if the stressful situation cannot be resolved, emotional coping may be the most effective option. It may also suggest that emotional coping is effective when used within the appropriate context with relatively short-term stressors. More recently Rector and Roger (1996) argue that emotional coping is the strongest mediator in the stress-illness relationship, with emotional coping being related to poorer levels of health.

1.16.5. With regard to problem-focused and emotional coping, in a review of the literature Lazarus (2000) argues that coping research has a tendency to regard the two styles as being in competition. Lazarus (2000) argues against this, proposing that the two styles actually work in unison together, complementing one another during the process of coping. In a review of the literature, Rothbaum, Weisz and Snyder (1982) describe this process as the 'Fallback hypothesis'. They argue that problem-focused coping can work independently from emotional coping, yet emotional coping usually occurs after problem-focused strategies have been attempted. Tennen et al (2000) examined this hypothesis with individuals suffering from rheumatoid arthritis. They

found, in agreement with the fallback hypothesis, that although problem-focused coping was used regularly in the absence of emotional coping, the latter strategy had a tendency to be used after problem-focused coping. They comment that *"today's emotional coping was modelled to be a function of yesterdays problem-focused coping"*. Lazarus (1993) suggested that an individual may use emotional coping after they have determined that they have no control over the stressor resulting from their failed attempt to use problem-focused coping.

1.16.6. Avoidance coping is the final coping style to be addressed here. In a review of the literature, Parker and Endler (1992) argue that it is a strategy that can be important when dealing with stress. They comment that avoidance coping may be effective in the short-term, although not as effective in the long-term when compared to the problem-focused strategies. In a study of 56 patients who had been involved in serious motor vehicle accidents, Bryant and Harvey (1995) reported that the use of avoidance coping was beneficial immediately after the accident, yet prolonged use of avoidance coping impeded the psychological adjustment of patients 12 months after the accident. Such patients also masked the extent and identification of their post-traumatic stress. Avoidance coping involves denying the existence of the stressor, which as a consequence of this denial is associated with psychological distress (Zeinder and Endler, 1996). Such denial can be the result of secondary appraisal, where the individual perceives that the resources that they have available to deal with the stressor are insufficient (Holohan and Moos, 1987) and which leads to an avoidance of the stressor's existence. As a result avoidance has been defined as *"turning away from the threat-related cues"* (Krohne, 1993). This can be done by the individual's removal either physically or mentally from the potentially stressful situation, as illustrated by one male prisoner who reported: *"It [thinking of his family] always gets me down, so I just avoid thinking of them. I put the letters out of sight so they don't*

remind me, and I keep busy so that it doesn't creep into my head" (Zamble and Porporino, 1988).

1.16.7. The individual's denial and withdrawal from the stressor in an attempt to control the distress felt can potentially serve only to increase the distress and, as with emotional coping, potentially exacerbate the stressor on its subsequent return (Menaghan, 1982). Aspinwall and Taylor (1992) examined 1,101 college students adjustment to college life. They found extensive use of avoidance coping was detrimental to the students adjustment and self-esteem, finding the use of problem-focused coping a more beneficial strategy. One of the limitations with this study was that it relied on self-reports of how individuals adjusted to college and their current level of health. There was also a large decrease in the response rate and subsequent sample size from the first to second phase of their research, raising questions as to the representativeness of the second phase sample. In fact Aspinwall and Taylor (1992) report that the participants from the second phase did differ from the first in regard to their locus of control and preferred coping styles. This could bring into question to representativeness of the sample over time which may have ultimately biased the results. One of the final limitations with this study was its use of path analysis, where the results could be accounted for by other unassessed variables not considered within the model (Baron and Kenny, 1986). Tennen, Affleck, Armeli and Carney (2000) completed a study on 93 moderate to heavy drinking men and women who completed regular structured diaries for 60 consecutive days. They reported that daily avoidant coping was related positively to average daily drinking. Zamble and Porporino (1988) found that those prisoners who used avoidance coping managed only to change the original stressor into another equally undesirable one. Rhode, Lewinshohn, Tilson and Seeley (1990) found in their study on depression that adults who used avoidance and other escape strategies when dealing with a stressor suffered increased levels of distress, both in the present and in the future, when compared to those who used more

problem-focused coping. Unfortunately, the coping measure developed by Rhode et al (1990) has questionable psychometric properties. The measure they developed was an amalgamation of other coping measures. It is unclear in their article which items from which questionnaires compiled each sub-scale, and the reasoning behind the decision to develop an amalgamated coping measure as opposed to using a coping tool that was already empirically validated. Whilst some of the reliabilities for these sub-scales were appropriate, others were low such as .50, with a test-retest reliability of .48 (Rhode et al, 1990).

1.16.8. It must be noted that coping strategies such as avoidance are not ineffective forms of coping, they are simply ones that tend to offer temporary, short term solutions to the stressor. For example, in a study of middle-aged cardiac patients Holahan, Moos, Holohan & Brennab (1995) report that avoidant forms of coping such as denial were beneficial immediately after the cardiac illness, yet this is only short-term. If such forms of coping are continued, their effects on the individual's health can be very negative, such as increased depression. In a review of the literature, Roth and Cohen (1983) comment that if the stressful situation is perceived as uncontrollable, then avoidance coping may be the most beneficial approach. Holohan and Moos (1987) argue that at the initial stage of coping with an excessively traumatic stressor it can be effective to use avoidance in order to examine and gather the resources to combat it. Zeinder and Saklofske (1996) argue that the use of avoidance on occasion can be effective in that it offers the individual a break and time out from a long term stressor. Kaminer and Lavie (1988) report in their study of bereaved survivors of the holocaust, that avoidance or suppression of the trauma some forty years after the event was more effective than working through the stressor, leading to less sleep disturbances. Stroebe and Stroebe (1987) argue that avoidance can be a useful strategy with grief as it allows for the emotional impact of the loss to be lessened. This would be supported by Archer (1999) who reported bereaved participants that deliberate

avoidance of painful thoughts around the deceased was an effective strategy for dealing with the loss. Archer's (1999) examination of grief research leads to the conclusion that strategies for managing grief involving distraction, such as helping others and keeping occupied, are related to lower levels of psychological distress such as depression.

1.16.9. In summary, the effectiveness of coping strategies are under debate. There is evidence to suggest that although there are negative aspects of stress, there can also be positive outcomes that have often been overlooked in coping research. Examples of these would be stress-related growth (Park, Cohen and Murch, 1996), positive personal changes (Curbrow, Somerfield, Baker, Wingard and Legro, 1993), crisis growth (Holahan, Moos and Schaefer, 1996) and increased feelings of self-esteem (Cohen et al, 1995. In a review of the coping literature, Coyne and Racioppo (2000) comment that there is the assumption within the literature with little empirical support that effective coping is a reflection of negative associations between coping and psychological distress, and that effective coping mediates the influence of stress on adaptational outcomes. In a longitudinal study on coping strategies and psychological symptoms Aldwin and Revenson (1987) report that the nature of the stressful situation may affect the effectiveness of the strategy. For example, they reported that the effectiveness of the strategy was impeded by high levels of emotional distress and more severe problems. Although one of the problems with this study is that participants were required to complete the measures via the postal system, leading to potential difficulties in assuring that the same person completed the measures. Pearlin (1991) emphasises the importance of considering the nature of the stressful situation, arguing that some stressors cannot be resolved even with various attempts from the individual, with some situations preventing the use of some coping styles. This is not to say that research that, for example, has found that avoidance coping is a poor form of coping (Zamble and Porporino, 1988) is misleading. Avoidance coping may well be

an inadequate form of coping within the context of the stressful situation that the research examined. Care must be taken when extrapolating findings from coping research, and attempting to apply them to all individuals and stressful situations.

1.17 Coping and physical health

1.17.1. If the stress an individual is under is not coped with effectively, it can result in a number of detrimental physical symptoms or may aggravate symptoms already present. Examples of this would be lack of appetite, headaches and nausea (Arnold, Robertson and Cooper, 1993). There have been a number of studies that have identified further the link between stressful life events and physical illnesses (Kobasa, 1979). The stress required to increase the risk of stress-related illnesses does not necessarily have to be a major life event. Nakono (1988) reports that everyday hassles of living can increase the risk of an individual's poor physical health, with the detrimental impact of such stressors being much worse than major life events (Landreville and Vezina, 1992). This could be as a result of everyday hassles being persistent and the individual coping ineffectively with them, as opposed to a major life event whose effect can dissipate over time.

1.17.2. A prison environment can be regarded as stressful (Zamble and Porporino, 1988) and one that may well increase the chances of physical illnesses in those individuals who cope ineffectively. Posen (1986) found that prison officers demonstrated a number of stress-related illnesses associated with acute stress, such as headaches, sweating and dizziness. On average, prison officers reported suffering from six episodes of stress-related symptomology in one week alone. Although this research was conducted using officers, it illustrates how stressful a prison environment can be.

1.17.3. Coping has been found to play an important part in the interaction between the psychological and biological factors that can influence the health of an individual (Zeinder and Endler, 1996). In support of the biological approach toward stress, Roger and Rector (1994) found that if the stressor is interpreted as having negative consequences for the individual and they believe that they can do little to change the stressor, they will become much more susceptible to emotional, neuroendocrine and immunological problems than those individuals who perceive that they have the ability to change and alter the stressor. As discussed earlier in this chapter, chronic stress can damage the immune response of the individual, which can cause wear and tear on their organs (Jabaaij, Grosheide, Heijtink, Duivenvoorden, Ballieux and Vingerhoets, 1993). Altogether the damage done to the immune system as a result of not coping effectively with the stressor can increase the individual's susceptibility to a wide variety of stress-related physical illnesses (Kohn, 1996).

1.17.4. Furthermore, Kobasa (1979) found that individuals who use effective coping strategies to manage with stress are much less susceptible to stress-related illnesses. Individuals who utilise problem-focused strategies such as decision-making are much more aware of their capacities, and are able to make the decisions that are necessary to respond and analyse each stressor as it arises. By doing so, unlike the ineffective copers, such individuals can stay relatively healthy when confronted with stress (Kobasa, 1979). Roger (1995) found in an undergraduate sample that stress-related illnesses and a deterioration in general health were more likely in those who used emotional coping. Folkman and Lazarus (1980) also found emotional coping to be predictive of physical illness. Roger and Rector (1994) further found in a different university sample that deteriorated health status can be predicted by emotional coping, and Roger, Jarvis and Najarian (1994) found that none of the other three styles of their Coping Styles Questionnaire, namely avoidance, detached and rational, were implicated in poor health. It could be that emotional coping is more predictive of

stress-related illnesses in that the individual, through the use of emotional coping, may re-label the stressor (Zeinder and Endler, 1996). This may be for the worse, leading to the exacerbation of the stressor as emotional coping has been found to increase levels of stress (Zeinder and Saklofske, 1996). This in turn may increase the risk to stress-related illnesses. In agreement with Aldwin and Revenson (1987), emotional coping must not be regarded as wholly ineffective, but its effectiveness must be assessed in relation to the stressful situation in which it is utilised.

1.18 Measurement of physical health

1.18.1. The methods by which stress-related illnesses have been measured have evoked a number of discussions, some of which has been discussed in section 1.4. One of the most popular methods is that of check-lists, such as health complaint scales (Watson and Pennebaker, 1989). Such scales require individuals to inform researchers of the number of illnesses that they have experienced in the last week or month. They can prove inaccurate through miscalculations and individual misperception. The individual may miscalculate the number of instances they have had illnesses, for example the number of headaches they have had in the last month, as well as reporting relatively minor ailments as serious injuries (Wethington et al, 1995). Such scales also reflect the individual's own perceptions and interpretations of their physical sensations (Watson and Pennebaker, 1989). Such reliance on individual interpretation does not necessarily provide an accurate account of the individual's true health state.

1.18.2. Such check-lists use previous research to predetermine the manner in which an individual will display their physical or psychological illness. As a result they can become too selective with the symptoms they identify. A way to minimise this is to use the target population to identify symptoms in advance of the research, maximising the number of symptoms examined in the process. While such a procedure can reduce

the use of a particular check-list with other populations, it can increase its sensitivity within the context of the particular study (Turner and Wheaton, 1995). In addition, Turner and Wheaton (1995) argue that checklists can make determining the strength of the stress-illness relationship complicated. For example, an individual's experience of physical illness can in itself create further life events.

1.18.3. Although an individual's perception of their health cannot be altogether avoided and determination of the strength of the stress-illness relationship can be difficult, the use of medical records can provide an alternative indication of an individual's health. However, medical records can be limited and unreliable in that individuals have differing thresholds at which they will report illnesses to a medical practitioner (Roger, Nash and Najarian, 1995). Nonetheless, they remain independent of the research process (Zeinder and Endler, 1996) in that they have been made for purposes other than a research project. Although subjectivity can remain as such records rely on the interpretation, values and purposes of the individual who completes them (Zeinder and Endler, 1996). One of the more effective methods of ascertaining information of health status can be the use of interviews as discussed earlier in section 1.4.

1.19 Coping and psychological health

1.19.1. There have been a number of studies that have attempted to assess the relationship between coping and psychological health. Rhode et al (1990) conducted a longitudinal study on a sample of middle-aged Americans from the general population, to examine the relationship between coping and depression, and to identify risk factors for nonbipolar depression in such individuals such as stress and initial levels of depression. They found that the coping style of 'ineffective escapism', involving avoidance strategies and passive and reckless coping behaviours, was

positively related to current and future levels of depression. Although the previously discussed problems in section 1.16 with Rhode et al's (1990) research must be considered, such as their amalgamation of coping measures and low reliabilities. Billings, Cronkite and Moos (1983) compared the coping styles of depressed outpatients with nondepressed controls. They found that depressed patients reported a higher use of information-seeking and emotional discharging strategies, and a lower use of problem-focused strategies than the non-depressed controls.

1.19.2. Aldwin and Revenson (1987) conducted a longitudinal study of coping and mental health, involving 291 adult American participants. The sample were predominantly white middle class females. They found that the coping strategy of 'escapism' [avoidance] accounted for 19% of the variance in residualized symptoms even though it was slightly confounded by previous mental health. They also reported a causal relationship between poor mental health and ineffective coping: the greater the level of emotional distress and the more severe the problem, the more likely it was for individuals to use ineffective coping strategies. This in turn increases emotional distress which can increase the possibility of experiencing problems in the future. They also found that when the problem-focused strategy was used successfully, that is by comparing how successfully the individual felt they had handled the stressor, it decreased mental symptoms. Yet when it was used ineffectively it increased the mental symptoms. This certainly appears to suggest that the effectiveness of problem-focused coping depends very much on its suitability for the given stressful situation. Yet the specific sample used in Aldwin and Revensons (1987) research means that generalisation to other populations should be made with caution. In addition, they examined coping using the Ways of Coping Checklist (WCC, Folkman and Lazarus, 1985) which has been criticised for its weak and inconsistent psychometric properties. Within Aldwin and Revenson's (1987) study some of the reliabilities on the sub-scales of the WCC were low and ranged between .65 and .80. Low reliabilities would

question the integrity of the measure. A greater detail of the WCC criticisms is discussed in section 1.20.

1.19.3. Aldwin and Revenson (1987) argue that the relationship between the effectiveness of coping and psychological health can only really be addressed longitudinally. Most research on coping and mental health has been cross-sectional in design, making it unclear as to whether ineffective coping causes or is a result of depression. Tennen et al (2000) also argue that a period of major depression may leave a predisposition for the individual to engage in appraisals of the situation or coping efforts which may increase the likelihood of the depression re-appearing. By doing so this may lead to inaccurate information of the relationship between coping and depression. Longitudinal design can be one of the only methods by which a clearer picture of the relationship between coping and health can be determined.

1.20 Measure of coping

1.20.1. The appropriate measurement of coping is critical to its understanding. Folkman and Lazarus (1980) argue that *"without suitable assessment strategies, little progress can be made in understanding how coping mediates the relationship between the stresses of everyday living and psychological, physical and social well-being"*. The most common approach to measuring coping since the 1970s was self-report measures (Parker and Endler, 1992). This undoubtedly occurred as a result of coping theories at this time concentrating more on the conscious processes behind coping (McCrae, 1984). Before this period, the most common method of measuring coping was through a clinician's intervention. The clinician would attempt to bring the unconscious processes of coping to the surface (Parker and Endler, 1992).

1.20.2. Self-report measures can be quick to distribute and relatively easy to analyse. Unfortunately, such measures can be associated with a number of difficulties. Coyne and Racioppo (2000) argue that because such assessments are retrospective, it is difficult to distinguish between how the situation was resolved and how important an individual's coping attempts were to its resolution. In addition, some measures attempt to cover a wide repertoire of coping strategies, which can make interpretation difficult. Aldwin and Revenson (1987) found that the majority of coping strategies they examined were negatively correlated with the individual's perception of the effectiveness of the strategy in achieving their goals in a stressful situation. They suggest from this that the measures designed may have omitted particularly relevant coping strategies. Folkman and Lazarus (1980) argue that coping is a very complex amalgamation of thoughts and behaviours, which cannot be easily defined as a single measure. Consequently, researchers devise measures to examine a wide variety of coping styles. Although attempts to cover a wide range of coping styles would make theoretical sense, it can make some of the measures empirically unsound (Amirkhan, 1990).

1.20.3. An additional problem concerns the theories on which coping is based. Lazarus (1999) argues that whilst there is a copious amount of research into coping, its quality is questionable. Aldwin and Revenson (1987) argue that coping research has led little to the understanding of how coping processes operate and whether they play a significant and positive role when dealing with stress. Jorgenson and Dusek (1990) argue that trait-orientated measures do not determine whether an individual is considering a specific stressor or examining how they typically cope with stress. Some trait-oriented self-report measures have attempted to address this, including the Coping Styles Questionnaire (Roger et al, 1993). This measure asks individuals to complete the questionnaire in relation to how they *typically* react to stress, in an attempt to assess their global response style or styles.

1.20.4. A large proportion of research into coping tends to examine either specific populations or specific stressors (Amirkhan, 1990), with coping measurements tending to be based on one population, such as students (Parker and Endler, 1992). As a result, it can be difficult to generalise from such research. Even when research has examined more generalisable populations, the stressors that have been examined are very specific to that situation (Amirkhan, 1990). This again affects the ability to generalise the research across situations. Such lack of generalisability led Haan (1982) to state that coping research has generated *"small facts but no insight"*. Although the significance of examining coping styles within certain populations and certain stressors is beneficial, more directed research on how the general population copes with the stressors of everyday life would be useful.

1.20.5. Following from this, there has been a demand as mentioned in section 1.19, particularly in recent years, for longitudinal research to counteract the cross-sectional and between-persons designs (Tennen, Affleck, Armeli and Carney, 2000; Coyne and Racioppo, 2000). In review of the literature, and in agreement with Aldwin and Revenson (1987), Tennen et al (2000) argue that little research has examined coping longitudinally, and that without such a design the dynamic structure of how individuals adapt to stress is obscured. Longitudinal exploration allows for the complexity of coping to be examined more fully. Similarly, Lazarus (2000) further argues that for causation in stress and coping to be understood, longitudinal research must be conducted. It is only through such research that predictions from initial phase measures can be made and tested in later phases, allowing the identification coping styles that predict psychological reactions over time.

1.20.6. The number of empirically sound measures is relatively sparse. When reviewing the literature, Parker and Endler (1992) observed that there is a variety of

coping measures available, but most studies have not paid attention to their psychometric properties. As a result, there are measures that are methodologically unacceptable. Parker and Endler (1992) examined a number of coping measures and reported several instances where incorrect and inappropriate use of factor analysis had been used to develop the scales. They reported that some of the main problems with coping measurements are the lack of scale validation, absence of test-re-test reliabilities, unstable factors, and inadequate or non-existent construct validity. Traditionally coping measures that have been developed from how an individual has coped with a certain stressor or how certain groups of individuals cope, can produce a very exhaustive and large number of different strategies. Such measures cannot always be generalised, and different measures have produced different results (Amirkhan, 1990). This can lead to two dilemmas. Firstly, a coping measure can be used which is empirically robust, but is not generalisable. Alternatively, a coping measure can be used which may be generalisable but lacks empirical strength (Amirkhan, 1990). Amirkhan (1990) argue that an individual has to choose between *"those that can be used with a variety of people in a variety of situations versus those that are richer in descriptive power, but limited to specific people in specific contexts"*.

1.20.7. There are a large number of measures that have been developed to assess coping styles, not all of which can be discussed thoroughly within the context of this thesis. Whilst some of the earlier coping measures tended to examine large numbers of coping styles, Lyne and Roger (2000) argue that coping literature is moving more toward the acknowledgement that coping strategies tend to consist of only a small number of factors. With this considered, one of the more popular coping measurements, although large in the number of factors, is the COPE questionnaire (Carver, Scheier and Weintraub, 1989). This is a 53 item measure consisting of 14 sub-scales such as active coping, planning, seeking social support for emotional reasons and mental disengagement. The COPE has come under criticism, as with

similar coping measures, for the identification of too many sub-scales, bringing the empirical robustness of the measure into question (Lyne and Roger, 2000). This has led researchers to develop coping measures that yield a small number of factors which are more empirically robust, such as the Coping Styles Questionnaire (CSQ, Roger et al, 1993). Much criticism has surrounded the yielding of too many factors to too few. Carver et al (1989) report that their COPE measure was robust, although some of the sub-scales within the measure had only four items. Such a small number of items has implications for reliability analysis, increasing the risk of poor reliability (Tabachnick and Fidell, 1996). Similarly Carver et al (1989) retained within their factor analysis items with eigen values of 1.0. Tabachnick and Fidell (1996) argue that for a factor analysis to be regarded as robust, and dependent upon scree plots, eigen values of 4.0 and above should be included. They argue that any items below 4.0 are suspect as they explain little of the variance. Similarly, Kline (1994) argues that eigen values of 1.0 offers too many factors. Lyne and Roger (2000) re-analysed the COPE questionnaire, using the techniques by Carver et al (1989) when possible. They reported that the original sub-scales for the COPE were highly unstable and they were unable to replicate the original scale. What they were able to demonstrate was that the new revised COPE consisted of three factors, namely emotion-focused coping, rational or active coping and avoidance coping.

1.20.8. Used more traditionally within research is the Folkman and Lazarus (1988) Ways of Coping Questionnaire (WCQ) developed from an earlier version of the Ways of Coping Checklist (WCC). The WCQ consists of 66 items which examine a variety of behavioural and cognitive coping strategies accumulating into eight sub-scales. The reliabilities for some of the sub-scales is questionable, with Folkman and Lazarus (1988) reporting internal consistency reliabilities of a low .56 to a more acceptable .85. Some of the low reliabilities would question the validity of the check-list. One of the main problems with the WCC is that as the checklist has been revised, Folkman

and Lazarus have failed to replicate the original sub-scales developed on the earlier WCC (Folkman and Lazarus, 1985). In addition to this, researchers using the checklist have tended to modify it in order to fit with the hypotheses of their investigation or population they are examining (Endler and Parker, 1990).

1.20.9. One of the more empirically robust scales, and similar to the COPE, is the Coping Inventory for Stressful Situations (CISS, Endler and Parker, 1994). This 48 item scale examines three types of coping, task, emotion and avoidance orientated. The factor analysis of this scale was appropriate, although Endler and Parker (1994) included factor loadings of .35 and above, as opposed to the suggested .40 and above by Tabachnick and Fidell (1996). Nonetheless the reported reliabilities of this scale is good, ranging from .80 to .90, with large samples of the general and student populations used to determine the psychometric properties of the measure.

1.20.10. A less well known, but empirically robust measure is the Miller Behavioural Style Scale (MBSS, Miller, 1980, 1987 and Miller and Managan, 1983). This 32 item measure identifies two types of coping; information-seekers or monitors and information-distractors or blunters. This scale requires participants to consider how they would react to four stressful situations. Test-retest reliabilities of the MBSS are appropriate, with good predictive validity. Nonetheless it is unclear with this measure how the coping styles that it addresses compare to the more consistently studied styles of emotional, problem-focused and avoidance coping (Parker and Endler, 1992).

1.20.11. Another limitation of coping measures is that different researchers offer different labels to the same strategies, and others examine certain coping strategies whilst omitting others. This can make the generalisation between coping measures

difficult and limited. For example the situation-orientated Revised Ways of Coping Checklist (Vitaliano, Russo, Carr, Maiuro and Becker, 1985) consists of 42 items examining problem-focused coping, seeking of social support, wishful thinking, blaming of self and avoidance. By comparison, the trait-orientated coping style inventory developed by Nowack (1989) examines problem-focused and avoidance coping. It also examines two coping responses not included in the Ways of Coping Checklist, namely intrusive positive thoughts and intrusive negative thoughts. There may be instances where items within each of these separate measures can be found in the other measures, an additional problem being that different researchers give these grouping of items different names. This can again make generalisability between scales difficult.

1.20.12. Although not used consistently within research, Jorgensen and Dusek (1990) report that a more useful means of examining coping is to combine the self-report measures with peer reports. They argue that although self-report measures may be limited, it may be more beneficial and add to the measure's validity, to ask participant's friends and family to complete similar coping measures on how the participant copes. These measures can then be compared. This may go some way to address the problem with any self-report measure, of the participant attempting to appear to cope better than they do.

1.21 Adolescent coping

1.21.1. This next section will examine adolescent coping. The applicability of focusing upon adolescent coping within this chapter is reflected by the age of the participants who took part in this thesis, namely young offenders who range from 17 to 21 years of age.

1.21.2. Bandura (1981) argued that adolescent coping involves *"flexible orchestration of cognitive, social and behavioural skills in dealing with situations that contain elements of ambiguity, unpredictability and stress"*. Garmezy (1981) argues that adolescence is a difficult time when an individual is faced with physiological changes associated with puberty, striving for independence and adopting appropriate social roles. Patterson and McCubbin (1987) view the development of coping styles as a crucial process during this time. They argue that an adolescent can be faced with a wide range of novel stressors, and they may not have yet built a wide repertoire of coping styles to manage these.

1.21.3. Patterson and McCubbin (1987) report that adolescents, in particular those from 11 to 18 years of age, learn to cope from four main areas: previous personal experience, viewing how others deal with stressors and their consequent success, perceptions of what makes them personally vulnerable and the social persuasion of significant others (peers, parents). In a study on adolescent coping, Konopka (1980) reported that adolescents are at a high risk of demonstrating extreme reactions to stressors, resulting from a period of great change and new demands. These demands can occur in the form of a stressors or a strain. A strain is somewhat different from a stressor in that a strain is viewed as *"the unresolved hardships of prior stressors, i.e. financial hardship due to job loss, or the inherent tensions of an ongoing role such as being the adolescent child of rigid parents"* (Patterson and McCubbin, 1987). Valliant (1977) further argues that the coping styles developed during adolescence can determine the coping styles in adulthood.

1.22 Summary

1.22.1. This review has demonstrated that stress and coping theory is continuing to develop someway toward providing a clearer picture of the relationship between stress

and illness, and the role of coping as a mediator in this. Research is beginning to move from cross-sectional to longitudinal design in order to attain this goal. Nonetheless, the area of stress and coping is complex with the effectiveness of coping styles appearing to vary dependent upon the stressor. Stress research is focusing more upon buffers in the stress-illness relationship and coping research is beginning to develop further, moving away from labelling coping styles as universally effective or ineffective regardless as to the type of stressful situation being encountered. Further movement toward this would allow such theory and research to develop, examining if a coping style that appears ineffective is a result of it being the wrong strategy for that stressor or it is being used inappropriately.

Chapter 2

The prison environment

2.1 Structure of the chapter

2.1.1. This chapter will begin with a general description of the prison environment and the impact of this on the individual. This will be followed by consideration of the removal into prison as a transition period of which homesickness can be a consequence. Additional issues relating to homesickness, namely separation theory, institutional strain and the impact of homesickness on health will be explored. The chapter will then conclude with an examination of the measures used to address homesickness and a general layout of the thesis.

2.2 Prison environment

2.2.1. McKay, Jaywardene and Reedie, (1977) argue that a substantial proportion of research suggests that prison life can be detrimental to the health of prisoners. Cohen and Taylor's (1981) study of long term imprisonment in prisons report against this, stating that the *"fear of deterioration and insanity was less than we implied"*. Zamble and Porporino (1988) conducted a large-scale longitudinal study of prison life in American prisoners. They argue against prison life being detrimental, believing that the majority of the researchers have been misled by the initial distress demonstrated by prisoners on their arrival to prison, and by the number of prisoners entering the prison system who already have emotional problems. Research has shown that on a prisoner's arrival, he or she may demonstrate clinical levels of depression and appear to adapt poorly to the new environment (Zamble and Porporino, 1988). This can be

short-lived and prisoners do adapt quite quickly to prison life (Zamble and Porporino, 1988). Importantly, in a review of over 90 experimental studies into the effects of imprisonment on an individuals personality and interactions within prison, Bukstel and Kilmann (1980) argue that a failure for prisoners to cope with everyday problems in prison may lead to anxiety and acute depression. Yet, Zamble and Porporino (1988) argue that prisoners can adapt quickly to the drastic changes in lifestyle that the prison offers, and can soon accept them as the norm. This results in initial increases in emotional distress returning to the original levels shown before arrival in prison (Zamble and Porporino, 1988). In addition they found that whilst in prison, a prisoner's coping strategies remained the same as they were before their arrival (Zamble and Porporino, 1988). This is consistent with the trait-orientated approach to coping and also suggests that previous research may have been misguided in perceiving prison life to be detrimental, when in fact prisoners may already arrive with ineffective strategies in place. On the whole, Zamble and Porporino (1988) found that prisoners chose ineffective coping strategies both on the outside and inside prison, and possessed a limited range of coping responses: *"They were poor at adopting responses that could ameliorate their problems, and they had an inadequate repertoire of effective coping responses"* (Zamble and Porporino, 1988). In Zamble and Porporino's (1988) research, ineffective coping strategies were related to poorer levels of psychological health.

2.2.2. Zamble and Porporino (1988) argue that the discipline and controlled environment that the prison offers restricts the ways in which prisoners can cope with stressors. This prevents prisoners from using or developing strategies such as problem solving (Zamble and Porporino, 1988). They did find a significant increase in a prisoner's use of 'self-talk', which is a problem-focused strategy involving reformulating the stressor with themselves so that it appeared less stressful, e.g. *"I tell myself that God must have a purpose for putting me here, and then I look around at*

other inmates here, and I can see that I am lucky by comparison" (male inmate: Zamble and Porporino 1988). Zamble and Porporino (1988) found that background variables such as sentence length, age and level of schooling had no effect on a prisoner's adaptation into prison and the use of coping strategies. They did find that more long term prisoners demonstrated a slight, but not significant, increase in the effectiveness of their coping strategies, with an increase in the use of more problem-focused strategies.

2.2.3. The problems experienced by the prisoners from their arrival into prison and four months later remained virtually the same. Zamble and Porporino (1988) felt that this may demonstrate that prisoners do not learn to cope with the prison environment through experience, or if they do it is a slow progression: *"Most of us learn to cope better through accumulated experience, but prisoners are deprived of much of that experience. As a result they do not learn to cope satisfactorily"* (Zamble and Porporino, 1988).

2.3 Coping and transition

2.3.1. Transitional phases in an individual's life cycle, such as a change of location or job, can create ongoing stressors (Cooper, 1990). Primarily, transitions can create situations where an individual believes they have little control (Cooper, 1990). Prison can be regarded as a transitional phase, albeit not a circumstance which is desired. Dyer (1976) argues that it is crucial for an individual to take control and responsibilities for their own actions and to structure their lifestyle in such a way that potential stressors are reduced. Cooper (1990) argues that constructive self-talk is a useful means of reducing stress created through transition. Such a technique is regarded as a problem-focused strategy, and its use in a prison setting has been highlighted above in relation to the research of Zamble and Porporino (1988).

2.3.2. Whilst a prison environment can offer a number of stressors such as threat to safety and a disciplined prison regime, the removal of an individual from their habitual surroundings can be paramount and can manifest itself through homesickness. Homesickness is described as *"the distress or impairment caused by an actual or anticipated separation from home. It is characterised by acute longing and preoccupying thoughts of home and attachment objects"* (Thurber and Sigman, 1998), and is associated with depression (Fisher, Frazer and Murray, 1986). This type of distress is usually triggered by an actual separation from home, but even an anticipated separation can incite homesickness (Thurber and Sigman, 1998). Feelings of homesickness can be exacerbated if the individual is left alone and involved in passive behaviour such as lying on the bed, waiting for meals or lessons (Fisher et al, 1986). Thurber and Sigman (1998) further argue that homesickness can be exaggerated and stimulated by a lack of distracting, structured activity. Cohen and Taylor (1981) argue in their research into British prisons, that the migration from home to prison is an extreme situation where a prisoner is forcibly removed from their habitual environment from which they cannot escape. The describe how *"prison involves an involuntary migration to a region in which the dislocations of life are not necessary costs of the move, but are rather deliberately engineered insults to self"*. Fisher (1986) argues that an individuals freedom of choice can impact upon the level of homesickness, with those who choose to leave home suffering the lowest levels of homesickness. An individual does not have a freedom of choice when entering the prison, which may therefore produce higher levels of homesickness. Homesickness has long been under examination, although its relationship with prison life is somewhat neglected. In order to provide a fuller understanding of its relation to prison life, a brief overview of the history of research on homesickness will be presented.

2.4 Historical background of homesickness

2.4.1. Early theories into homesickness originate from the Greek Physician Hippocrates (ca. 460-ca. 377 B.C., Zwingmann, 1959) who believed homesickness resulted from an excess of black bile in the blood. Further discussion of homesickness took place in the sixteenth century. Harder (1678) described homesickness as powerful thoughts desiring a return home as a result of differences the new location may offer regarding climate, customs and food. Swiss physician Johannes Hofer (1688) argued that homesickness resulted from unaccustomed environments causing *"vital spirits [to] constantly surge back and forth through the nerve fibres in which the impressions of the native land are stored"*. As a result, *"vital spirits.....do not flow in adequate quantity or potency to other parts of the brain to serve the natural functions"*.

2.4.2. Current theories have evolved and progressed from this, still viewing homesickness as a reaction to what the individual has left behind, but basing these conceptualisations on a number of contemporary psychological theories. These include opponent process theory (Solomon, 1980) when an individual becomes separated from that which offers them positive reinforcement (e.g. love), to homesickness developing as a result of interruption of plans (Mandler, 1975). This interruption theory has been applied to homesickness and describes it as interrupting on-going familiar routines, thwarting any planned activities. This interruption creates tension and anxiety is caused (Fisher 1986). This model can be regarded as a precursor to separation anxiety presented below, in that the interruption of plans can be the interruption and therefore separation of the prisoner from their family, leading to separation anxiety. In order to develop a comprehensive model of homesickness, theories must be incorporated and combined. Archer, Ireland, Amos, Broad and Currid (1998) suggest that the psychological disturbance that can be produced by homesickness reflect both a separation anxiety and a response to the strains of the

current environment. The components of this more comprehensive homesickness model, namely separation reaction theory and institutional (job) strain, is presented below. Homesickness literature has not considered the moderating or mediating role of homesickness within the stress-illness relationship. As an individual's level of homesickness can influence how they perceive the stressor, it could be argued that homesickness can be considered as a moderator. An individual's level of homesickness would influence an individual's appraisal of the stressor, and as a result impact upon the effect of such stress on an individuals health.

2.5 Separation from the perspective of attachment and grief theory

2.5.1. The state of separation forms part of the attachment theory of Bowlby (1969, 1973 and 1980). Weiss (1982) reports that although Bowlby's work concentrated on an infant's separation from their mothers, creating anxiety in the child followed by depression and apathy (Bowlby, 1973), there are similarities between this and the separation of an adult from their home. Weiss (1982) argued that homesickness can be a response to an adult's separation from a close attachment bond (i.e. a friend or marriage partner), as homesickness encompasses elements of anxiety (Fisher and Hood, 1987). An individual must experience close attachment bonds in order to experience separation anxiety on their removal. Archer et al (1998) regards homesickness as a form of separation reaction where an individual is separated from habitual places and activities. Fisher and Hood (1987) and Fisher, Murray and Frazer, (1985) examined levels of homesickness in first-year university students. They found that definitions of homesickness included a predominance of features associated with separation and loss i.e. missing parents or family, missing friends or familiar faces, missing home comforts or the bedroom at home.

2.5.2. This separation reaction has been likened to a form of grief, with Fisher and Hood (1987) reporting homesickness to *"be a state with properties relating to grieving... and constant preoccupation with the past"* and Van Tilburg, Vingerhoets and Heck (1996) describing homesickness as *"a form of reversible bereavement"*. Parkes (1988) describes grief as an emotion that draws the individual towards someone or something that is missing. He argues that the experience of grief does not have to occur as a result of death, offering examples of blindness or losing a limb as developing reactions resembling the death of a person. Parkes (1988) views the loss as a psychosocial transition. This transition occurs from three criteria (Rahe, 1979). Firstly, there is the requirement of the individual to revise their assumptions of the world, secondly the transition can be long term, and finally it can occur over a short time span allowing little time to prepare. Of such transitions Parkes (1988) reports *"the familiar world suddenly seems to have become unfamiliar, habits of thoughts and behaviour let us down, and we lose confidence in our own internal world"*. In particular, Parkes (1971) regarded imprisonment as such a transition where an individual is removed from a world they can find comforting.

2.5.3. Grief parallels the experience of a homesick individual separated from their loved ones and a familiar environment in that anxiety and depression can be an outcome of grief as with homesickness. For example, Prigerson, Bierhals, Kasl, Reynolds, Shear, Newsom and Jacobs (1996), in a study of grief in widowers found that early levels of anxiety predict later levels of depression. The separation anxiety model would view the homesick as individuals who have been temporarily bereaved and who suffer predominantly anxiety as an outcome of the loss of direct contact with their family and friends (Fisher 1986). Fisher, Frazer and Murray (1986) further argue that homesickness parallels features common among the bereaved, in that there is a high mental preoccupation with the deceased and with previous life shared with the deceased.

2.5.4. Research on an individuals efforts to confront the reality of the loss and begin a detachment from this through cognitive processes, titled 'grief work' (Stroebe and Stroebe, 1991), has attempted to make links between grief and coping. Stroebe and Stroebe's (1991) research explored grief and coping styles longitudinally with widowed individuals. They followed 30 widows and 30 widowers from Southern Germany who had lost their partners 4 to 6 months previously, and interviewed them three times over a two year period using semi-structured interviews and self-report questionnaires. They found that avoidant coping strategies had a detrimental effect on the adjustment of men who were widowed, but not of women. They argue that this was a result of the widowers using more extreme avoidance strategies and strong social norms preventing men from showing emotions like grief (Belle, 1987 cf, Stroebe and Stroebe, 1991). Archer (1999) argue against this, suggesting there may be many unexplored reasons as to why there are sex differences with avoidance strategies, arguing that an individual may be unable to use avoidance strategies, even though the attempts are made. Although Stroebe and Stroebe's research generated some valuable findings, the agreement rate for participation was only 28%. Whilst Stroebe and Stroebe (1991) argue this is usual within grief work, it could be argued that such a low agreement rate would not indicate a representative sample. Stroebe and Schut (1995) present a dual process model of dealing with grief that involved two styles that parallel with problem-focused and emotional coping. They argue that there are two main ways of dealing with stress. The first is "loss-orientated" which involves focusing on the loss and has parallels with emotional coping. The second is "restoration-orientated" that involves turning attention away from the loss and engaging in new tasks, areas and interactions, and this has parallels with problem-focused coping. Additionally the two styles of dealing with stress are seen to alternate in a similar fashion to the 'Fallback hypothesis' mentioned earlier (Rothbaum et al, 1982), where problem-focused coping can work independently from emotional coping, yet emotional coping usually occurs after problem-focused strategies have been attempted.

2.6 Institutional strain

2.6.1. An additional approach to homesickness is to consider the demand on the person made by the new environment (Fisher et al, 1985), namely institutional strain and how this is associated with homesickness. The notion of 'institutional strain' is derived from the term job-strain in work stress theory. It was thought by the author that when referring to 'job-strain' in prisons, the term 'institutional strain' would be more appropriate. Research in the workplace has found that a poor fit occurs where the demands of the environment are outside the capabilities of the individual, when the environment does not meet the needs of the individual (Fisher, 1986), and the individuals perceived control is low (Fisher and Hood, 1987 and Karasek, 1979), resulting in raised anxiety (Fisher, 1986). A prison environment could be regarded as involving perceived control over stressful demands.

2.6.2. Most research exploring the link between 'job-strain' and homesickness has been student populations. Fisher (1989) examined the association between 'job-strain' and homesickness. Using an initial sample of 59 first year university students in their sixth week of study, she found that the homesick group perceived the university as more demanding than the non-homesick group, but perceived levels of control remained the same in both groups. Initially this would offer partial support for the 'job-strain' theory in that the demands of a new environment, but not perceived control is an important consideration. Fisher (1989) suggests that the absence of an influence of perceived control may have been a result of viewing control in a broad sense. Within the university campus, students did have some control over their studies, such as choosing to miss lectures if desired, and returning home is possible. Fisher repeated the study, making the issue of control more specific, concentrating on the control the student had over *"threats and requirements imposed by university life"*. Using a small sample of 35 first year university students who were in their sixth week of study, Fisher (1989) reported that the homesick group regarded university as more

demanding and perceived less control than the non-homesick group. This would support the 'job-strain' theory, and indicate that the perceived control individuals have over their environment is important. Fisher, Elder and Peacock (1990) examined further the association between 'job-strain' and self-reported homesickness amongst boarding school children in Australia. They found that all students desired more control over their studies and wanted to be self-sufficient, yet the largest discrepancies between desire and reality appeared in the homesick group: the homesick group perceived the environment to be more demanding and that they had less control over it, than the non-homesick group. These discrepancies became more distinct when a frequently homesick group was compared with a mildly homesick one.

2.6.3. It has been difficult to ascertain the precise relationship between 'job-strain' and homesickness. Fisher et al (1990) argue that homesickness may create 'job-strain'. They suggest that an individual who is homesick may become withdrawn from the new environment. As familiarity with their new environment is low, the person may regard it as over-demanding and perceive themselves to have little control over it, experiencing 'job-strain' as a result. Alternatively, it could be that the experience of 'job-strain' itself creates feelings of homesickness, with the desire to return to the home environment being a reflection of the individual's perceived loss of control over the new environment, a view Fisher has broadly embraced.

2.6.4. Fisher (1989) examined the concept of 'job-strain' in more detail with a longitudinal study of homesick and non-homesick students. She found that many students did not show homesickness immediately after arriving at university, but developed it six weeks later. Fisher suggested that this demonstrates homesickness to be a result of 'job-strain'. The strongest evidence for the strain model came from an earlier longitudinal study of students tested before they began university and in the

sixth week of their first term. Fisher and Hood (1987) found that those who had left home and those who had remained at home both demonstrated increased psychological disturbance after starting university. The lack of differences between the two groups suggested that it was the impact or strain of university life rather than the loss of a home environment that was responsible for increased psychological disturbance. The study reports that those who rated themselves as homesick in the sixth week of term showed higher psychological disturbance than those who rated themselves as not homesick.

2.6.5. Environments which are unpleasant or hostile, with high demand and low control can create further strain (Fisher, 1986). A prison environment would fit these criteria. Such an unpleasant environment can increase the desire to return home, resulting in a feeling of homesickness. (Fisher, 1986). In their study of a student population, Fisher (1986) found that part of homesickness may be a consequence of distress created by the threats of the new environment. Prison is likely to be a threatening and stressful environment which may well serve to exacerbate feelings of homesickness arising from relocation from familiar people and surroundings. These contributions to homesickness may comprise a longing to return to the habitual environment and the stress created by the new environment, in this case prison. This would compare with Archer et al's (1998) study of homesickness in students, where they identified two factors amongst the homesick students, that of missing the old environment and disliking the university. Consequently the demands placed upon an individual experiencing a new environment can impact upon the homesickness experienced.

2.7 Homesickness and prison life

2.7.1. Little research has examined the effects of homesickness on prison life. The majority of research on homesickness has concentrated on students leaving home to go to school or university (Archer et al 1998, Fisher et al, 1985; Fisher and Hood, 1987) where individuals have more freedom of movement and hence more control is possible over the situation. Other studies involving the armed forces and boarding schools come closer to the prison situation in that the individual has less control and cannot easily return home (Fisher, Frazer and Murray, 1984, 1986 and Harris, 1989). Levels of homesickness in university studies tend to be much lower than the more restricted environments, such as prison. Archer et al (1998) found that 37 per cent of students were homesick in comparison to the 83 per cent found in Zamble and Porporino's (1988) prison study. Although there were differences between the way in which homesickness was assessed in both studies, with Archer et al (1998) relying on questionnaire data to define homesickness whereas Zamble and Porporino (1988) rated homesickness by interview as to how much the individuals reported to be missing their friends, family and homelife. As suggested, research most comparable to prison life is that of the boarding school. Fisher et al (1986) examined homesickness and health in boarding school children. They found that initially there may be problems as there is simultaneous movement to a new school environment and the need to adjust to a change in residence, resulting in loss of direct contact with family and with the home environment. There are definite parallels between this and prison life where a prisoner, like a boarding school child, has to experience a new residence with rules and regulations. In many ways prison life is more severe, with little time to prepare for separation. Unlike boarding school, a prisoner has not the option to return home if so desired, although a boarding school resident may still experience difficulties in leaving the school. It could be that levels of homesickness are likely to be intensified within a prison environment, due to the traumatic and sometimes immediate separation of an offender from their family and friends. In this instance, research that has examined traumatic and immediate separation, for example in

refugees, may be more comparable. The different methods by which the above research assessed homesickness must be considered, as discussed in section 1.21. In addition, homesickness may not necessarily manifest itself if an individual is not securely attached to their habitual surroundings, and cares little about their surroundings before entering prison. Similarly homesickness may not develop if an individual cares little about their relationship with their family before imprisonment, such as disownment.

2.7.2. Thurber and Sigman (1998) highlighted the research into refugees by Nicassio and Pate (1984) and argue that if the circumstances surrounding the separation are violent or traumatic, as is the case of refugees or foster children, the resulting homesickness may be intense. Nicassio and Pate (1984) examined problems experienced by 1,638 Indochinese refugees following relocation into the United States. 63 per cent of the sample described their experiences of homesickness as 'very serious' and 26 per cent as 'serious'. The high levels of homesickness would be comparable to that of Zamble and Porporino's (1988) prison population. Harding and Looney (1977) also report high levels of depression and anxiety in Indochinese refugees. Feelings of depression and anxiety would also concur with the separation anxiety model of Bowlby (1973) and with Fisher's (1986) view that anxiety is a component of homesickness.

2.8 Homesickness and psychological/physical health

2.8.1. There are negative consequences for the physical and psychological health of an individual who is homesick, namely anxiety and depression as mentioned above (Fisher, 1986). McCann (1941) found that depression and despair were reported by around half of their samples of homesick students. In a longitudinal study of a university sample, Fisher and Hood (1987) found elevated symptoms of depression

and anxiety amongst homesick students compared with those who were not. In a longitudinal sample of adolescent boys in American summer camps, Thurber (1995) found that homesickness was experienced as a combination of depression and anxiety, with a minority of homesick boys experiencing severe depressive and anxious symptoms. A meta-analysis of four studies comparing homesick and non-homesick groups of students (Archer et al, 1998), as defined by Fisher and Hood's (1987) single item homesickness scale, showed that homesick individuals had higher levels across five measures of negative affect, somatic, obsessional symptoms and cognitive failure ("absent-mindedness" or slips of action). Thurber and Sigman (1998) studied homesickness in 293 boys in a residential summer camp. They found self-reported homesickness was positively correlated with high parental separation anxiety, perceived low decision control, depressive/anxious symptoms and behaviour, withdrawn behaviour and low overall satisfaction. They also found that boys who returned to camp the proceeding year demonstrated a decrease in their levels of homesickness. Brewin, Furnham and Howes (1989) report that moderately and severely homesick children and adolescents usually report depressed and anxious emotions, and internal and external behaviour problems.

2.8.2. Homesickness has been associated with other instances of poor health, namely an increased risk of infection. Fisher et al, (1986) found in their study of boarding school children that homesick children reported more non-traumatic ailments such as colds, headaches and nausea. It may be, however, that minor illnesses create homesickness because love and attention of family members is sought by a pupil who feels ill. Fisher et al (1986) examined twenty-one first year students at an all male boarding school, and found that homesickness was related to the reporting of fewer positive life events. Fisher et al (1986) further report evidence that homesick individuals show more physical symptoms of stress than those who are not homesick.

In sum, high levels of homesickness impact upon an individuals psychological and physical health.

2.9 Measures in homesickness

2.9.1. Most research comparing homesick and non-homesick groups has used a single-item measure of homesickness (Fisher and Hood, 1987; Thurber, 1995), although some have used peer-reports (Zimmerman and Bijur, 1995) or self-report 'worry' diaries (Fisher, Frazer and Murray, 1984; Fisher et al, 1986). Fisher and Hood's (1987) measure requires each participant to write their own definition of homesickness. Following this, they are then asked to rate on a four-point likert scale their initial and current level of homesickness. Thurber (1995) used a similar measure where they required participants to rate on an eleven point likert scale their response to the item "I feel homesick". Archer et al (1998) argues that this way of defining homesick/non-homesick groups has methodological problems: it implies that the state of homesickness is unidimensional and an individual is aware of their relative level of homesickness. Archer et al (1998) argues that if homesickness is similar to grief reactions, it would not necessarily be unidimensional. A single-item measure cannot reveal such complexity, as no psychometric measures of its structure are possible. Archer et al (1998) undertook a study to examine this, developing a 33 item homesickness questionnaire (HQ) based on the components of grief. The HQ was found to correlate moderately (r=.58) with a single-item measure of homesickness. Factor analysis of the HQ revealed two factors: disliking university and attachment to home, which relate to the separation anxiety and the strain model. The attachment to home factor was more closely related to the single-item measure of homesickness (r=.51). This indicates that the subjective assessment of homesickness was more closely related to items indicating attachment to the home than to negative attitudes to the current environment.

2.10 Study layout

2.10.1. In the present study it is hypothesised that early coping styles will predict future changes in homesickness and psychological health. A number of measures were used at three different times and analysed through Multiple Regression. Coping styles were measured by the Coping Styles Questionnaire (CSQ, Roger et al, 1993), homesickness by the Homesickness Questionnaire (Archer et al, 1998) revised for prisoners. Validity of this measure was ascertained by its association with the single-item homesickness measure (SIHM) of Fisher and Hood (1987). Health-related outcomes were measured by the Middlesex Hospital Questionnaire (MHQ, Crown and Crisp, 1966).

2.10.2. The study was conducted in four phases; a preliminary phase and three longitudinal phases. The preliminary phase was undertaken to modify and validate the 33 item Homesickness questionnaire (HQ, Archer et al, 1998) for use within a prison population. The three longitudinal phases assessed changes in coping, homesickness and health over three time periods; within two weeks of entering prison (phase one), six weeks later (phase two) and 4 - 6 months after first entering prison (phase three). At phase one a selection of prisoners undertook a semi-structured interview based on the diary method of examining problems and worries used by Fisher et al (1984), before they completed the questionnaires. This involved asking prisoners about the problems they were experiencing, and the worries and ways in which they coped with these problems. The interviews also examined spontaneous, but not prompted, references to missing family and home. The findings from these interviews will be addressed before considering the findings from the other phases. The findings for the preliminary (pilot) phase for validating the Homesickness questionnaire can be found in Appendix 3.

Chapter 3

RATIONALE

Problems in adapting to prison life: The role of coping on homesickness and health

The research problem and how it will be addressed

3.1 Rationale

3.1.1. Coping research has examined the process of coping and the effect of this upon an individual's health in a variety of situations. These have included periods of transition (Cooper, 1990), patients experiencing illnesses (Holohan et al, 1995), coping with the stress of adolescence (Konopka, 1980) and marital problems (Menaghan, 1982). However, to date no research has addressed coping with imprisonment among a sample of young offenders. The present PhD addresses this topic.

3.1.2. HM's Inspectorate (1999) criticised HM Prison Service for a failure of staff awareness as to the impact of prison life upon an individual. The Inspectorate commented that *"there is a danger that prison staff who become used to the prison environment fail to understand the impact it has on prisoners who are entering it for the first time and that they lose sight of the fact that prisoners are individuals with human needs"*. The main aim of this PhD is to identify the impact of early coping styles on an individual's later psychological adjustment. Early coping styles may be

used to predict future changes in psychological health and homesickness (4 - 6 months later). By identifying early risk factors the necessary resources and facilities can be used to monitor those most at risk.

3.1.3. There has been no research on the effects of homesickness on prison life. The majority of research into homesickness has concentrated on students leaving home to go to school or university, with high levels of homesickness being related to poor health (Archer et al, 1998, Fisher, Frazer and Murray, 1985 and Fisher and Hood, 1987). A subsidiary focus of this research is to examine homesickness in the context of prison life, exploring how an individual's level of homesickness changes over time within prison and its interactions with coping styles and changes in psychological health.

3.1.4. The aspect of the research exploring homesickness has parallels with the grief work hypothesis. The process of grief parallels the experience of a homesick individual separated from their loved ones and a familiar environment, creating anxiety as an outcome of this loss (Fisher 1986). Stroebe and Stroebe's (1991) research explored grief and coping styles longitudinally with widowed individuals. They report avoidant coping strategies to have a detrimental effect on the subsequent adjustment of men who were widowed. They argue this to be a result of the widowers using more extreme avoidance strategies and strong social norms preventing men from showing emotions like grief (Belle, 1987 cf, Stroebe and Stroebe, 1991). Although Archer (1999) argues against this, suggesting that there may be many explanations. One of the reasons suggested is an inability for men to use avoidance strategies, even though the attempts are made.

3.1.5. Overall, and as mentioned in a previous chapter, coping research has tended to prefer cross-sectional or opportunity sample designs to longitudinal (Zamble and Porporino, 1988). In addition there has been limited exploration of how prisoners adapt to prison life and the impact of their adaptation on their health. Zamble and Porporino (1988) and Cohen and Taylor (1981) are the only researchers to have examined coping with prison life and how this might predict their psychological health over a 16 month period. A subsidiary focus to the main aim of this PhD research is to expand current prison research by exploring adaptation to prison life in more detail and longitudinally.

3.2 Aims and Predictions

3.2.1. **Main aim:** To examine if coping strategies used within two weeks of arrival into prison (phase one) predict changes in homesickness and psychological health six weeks (phase 2) and 4 - 6 months (phase three) later.

Predictions: Early coping styles (phase one) will predict changes in homesickness and changes in psychological health in later phases (phases two and three). It is predicted that different coping styles will predict poorer or better levels of psychological health over time.

3.2.2. **Subsidiary aim one:** To examine whether coping strategies measured initially will remain stable over time, as predicted by the trait-orientated approach to coping (Holohan and Moos, 1987).

Predictions: The levels of coping strategies used will remain stable through each longitudinal phase of the research (phases one to three). It is also predicted that there will be individual stability of coping styles across time.

3.2.3. **Subsidiary aim two:** To examine whether homesickness declines over time.

Predictions: The experience of homesickness will decline through each progressing phase of the research (phases one to three).

3.2.4. **Subsidiary aim three:** To examine whether measures of psychological maladjustment decline over time.

Predictions: The experience of psychological maladjustment (i.e. depression, free-floating anxiety, obsessional, somatic and hysteric symptoms) will decline through each progressing phase of the research (phases one to three).

3.2.5. **Subsidiary aim four:** To examine if the participants remaining at the final phase of the research (phase three) continue to be a representative sample.

Predictions: Any substantial decrease in the sample from phases one to three will be a result of natural attrition (i.e. participants released from prison or moving to other unobtainable custodial environments, rather than particular types of individuals choosing no longer to participate). This will be reflected by no differences in coping styles, homesickness and psychological health at phase one between those participants who discontinued the study after phase one and those who remained, and between participants who completed up to phase two and those who completed phase three.

Chapter 4

SEMI-STRUCTURED INTERVIEWS[1]

4.1 Rationale for the interviews

4.1.1. The aim of these interviews were to obtain a more detailed, but general view, of how prisoners dealt with the problems of prison life encountered within their first two weeks of arrival. This was to include information on what they found stressful about prison life and how they coped with these. Specific methods of coping examined were sexual jealously, based on separation from their intimate partners, and the levels and type of internal and external support they received.

4.2 Introduction structure

4.2.1. The structure of this introduction is to provide a brief synopsis of coping theory, as the theory has been previously discussed in chapter one. Leading on from this will be examination of the theories behind two types of coping strategies, namely sexual jealousy and social support.

4.3 Coping

4.3.1. As previously discussed in chapter one, coping is one of the most widely studied areas within health psychology (Hobfoll, Schwarzer and Chon, 1998), with its main focus on identifying the most effective coping strategies for managing stressful

[1] Questions where only 1 to 3 participants responded were omitted from this chapter due to small numbers; the complete version can be found in Appendix 1.

occurrences. It is perceived as an action initiated when faced with a demanding situation (Folkman and Lazarus, 1980). Coping strategies can take many forms, mainly involving a combination of behavioural and cognitive techniques such as action planning, positive self talk, regarding the stressor in more emotional terms or failing to acknowledge its existence. Sexual jealously and social support can be regarded in terms of coping strategies. Each of these will be discussed in the following sections.

4.4 Sexual Jealousy

4.4.1. The emotion of jealousy can be regarded as a method of coping when an individual perceives a threat. DeKay and Buss (1992) describe jealousy as allowing the individual to focus on the threat at hand, leading to behaviours designed at reducing the threat and thus retaining the valued relationship and the resources spent. Such a process has clear comparisons with coping literature.

4.4.2. Jealousy is an emotion which has long since been neglected within emotion research, with greater concentration upon more seemingly clear cut emotions such as fear (Buunk, Angleitner, Oubaid and Buss, 1996). Nonetheless the emotion of jealousy can be powerful. Daly and Wilson (1988) argue that male sexual jealousy is a major cause of wife assault, with a female being most at risk from violence when terminating a relationship or being suspected by her male partner of being sexually unfaithful. When defining sexual jealousy, DeKay and Buss (1992) describe it as complex and linked to the perceived value of the relationship: *"a cognitive-emotional-motivational complex that is activated by threat to a valued relationship....it is considered sexual jealousy if the relevant relationship is a sexual one"*.

4.4.3. Triggers to inciting feelings of sexual jealousy have fallen into two main categories; sexual and emotional infidelity. Buunk et al, (1996) and Buss, Larsen and Westen (1996) argue that the fear of sexual infidelity for the male can be very damaging. They argue that, from an evolutionary perspective, such infidelity would create a number of issues regarding the passing on of genes. These would include the waste of resources spent achieving and maintaining the relationship with a partner, loss of sexual intercourse and consequent reproduction possibilities, and the risk of wasted time spent supporting a child that is not biologically their own. By contrast Buunk et al (1996) argue that emotional infidelity of a females male partner would jeopardise the security, parental investment and commitment of the woman's relationship, whereas her partners sexual infidelity would not. Consequently emotional infidelity would be the most damaging in this case. Buss, Larsen, Westen and Semmelroth's (1992) research in the United States demonstrate that men show higher levels of distress to their partners sexual than emotional infidelity, whereas women report emotional infidelity to be the most upsetting. DeKay and Buss (1992) found that 85 per cent of women report their partner forming a deep emotional attachment to someone else the most distressing, compared to 60 per cent of men who report imagining their partner engaging in sexual intercourse with someone else the most distressing. They also found that men who had not engaged in a committed sexual relationship reported emotional infidelity being the worst, whereas those who had engaged in a committed sexual relationship reported sexual infidelity to be the most upsetting. Townsend (1995) found that male participants report being more able to continue a sexual relationship without emotional commitment than women, with 76 per cent of men reporting to have had sexual intercourse with a female with no emotional commitment. This was compared to only 37 per cent of women engaging in similar heterosexual sexual relationships with no emotional commitment.

4.5 Social Support

4.5.1. Caplan (1974) defines social support as range of relationships that are significant to the individual and which impact upon how the individual functions. These support networks can involve a variety of individuals such as family, friends and peers. It has been regarded as a coping strategy that acts as a buffering effect against the impact of stress, particularly in the short-term (Frydenberg, 1997). Pierce, Sarason and Sarason (1996) argue that this buffering effect will only occur if the individual is acknowledging and coping with the stressor. Greenglass (1993) argues that this buffering effect can be developed in three main ways; by providing an atmosphere where others accept them, offering support as a means of help and assistance and provision of details where further assistance can be sought.

4.5.2. Social support has been linked toward health, with a lack of social support being related to psychosomatic symptoms (Newby-Fraser and Schlebusch, (1997). Fondacaro and Moos (1987) found in their longitudinal study that high family support was related toward an increase in more problem-focused strategies and less avoidant strategies. Regarding male social support, Fryenberg (1997) argues that when male adolescents engage in social support, it tends to be family support such as parents and siblings, with mothers featuring more commonly than fathers.

4.5.3. Care must be applied when suggesting that the use of social support can act as a promoter of psychological and physical health. Frydenberg (1997) argues that seeking out social support is not always for the right reasons, but can be for the wrong reasons, such as doubting their own ability to manage the situation or stressor. Similarly, Compas, Slavin, Wagner and Vannatta (1986) argue in their study of adolescents that social support was only related to lower levels of depression if the individuals were content with the support they were receiving.

4.5.4. Within prison life Zamble and Porporino (1988) argue that maintaining support, such as with fellow prisoners, can be difficult. They found that the number of social interactions prisoners made with fellow prisoners decreased as their time in prison continued, with 25 - 30 per cent of the sample engaging in social support as a coping mechanism during the course of the study (3 separate interview stages). They argue that as external support networks cannot be seen as much as desired, fellow prisoners become the next option for social support. Such support networks can be unstable as prisoners can be transferred between establishments at short notice and unpredictably, leading to problems in maintaining long term supportive relationships.

4.6 Layout

4.6.1. The reminder of this chapter is divided four main areas. Section 4.7 will describe the method, section 4.8 will examine issues of inter-rater reliability, section 4.9 will review the results of the interviews and 4.10 will provide a brief discussion. The results are divided into three main sections. Section A concerns the participants' general experiences whilst in prison. These include the type of worries/problems they had experienced since arriving into prison and how they had dealt with these, some of the things they missed most whilst being in prison and positive things which had happened to them whilst they have been in prison. Section B covers their relationships with their partners whilst in prison, including the types of infidelity they find the most distressing (taken from the dilemma described by DeKay and Buss, 1992). These include the type of relationship they had with their partner, their feelings towards them whilst they are in prison, their partners level of fidelity either before prison or whilst the participant has been inside prison, the level to which participants monitored their partners behaviour (i.e. got friends to watch them to ensure their faithfulness - 'keeping an eye on their activities') and their behaviour if their discovered their partner had been unfaithful. Section part C explores the level of support they have received,

both internal and external to the prison. These included internal and external support networks and the type of support offered.

4.7 Method

4.7.1. Forty-two of the 261 participants in the longitudinal study took part in the semi-structured interviews at the same time as the initial questionnaire completion (within the first two weeks of arrival into the prison system; see chapter six). These participants were interviewed on a one-to-one basis at a northwest prison. Due to availability of prison staff, the northeast prison could not be used for semi-structured interviews. All interviews were conducted either in an office or in a seating area on the landing. In all instances interviews took place in privacy and when the movement of other prisoners was at a minimum.

4.7.2. A standardised set of interview instructions were given before the interview commenced. These included an explanation that research was currently being undertaken which examined how people like themselves dealt with prison life. Each participant was encouraged not to feel obliged to respond to any questions if they did not wish. It was also maintained that the disclosure of information they gave was voluntary and that it would be dealt with sensitively, with them remaining anonymous in the research. Security issues resulting in threats to the prison or themselves, such as self-harm, was discussed as information that would have to be reported if highlighted during the interview.

4.8 Inter-rater reliability

4.8.1. Participant's responses for each question were condensed into smaller, more manageable categories, although with caution not to lose valuable content. A researcher double-scored the condensed categories calculated from the interview schedule. Inter-rater reliability of the categories using Cohen's Kappa's were very good, ranging from .65 to 100, with the majority over .83[1]. The Kappa to demonstrate observer agreement is included at the bottom of each table presented below.

4.9 Results

A. Prison life

4.9.1. Tables 4.1 to 4.3 show the types of problems/worries prisoner's report to have experienced since arriving into prison, what they have reported to have missed most and some of their positive experiences.

[1] Bakeman and Gottman (1986) regards Kappas between .60 and .75 as good, with those over .75 as excellent.

Table 4.1. The types of problems/worries prisoners (N=42) report to have experienced since arriving into prison.

Problem/worry	Percentage* (N)
Family/friends/partners	35.7 (15)
Prison restrictions (limited exercise time etc.)	23.8 (10)
No problems or worries	21.4 (9)
Smoking (lack of...run out of etc.)	11.9 (5)
Being bullied	9.5 (4)
Refusal of requests (education etc.)	9.5 (4)

*Percentages do not add up to 100 as some participants highlighted more than one problem/worry

Kappa = **.87**

4.9.2. Table 4.1 indicates that the largest worry (in order of size) concerned family/friends/partners. This includes references towards family disputes and bereavement, fear that their family may disown them and concerns that their family/friends may not visit. Prison restrictions were also a frequent worry. These included long periods of being locked in their cells, leading to frustration. Smoking was another worry. This involved a lack of access to additional cigarettes when their designated supplies ran out and restrictions on when smoking was permitted. Being bullied was also an issue with prisoners hearing of instances of threats to bully.

Table 4.2. What prisoners reported missing most while being in prison (N = 42).

Missed	Percentage* (N)
Freedom	97.6 (41)
Family	71.4 (30)
Girlfriend	52.4 (22)
Friends	42.9 (18)
Socialising	31 (13)
Drugs	9.5 (4)

*Percentages do not add up to 100 as some participants highlighted more than one category

Kappa = .84

4.9.3. Table 4.2 indicates that what prisoners missed most in the main (in order of size) concerned their freedom. This included restrictions on what they were allowed to buy and being unable to continue about their business without asking permission. Prisoners also reported missing their families, girlfriends and friends. Around a third indicated that they missed socialising. This included going to the public house, clubs and eating out.

Table 4.3. Some of the positive/good things which had happened (in percentages) whilst being in prison (N = 42).

positive/good things	Percentage* (N)
None	40.5 (17)
Education	26.2 (11)
Off drugs	11.9 (5)
Time to reflect	9.5 (4)

*Percentages do not add up to 100 as some participants highlighted more than one positive

Kappa = 1.0

4.9.4. Table 4.3 indicates a number of positive outcomes of being in prison (in order of size). The most common of these concerned education. This included improving on their qualifications or learning a trade. Coming off drugs was also regarded as a positive outcome. Finally, time to reflect was also regarded as a positive feature for a minority. This included time to reflect on their past behaviour, what needed correcting and plans for the future.

B. Relationships

4.9.5. Seventy-six per cent of participants had a partner or girlfriend (n = 32). Below is details of the length and quality of the relationship, their feelings toward their partner, loyalty and issues of fidelity. These are presented below in tables 4.4 to 4.9.

Length

4.9.6. Of those currently in a relationship (n = 32) 37.6% had been in the relationship between 1 - 6 months, 25% between 8 - 12 months, 21.8% between 14 - 24 months, 3.1% for 30 months, 9.4% for 42 months and 3.1% for 108 months.

4.9.7. Participants currently in a relationship were asked to describe their relationship and how they felt towards their partners now they were in prison. Details of their relationship and feelings are presented below in tables 4.4 and 4.5.

Table 4.4. Participants' descriptions of their current relationship (N = 32).

Relationship	Percentage* (N)
Good relationship	53.1 (17)
Confide/intimate	46.9 (15)
Close/loving	43.8 (14)
Rocky relationship	12.5 (4)
Supportive	9.4 (3)
Strong relationship	9.4 (3)

*Percentages do not add up to 100 as some participants highlighted more than one description

Kappa = .83

4.9.8. Table 4.4 indicates that descriptions of the relationships (in order of size) were positive. This included references towards getting on well or brilliantly. Confiding and intimate were also common descriptions. This involved being able to confide secrets with their partner, and being able to talk about most issues with them. This was followed by a close and loving relationship. This involved loving one another and being affectionate. Finally some of the participants described their relationship as "rocky". This involved living different lifestyles that created jealousy and arguments.

Table 4.5. Participants' feelings towards their partner now they are in prison (N = 32).

Feelings	**Percentage* (N)**
Stronger feelings	43.8 (14)
Feelings are still the same	31.2 (10)
Missing her	18.8 (6)
Regret/guilt at leaving her	15.6 (5)
Emotional	9.4 (3)
Drifting apart/strain in the relationship	9.4 (3)

*Percentages do not add up to 100 as some participants highlighted more than one description

Kappa = .96

4.9.9. Table 4.5 indicates that the participants' feelings towards their partner included in order of frequency; stronger feelings, including references wanting to be with her even more, knowing now how much they loved their partner and feeling closer;

feelings which are still the same, including still feeling strongly towards their partner; missing her involving feeling sorry that they could not be with their partner; and regret or guilt at leaving her, including guilt for being in prison while their girlfriend waited for them.

Loyalty

4.9.10. One of the participants stated that their partner had been unfaithful, with one other being unsure and the remainder stating that their partner had not been unfaithful. The person that reported their partner to be unfaithful stated that she had been unfaithful with an associate who was not currently serving a prison sentence. He reported his reaction to the unfaithfulness in this instance was to retaliate violently against the man who had cheated with her. He then reported experiencing distress when his partner said that she no longer wished to continue the relationship with him. The person who was unsure whether his partner has been unfaithful reported that his friend had told him that he had sex with her whilst the participant had been in prison.

4.9.11. Eighteen of the participants (N = 32) stated that they did worry that their partner may be unfaithful whilst they were in prison.

Monitoring

4.9.12. The participants (N = 32) who reported having a partner were asked if they kept a eye on their partners' activities (e.g. via friends or relatives). Table 4.6 presents these findings.

Table 4.6. The measures participants took to monitor their partners activities when they were in prison (N = 32).

Keep an eye on partners activities	Percentage* (N)
No	84.4 (27)
My friends/family watch her	15.6 (5)
Yes – but not with a view to her being unfaithful	6.3 (2)
Wrote to her	6.3 (2)

*Percentages do not add up to 100 as some participants highlighted more than one description

Kappa = .92

4.9.13. Table 4.6 indicates that the some of the participants monitored their partners; this occurred most often through family or friends, including references to family or friends asking the partner, and the participant's brother informing them if their partner converses with other men. Some participants reported monitoring their partners but not with a view to their being unfaithful, including asking their friends to look out for their partner. Some participants reported writing to their partner, including warning them not to "do anything" (e.g. be unfaithful).

4.9.14. Participants who stated that their partner had never been unfaithful, including the participant who was unsure (N = 31), were asked to describe their reactions if they discovered that their current partner had been unfaithful. Their responses are detailed in table 4.7.

Table 4.7. Participants' reactions if they discovered their current partner had been unfaithful (N = 31).

Reaction	Percentage* (N)
Split up	41.9 (13)
Beat her lover up	32.3 (10)
Get upset/argue	16.1 (5)
Don't know	16.1 (5)

*Percentages do not add up to 100 as some participants highlighted more than one description

Kappa = .75

4.9.15. Table 4.7 indicates that the participants' reactions if they found their current partner were unfaithful included in order of frequency: splitting up (including references to a desire to lead separate lives and ignoring her), beating her lover up (including references to reacting badly and slapping the guy), or getting upset and arguing (including references to getting mad, smashing up the cell, crying and being heartbroken).

4.9.16. Participants who stated that their partner had never been unfaithful, including the participant who was unsure (N = 31), were asked if they had ever been in a relationship where their partner had been unfaithful: 45.2% (N =14) reported that they had. They were then asked to describe their reactions (see Table 4.8).

Table 4.8. Participants reactions in a previous relationship where their partner had been unfaithful (N = 14).

Reaction	Percentage* (N)
Split up with her	64.3 (9)
Beat her lover up	35.7 (5)
Nothing	21.4 (3)
Didn't know what to say	14.3 (2)
Upset (but tried to keep calm)	14.3 (2)

*Percentages do not add up to 100 as some participants highlighted more than one description

Kappa = .76

4.9.17. Table 4.8 indicates that the participants reactions in a previous relationship where their partner had been unfaithful included in order of frequency: splitting up with her (including references towards ending the relationship by ignoring their girlfriend or finishing with them and then going back out with them later), beating her lover up (including throwing her lover down the stairs), do nothing was another reaction (including trying to forget about it and not being able to retaliate as their mother had stopped them from doing so).

4.9.18. Participants were asked to consider the following question:

"What would upset or distress you more; (a) your partner having sexual intercourse with someone else, or (b) imagining your partner forming a deep attachment to someone else".

4.9.19. Of the sample who responded (N = 33), 60.6% reported their partner having sexual intercourse with someone else being worse than their partner forming a deep attachment to someone. Each participant was asked to describe why (a) or (b) was worse for them. Results from these are presented below.

Table 4.9. Why participants believed their partner having sexual intercourse with someone else was the worst scenario (N = 20).

Why	Percentage* (N)
Should be monogamous (faithful)	20 (4)
It would upset me	20 (4)
Intimacy (e.g. thought that she has been with someone else)	15 (3)
Don't know	15 (3)
Feel angry	10 (2)
Upset she couldn't wait	10 (2)
Feel betrayed/abused trust	10 (2)

*Percentages do not add up to 100 as some participants highlighted more than one description

Kappa = .71

4.9.20. Table 4.9 indicates that participants who believed their partner having sexual intercourse with someone else (in percentages) was the worst scenario included (in order of frequency) being monogamous (faithful). This included references to being unfaithful and being 'dirty'. Upsetting them was another reason, including references to 'cracking them up' and feelings of suicide. Intimacy (e.g. the thought that she has been with someone else) was another reason, which included references to sleeping with someone else to be the worst scenario.

4.9.21. 40 percent of the sample believed that their partner forming a deep attachment to someone else was the worst scenario. Results of these are presented below.

Table 4.10. Why participants believed their partner forming a deep attachment to someone else was the worst (N = 13).

Why	Percentage* (N)
One night stand is okay	23.1 (3)
Her thinking of someone else	15.4 (2)

*Percentages do not add up to 100 as some participants highlighted more than one description

Kappa = .91

4.9.22. Table 4.10 indicates that participants who believed their partner forming a deep attachment to someone else (in percentages) was the worst scenario included (in order of frequency) a one-night stand being okay. This included references to her not really dating someone else, sleeping with someone being a one-off and no chance for a deep attachment. Believing their partner was thinking of someone else was another

factor, including references to his partner being in love with someone else whilst still having a sexual relationship with him.

C. Support

4.9.23. 47.6 per cent of participants reported to be receiving support from within the prison and 73.8 per cent reported to be receiving external support (N = 42).

Internal support

4.9.24. Of the individuals who received support from within prison (N=20), 80 per cent (N=16) reported these support providers were fellow prisoners, 15 per cent (N=3) received support from medical staff and 10 per cent (N=2) received support from prison officers (**Kappa** = **1.0**). When examining the type of support offered, 65 per cent of the sample (N=13) reported they could confide in their support group, including references to the doctor or chaplain arranging counselling; 40 per cent (N=8) reported that they helped them with their day to day activities, including references to informing them of prison rules, helping them to write letters and going to the gym; 30 per cent (N=6) reported they were able to socialise with them including references to having a laugh with them and keeping their mind occupied; 10 per cent (N=2) reported that they could lend/share their possessions with them (**Kappa = .66**).

External support

4.9.25. Of the individuals who received support from outside of the prison (N=42), all reported that these support providers were family members, 71 per cent were their partners and 51.6 per cent were friends (**Kappa** = **1.0**). When examining the type of support offered, 71 per cent (N= 30) described the support as writing letters, including

references to outside support describing how much they miss them and telling them how they are; 54.8 per cent (N= 23) described how their support visited them in prison; 48.4 per cent (N= 20) described how their support provided them with financial assistance, including references to postal orders or promises of money loans upon release; 13 per cent provided advice; 9.7 per cent offered help on release including references to providing them with work (**Kappa = .65**).

4.10 Discussion

4.10.1. The results offered some insight into the problems and worries experienced within the first two weeks of arriving in the prison system. One of the most frequent stressors concerned relationships outside of the prison, namely family, partners and friends. These encompassed a fear of disownment by the family and isolation through lack of visits. This could be partially explained by the work of Fryenberg (1997) who argues that male adolescent's social support tends to be located within the family. The removal of such potential support could create a considerable level of stress. The restrictions imposed by prison life also appeared to be a stressor involving long periods of being locked in their cells. The participants' loss of freedom to engage in activities and to make decisions without asking permission was indicated the most frequently, followed by missing their family, partners and friends. By comparison the loss of freedom and separation from loved ones was rated more often when compared to missing socialising activities such as eating out and clubbing. The impact of prison life was not regarded as wholly negative, with some positive aspects identified by some participants. The most often of these was the opportunity that the prison offered to improve their educational ability, including providing them with a trade. Some participants identified prison as providing the opportunity to cease their abuse of drugs.

4.10.2. Participants generally reported experiencing very good, close and loving relationships with their current partners. In many instances their feelings towards their partners intensified whilst being in prison, including references toward desiring to be with them more and an increased awareness of their love for their partner. Over half of the sample reported to have no fears that their partner would be unfaithful whilst they were in prison. This aside, some participants reported monitoring their partners to ensure their fidelity. This was usually achieved through friends and family keeping a watchful eye over her, with some participants warning their partners in letters not to be unfaithful. Honesty in admittance of accepting during interview that they actively get others to observe their partners must also be considered, with some individuals perhaps resistant to acknowledging that this was a practise they were engaged in.

4.10.3. Over half of the sample (61 per cent) indicated that discovering their partner had had sexual intercourse with someone else would be worse than them forming a deep attachment with someone else. This would certainly concur with the research of DeKay and Buss (1992), and would support the evolutionary theory of sexual infidelity being worse than emotional infidelity from the males viewpoint (Buunk et al, 1996 & Buss et al, 1996). Indications of why this was worse included "monogamy" as one of the main reasons, followed by an upsetting discovery for the participant. Participants who indicated that forming a deep attachment with someone else would be the worse scenario argued that a one night stand would be acceptable as it offered little chance for deep attachment. Forming a deep attachment would be worse as the partner would be in love with someone else, and thinking of someone else whilst engaging in sexual relations with the participant.

4.10.4. About half of the sample reported receiving support from within the prison, mainly from other prisoners. This would contrast somewhat against the longitudinal

prison research of Zamble and Porporino who report that only between 25 - 30 per cent of their participants used internal support. It could be argued that the level of support used within the current study may decrease over time as it can become difficult to maintain long-term assistance as prisoners move locations. It could also be presented that the sample of the current thesis, young offenders, may desire more support based on their age than the adult male prisoners in Zamble and Porporino's (1988) study. The type of help ascertained in the current study involved the opportunity to confide in such individuals, and to discuss their problems with them. About two thirds of the sample reported receiving help from outside of the prison, mainly from loved ones such as (in order of frequency) family, partner and friends. Family members providing the main support group would concur with Fryenberg (1997) who argues family members to be the main assistance group for male adolescents. The type of support offered involved the loved ones writing letters of encouragement to the participant, visiting them and offering them financial aid.

4.10.5. The findings from the semi-structured interviews certainly reinforce the importance of family support to young offenders, and the consequent stress caused when this becomes restricted. This helps to offer reinforce in later chapters the links between coping, homesickness and health. Implications of these findings would suggest that resources should be focused upon ensuring that young offenders are allowed the maximum opportunity to maintain good contact with their family. In addition it may be important to provide young offenders with the best methods of achieving and maintaining this contact.

Chapter 5

LONGITUDINAL METHOD[1]

5.1 Chapter structure

5.1.1. This chapter addresses the method used for longitudinal phases one to three. Phase one of the longitudinal design was administration of the measures (plus semi-structured interviews on 42 randomly selected participants as described in chapter four) within two weeks of entering the prison system. Phase two was administration of the measures six weeks later. Phase three was their administration four to six months after participants first entered the prison system. The measures used within the study were selected for their non-complex language to compensate for some participants poor reading ability, previous appropriate levels of reliability and their suitability for use within a prison setting. This chapter will describe the sample used within the study, a description of the measures and the procedure.

5.2 Sample

Phase one

5.2.1. The sample comprised 261 male 15 - 21 year old (mean = 18 years) young offenders from two young offender institutes, one from the north-west and one from the north-east of England. 68 per cent of the sample were sentenced with the remainder being on remand. Of those sentenced, 28 per cent had committed motoring offences, 23 per cent burglary offences, 11 per cent robbery offences, 11 per cent

[1] Acknowledgements to Dr. Jane Ireland and Mr Philip Birch (HMYOI Lancaster Farms) and Kate Smart from Brunel University on a student placement for all their help in assisting me with conducting this research.

offences of assault, 9 per cent drug offences, with the remaining for other indicable offences. If any of the sample were convicted of more than one offence, only their most serious (index offence) was recorded.

Phase two

5.2.2. This sample comprised of 133 of the original 261 phase one participants. Decrease in sample size was a main result of participants being released, although 25% were transferred to another prison establishment of which their movements could not be traced.

Phase three

5.2.3. This sample comprised of 55 of the original 261 phase one participants. Decrease in sample size was a main result of participants being released, although 20% were transferred to another prison establishment of which their movements could not be traced.

5.3 Measures

5.3.1. The Homesickness Questionnaire for prisoners (HQ-P) was administered. This was a modification of the Homesickness Questionnaire (HQ) by Archer et al (1998) for use with a prison population. It consists of twenty-one items, rated on a five point Likert scale (1 = strongly disagree to 5 = strongly agree). The scale was found to be highly consistent, as reported in the preliminary (pilot) phase in appendix 7 (N of cases = 179, N of items = 30, Alpha = 0.92).

5.3.2. The Single Item Homesickness Measure (SIHM) of Fisher and Hood (1987) was also used, also described in the preliminary (pilot) phase in appendix 7. Although this measure is referred to as a single item measure by Fisher and Hood (1987), it does contain three sections. This involves participants rating on a four point Likert scale their initial and current homesickness levels alongside their own definitions of homesickness (1 = not homesick to 4 = very homesick). This measure was slightly modified to suit a prison population, with the insertion of the term 'prison' on one of the items. A number of demographic variables were also attached to the start of the SIHM. These included age, whether it was their first time in prison, whether they were on remand or sentenced, the length of time they had currently spent in prison, and, if sentenced, their offence and serving length.

5.3.3. The Coping Styles Questionnaire (CSQ) (Roger et al, 1993) consists of sixty items, with participants rating their typical reactions to stress on a four point Likert scale (always; often; sometimes; never). It examines four styles of coping (detached; rational; emotional and avoidance). This questionnaire is trait-orientated where preferences towards particular coping styles form part of an individual's personality (Folkman et al, 1986). Chronbach's Alpha for the total scale in a prison population was .79 (N=115, 60 items, Ireland, 1997).

5.3.4. The Middlesex Hospital Questionnaire (MHQ, Crown and Crisp, 1966) involves participants rating on a Likert scale a number of symptoms and traits characteristic of psychoneurotic illness. The MHQ was modified for use with a young offender prison population. This involved omitting one group of symptoms, phobic symptoms, which were inappropriately worded for a prison population. After this modification, forty items from an original forty-eight remained. Twenty-four of the items involve a 'yes' or 'no' response with the remainder having three point scales (e.g.

never; often; sometimes). Reliability analysis was conducted by Crown and Crisp (1966) when devising the MHQ. Based on a sample of 62 patients, Cronbach's Alphas were as follows: Anxiety (.82), Obsessional (.43), Somatic (.37), Depression (.65) and Hysteric (.63). Kline (1993) stated that the acceptable level for alpha should be above .7, although Cortina (1991) points out that the value is dependent on the sample size. Crown and Crisp (1966) argued that reliabilities on the subscales may sometimes be expected to be low as the entire spectrum of questions in each subscale may not apply to all participants, leading to a low reliability.

5.3.5. All measures were administered to each participant in the order of the SIHM, HQ-P, CSQ and MHQ. The reliability analysis of each of these measures altered across each longitudinal phase. Consequently the reliability analysis of these measures through phases one to three will be presented in the appropriate result sections.

5.4 Procedure

Phase one

5.4.1. Permission to conduct the research was received from each Governor, one via verbal consent, and the other in writing. Young male offenders (N = 300) who had been in the prison system (either on remand or sentenced) for fourteen days or less were approached to take part in the research. Of those, 1% (N= 4) were excluded due to poor reading and writing skills (self report that they were unable to read or write) and 12% (N= 35) declined to take part. Due to security restraints differing in each of the prisons, administration of the measures were adapted accordingly.

5.4.2. Prisoners from the north-west prison were given the battery of measures and a record of consent to complete in the privacy of their cells. The cells were either single or double, with the double-cells being occupied by the participant only during questionnaire completion. This was to minimise the risk of collaboration. All questionnaires were collected by the same researcher one to three hours after their distribution.

5.4.3. Prisoners from the north-east prison were given the battery of tests and record of consent forms in a classroom seating no more that eight. The researcher remained during the completion of the questionnaires to minimise collaboration.

5.4.4. Each researcher followed a set of standardised instructions when explaining the nature of the study. This included an explanation of the purpose of the study, that it was to examine problems that may be experienced when adapting to prison life. The record of consent forms explained in more detail the nature of the study, ethical considerations and a researcher contact number. The record of consent forms differed depending upon which group the participant was in. Group one consisted of the 42 randomly selected participants asked to participate in a semi-structured interview (chapter four) and completion of the questionnaire measures. Group two consisted of 219 participants asked to complete the questionnaire measures only. Participants were allocated randomly into each group. Upon reading the record of consent, each participant was assured that their names and prison numbers were recorded only in order to locate their whereabouts as the study progressed.

5.4.5. Upon reading the record of consent, and if the willingness to participate remained, they were asked to sign two copies of the record of consent. One copy was given to the participant for their records, and the remaining copy was retained by the researcher.

5.4.6. In each case every participant was encouraged to report any difficulties they found in completing the questionnaires on there collection by the researcher, and assistance was offered. In all instances participants' battery of tests were sealed in envelopes by the participant.

Phase two

5.4.7. Six weeks after each participants completion of the first phase, their whereabouts were traced. Providing they had not been released, and their location could be ascertained, each participant was sent a copy of the second batch of questionnaires, with an accompanying covering letter. These questionnaires were again completed by each participant in the privacy of their cells and collected one to three hours later by probation staff, psychology staff or prison officers. Each battery of questionnaires was sealed by each participant in an envelope.

Phase three

5.4.8. Four to six months after the completion of the first phase, each participant who had successfully completed the second phase was located. The same procedure was followed as with phase two.

5.4.9. All data was collected and analysed using correlations, t-tests and multiple regression. With regard to phases two and three, some of the questionnaires were sent via the postal system to the relevant probation/psychology departments. This occurred if researchers were unable to travel to the location to which the participant had been transferred. Although these departments were requested to ensure the questionnaires were completed in isolation, this could not be guaranteed.

5.4.10. Materials discussed within this chapter can be found in Appendix 2. These include the researchers standardised instructions, records of consent, standardised set of interview instructions, details of the semi-structured interview, battery of questionnaires (HQ-P, SIHS, CSQ, MHQ) and a copy of the six week and four to six months later covering letters.

Chapter 6

CROSS-SECTIONAL ANALYSIS

6.1 Overview

6.1.1. This chapter will examine the results from all three phases of the longitudinal data. To recap, this will include results from the completion of the questionnaires within the first two weeks of arrival into prison (phase one), six weeks later (phase two) and four to six months after initial arrival (phase three). This will first discuss how the data was managed in order to resolve the problem of missing data. The reliabilities of the questionnaires will then be presented, along with descriptive statistics. Comparisons between the homesick and non-homesick groups will be presented along with the relationships between the questionnaires across phases.

6.2 Missing Data

6.2.1. Eighty-nine of the 261 participants in phase one had omitted to complete at least one item from the questionnaires. There were a total of 123 items in the questionnaire battery, namely from the Single Item Homesickness Scale (SIHM, 2 items), Homesickness Questionnaire for Prisoners (HQ-P, 21 items), Coping Styles Questionnaire (CSQ, 60 items) and the Middlesex Hospital Questionnaire (MHQ, 40 items). Of this 89, 34 participants omitted one item, 40 omitted between two and five items, 10 omitted between six and nine items, 3 omitted eleven items, 1 omitted fourteen items and one omitted 16 items. Sixty-nine of the 133 participants in phase two omitted to complete at least one item from the questionnaires (phase one and two, equating to 246 items). Of this 69, 28 omitted one item, 28 omitted between two and six items, 9 omitted between eight and eleven items, 1 omitted seventeen items, 2 omitted eighteen items and 1 omitted thirty-six items. Thirty-six of the 55 participants

in phase three omitted to complete at least one item from the questionnaires (phases one, two and three, equating to 369 items). Of this thirty-six, 7 omitted one item, 17 omitted between two and five items, 5 omitted between six and eight items, 6 omitted between ten and fifteen items, and 1 omitted 18 items.

6.2.2. The most appropriate method of dealing with the data was to replace the missing values using EM algorithm (Graham, Elek-Fisk, Cumsille, in press). This approach uses the available data to estimate the sums, sums of squares and cross-products of the data that is missing. Using these, it then estimates the variance, covariance and regression coefficients, iterating until the variance-covariance estimates converge at an acceptable level (Graham et al, in press). Use of this technique was based on a number of considerations:

(i) Deletion of participants with missing values would have meant a substantial loss of the sample and omission of relevant data, and may also have lead to estimation biases (Graham et al, in press).

(ii) The use of regression to estimate missing values was not used as this would involve scores that would fit with the other scores to an unrealistic high standard, and a reduction in the variance (Tabachnick and Fidell, 1996).

(iii) Use of group means to replace missing data is inappropriate due to its tendency to produce highly biased parameter estimates (Graham et al, in press).

6.2.3. EM algorithm was conducted, based on 2000 iterations as recommended by Graham et al (in press). EM algorithm converged. This analysis demonstrated that the missing data was missing at random (MCAR, Graham et al, in press), with the EM algorithms estimation of the missing values not being correlated with the variables

containing the missing data (all Chi Squares > 8712, ns). Skewness and Kurtosis analysis on the new data set demonstrated that the data with the missing values replaced represented normal distribution, with the majority of values below 1.

6.3 Reliabilities of the measures

6.3.1. Internal consistency of the measures were examined to ensure that these remained acceptable as the phases progressed. Reliabilities for all coping styles (CSQ), psychological health (MHQ) and homesickness (HQ-P) measures across all longitudinal phases are shown in Table 6.1.

Table 6.1. Table to demonstrate the Cronbach's Alpha (α) reliabilities of the measures across phases and in comparison to other populations.

Measure		Phases one α (N=261)	Phases two α (N=133)	Phases three α (N=55)	Comparison population α's	
HQ-P 1	(21 items)	.91	.91	.91	.95	(N = 179, 21 items)
CSQ2	(60 items)	.90	.90	.89	.79	(N = 115, 60 items)
Detached coping	(15 items)	.72	.75	.75	.80	(N = 115, 15 items)
Rational coping	(16 items)	.77	.85	.78	.86	(N = 115, 16 items)
Emotional coping	(16 items)	.84	.85	.87	.88	(N = 115, 16 items)
Avoidance coping	(13 items)	.78	.78	.74	.79	(N = 115, 13 items)
MHQ3	(40 items)	.86	.86	.86	-	
Free-floating anxiety	(8 items)	.83	.83	.81	.82	(N = 62, 8 items)
Obsessional	(8 items)	.46	.43	.51	.43	(N = 62, 8 items)
Depression	(7 items)	.64	.66	.63	.65	(N = 62, 7 items)
Hysteric	(8 items)	.36	.51	.45	.63	(N = 62, 8 items)
Somatic	(9 items)	.68	.74	.76	.37	(N = 62, 9 items)

Notes: 1 Comparison population for HQP, Ireland and Archer (2000)

2 Comparison population for CSQ, Ireland (1997)

3 Comparison population for MHQ, Crown and Crisp (1966)

6.3.2. The reliability for the HQ-P was similar to that modified for use in a prison population (Ireland and Archer, 2000). The reliabilities for the CSQ were similar to those found by Ireland (1997) and the MHQ reliabilities were similar to those reported by Crown and Crisp (1966) when devising the MHQ, with the exception of hysteric symptoms that were lower and somatic symptoms that were higher in their reliability than those reported by Crown and Crisp (1966). Kline (1993) states that the alpha should never really be below .7, although Pedhazur and Schmelkin (1991) point out that the reliability of the test should depend on the study. Nunnally (1967) describes alpha's of .5 and .6 as "modest", yet argues higher alpha coefficients should be sought as the research progresses. It can be argued that the subscales for the MHQ consist of only a small number of items per subscale that may negatively affect the chances of ascertaining a high alpha. With the exception of the hysteric and obsessional sub-scales all reliabilities were 0.7 or just below. Although Crown and Crisp (1966) report low reliability for their obsessional and somatic scales, arguing that reliabilities on the subscales may sometimes be expected to be low as the entire spectrum of questions in that subscale may not apply to the participants, leading to a low reliability. Low alpha's would nonetheless question the stability and consequent reliability of some of the sub-scales in the MHQ.

6.3.3. Table 6.1 shows that the HQP, CSQ and its subscales consistently demonstrated good and acceptable reliability across the three longitudinal phases. Some subscales from the MHQ questionnaire demonstrated less stable reliability, although the reliability coefficients demonstrated by the obsessional, hysteric and somatic subscales of the MHQ increased from phase one to phase three. Table 6.1 shows that the total for the MHQ demonstrates consistent reliability across the three longitudinal phases. The reliability of each sub-scale was variable, with free-floating anxiety demonstrating the strongest and most consistent reliability across the phases.

6.4 Descriptive statistics

6.4.1. The means and standard deviations for coping, homesickness and psychological health found in the present sample at phase one are compared to other populations in Table 6.2.

Table 6.2. Means and standard deviations (in parentheses) for coping, homesickness and psychological health in comparison to other populations.

Measures	Prison population (N = 261)	Comparison population	G/d values (p)
CSQ1			
Emotional coping	19.5 (8.6)	16.8 (6.1)	.36 (p=.001)
Avoidance coping	21.3 (6.9)	15.4 (5)	.98 (p=.000)
Rational coping	23.6 (7.7)	27.3 (5.8)	-.54 (p=.000)
Detached coping	18.7 (6.1)	18.7 (6.4)	.00 (p=1.00)
HQP2			
Homesickness	3.5 (0.8)	1.9 (0.4)	3.39 (p=.000)
MHQ3			
Free-floating anxiety	7.9 (4.4)	5.1 (3.1)	.69 (p=000)
Depression	6.6 (3.1)	3.3 (2.3)	1.14 (p=000)
Obsessional	7.4 (3.0)	5.8 (3.1)	.54 (p=000)
Hysteric	6.8 (3.1)	7.6 (3.1)	-.23 (p=.03)
Somatic	8.8 (4.2)	3.2 (2.4)	1.52 (p=000)

Notes:

1 Comparison population based on a male student sample (N=227), Roger et al, (1993)

2 Comparison population based on a male student sample of the original HQ (N=114), Archer et al, (1998). Mean and standard deviation adjusted to compare with the 21 items of the HQ-P and the 33

items of the original HQ. This entailed dividing the mean and standard deviation of the HQ-P and HQ by their number of items.

3 Comparison population based on a nurse and medical student sample (N=109), Crown and Crisp (1966)

6.4.2. A number of demographic variables were collected during the research, namely the participants age, previous prison experience and whether they were on remand or sentenced. These demographic variables were examined to determine whether they had an impact upon a participant's coping styles and/or levels of homesickness and psychological health using logistic and multiple regression. These are presented below in sections 6.5 and 6.6.

6.5 Logistic Regression

6.5.1. Logistic regression was computed to investigate whether remand status and/or previous prison experience influenced an individual's coping style and/or levels of homesickness and psychological health. Logistic regression indicates which variables from a combination of categorical and continuous independent variables, significantly predict the probability of a dichotomous dependent variable (Norusis, 1985). In this case the dependent variables represented remand status (where 1 = remand and 2 = sentenced) and prison experience (where 1 = been in prison before and 0 = first time in prison). Forward stepwise logistic regression was used.

Remand Status

6.5.2. There were no significant predictors suggesting that remand status had no influence upon coping styles, homesickness or psychological health (all p's>.08).

Prison Experience

6.5.3. Prison experience had no influence upon coping styles or psychological health (all p's>.12). Homesickness was predicted by prison status in that first time in prison was related to higher levels of homesickness ($p<.02$). Residual chi square was not significant ($p<.86$). This suggests that the significance between homesickness and prison experience was not restricted to the current sample and could be extrapolated to other prison populations.

6.6 Multiple Regression

6.6.1. Multiple regression was computed to investigate whether age influenced an individual's level of homesickness. A significant effect on age was found for homesickness ($\beta = .17$, $p<.01$) [adjusted $R^2 = .02$, $F(1, 260) = 7.23$, $p<.01$], suggesting that as age increases so to does the experience of homesickness.

6.7 Comparison of homesick and non-homesick participants

6.7.1. Participants were classified as homesick and non-homesick according to the single item homesickness scale (SIHM, Fisher and Hood, 1987). A participant was classified as homesick if they rated themselves as *currently* homesick to some degree. Of the sample in phase one, 216 rated themselves as currently homesick to some degree (slightly homesick to very homesick), and 42 rated themselves as not currently homesick. Of those 42, 18 continued to rate themselves as homesick at phase two. Of the sample in phase two, 112 rated themselves as currently homesick to some degree, and 20 rated themselves as not currently homesick. Of these 20, 3 continued to rate themselves as homesick at phase three. Of the sample in phase three, 46 rated themselves as currently homesick to some degree, and 9 rated themselves as not currently homesick.

6.7.2. Comparisons were made using Chi-square and Fishers Exact Test between the homesick and non-homesick groups across each phase examining their first time in prison and whether they were currently on remand as opposed to being sentenced. Fishers Exact was used in place of Chi-square for phase three due to an insufficient number of participants.

Phases One, Two and Three

6.7.3. When examining the homesick and non-homesick groups across each phase of the study, there were no significant associations between first time in prison and membership of the homesick or non-homesick groups (Fisher's Exact Test's all $< .24$ ns). There was a significant association at initial arrival into prison (phase one) between membership of homesick or non-homesick groups and remand status, remand prisoners being more frequent in the non-homesick group (Chi-Square $= -.15$, $p < .05$). It should be noted that sample size decreased after phase one, in particular with those who were in the non-homesick group. Of the remaining group six weeks later (phase two), there were only a third on remand, compared to over two thirds of the phase one sample. This made analysis difficult.

6.8 Multiple Regression

6.8.1. A number of stepwise regressions were conducted to investigate whether homesickness and age influenced an individuals use of coping styles and/or level of health. Homesickness and age upon arrival was regressed onto coping styles and health. This was repeated at each longitudinal phase (phases one, two and three). Homesickness and age upon arrival (phase one) was also regressed onto later use of coping and levels of health using change scores. The beta co-efficients, associated significance levels and final statistics for these analyses are summarised in Tables 6.3 to 6.7.

Table 6.3. Beta co-efficients, associated significance levels and final statistics of homesickness and age regressed onto coping styles and psychological health upon arrival into prison (phase one, N=261).

	Predictor		Final statistics	
Criterion	*Homesickness*	*Age*	R^2 **(adjusted)**	**F (1,260)**
Emotional coping	.70**	-.10*	.48	120.32**
Avoidance coping	.54**	n/e	.29	107.39**
Rational coping	.22**	n/e	.05	13.40**
Detached coping	n/e	n/e	-	-
Free-floating anxiety	.66**	n/e	.43	197.49**
Depression	.50**	-.12*	.24	42.90**
Somatic	.51**	n/e	.25	89.33**
Obsessional	.43**	n/e	.18	57.96**
Hysteric	.18**	-.13*	.03	5.70**

* p<.05, ** p<.01, with the exception of R^2

Notes

1 Did not enter into the stepwise regression equation

Table 6.4. Beta co-efficients, associated significance levels and final statistics of homesickness and age regressed onto coping styles and psychological health six to eight weeks after arrival into prison (phase two, N=133).

	Criterion		Final statistics	
Predictors	*Homesickness*	*Age*	**R^2 (adjusted)**	**F (1,132)**
Emotional coping	.54**	n/e	.28	52.72**
Avoidance coping	.40**	n/e	.16	25.33**
Rational coping	n/e	n/e	-	-
Detached coping	n/e	n/e	-	-
Free-floating anxiety	.62**	n/e	.38	82.29**
Depression	.55**	n/e	.30	57.45**
Somatic	.42**	n/e	.17	28.36**
Obsessional	.36**	n/e	.12	19.22**
Hysteric	n/e	n/e	-	-

* p<.05, ** p<.01, with the exception of R^2

Notes

1 Did not enter into the stepwise regression equation

Table 6.5. Beta co-efficients, associated significance levels and final statistics of homesickness and age regressed onto coping styles and psychological health four to six months after arrival into prison (phase three, N=55).

	Criterion		**Final statistics**	
Predictors	*Homesickness*	*Age*	**R^2 (adjusted)**	**F (1,54)**
Emotional coping	.59**	n/e	.33	28.18**
Avoidance coping	.41**	n/e	.15	10.50**
Rational coping	n/e	n/e	-	-
Detached coping	n/e	n/e	-	-
Free-floating anxiety	.59**	n/e	.33	27.58**
Depression	.52**	n/e	.25	19.34**
Somatic	.57**	n/e	.31	25.39**
Obsessional	.34*	n/e	.10	6.89*
Hysteric	n/e	-.37**	.12	8.53**

* p<.05, ** p<.01, with the exception of R^2

Notes

1 Did not enter into the stepwise regression equation

6.8.2. Tables 6.3 to 6.5 demonstrated a number of significant associations when homesickness and age were regressed onto psychological health and coping styles. As an individuals experience of homesickness increased upon arrival into prison, so too did their levels of free-floating anxiety, depression, somatic and obsessional symptoms. These associations continued six to eight weeks and four to six months later. There was also an association upon arrival between homesickness and hysteric symptoms, in that an increase in levels of homesickness was related to an increase in hysteric symptoms, although the magnitude of the beta co-efficient was low. As an individuals experience of homesickness increased upon arrival into prison, so too did their use of emotional and avoidance coping. These associations also continued six to eight weeks and four to six months later. There was also an association upon arrival between homesickness and rational coping, in that an increase in levels of homesickness was related to an increase in the use of rational coping, although the magnitude of the beta co-efficient was low. With regard to age, although the magnitude of the beta co-efficients were low, there were a number of associations. These associations demonstrated that upon arrival into prison, as age increased an individuals use of emotional coping and experience of depression and hysteric symptoms decreased. These associations did not continue six to eight weeks later, although there was a moderate association four to six months later between age and hysteric symptoms. This demonstrated that as age increased an individuals experience of hysteric symptoms decreased.

Table 6.6. Beta co-efficients, associated significance levels and final statistics of homesickness and age regressed onto the change scores for coping styles and psychological health between arrival into prison and six to eight weeks later (phases one and two, N=133).

	Criterion		**Final statistics**	
Predictors	*Homesickness*	*Age*	**R^2 (adjusted)**	**F (1,132)**
Emotional coping	-.37**	n/e	.13	20.76**
Avoidance coping	-.21*	n/e	.03	5.79*
Rational coping	n/e	n/e	-	-
Detached coping	n/e	n/e	-	-
Free-floating anxiety	-.28**	n/e	.07	10.79**
Depression	n/e	n/e	-	-
Somatic	n/e	n/e	-	-
Obsessional	n/e	n/e	-	-
Hysteric	n/e	n/e	-	-

* p<.05, ** p<.01, with the exception of R^2

Notes

1 Did not enter into the stepwise regression equation

Table 6.7. Beta co-efficients, associated significance levels and final statistics of homesickness and age regressed onto the change scores for coping styles and psychological health between arrival into prison and four to six months later (phases one and three, N=55).

	Criterion		**Final statistics**	
Predictors	*Homesickness*	*Age*	**R^2 (adjusted)**	**F (1,54)**
Emotional coping	-.43**	n/e	.17	12.29**
Avoidance coping	-.32*	n/e	.08	5.86*
Rational coping	n/e	n/e	-	-
Detached coping	n/e	n/e	-	-
Free-floating anxiety	-.29*	n/e	.06	4.75*
Depression	-.30*	n/e	.07	5.2*
Somatic	n/e	n/e	-	-
Obsessional	n/e	-.31*	.08	5.53*
Hysteric	n/e	n/e	-	-

* p<.05, ** p<.01, with the exception of R^2

Notes

1 Did not enter into the stepwise regression equation

6.8.3. Homesickness and age were regressed onto the change scores for coping styles and psychological health between six to eight weeks after arrival into prison and four to six months after arrival (phases two and three, N=55). There were no associations.

6.8.4. Tables 6.6 and 6.7 demonstrated a number of significant low to moderate associations between levels of homesickness and age upon arrival into prison and subsequent changes in psychological health and coping styles over time. These associations demonstrated that a higher level of homesickness upon arrival predicted a greater increase in the use of emotional and avoidance coping, and a greater increase in the experience of free-floating anxiety from their initial arrival to some six weeks later. A higher level of homesickness upon arrival also predicted a greater increase in the use of emotional and avoidance coping, and a greater increase in the experience of free-floating anxiety and depression from their initial arrival to some four to six months later. With regard to age, there was a significant association between age and obsessional symptoms. This demonstrated that the older an individual was upon arrival into prison, a greater increase in the experience of obsessional symptoms was predicted from their initial arrival to some four to six months later.

6.9 Inter-Correlations

6.9.1. A number of correlations were conducted showing the relationships between coping styles, homesickness and psychological health and within each measure across phases one to three. Each of these are presented below.

Phase One

6.9.2. Pearson correlations between coping styles, homesickness and psychological health variables at phase one are presented in Table 6.6. Please note that the issue of Bonferoni correction should be considered; all p values at 0.5 should be interpreted with caution in view of a large number of comparisons made in the data set, a p value of .01 should be viewed as more appropriate. Values presented at .05 are more appropriately interpreted as trends.

Table 6.8. Correlations between coping styles, homesickness and psychological health at phase one.

	Emotional Coping	Rational Coping	Detached Coping	Avoidance Coping	Homesickness
Homesickness	.69**	.22**	-.05	.54**	
Free Floating Anxiety	.74**	.06	-.15*	.50**	.66**
Depression	.64**	-.01	-.08	.41**	.49**
Hysteric	.19**	.13*	.09	.14*	.16**
Obsessional	.44**	.23**	.04	.33**	.43**
Somatic	.55**	.01	-.02	.35**	.51**

* p<.05, ** p<.01

6.9.3. Table 6.8 shows a number of significant correlations. There were two modest relationships between homesickness and coping styles with emotional and avoidance coping. There were modest relationships between homesickness and health, namely with free-floating anxiety, depression, obsessional and somatic symptoms. Coping styles showed a number of modest correlations between avoidance coping and health measures, namely with free-floating anxiety and depression. There were modest correlations between emotional coping and health (depression, somatic and obsessional symptoms), with a high correlation between emotional coping and free-floating anxiety. Additional correlations are presented in tables 6.9 to 6.10. The issue of Bonferoni correction also applies within those tables.

Table 6.9. Correlation Matrix between sub-scales on the MHQ at phase one.

	Free-floating anxiety	**Depression**	**Hysteric**	**Obsessional**
Depression	.72**			
Hysteric	.21**	.09		
Obsessional	.51**	.49**	.23**	
Somatic	.66**	.60**	.13*	.42**

*p<.05, ** p<.01

Table 6.10. Correlation Matrix between Coping Styles at phase one.

	Emotional coping	**Rational coping**	**Detached coping**
Rational coping	.20**		
Detached coping	.07	.64*	
Avoidance coping	.66*	.42**	.30**

* p<.05, ** p<.01

6.9.4. The correlations shown in table 6.9 demonstrated a number of significant relationships. There were moderate correlations between free-floating anxiety depression, between free-floating anxiety and obsessional symptoms, between free-floating anxiety and somatic symptoms, between depression and obsessional symptoms, between depression and somatic symptoms, and between obsessional and somatic symptoms. The correlations shown in table 6.10 demonstrated a number of positive relationships. There were moderate correlations between emotional and avoidance coping, between rational and detached coping, and between rational and avoidance coping.

Phase Two

6.9.5. Pearson correlations between coping styles, homesickness and psychological health variables at phase two are shown in Table 6.11.

Table 6.11. Correlations between coping styles, homesickness and psychological health at phase two.

	Emotional Coping	Rational Coping	Detached Coping	Avoidance Coping	Homesickness (HQ-P)
Homesickness (HQ-P)	.54**	.07	-.13	.40**	-
Free Floating Anxiety	.70**	-.11	-.25**	.35**	.62**
Depression	.64**	-.09	-.16	.44**	.55**
Hysteric	.06	.21*	.18*	.09	.13
Obsessional	.41**	.13	.04	.30**	.36**
Somatic	.58**	-.16	-.14	.31**	.42**

* p<.05, ** p<.01

6.9.6. The correlations in Table 6.11 shows a number of significant correlations. There were two moderate relationships between coping styles and homesickness, namely between emotional and avoidance coping. There were three moderate relationships between homesickness and psychological health measures, namely free-floating anxiety, depression and somatic symptoms. There was a moderate relationship between avoidance coping and depression. There were a number of moderate relationships between emotional coping and health, namely between depression, somatic and obsessional symptoms, and a high correlation between emotional coping and free-floating anxiety. These correlations were very similar in magnitude to those found in

phase one, with similar relationships being repeated. Additional correlations are presented in tables 6.12 and 6.13.

Table 6.12. Correlation Matrix between sub-scales on the MHQ in phase two.

	Free-floating anxiety	Depression	Hysteric	Obsessional
Depression	.74**			
Hysteric	.11	-.04		
Obsessional	.50**	.35**	.20*	
Somatic	.72**	.63**	-.03	.46**

* p<.05, ** p<.01

Table 6.13. Correlation Matrix between Coping Styles at phase two.

	Emotional coping	Rational coping	Detached coping
Rational coping	.08	-	-
Detached coping	.03	.69**	-
Avoidance coping	.55**	.27**	.30**

* p<.05, ** p<.01

6.9.7. The correlations shown in Table 6.12 demonstrated a number of significant relationships. There were high correlations between free-floating anxiety and depression, and between free-floating anxiety and somatic symptoms. There were moderate correlations between free-floating anxiety and obsessional symptoms, between depression and somatic symptoms, and between obsessional and somatic symptoms. The correlations shown in Table 6.13 demonstrated a number of significant relationships. There were high correlations between rational and detached coping, and a moderate correlation between emotional and avoidance coping. These correlations

were similar in magnitude to those found in phase one, with the exception of a high correlation between anxiety and depression in phase two that was absent in phase one.

Phase Three

6.9.8. Pearson correlations between coping styles, homesickness and psychological health variables at phase three are presented in Table 6.14.

Table 6.14. Correlations between coping styles, homesickness and psychological health at phase three.

	Emotional Coping	Rational Coping	Detached Coping	Avoidance Coping	Homesickness (HQ-P)
Homesickness (HQ-P)	.59**	.09	-.06	.41**	-
Free Floating Anxiety	.75**	.04	-.08	.34*	.59**
Depression	.70**	-.10	-.02	.21	.52**
Hysteric	.15	.02	.26	.12	-.07
Obsessional	.48**	.12	.15	.22	.34*
Somatic	.57**	.10	.10	.20	.57**

* p<.05, ** p<.01

6.9.9. The correlations in Table 6.14 demonstrate a number of significant relationships. There were two moderate relationships between coping styles and homesickness, namely with emotional and avoidance coping. There were three moderate relationships between homesickness and psychological health measures, namely with free-floating anxiety, depression and somatic symptoms. There were three moderate relationships between emotional coping and psychological health (depression, somatic and obsessional symptoms), with a high correlation between emotional coping and free-

floating anxiety. These correlations demonstrated similar relationships and were similar in magnitude to those found in phases one and two. Additional correlations are presented in tables 6.15 and 6.16.

Table 6.15. Correlation Matrix between sub-scales on the MHQ at phase three.

	Free-floating anxiety	**Depression**	**Hysteric**	**Obsessional**
Depression	.76**	-	-	-
Hysteric	.07	.07	-	-
Obsessional	.57**	.43**	.20	-
Somatic	.61**	.68**	-.17	.45**

* p<.05, ** p<.01

Table 6.16. Correlation Matrix between Coping Styles at phase three.

	Emotional coping	**Rational coping**	**Detached coping**
Rational coping	.23	-	-
Detached coping	.14	.46**	-
Avoidance coping	.56**	.27*	.22

* p<.05, ** p<.01

6.9.10. The correlations shown in Table 6.15 demonstrate high correlations between free-floating anxiety and depression, and depression and somatic symptoms. There were moderate correlations between free-floating anxiety and obsessional symptoms, between free-floating anxiety and somatic symptoms, between depression and obsessional symptoms, and finally obsessional and somatic symptoms. The correlations shown in Table 6.16 demonstrated a moderate relationships between emotional and avoidance coping, and between rational and detached coping.

6.10 Summary

6.10.1. Upon initial arrival into prison, the participants demonstrated a similar use of coping styles to a male student sample (Roger et al, 1993), with the exception of a larger use of avoidance coping in the prison sample. This higher use of avoidance coping may be a reflection of the prisoners' reaction to arriving in prison, a situation which is perceived as uncontrollable and difficult, leading to avoidance coping to be the most suitable option as argued by Cohen (1983). The prison sample demonstrated higher levels of homesickness than a male student population (Archer et al, 1998), with the standard deviation for the prison population being larger, suggesting a greater dispersion around the mean. The higher levels of homesickness in the prison population could be a result of the prisoners removal from their habitual environment where it is more difficult to return as a result of incarceration. The prison sample also showed higher levels of poor psychological health upon arrival, with the exception of hysteric symptoms, when compared to a nurse and student medical sample (Crown and Crisp, 1966). The largest of these differences could be found in free-floating anxiety, depression and somatic symptoms.

6.10.2. Eighty-four per cent of the sample defined themselves as currently homesick within two weeks of arriving into prison. High levels of homesickness experienced within this two weeks was related to an individual's first time in prison, and increased with age. Upon arrival into prison, as age increased an individuals use of emotional coping and experience of depression and hysteric symptoms decreased. Four to six months after arrival, as age increased an individuals experience of hysteric symptoms decreased. Although with regard to age, the older an individual was upon arrival into prison, a greater increase in the experience of obsessional symptoms was predicted from their initial arrival to some four to six months later. This would suggest that the older the individual the less risk of poor health in general, although over time an

increase in some symptoms such as obsessional may be a risk. The intensity of the homesickness experienced on arrival would contrast with the findings of Fisher (1989) who found that many university students did not develop homesickness until some six weeks after arrival. Such high intensity of homesickness experienced by the prison population within two weeks of arriving may reflect the nature of the strict and controlled regime and reaction to being suddenly removed from their habitual surroundings. This would concur with Fisher's (1986) comment that unpleasant or hostile environments can increase the strain and exacerbate the desire to return home.

6.10.3. The level of homesickness remained constant as time progressed. Eighty-five per cent of the sample defined themselves as currently homesick six to eight weeks after arriving into prison (i.e. phase two; six weeks after phase one), although a smaller number of those who defined themselves as non-homesick at phase one remained at phase two. At this time interval whether the individual was in prison for the first time, or whether they were on remand or had been sentenced did not affect homesickness. The high level of homesickness reported some four to six months after completing the first batch of measure was not associated with an individuals first time in prison or whether they were on remand or sentenced.

6.10.4. There were a number of associations between homesickness and psychological health. From arrival into prison to six weeks later and four to six months after arrival, high levels of homesickness were associated with higher levels of free-floating anxiety, depression, somatic and obsessional symptoms. To a lesser extent, high levels of homesickness upon arrival was associated with an increase in hysteric symptoms. With regard to changes over time, a higher level of homesickness upon arrival predicted a greater increase in an individuals experience of free-floating anxiety from their initial arrival to some six weeks later. This higher level of homesickness upon arrival also

predicted a greater increase in the experience of free-floating anxiety and depression from their initial arrival to some four to six months later.

6.10.5. There were a number of associations between homesickness and coping styles. As an individuals experience of homesickness increased upon arrival into prison, so too did their use of emotional and avoidance coping, with these associations continuing six to eight weeks and four to six months later. To a lesser extent, high levels of homesickness upon arrival was associated with a greater use of rational coping. Regarding changes over time, a higher level of homesickness upon arrival predicted a greater increase in the use of emotional and avoidance coping in individuals from their initial arrival to some six weeks later. This higher level of homesickness upon arrival also predicted a greater increase in the use of emotional and avoidance coping from their initial arrival to some four to six months later.

6.10.6. There were a number of relationships between homesickness, psychological health and coping styles upon arrival into prison. As the experience of homesickness increased, so too did the use of emotional and avoidance coping, and levels of free-floating anxiety, depression, obsessional and somatic symptoms. These would compare with the associations reported in section 6.10.4. As the use of avoidance coping increased, so too did the levels of free-floating anxiety and depression. As the use of emotional coping increased, so too did depression, somatic, obsessional symptoms and free-floating anxiety. There were positive relationships between the different types of psychological health, as based on the Middlesex Hospital Questionnaire (MHQ). There were positive relationships between coping styles, namely between emotional and avoidance coping; and between rational and detached coping; and between rational and avoidance coping. The positive relationships within each sub-scale on each measure

suggests that coping styles are not used in isolation to one another, and the same would apply to psychological health as based on the MHQ.

6.10.7. The positive relationships between homesickness, psychological health and coping styles continued and paralleled to those found six to eight weeks and four to six months after arriving into prison. When examining relationships at six to eight weeks, as the experience of homesickness increased, so too did the use of emotional and avoidance coping, and levels of free-floating anxiety, depression and somatic symptoms. As the level of avoidance coping increased, so too did the level of depression, and as the level of emotional coping increased, so too did the levels of depression, somatic, free-floating anxiety and obsessional symptoms. Again, these would compare with the associations reported earlier in this section. There were positive relationships between rational and detached coping, and between emotional and avoidance coping which would compare with the relationships found at arrival into prison. There were a number of relationships between homesickness, health and coping styles four to six months after arrival. As the level of homesickness increased, so too did the levels of emotional and avoidance coping and levels of free-floating anxiety, depression and somatic symptoms increased. This would parallel with the use of coping styles within two weeks of arriving into prison. By similar comparison, as the level of emotional coping increased, so too did depression, somatic, obsessional and free-floating anxiety.

Chapter 7

CROSS-SECTIONAL BRIEF DISCUSSION

7.1 Section structure

7.1.1. This chapter examines in more detail the cross-sectional results. Section 7.2 examines the reliabilities of the measures used. Section 7.3 examines the impact of coping styles, homesickness and psychological health on demographic variables such as remand status, previous prison experience and age. Section 7.4 involves the differences between the homesick and non-homesick groups as defined by the Single Item Homesickness Measure (Fisher and Hood, 1987), and associations between homesickness, psychological health and coping styles. Section 7.5 explores the relationships between coping styles, homesickness and psychological health. In the main, these relationships reinforce the findings reported in section 7.4. Section 7.6 discusses the limitations of these cross-sectional results.

7.2 Measurement reliability

7.2.1. The HQ-P and the total/sub-scales of CSQ measures upon arrival to prison, six to eight weeks later and four to six months after arrival, demonstrated good reliabilities that were similar to those found in previous research (see appendix three). The MHQ reported good reliability as a total scale upon arrival, although there were lower reliabilities on the sub-scales, .36 and .43 being the lowest. Although these reliabilities are similar to those found by Crown and Crisp (1966) for a patient sample, this would still bring into question the reliability of the measure. Crown and Crisp (1966) argue that the reliabilities of some of the sub-scales may be low because the items within each sub-scale represent a wide spectrum of behaviours, of which an individual may

experience only a few. Such a fragile argument for continuing use of the scale would not support the need within research to ensure that measures used are consistently reliable. Although Nunnally (1967) argues that alphas' of .5 and .6 are 'modest' but suggests the need to increase these alphas as the research progresses. The reliability of the MHQ sub-scales steadily improved as the research proceeded which would support the argument of Pedhazur and Schmelkin (1991), that efforts should be made to increase the alphas as the research progresses.

7.3 Demographic variables

7.3.1. High levels of homesickness experienced within two weeks of arriving into prison was associated an individuals first time in prison, with the residual chi-square suggesting that this finding could be extrapolated to other prison populations. Although this finding was only supported through logistic regression and not chi-square analysis, individuals who have never experienced incarceration may be less aware of prison life. Consequently they may be less able to prepare themselves than individuals who have previously experienced incarceration. Such lack of experience may serve to exacerbate their subsequent homesickness. Age was related to homesickness upon arrival, with the likelihood of experiencing homesickness increasing with age. Upon arrival into prison the older an individual was, their use of emotional coping and experience of depression and hysteric symptoms decreased. This was repeated four to six months later, where older individuals experienced less hysteric symptoms. Although the older an individual was upon arrival into prison, predicted the greatest increase in experience of obsessional symptoms some four to six months later. There is no research exploring age differences with regard to homesickness, psychological health and coping styles. It could be presented that with homesickness, as an individual becomes older, they take on more responsibilities, such as becoming a homeowner and having and maintaining a family. These additional commitments may intensify the level of homesickness experienced if the person is moved from this habitual environment. Similarly, as an

individual becomes older, they may learn through experience more effective and efficient ways of coping with stressful situations, leading to a general reduction in some potentially less effective coping strategies and poor psychological health.

7.4 Homesick versus non-homesick

7.4.1. Various comparisons were made between participants classified as homesick and non-homesick, based on the Single Item Homesickness Measure (Fisher and Hood, 1987). Eighty-four per cent of the sample defined themselves as currently homesick within two weeks of arriving into prison. Eighty-five per cent of the sample defined themselves as currently experiencing homesickness some six to eight weeks after arriving into the prison system with eighty-four percent classifying themselves as experiencing homesickness four to six months after arrival. These percentages varied greatly from those found in university studies of homesickness, with Archer et al (1998) reporting 37 per cent of their student sample to be experiencing homesickness. The level of homesickness in this prison population was similar to the 83 percent Zamble and Porporino (1988) found in their longitudinal study of incarcerated offenders. The similarity in the percentage of homesickness experienced in this phase of the research and previous, albeit limited, prison research suggests the potential for generalisability across prison populations. Such high frequency of homesickness is comparable with the research of Nicassio and Pate (1984) on Indochinese refugees. They, and Thurber and Sigman (1998), argued that homesickness may be intensified if the circumstances surrounding the separation are violent or traumatic. Removal into a prison environment can be regarded as traumatic.

7.4.2. Regression of homesickness onto psychological health and coping styles yielded a number of significant contributions. Through each phase of the study, from arrival into prison to four to six months later, high levels of homesickness were associated

with higher levels of poor psychological health. The association between homesickness and poor health would concur with the majority of previous research comparing people identifying themselves as homesick and those who do not. For example, Fisher and Hood (1987) found depression and anxiety in homesick students compared with those that were not homesick. Depressive and anxious symptoms were found in Thurber's (1995) longitudinal study of adolescent boys who were homesick. The high levels of somatic and obsessional symptoms are consistent with similar findings by Archer et al (1998), in that homesick students reported higher levels of somatic and obsessional symptoms. In addition, the feelings of depression and anxiety experienced by the homesick support the separation anxiety model of Bowlby (1973), that suggests homesickness to be a response to an individual being separated from their habitual environment and close emotional bonds with others. As discussed in chapter four, 71.4 per cent of the semi-structured interview sample (N = 42) reported to miss their family most, 52.4 per cent their girlfriends and 42.9 per cent their friends. Over time, a higher level of homesickness demonstrated upon arrival predicted a greater increase in an individuals experience of free-floating anxiety from their initial arrival to six weeks later. This higher level of homesickness upon arrival also predicted a greater increase in the experience of free-floating anxiety and depression from their initial arrival to some four to six months later. This could suggest that those individuals who experience homesickness early on less able, as a result, to manage their psychological health more effectively in the long-term. This may also reflect that homesickness having long term consequences on an individuals health (Fisher and Hood, 1987, Thurber, 1995).

7.4.3. Regression of homesickness onto coping styles also yielded some important findings. Through each phase of the study, from arrival into prison to four to six months later, as an individuals experience of homesickness increased so too did their use of emotional and avoidance coping. To a lesser extent, high levels of homesickness

upon arrival into prison was associated with a greater use of rational coping. Over time, a higher experience of homesickness upon arrival predicted a greater increase in the use of emotional and avoidance coping in individuals from their initial arrival to some six weeks and four to six months later. These results serve to fuel the debate concerning the effectiveness of coping strategies. The associations between homesickness and emotional and avoidance coping across each phase and over time may suggest that they are less effective if used in the long term (Parker and Endler, 1992), hindering resolution of the stressor (Zeinder and Endler, 1996) and serving only to exacerbate the stress (Menaghan, 1982). This is not to say that avoidance coping may be a suitable option where the situation is perceived as uncontrollable (Cohen, 1983) or as a beneficial short-term solution (Holahan et al, 1995) in order to develop the resources to deal with the stress (Holohan and Moos, 1987) or that emotional coping can help maintain an emotional balance (Zeinder and Saklofske, 1996). Also, the results do not demonstrate that the use of problem focused strategies are beneficial in every situation, demonstrated by rational coping being associated with higher levels of homesickness upon arrival. Likewise, whilst emotional coping has been reported to have some use in maintaining an emotional balance there is also the risk of becoming too emotionally involved with the stressor which is associated with poor resolution. Consequently Menaghan (1982) argues that avoidance and emotional coping can potentially exacerbate the stressor upon its return. It could be argued that inappropriate or too extensive a use of emotional and avoidance coping may lead to an increase in the stress, which has exacerbated the homesickness. Alternatively, an individual who is experiencing distress in the form of homesickness may consequently make inappropriate choices of preferred coping styles. Changes over time would further reflect that individuals who experience homesickness upon arrival continue over time to use emotional and avoidance coping. Whilst it can be difficult to determine if homesickness leads to the use of emotional and avoidance coping, or whether the use of emotional and avoidance coping exacerbates homesickness, such extensive use of such strategies may lead to an increase in the stress felt.

7.4.4. Although remand status had no influence upon homesickness (HQ-P) when arriving into prison, the Single Item Homesickness Measure did show an association between remand status and homesickness, with remand prisoners being found more in the non-homesick than homesick group. This association must be regarded with caution, as there were small numbers of those currently being sentenced, preventing the use of more robust analysis in this case. Nonetheless this association, if confirmed, could reflect a belief by the individual who is on remand that he may be released, or that his sentence will be minimal. As a result of this optimism, levels of homesickness may not be as high as when a prisoner has a confirmed sentence. Award of sentence may therefore exacerbate the level of homesickness.

7.5 Relationships between coping styles, homesickness and health

7.5.1. There were a number of relationships between measures within two weeks of arriving into the prison system. As with the regression presented in section 7.4, as the experience of homesickness increased, so too did the use of emotional and avoidance coping. As the level of homesickness increased, so too did levels of free-floating anxiety, depression and obsessional symptoms. This is again similar to the reported regressions presented earlier in this chapter. As the use of avoidance coping increased, so too did the levels of free-floating anxiety and depression. As levels of emotional coping increased, so too did depression, somatic, obsessional symptoms and free-floating anxiety. The relationship between high use of emotional coping and experience of somatic symptoms would concur with the research of Roger and Rector (1994) and Folkman and Lazarus (1980) who found that poor physical health and a deterioration in health status was predicted by a high use of emotional coping. The use of emotion coping in this stressful situation may have been an inappropriate style and consequently lead to negative psychological health. Relationships six to eight weeks later demonstrated a number of similar positive relationships between homesickness, psychological health and coping styles. As the level of homesickness elevated, so too

did the levels of emotional and avoidance coping, and levels of free-floating anxiety, depression and somatic symptoms. Relationships four to six months later demonstrated that as the level of homesickness increased, so too did the levels of emotional and avoidance coping. These relationships were again reflected in the reported regressions. As the experience of homesickness increased, so too did levels of free-floating anxiety, depression and somatic symptoms four to six months after arrival. The relationships between homesickness and emotional and avoidance coping continued from initial arrival into prison (phase one). This would suggest that the positive relationship between high levels of homesickness and high use of emotional and avoidance coping continues six to eight weeks and four to six months after entering the prison system, reinforcing the continuing significance of this relationship. The positive relationships between homesickness and poor health are comparable across each phase. This may reinforce that the relationships between homesickness and health are not short-lived, but continue for some time into prison life.

7.5.2. As the use of avoidance coping increased six to eight weeks after arrival into prison, so too did the level of depression. This would offer partial support to the findings of Rhode et al (1990) who found in their longitudinal study of middle-aged Americans that avoidance coping strategies are positively related to current and future levels of depression. As the use of emotional coping increased six to eight weeks later, so too did the levels of depression, somatic, free-floating anxiety and obsessional symptoms. This positive relationship between emotional coping and depression would support the findings of Billings et al (1983) that depressed outpatients compared to non-depressed controls demonstrate a higher use of emotional coping strategies. Although caution must be applied at to whether it is depression that promotes the use of emotional coping, or whether emotional coping causes high levels of depression. Similarly, high use of emotional coping four to six months later was related to high levels of depression, somatic, obsessional and free-floating anxiety. This would

continue to be comparable to results upon arrival into prison, suggesting that although emotional coping may have benefits in the short term, these benefits quickly dissolve if used persistently. As argued by Zeinder and Endler (1996) emotional coping can hinder the resolution of the stressor as it tends to change but not remove the stressor. The relationship within this research between emotional coping and psychological health may suggest that within a prison environment, it is not the most effective strategy. Overall, the positive relationships between emotional and avoidance coping with poor levels of psychological health and homesickness would offer partial support to the argument of Aldwin and Revenson (1987) that high levels of emotional distress increase the likelihood of ineffective coping. It could be argued that the trauma of being placed in prison may cause high levels of distress that may lead to an abandonment of effective strategies. The continual reflection of poor psychological health being linked to high levels of homesickness would continue to support the longitudinal work of Fisher and Hood (1987). They found elevated symptoms of depression and anxiety in homesick students, and Thurber (1995) who found depression and anxiety to be related to homesickness in adolescent boys.

7.5.3. Relationships between the sub-scales on the Middlesex Hospital Questionnaire (MHQ) upon arrival to prison were positive, namely between free-floating anxiety and depression, obsessional and somatic symptoms; between depression and obsessional and somatic symptoms; and between obsessional and somatic symptoms. These positive relationships continued between the subscales six to eight weeks after arrival into prison with a number of positive relationships with free-floating anxiety, namely with depression, somatic and obsessional symptoms and between depression and somatic symptoms and obsessional and somatic symptoms. This would suggest that different forms of psychological and physical symptoms do not occur in isolation.

7.5.4. There were positive associations between coping styles upon arrival into prison. These were between emotional and avoidance coping, rational coping with detached coping and rational coping with avoidance coping. Some of these positive relationships continued six to eight weeks after arrival into prison, namely between rational and detached coping, and emotional and avoidance coping. These relationships suggest that individual coping styles are not used in isolation, but people use more than one coping style, but to different degrees. This would support the findings of Folkman and Lazarus (1980) who found that individuals use a combination of coping strategies when dealing with stressors.

7.6 Limitations

7.6.1. The cross-sectional design can be one of the main limitations to exploring the relationships between coping styles, homesickness and psychological health. Such a design makes an assumption that an individual does not enter the prison system with inappropriate use of coping styles and high levels of poor psychological health already in place. Zamble and Porporino (1988) argue that individuals can enter the prison system with poor psychological health already present. By making such assumptions, the cross-sectional design can be open to providing misleading results as it assesses relationships at one point in time, rather than how these change as time progresses. The exception to the cross-sectional design within chapters six and seven is the exploration of homesickness and age using change over time in psychological health and coping styles.

7.6.2. Cross-sectional designs can cause difficulty in determining causation, leading to challenge. For example, the results presented in this chapter demonstrate that the prison sample showed poorer psychological health upon arrival, when compared against a nurse and student medical sample (Crown and Crisp, 1966). Such an increase

may not be a result of imprisonment, but such individuals already entering the prison system with poor levels already in place. Similarly it is assumed through the cross-sectional design that an individual's high level of homesickness is a consequence of imprisonment. It is possible that some of these individuals may have been removed from their habitual environment before their offence even took place, such as moved to a new area. This may lead to an experience of homesickness which imprisonment has simply continued. This would compare with Thurber and Sigman (1998) who argue that an anticipated separation can incite homesickness. An individual awaiting their court appearance may already begin to experience homesickness as they anticipate the removal from their loved ones. High levels of homesickness was related to poorer levels of psychological health and use of emotional and avoidance coping. Cross-sectional design makes it difficult to determine whether this is a result of homesickness creating poor psychological health and preferred use of emotional and avoidance coping, or if poor psychological health and use of emotional and avoidance coping exacerbates the levels of homesickness. In addition it may be of no surprise that homesickness was related to anxiety and depression, as homesickness consists of elements of anxiety (Fisher and Hood, 1987) and depression (Fisher et al, 1985).

7.6.3. Consequently this thesis has explored changes over time in coping styles, homesickness and psychological health longitudinally, using the initial measures taken upon arrival into prison as a baseline when predicting later change. By doing so, and as with the exploration of homesickness and age in this chapter, it allows the opportunity for a more realistic exploration than what a cross-sectional design can offer. This would involve the potential role of coping styles on future levels of psychological health, with the use of levels upon arrival to prison as a baseline to reduce the risk of confounding variables.

Chapter 8

LONGITUDINAL ANALYSIS

8.1 Overview

8.1.1. The aim of this results section is to examine changes over time in the various dependent variables (coping styles, homesickness and psychological health). This is to assess the following issue raised in the rationale in chapter 3, namely whether coping styles used in phase one predicts changes in homesickness and psychological health variables in later phases. Before addressing this issue it was necessary to examine if the participants remaining at the final phase of the research (phase three) continued to be a representative sample of those starting the study in phase one. It was also necessary to explore an individuals stability over time in coping measures, homesickness and psychological health. This is to determine in particular whether an individual demonstrates a preference for particular coping styles across time. It is also to determine the stability of homesickness and psychological health in individuals across time.

8.2 Sample

8.2.1. There was a large decrease in sample size over the three phases. Phase one sample totalled 261, phase two 133 and phase three 55. Decrease in sample size was mainly a result of natural attrition whereby participants dropped out of the study due to being released into the community or details of establishments to which they were transferred was unclear. No participants dropped out due to intentional voluntary withdrawal.

8.2.2. To ensure that the decrease in sample size was a result of natural attrition (i.e. participants were released from prison or moved to other unobtainable custodial environments), the total scores for phase one on coping styles, homesickness and psychological health measures between participants who completed only phase one

were compared with those who completed more than phase one. Natural attrition would be expected to be reflected by no differences in coping styles, homesickness and psychological health at phase one between these two groups. Anova's were conducted to determine if the decrease in sample size was a result of natural dropout. There were no significant difference between participants who discontinued from the research after the first phase (N = 128) and those who continued after the first phase (N = 133) (all F's < 3.71). This suggests that the substantial decrease in the sample over phases was a result of natural attrition. To further reinforce this, the values between participants who completed only up to phase two (N = 78) were compared with those who completed all three phases (N = 55) on coping styles, homesickness and psychological health measures. There were significant differences between participants who completed only up to phase two and those who completed all three phases on homesickness ($F(1,31) = 11.4, p<.001$), avoidance coping ($F(1,31) = 4.9, p<.03$) and free-floating anxiety ($F(1,31) = 5.1, p<.03$). This demonstrated that those who had completed all three phases demonstrated higher levels of homesickness, avoidance coping and free-floating anxiety upon arrival than those who completed up to phase two only. There were no other significant differences in the remaining seven Anova's (all F's < 3.4). This would further suggest that there were no substantial differences at phase one between those who stayed in the study and those who did not.

8.2.3. Table 8.1 shows an individuals stability within the changes over time in coping measures, homesickness and psychological health. This is to determine whether an individuals use of coping strategies remains consistent, thereby demonstrating a consistent preference across time for particular coping styles. It is also to determine that, although psychological health and homesickness changes across each phase, the highest levels of psychological health and homesickness can still be attributed to the same individuals across each longitudinal phase, as can the lowest levels. This would indicate that those individuals who demonstrate the highest levels of poor psychological health in the sample, continue to do so across time. Identification of these will endeavour to ease interpretation of the results.

8.3 Correlation Matrixes

8.3.1. Table 8.1 shows the degree of individual stability over time in coping styles, psychological health and homesickness as indicated by correlations between the same measures during phases one, two and three. As mentioned previously, this is to determine whether an individuals use of particular coping styles remains consistent across each phase. It can also indicate whether psychological health measures and homesickness shows consistency across the phases of the study.

8.3.2. In order to offer a consistent sample, the sample size demonstrated in the table below are the participants who remained up to and including the final stage of the research (phase three)[1].

Table 8.1. Correlations phases one to three for coping styles, psychological health and homesickness (N = 55).

Variables	phase 1 and phase 2	Phase 2 and phase 3	phase 1 and phase 3
Detached coping	.75**	.53**	.46**
Rational coping	.59**	.52**	.41**
Emotional coping	.64**	.67**	.47**
Avoidance coping	.48**	.62**	.34*
Free-floating anxiety	.57**	.69**	.35**
Depression	.61**	.46**	.50**
Obsessional	.61**	.62**	.53**
Somatic	.56**	.71**	.47**
Hysteric	.48**	.73**	.44**
Homesickness	.58**	.71**	.59**

*p<.05, **p<.01

[1] Although not included in table 8.1, analysis of the individual stability for phases one and two with the larger sample (N=133) was conducted to determine if a larger sample size would yield different results. These correlations were similar to those in table 8.1.

8.3.3. Table 8.1 shows that the majority of the correlations between the same measures over time were moderate to high, suggesting overall stability of measures over time. This indicates that an individual's tendency to use particular coping styles remains relatively stable over time. It also shows that, there is individual stability in the psychologically health-related levels from phases one to three. This suggests that the levels of anxiety, depression and homesickness, although may decrease over time, still show inter-individual stability.

8.4 Coping as a predictor

Correlation matrix

8.4.1. The relationship between coping styles used in phase one and changes in psychological health and homesickness in later phases was examined as the main aim of the study. Tables 8.2, 8.3 and 8.4 shows the correlations between coping styles used in phase one and the change in the scores for psychological health-related measures and homesickness, between phases one to three. It should be noted that the magnitude of the correlations are not necessarily high. This would be expected as a result of using phase one measures to predict long term adjustment on psychological health and homesickness. Even though some of the correlations are low, the research is more focused on prediction, and not the stability of the measures where a high value would be expected.

8.4.2. When interpreting the relationships between early coping styles and later changes in psychological health and homesickness, positive correlations demonstrate that levels of coping demonstrated at phase one is associated with a greater decrease in homesickness and psychological health-related measures between phases. Using depression as an example, if depression decreases over time, the change score depicts whether this decrease is greater or lesser than the average.

Table 8.2. Correlations between coping styles at phase one and the change scores between phases one and two of psychological health related measures (N = 133).

Health change scores	*Phase one coping scores*			
	Detached coping	**Rational coping**	**Emotional coping**	**Avoidance coping**
Depression	-.06	-.13	.07	.07
Free-floating anxiety	.002	.12	.23**	.27**
Obsessional	.02	.07	.02	.03
Somatic	.04	.08	.09	.14
Hysteric	.01	-.04	-.01	.02
Homesickness (HQ-P)	-.10	.02	.30**	.26**

*p<.05, **p<.01

Table 8.3. Table to show correlations between coping styles at phase one and the change scores between phases one and three of psychological health and homesickness at phase three (N = 55).

Health change scores	*Phase one coping scores*			
	Detached coping	**Rational coping**	**Emotional coping**	**Avoidance coping**
Depression	-.07	-.05	.29*	.28*
Free-floating anxiety	-.16	.04	.25	.25
Obsessional	.05	.11	.10	.20
Somatic	-.19	-.09	.10	.25
Hysteric	-.10	-.20	-.02	-.20
Homesickness (HQ-P)	-.16	-.06	.29*	.19

*p<.05, **p<.01

Table 8.4. Correlations between coping styles at phase one and the change scores between phases two and three of psychological health and homesickness at phase three (N = 55).

Health change scores	*Phase one coping scores*			
	Detached coping	**Rational coping**	**Emotional coping**	**Avoidance coping**
Depression	-.04	.20	.26	.29*
Free-floating anxiety	-.16	-.05	.18	.10
Obsessional	.17	-.003	.10	.07
Somatic	-.20	.001	.17	.24
Hysteric	.04	.02	.06	-.13
Homesickness (HQ-P)	-.11	-.04	-.08	-.05

*p<.05, **p<.01

8.4.3. Table 8.2 to 8.4 show a number of significant low to moderate positive correlations between coping styles in phase one, and subsequent changes in psychological health, including homesickness. These relationships demonstrated that higher use of emotional and avoidance coping in phase one predicts a greater decrease in the experience of anxiety and homesickness from their initial arrival into prison (phase one) to some six weeks later (phase two). Increases in the use of emotional coping in phase one were related to a greater decrease in the experience of depression, homesickness and to a lesser extent free-floating anxiety, from arrival into prison (phase one) to four to six months later (phase three). The use of avoidance coping in phase one also predicted a lower decrease in depressive symptoms, and to a lesser extent free-floating anxiety and somatic symptoms, from arrival into prison (phase one) to some four to six months later (phase three). The use of avoidance coping in phase one also predicted a lower decrease in depressive symptoms from six weeks into prison (phase two) to four to six months after arrival (phase three). Although the remaining correlations examining coping styles from phase one and change scores on psychological health between phases two and three were not significant, of particular

importance was a continued relationship between emotional coping and anxiety. This relationship demonstrated that increases in the use of emotional coping used in phase one was related to a greater decrease in the experience of anxiety from six weeks into the prison (phase two) to some four to six months after arrival (phase three).

8.5 Change score summary

8.5.1. Overall, Tables 8.2, 8.3 and 8.4 indicate a number of significant relationships between coping styles upon arrival into prison with later changes in psychological health and homesickness. In particular, a higher use of emotional and avoidance coping when first entering the prison was related to greater decreases in poor psychological health such as anxiety, depression and homesickness as their time in prison increases. Increase in the use of emotional coping upon arrival into prison was further related to greater decreases in somatic symptoms some four to six months later.

8.6 Brief Summary

8.6.1. In brief summary, the longitudinal data demonstrated a number of interesting results. Although the use of particular coping styles changes over time, individuals still continued to demonstrate preferences for particular styles. Levels of psychological health and homesickness decreased over time, with the highest levels of poor psychological health and homesickness being attributed to the same individuals across time. High use of emotional and avoidance coping within the first two weeks of entering prison was related to a greater decrease in homesickness and psychological health-related measures such as free-floating anxiety and depression. The demonstration that an early use of emotional and avoidance coping predicting better psychological health over time would contrast against some previous research which has argued such styles to be ineffective (Zeidner and Endler, 1996, Zamble and Porporino, 1988).

Chapter 9

LONGITUDINAL DISCUSSION

9.1 Overview

9.1.1. This chapter discusses the findings described in chapter 8. Section 9.2 provides an overall summary of the main findings. The following sections discuss these findings in more detail, with reference to previous research and theory. Sections 9.3 explores the stability of coping styles. Section 9.4 explores the changes over phases in the levels of psychological health and homesickness, and the relationships between the coping styles used in phase one and the changes in psychological health and homesickness over the following phases. The following (concluding chapter) will examine the limitations of the thesis, implications and future directions.

9.2 Summary

9.2.1. The stability of coping across time with the sample as individuals suggests that individuals tended to be consistent in their use of particular styles. There was inter-individual consistency in endorsement of free-floating anxiety, depression, somatic symptoms and homesickness.

9.2.2. There were a number of relationships between the coping styles used within the first two weeks of prison life and the changes in psychological health and homesickness in later months. Correlations indicated that a preference for emotional and avoidance coping within the first two weeks of prison predicted a greater decrease in the levels of free-floating anxiety, depression and homesickness in the following months. A higher use of avoidance coping within the first two weeks was related to a greater decrease in the experience of somatic symptoms four to six months later. The

use of rational and detached coping within the first two weeks of arrival did not predict greater or lesser decreases in psychological health and homesickness later on.

9.3 Coping stability

9.3.1. There was generally inter-individual consistency in the use of particular styles across time. This would suggest that, although the use of coping strategies may alter over time, there was inter-individual consistency in their use. This individual stability supports the trait-orientated approach to coping, in that individuals demonstrate preferences for particular coping styles regardless of the stressful event (Folkman et al, 1986). Individual stability would compare with the findings of Zamble and Porporino (1988) that there was little evidence to support the notion that an individual's coping response alternates in relation to the type of stressor. This was based upon their findings of little increase in a prisoners use of other coping strategies when compared to the coping strategies they used before coming into prison, even though a prison offers different types of stressors than on the outside. This stability in each prisoners use of coping strategies before coming into prison and during prison certainly seems to support the trait-orientated approaches view that coping styles are relatively stable traits (Zamble and Porporino, 1988), despite their being potential change in the use of these strategies over time.

9.4 Psychological Health and homesickness

9.4.1. Individual stability of psychological health and homesickness as time progressed suggested that although there may be changes over time there was individual stability. For example, high levels of free-floating anxiety, depression, somatic symptoms and homesickness, although may decrease over time, show relative consistency within individuals.

9.4.2. There were a number of relationships between the coping styles used within the first two weeks of prison life and changes in psychological health and homesickness over the following months. A higher use of emotional and avoidance coping within the first two weeks of prison was related to a greater decrease in the levels of free-floating anxiety and homesickness some six weeks later. There was further support for the relationship between emotional coping and free-floating anxiety; the higher use of emotional coping within the first two weeks of prison predicted greater decreases in free-floating anxiety six to eight weeks and four to six months after. Early coping styles were also related to changes in psychological health and homesickness experienced four to six months after arrival. Higher use of emotional coping within two weeks of prison life was related to a greater decrease in the level of depression and homesickness some four to six months later. Likewise, a higher use of avoidance coping within the first two weeks was related to a greater decrease in the experience of depression four to six months later, and from six weeks to four to six months after arrival.

9.4.3. The positive impact that an early use of avoidance and emotional coping has upon later levels of psychological health and experience of homesickness would certainly contrast against some of the research suggesting that emotional coping can hinder the resolution of the stressor (Zeinder and Endler, 1996), increase the stress (Zeinder and Saklofske, 1996) and that avoidance coping is not as effective as a long term strategy (Parker and Endler, 1992).

9.4.4. The positive impact of early emotional coping upon long term change in psychological health and homesickness would show support for Aldwin and Revenson's (1987) argument that the type of stressor plays an important role in the effectiveness of the coping strategy, and that emotional coping can leave the stressor dealt with ineffectively if the strategy is used inappropriately. Such long term positive

impact on health would go partially against the argument of Folkman and Lazarus (1980). They argue, based on their longitudinal study, that emotional coping is most effective when used with short-term stressors, but can in the long term leave the stressor unaltered or exacerbate it. The results of this thesis would suggest that early use of emotional coping can promote long term better psychological health. Although the cross-sectional analysis did reflect that emotional coping used six to eight weeks and four to six months after entering prison was related to poor psychological health. This would suggest that initial use of emotional coping upon arrival has more beneficial long term effects on psychological health than prolonged use. Folkman and Lazarus (1980) found emotional coping to be predictive of psychological health problems. Within this thesis the long term positive impact of emotional coping upon psychological health would suggest that this is not necessarily the case, and an early, predominant use of emotional coping within the first two weeks of prison life can have a positive impact upon future levels of psychological health. It would further suggest that the use of emotional coping may reflect the individual's perception that they have little control over the resolution of the stressor (Folkman and Lazarus, 1980, Lazarus, 1993). The individual could regard the stress within a prison environment as one where its resolution is not always achievable. A resulting high use of emotional coping during this initial arrival may provide the most positive impact over psychological health in the continuing months.

9.4.5. The lack of significance of early use of rational and detached coping on later changes in psychological health may suggest that early use of these strategies has little or no impact upon changes in psychological health and homesickness over time. In particular, the lack of impact of early rational coping upon long term psychological health would contrast with the fallback hypothesis of Rothbaum et al (1982). They argued that, although problem-focused (rational) coping can work independently of emotional coping, emotional coping usually occurs after the problem focused coping has been used and found to be unsuccessful. Although problem focused coping may

have been used before emotional coping, the short time span when coping styles were first assessed (i.e. within the first two weeks) would suggest that there may not have been sufficient time to try out and assess problem focused strategies, leading to an immediate use of emotional coping strategies upon arrival. Furthermore, there is individual stability within the preference of coping strategies as reflected in section 9.3, suggesting individuals who prefer emotional coping tend to maintain the preference over the following months.

9.4.6. The positive impact of initial avoidance coping on future levels of free-floating anxiety, depression and homesickness would contrast against previous research that argues the style is associated with psychological distress as it involves denying the existence of the stressor (Zeinder and Endler, 1996). The positive impact also contrasts with the work of Menaghan (1982) who argues that avoidance coping increases the stress experienced, exacerbating the impact of the stressor when it returns. Whilst it could be argued that extensive use of avoidance coping offers more of a short-term solution (Holahan et al, 1995) which can be less beneficial in the long term (Zamble and Porporino, 1988), it appears to provide long term positive impact if used upon initial arrival into prison. As with emotional coping, prolonged use may exacerbate health problems. This would concur with the work of Holohan and Moos (1987) who argue that when faced with an excessively traumatic stressor, avoidance coping can be an effective strategy whilst the individual gathers the resources to deal with such an event. As argued in chapter two, entering a prison environment can certainly be a traumatic event as an individual is removed, often suddenly, from their habitual environment. Furthermore the benefits of using avoidance coping upon arrival to prison would compare with Zeinder and Saklofske (1996). They argue that avoidance coping on occasion can be effective in that it offers time away from a long term stressor.

9.4.7. In previous chapters, emotional and avoidance coping has been related to poor psychological health when measured at the same time interval. Within the cross-sectional study, a high use of emotional coping within the first two weeks of prison life was related to high levels of homesickness upon arrival, and a high use of avoidance coping within the first two weeks was related to high levels of free-floating anxiety and depression upon arrival. This contrast between positive long-term effects on psychological health and negative impact on immediate psychological health may be explained in a number of ways. Individuals may already enter the prison system with poor psychological health, and this poor psychological health may be wrongly linked to coping styles prematurely. Ascertaining initial levels of psychological health and following these over different periods of time can offer a baseline whereupon early coping styles can be more realistically compared against levels of future psychological health. This should reduce the risk of confounding variables that can be ascertained from cross-sectional as opposed to longitudinal research. In addition the relationships between coping styles, psychological health and homesickness may become more apparent and clear as the time an individual spends in prison increases. For example, it could be argued that the relationships between a high use of emotional and avoidance coping with high levels of psychological health and homesickness in phases two and three, suggest that these strategies, although beneficial upon initial arrival in predicting lower levels of poor psychological health, are not necessarily beneficial as long term solutions to stress.

Chapter 10

CONCLUDING CHAPTER:

Reflections on the study

10.1 Overview

10.1.1. This chapter discusses the overall reflections on this study. Section 10.2 will discuss the strengths of the study, Section 10.3 discusses the limitations of the study in regard to the longitudinal phases. Section 10.4 will discuss the general limitations of the study. Section 10.5 will discuss the implications of the study, making some recommendations for future research. Finally, section 10.6 will present future directions and section 10.7 will offer some overall conclusions, contributions to the research and reflection upon the research process.

10.2 Strengths of present research

10.2.1. The present research has a number of strengths. Longitudinal research within coping is in demand, although limited in supply. Within the current study, the use of phase one psychological health measures as a baseline to monitor relative changes over time has many more advantages than cross-sectional research. The main of these is the opportunity for a more realistic exploration of the potential role of coping styles and homesickness on future changes in psychological health. Difficulties in determining the direction of causality can occur from cross-sectional designs, with longitudinal designs able to avoid this and determine whether coping or homesickness has any predictive significance over future changes in psychological health.

10.2.2. Within coping research there has been an over-emphasis upon attempting to categorise particular coping strategies as universally effective or ineffective, with some direction toward changing this (Billings and Moos, 1981). One of the main strengths of this research is that it has made no attempt to categorise coping strategies in this way, but examined and explored the effectiveness of each coping strategy within the context of a prison environment. Longitudinal research enables the effectiveness of these strategies to be assessed more fully and realistically.

10.2.3. This research highlights the high levels of homesickness within a prison environment, similar to those found by Zamble and Porporino (1988). By identifying the extent of homesickness, awareness can be raised. This can lead to the development of strategies to minimise the experience of homesickness by young offenders. The large sample size ascertained at the beginning of the research helps to strengthen support for these results. This initial sample size helped to ensure that the final sample size at the end of the study was of an acceptable number.

10.3 Limitations of the longitudinal phases

10.3.1. There were some limitations in the longitudinal phases of the research. The time span between each phase was not as long as desired. Unfortunately, as the sample were young offenders and usually on remand, there was a tendency for early release after four to five months, dependent upon the severity of the offence or offences and the outcome of the sentencing. The use of young offenders could also create issues of generalisability when seeking to extrapolate the results to other offender populations.

10.3.2. The levels of psychological health (MHQ) which individuals entered the prison system could not be controlled. Some individuals may have entered the prison with poor psychological health already in place (Zamble and Porporino, 1988) as a result of

existing problems, stress of being caught or imprisonment. Tennen et al (2000) argues that a period of major depression may lead an individual to become predisposed to engage in appraisals of the situation or coping efforts which may increase the likelihood of the depression to re-appear. Some of the current sample that experienced high levels of depression may have had this predisposition. In order to counteract this, the research was designed to be longitudinal with the initial phase measures (phase one) being used as a baseline to address changes in psychological health and homesickness over time.

10.3.3. With the sample size decreasing over each phase, comparing results between the homesick and non-homesick groups based on the Fisher and Hood (1987) scale became increasingly difficult. Whilst the number of non-homesick participants was invariably low across each phase of the research, as the phases continued and the number of participants decreased, the non-homesick group became the largest affected. This made exploration of the associations between the homesick and non-homesick groups on the demographic variables such as remand versus sentenced more problematic.

10.4 General limitations

10.4.1. There are some limitations in the measurements used in the research. The Middlesex Hospital Questionnaire demonstrated good reliability over the phases when subscales were computed as a total scale, but demonstrated some unacceptably low sub-scale reliabilities, predominantly obsessional and hysteric symptoms. This would suggest poor internal reliability within some of these subscales. Fortunately, the internal reliability of each sub-scale showed some improvement as the research progressed, with free-floating anxiety remaining consistently high. Increase in internal reliability as research progresses would concur with Nunnally's (1967) description of alphas .5 and .6 as "modest", and that higher alpha coefficients should be sought as the

research progresses. Although Crown and Crisp (1966) argue that the reliabilities of some of the subscales may be low as not all items will apply to all participants, this would not be an acceptable argument for using the less reliable sub-scales of the MHQ. A future modification would be to disregard use of the MHQ, and to find an alternative, more reliable measure.

10.4.2. There were some issues with regard to the Coping Styles Questionnaire (CSQ). Some of the language used in the CSQ can be potentially difficult for participants to interpret, with such items as "feel independent of the circumstances" creating problems in understanding. Honesty in the completion of the questionnaires is desirable, yet may not always be achieved. For example, individuals completing the measure may do so in response to how they perceive themselves to cope or how they may like to cope, and not actually how they cope (Folkman and Lazarus, 1980). However, if this were the case then low associations between coping and health-related measures would have occurred. Furthermore, Aldwin and Revenson (1987) argue it is difficult to determine if individual coping styles are being used appropriately and therefore effectively.

10.4.3. The CSQ follows the trait-orientated approach, in assuming that the individual has a preference for particular coping styles. Evidence for the trait-orientated perspective has been mixed, Folkman and Lazarus (1980) argue that the perspective's assumption that an individual deals with stress in a similar way is misguided. In defence of the trait-orientated approach, in both the present research and that of McCrae and Costa's (1986) study, an individual's preference for coping styles predicted their future preferences. Further support is provided by Zamble and Porporino's (1988) finding that prisoners' preference for coping styles remained constant before and after they entered prison, despite the nature of the stressor being different inside prison.

10.4.4. Participants were encouraged to complete all items in the questionnaires. Despite this there were instances of poor completion. This lead to a reliance for the items to be replaced using EM algorithm. Although there are inevitable problems with missing data, the use of EM algorithm is regarded the most appropriate method of estimating missing data (Graham et al, in press). Use of such a technique can maximise the data set as deletion of participants with missing data may lead to estimation bias (Graham et al, in press). As the missing data were scattered across many participants it was unacceptable to omit this data as the final phase of the research would have been substantially decreased. Additional examination revealed that the missing data increased towards the end of the test battery, in this case involving the Middlesex Hospital Questionnaire. As the completion of the questionnaires was voluntary, it could be argued that fatigue arose toward the end of the battery, due to the large combination of measures. A future modification would be to counter-balance the measures.

10.4.5. Although every effort was made to ensure the questionnaires were completed in isolation, this could not always be monitored. As some of the participants were transferred to prisons across the United Kingdom, some of the phase two and three questionnaires were sent via the postal system to the psychology or probation departments. Although these departments were requested to ensure the questionnaires were completed in isolation, this could not always be guaranteed.

10.4.6. Finally, this thesis explored how individuals managed with demands and consequent stress from a psychological approach. Whilst such an approach is valuable, it does operate in isolation from the biological and environmental approaches toward stress. A more comprehensive understanding of stress can be hindered by a failure to explore other approaches and perspectives.

10.5 Implications and recommendations for future work

10.5.1. This research not only adds to a further understanding of the role of coping upon psychological health in both the immediate and long term, but it also provides further information on a population whose methods of adapting to their current situation has not been extensively researched. With the exception of the work of Zamble and Porporino (1988) and Cohen and Taylor (1981), longitudinal research on coping with imprisonment and the impact of this upon individual's psychological health and homesickness has been neglected. As a result, the findings within the present research have a number of implications.

10.5.2. Previous coping literature has attempted to label particular strategies as universally ineffective or effective regardless as to the type of stressor, and whether the individual is using their chosen coping style correctly (Aldwin and Revenson, 1987). Future work should be directed toward examining the appropriateness or correct use of coping strategies; it is not necessarily that the wrong strategy may be utilised, but the strategy is either not being used to the best of it's ability, being used incorrectly, or it is being used for too long a period.

10.5.3. The promotion of emotional and avoidance strategies within the first two weeks of prison may be advantageous for the long term adjustment of the individual as their imprisonment continues, in regard to better levels of psychological health and lower levels of homesickness. As argued by Holohan and Moos (1987), avoidance coping can be beneficial when faced with a traumatic stressor as it allows the individual to gather the necessary resources to combat this trauma. This would suggest education to individuals recently imprisoned as to the most effective methods of coping and a detailed exploration of what these methods involve. The relationships between high use of both emotional and avoidance coping and high levels of psychological health and homesickness in phases two and three, would suggest that such strategies are not

necessarily beneficial as long term solutions to stress. A further understanding of appropriate and correct use of strategies could be a further educational focus when individuals first arrive into prison.

10.5.4. Although based on this study, coping strategies does not have a considerable influence upon future levels of psychological health, with the exception of some influence by emotional and avoidance coping. Nonetheless, educating prisoners as to the use of using coping strategies effectively, increasing staff awareness and how to recognise these strategies in others would be of added benefit. Heightened awareness in staff may make them more focused towards determining if individuals under their care are using appropriate strategies, and if so are using these strategies to the best of their abilities. An example of this may be that of avoidance, with it being a style encouraged upon first arrival into prison. Some six weeks after completing the first set of measures, high use of detached coping was related to lower levels of free-floating anxiety, and a high use of rational coping was related to lower levels of somatic symptoms. Some four to six months later a high use of rational coping was related to lower levels of depression. It could be argued that as time in prison increases, these strategies could be promoted as opposed to emotional and avoidance coping. Although there is little evidence to suggest that alternating coping strategies would be beneficial on future psychological health, it would be a suggested future direction to explore.

10.5.5. The use of emotional and avoidance coping being related to greater decreases in psychological health over time, would suggest that the use of emotional and avoidance coping should be encouraged within the first few weeks of arrival into prison. Although it is less clear which strategies are the most beneficial as time continues. Although the cross-sectional analysis of the research suggest that emotional and avoidance coping are not necessarily the most appropriate strategies when compared to the levels of psychological health reported at that time, the most effective strategies are

even less clear, with some association between high use of detached and rational coping and some psychological health. This could suggest that there are other unexplored strategies or other issues surrounding the good continued adaption to a stressful event which remain to be addressed. It could be that the style of coping used whilst in prison has little influence upon future psychological health.

10.5.6. High initial levels of poor psychological health and high levels of homesickness did decrease over time, although some, namely homesickness and obsessional symptoms, still remained relatively high. This suggests that an individual is most at risk of demonstrating higher levels of poor psychological health upon their initial arrival into prison. It is difficult to determine if such an individuals present poor psychological health is a reaction to imprisonment, or if they enter the prison system with poor psychological health already in place. This aside, it would suggest that resources such as access to health care professionals to assess psychological health and/or access to other support agencies would be most beneficial within the first few weeks of an individual's arrival into the prison system. In particular the evidence of individual stability demonstrates that it is the same individuals from within the first two weeks of arrival into prison to some four to six months later who demonstrate the poorest levels of psychological health and highest levels of homesickness. This would suggest that resources should be focused upon these individuals. It could be argued that individuals experiencing high levels of homesickness and poor psychological health upon arrival may be less motivated to attend treatment programmes and educational courses aimed at decreasing their levels of future risk of being incarcerated. It could be suggested that support agencies, as described above, may go some way toward increasing such individuals' level of motivation to attend programmes or courses.

10.5.7. The exploration of homesickness within a prison environment has been neglected, with this thesis being the first to examine this concept in detail within a

prison environment. The high levels of homesickness upon initial arrival into prison, and the continuing high levels over the next four to six months have a number of implications. Clearly homesickness is a significant issue, with the levels being drastically more severe than previous research on university students (Archer et al, 1998). High levels of homesickness impact upon an individuals' level of psychological health, leading to poor psychological health. Again, this may have some detrimental impact upon their desire to attend treatment programmes or education. Although not explored in this research, this may be a result of an individual experiencing high levels of homesickness and becoming withdrawn from their environment (Fisher et al, 1990). As found by Archer et al (1998), homesick individuals demonstrate higher instances of 'absent mindedness', although not examined in this study. Within a prison environment such absent mindedness may lead to performing tasks ineffectively in the place of work, in education, or neglecting the more minor rules which must be adhered to whilst in prison, such a reporting to wing staff on return to wing locations. It would be recommended that ongoing support from staff toward homesick prisoners may help ease the level of homesickness. This could be via personal officers and could include appropriate methods of coping and maintaining the best contact possible with family and friends. In particular, those experiencing homesickness upon arrival are more likely to experience a greater increase in poor psychological health as time continues. Greater awareness by such agencies of the long-term impact of initial homesickness upon future levels of psychological health, could be utilised to prioritise such individuals more effectively as in need of future assistance. For example, in their study of homesickness in boarding school residents, Fisher et al (1986), suggest that sharing sleeping accommodation and keeping a high level of daily activity would help ward off homesickness because it would provide 'less time to think'.

10.5.8. In addition, Thurber and Sigman (1998) found in their sample of boys from a residential summer camp, that those who returned to camp the following year demonstrated a decrease in their levels of homesickness. Peer groups could be set up

with prisoners, combining individuals who are experiencing their first time in prison and those who have been in prison long-term and/or on a number of occasions. It would be hoped that such peer groups could be steered so that the prisoners with the longest experience of prison life could offer suggestions on how they have managed their separation from family and friends. As a result, the prisoners experiencing their first time in prison may be offered some beneficial ways of dealing with their homesickness. Such sessions could be designed and monitored by health care professionals.

10.6 Future directions

10.6.1. There are two main areas where further exploration of the relationships between coping and psychological health would be beneficial, namely an individuals attachment style and the influence of regarding stress in a positive light. Each of these are discussed in turn below.

10.6.2. An individual develops an attachment style from an early age, which can affect the way the individual deals with stress as the years progress. Attachment theory derives from the work of Bowlby (1969, 1973 and 1980). From this, Ainsworth (1979) defined the styles of attachment, identifying three main attachment styles; secure, avoidant and anxious-ambivalent. These styles are assumed to reflect the individual's internalisation of their experiences with attachment figures and expectation of these figures' emotional availability during stressful situations (Shaver and Hazan, 1988). Mikulincer and Florian (1995) argue that individuals who have a secure attachment believe they can handle their stressors successfully, as they have individuals they can turn to for help. Bowlby (1980) argues that secure attachment improves not only interpersonal ties but also the individuals coping skills and feelings of personal worth and self-efficacy. These skills and feelings may foster the development of effective coping strategies for dealing with stressors. Mikulincer and Florian (1995) described

the secure individual as having the belief they have *"the inner strength"* to deal with the stress. In contrast, individuals with the more insecure styles, either avoidant or anxious-ambivalent, may regard their attachment figures as non-supportive and unable to help in times of need. Consequently secure individuals tend to deal with stress differently from those with avoidant or anxious-ambivalent styles. Avoidant individuals may deal with stress through stifling their emotions, denying negative affects and memories as well as minimising events that may create distress (Bowlby, 1980). Bowlby (1973) further describes such individuals as possessing a *"compulsive self-reliance"*. Anxious-ambivalent individuals may direct attention to the stressor in a contemplative and hypervigilant way, as a means of dealing with their own insecurities and sense of personal inadequacy to deal with the stress (Mikulincer, Florian and Weller, 1993). Hindy and Schwarz (1994) found that students who had anxious-ambivalent attachment styles experienced difficulties in coping with loss of a relationship.

10.6.3. Mikulincer and Florian (1995) studied the impact of attachment style on the way young adult Israeli army recruits reacted to the stress created during their four month combat training. They found that recruits with ambivalent styles used more emotional coping and assessed the training in more threatening terms than those with secure styles. They also assessed themselves as less capable of coping with the training and were evaluated by their peers as less fitting for military leadership than those with secure styles. When compared to those with secure styles, individuals with avoidant styles reported less support seeking, more distancing coping and assessed the training in more threatening terms. Mikulincer and Florian (1995) had predicted that problem-focused coping would be more prominent with secure attached individuals. Why this prediction was not confirmed, is partly explained by Mikulincer and Florian (1995) who argue that military recruits are trained intensively about how to problem solve. Consequently, many of the recruits may posses adequate problem-focused coping strategies as a result of this training. This would comply with the transactional theory

of coping, where coping is seen to continually change as a response to situational modifications (Porter and Stone, 1996, Lazarus, 1993).

10.6.4. Mikulincer et al (1993) conducted an earlier study on the coping strategies of young adult Israelis when faced with Iraqui scudmissile attacks. Using the Ways of Coping checklist (Lazarus, 1980), they found that securely attached individuals reported to have dealt with the attacks by turning to others for emotional and instrumental support, and showed low levels of post-traumatic distress. This contrasted with anxious-ambivalent and avoidant individuals who reported high levels of post-traumatic distress. Mikulincer et al (1993) also found that anxious-ambivalent individuals relied more on emotional coping and avoidant persons relied more on distancing coping. Both the studies of Mikulincer et al (1993) and Mikulincer and Florians (1995) demonstrate that individuals with secure attachment styles tend to seek support when coping with stressors. They also find that those with ambivalent styles prefer emotional coping and those with avoidant styles prefer distancing coping. The strength of these findings may be reinforced in that both studies examined different stressful situations, suggesting that the findings may be more generalisable, but with caution. In summary, a future direction would be to examine the impact of attachment styles upon prisoners coping strategies and level of psychological health.

10.6.5. Although coping research has made some progress, Folkman and Moskowitz (2000) argue that this is limited by a failure to acknowledge the more positive aspects of experiencing stress, such as the re-appraisal of the stressor in a positive light. They argue that most models of stress do not acknowledge the adaptational significance of positive affect or the coping strategies that promote such affect.

10.6.6. There have been a number of studies addressing this in more detail. Viney (1986) studied patients who had been hospitalized with chronic illness. They found that such patients reported higher levels of positive emotion than a non-patient control group. Lazarus, Kanner and Folkman (1980) argue that when negative emotions predominate, the use of positive emotion can offer some respite from the stressor and enable the space to rebuild the resources to address the stress. Fredrickson and Levenson (1998) induced negative emotion in participants by showing a film that created fear. Participants were then shown a film that elicited contentment, amusement, sadness or no emotion. They found that the cardiovascular reactivity of participants who were shown the contentment or amusement film had faster recovery to baseline than those who had viewed the sad or no emotion films. In conclusion, Folkman and Moskowitz (2000) argue that the use of positive affect during severe stress can help prevent clinical depression by interrupting the rumination that can lead to depression.

10.7 Overall conclusions and reflection on the research process: what has been learnt?

10.7.1. This longitudinal research is an extension of my MSc dissertation. Whilst this MSc was not longitudinal in nature, it did make efforts to ascertain links between coping and health outcomes such as stress-related illness, drug-abuse and self-harm. One of the largest learning points for myself during my thesis was my own movement away from attempting to categorise coping strategies as universally effective and ineffective. Upon first beginning the literature review, my initial interpretation of the early coping literature was a desire to categorise coping styles as universally effective and ineffective. As my knowledge of the area increased, and more recent coping literature became available, I became aware of a need to move away from attempts to categorise coping styles and the tendency to extrapolate findings from one piece of research to another, even though the stressful environments in which they were studied differed. Although I follow a trait-orientated perspective, I still believe that the effectiveness of particular strategies can alter in response to different stressors, with

individuals having a repertoire of coping strategies they prefer based on their personality and predisposition's, then drawing upon these strategies to determine the most effective in the given situation.

10.7.2. In summary, the PhD demonstrates the importance of longitudinal research when attempting to predict the value of coping styles whilst in a specific environment, such as a prison. As a result of such research the most effective coping styles that predict the most healthiest outcome in prisoners in the long term, are avoidance and emotional coping. In accordance with this and consistent with the trait-orientated approach, it appears that although there are changes in coping preferences over time as a group, within this it is the same individuals who demonstrate the same preferences for particular coping styles throughout.

10.7.3. As my knowledge within this field began to increase, I became aware not only how complex the field of coping is, but of the main literature's emphasis on the negative aspects of experiencing a stressor, and not the more positive aspects such as personal growth (Folkman and Moskowitz, 2000). Although there has been some research into this area, it is at present somewhat limited. In addition I became aware of previous research which, when discussing the effectiveness of the coping strategies, does not always examine whether the strategies used in their studies were utilised appropriately in each instance by individuals. Whilst this thesis did not address appropriateness, it would certainly be a useful focus for future study.

10.7.4. With regard to homesickness, I developed an increased awareness of the level of homesickness within a prison environment. I initially expected the level to be larger than in student samples, as in many ways removal into a prison environment is more traumatic. Yet, the actual high level was initially overwhelming. This was a

combination of the experience of homesickness never being explored in a prison environment, along with the impact that such high levels may have upon an individuals psychological health and ability to function within a stressful environment.

10.7.5. In conclusion, this thesis has gone some way to examining the impact of prison life and the effects of coping styles upon a prisoner's adaptation. It highlights the importance of longitudinal research over cross-sectional design. Such research offers a clearer understanding of the use of coping styles and how they can predict changes in an individual's level of psychological health and homesickness over time. It also begins to explore the associations between homesickness and psychological health over time.

Chapter 11

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APPENDIX 1

Semi-structured interviews (full version)

SEMI-STRUCTURED INTERVIEWS

(full version)

42 of the phase one participants took part in a semi-structured interview.

Interview

The aim of the interviews were to get a qualitative view on how prisoners dealt with the problems of prison life.

A researcher double-scored the condensed categories calculated from the interview schedule. Inter-rater reliability of the total categories was 86%.

A. Prison life

Participants were asked to describe their experiences whilst being in prison. These included:

- the type of worries/problems they had experienced since arriving into prison
- how they had dealt with these worries/problems

- some of the things they missed most whilst being in prison
- positive things which had happened to them whilst they were in prison

Results from these are presented in tables one to three.

Table one. Table to show the types of problems/worries (in percentages) prisoners have experienced since arriving into prison (N = 42).

Problem/worry	Percentage (%)*
Family/friends/partners	35.7
Prison restrictions (limited exercise time etc.)	23.8
No problems or worries	21.4
Smoking (lack of...run out of etc.)	11.9
Being bullied	9.5
Refusal of requests (education etc.)	9.5
Relationships with staff	7.1

Problem/worry	Percentage (%)*
Drug withdrawal	7.1
Lack of finances	4.8
Bereavement	4.8
Postage problems	4.8
Ran out of toiletries (e.g. threw toothbrush out)	2.4
Not getting out of prison	2.4
Suicidal intent	2.4
Heard horror stories of prison	2.4
Hygiene (scabies etc.)	2.4
Boredom	2.4

*Please note percentages do not add up to 100 as some participants highlighted more than one problem/worry

□

□

The above table indicates that the largest worry (in order of size) concerned family/friends/partners. This includes references towards family disputes and bereavement, fear that their family may disown them and concerns that their family/friends may not visit. Prison restrictions was also a large worry. This included long periods of being locked in their cells leading to frustration. Smoking was also another main worry. This involved a lack of access to additional cigarettes when their designated supplies ran out and restrictions on when smoking was permitted.

Table two. Table to show what prisoners missed most (in percentages) whilst being in prison (N = 42).

Missed	Percentage (%)*
Freedom	97.6
Family	71.4
Girlfriend	52.4
Friends	42.9
Socialising	31

Drugs	9.5
Sport	7.1
Women	4.8
Money	4.8
Working	4.8
Home	2.4
Cigarettes	2.4

*Please note percentages do not add up to 100 as some participants highlighted more than one category

□

□

The above table indicates that what prisoners missed most in the main (in order of size) concerned their freedom. This included restrictions on what they were allowed to buy and being able to continue about their business without asking permission. Prisoners

also stated to miss their family, girlfriends and friends. Finally prisoners indicated that they missed socialising. This included going to the public house, clubs and eating out.

Table three. Table to show some of the positive/good things which had happened (in percentages) whilst being in prison (N = 42).

positive/good things	Percentage (%)*
None	40.5
Education	26.2
Off drugs	11.9
Time to reflect	9.5
Improved health	7.1
Met friends	7.1
Praise from significant others	4.8
Take care of self	2.4
Family visits	2.4

Sharing cell (stopped suicidal thoughts)	2.4
Sport (get to play sport)	2.4
Learn to deal with boredom	2.4

*Please note percentages do not add up to 100 as some participants highlighted more than one positive

The above table indicates a number of positive outcomes of being in prison (in order of size). The largest of these concerned education. This included improving on their qualifications or learning a trade. Coming off drugs was also regarded as a positive outcome. Finally, time to reflect was also regarded as a positive. This included time to reflect on their past behaviour; what needed correcting and plans for the future.

B. Relationships

Participants were asked to describe their relationships with their partner whilst being in prison. These included:

- the type of relationship they had with their partner
- their feelings towards them whilst they are in prison

- their partners level of fidelity either before prison or whilst the participant has been inside prison.

- the level to which participants monitored their partners behaviour (i.e. got friends to watch them to ensure their faithfulness - 'keeping an eye on their activities')

- their behaviour if their discovered their partner had been unfaithful

76 per cent of participants had a partner or girlfriend (n = 32).

□

Length

□

Of those currently in a relationship (n = 32) 37.6% had been in the relationship between 1 - 6 months, 25% between 8 - 12 months, 21.8% between 14 - 24 months, 3.1% for 30 months, 9.4% for 42 months and 3.1% for 108 months.

Participants currently in a relationship were asked to describe their relationship and how they felt towards their partners now they were in prison. Details of their relationship and feelings are presented below in tables 4 and 5.

Table four. Table to show show how participants described their current relationship (in percentages) (N = 32).

Relationship	Percentage (%)*
Good relationship	53.1
Confide/intimate	46.9
Close/loving	43.8
Rocky relationship	12.5
Supportive	9.4
Strong relationship	9.4
Engaged (or plan to)	6.3
Casual relationship	6.3
Steady relationship	3.1

Relationship	Percentage (%)*
Similar to one another	3.1
Best thing that ever happened to me	3.1
Enthusiastic	3.1
She appreciated small things	3.1
No problems	3.1

*Please note percentages do not add up to 100 as some participants highlighted more than one description

□

□

The above table indicates that descriptions of the relationships (in order of size) were positive. This included references towards getting on well/brilliantly. Confiding and intimate followed. This related towards being able to confide secrets with their partner, and being able to talk about most issues with them. This was followed by a close and loving relationship. This related towards loving one another and being affectionate. Finally some of the participants described their relationship as rocky. This related to living different lifestyles which created jealousy and arguments.

□

Table five. Table to show show how participants feel towards their partner (in percentages) now they are in prison (N = 32).

Feelings	Percentage (%)*
Stronger feelings	43.8
Feelings are still the same	31.2
Missing her	18.8
Regret/guilt at leaving her	15.6
Emotional	9.4
Drifting apart/strain in the relationship	9.4
Want the relationship to work	3.1
Try not to think about her	3.1
Hope she still feels the same	3.1

Want to get married	3.1
Worried she may be unfaithful	3.1
Feel a bit sick (got caught for a crime conducted a few years ago)	3.1
Think about her more	3.1

*Please note percentages do not add up to 100 as some participants highlighted more than one description

□

□

The above table indicates that the participants feelings towards their partner included (in order of size) stronger feelings. This includes references towards wanting to be with her even more, knowing now how much they loved their partner and feeling closer. Participants also described feelings which are still the same. This included still feeling strongly towards their partner. Missing her was also a feeling involving sorry that they could not be with their partner. Finally regret/guilt at leaving her was highlighted as a feeling. This included references relating towards guilt for being in prison whilst their girlfriend waits for them.

Loyalty

3.1% of the participants (N = 32) stated that their partner had been unfaithful, with 3.1% being unsure and the remainder stating that their partner had not been unfaithful. The 3.1% (N = 1) that reported their partner to be unfaithful stated that their partner had been unfaithful with an associate whilst he was not currently serving a prison sentence. He reported his reaction to this unfaithfulness was to retaliate violently against the male who had cheated with her, then reporting to experience distress when his partner reported that she no longer wished to continue the relationship with him. The 3.1% (N = 1) that was unsure whether their partner has been unfaithful reports that his friend had told him that he had sex with her whilst the participant has been in prison.

56.3% of the participants (N = 32) stated that they did worry that their partner may be unfaithful whilst they were in prison.

Of the participants (N = 32) who reported to have a partner, they were asked if they kept a eye on their partners activities (e.g. via friends or relatives). The findings of this are presented below in table six.

Table six. Table to demonstrate extent participants take to keep an eye on their partners activities (in percentages) now they are in prison (N = 32).

Keep an eye on partners activities	Percentage (%)*
No	84.4
My friends/family watch her	15.6
Yes – but not with a view to her being unfaithful	6.3
Wrote to her	6.3
You know when something is wrong	3.1
When she is on her own	3.1

*Please note percentages do not add up to 100 as some participants highlighted more than one description

□

The above table indicates that the some of the participants kept an eye on their partners in a number of ways. The first of these (in order of size) was by friends/family watching her. This includes references towards family/friends asking the partner, and the participants brother informing them if their partner speaks to other men. Participants also reported keeping an eye on their partners but not with a view to them

being unfaithful. This included references towards asking their friends to look out for their partner. Participants also reported to write to their partner. This included references to warning them not to do anything (e.g be unfaithful).

Participants who stated that their partner had never been unfaithful, including the participant who was unsure (N = 31), were asked to describe their reactions if they discovered that their current partner had been unfaithful. Their responses are detailed below in table seven.

Table seven. Table to demonstrate participants reactions (in percentages) if they discovered their current partner had been unfaithful (N = 31).

Reaction	Percentage (%)*
Split up	41.9
Beat her lover up	32.3
Get upset/argue	16.1
Don't know	16.1
Nothing	6.5

Depends on the situation	3.2
Can't think about it	3.2
She would have to choose me (me or him)	3.2
She would not be worth anything	3.2
Beat partner up	3.2
Be understanding	3.2

*Please note percentages do not add up to 100 as some participants highlighted more than one description

The above table indicates that the participants reactions if they found their current partner was unfaithful included (in order of size) splitting up. This includes references towards a desire to lead separate lives and ignoring her. Beating her lover up was also a reaction. This includes references towards reacting badly and slapping the guy. Getting upset/arguing was another reaction. This includes references towards getting mad, smashing up their cell, crying and being heartbroken.

Participants who stated that their partner had never been unfaithful, including the participant who was unsure (N = 31), were asked if they had ever been in a relationship where their partner had been unfaithful. 45.2% reported being in a relationship where their partner had been unfaithful. The 45.2% (N = 14) were then asked to describe their reactions to this. Their reactions to this are displayed in table eight.

Table eight. Table to demonstrate participants reactions (in percentages) in a previous relationship where their partner had been unfaithful (N = 14).

Reaction	Percentage (%)*
Split up with her	64.3
Beat her lover up	35.7
Nothing	21.4
Didn't know what to say	14.3
Upset (but tried to keep calm)	14.3
Threw them out of the house	7.1

Reaction	Percentage (%)*
Took some drugs	7.1
Got drunk	7.1
Broke into her diary to confirm her unfaithfulness	7.1
Argued with her	7.1
Went back out with her	7.1

*Please note percentages do not add up to 100 as some participants highlighted more than one description

The above table indicates that the participants reactions in a previous relationship where their partner had been unfaithful included (in order of size) splitting up with her. This includes references towards ending the relationship by ignoring their girlfriend or finishing with them and then going back out with them later. Beating her lover up was also a reaction. This includes references towards throwing her lover down the stairs. To do nothing was another reaction. This included references towards trying to forget about it and not being able to retaliate as their mother had stopped them from doing so.

Participants were asked to consider the following question: "What would upset or distress you more; (a) your partner having sexual intercourse with someone else, or (b) imagining your partner forming a deep attachment to someone else".

Of the sample who responded (N = 33), 60.6% reported their partner having sexual intercourse with someone else being worse than their partner forming a deep attachment to someone. Each participant was asked to describe why (a) or (b) was worse for them. Results from these are presented in tables nine and ten.

Table nine. Table to demonstrate why participants believed their partner having sexual intercourse with someone else (in percentages) was the worst scenario (N = 20).

Why	Percentage (%)*
Should be monogamous (faithful)	20
It would upset me	20
Intimacy (e.g. thought that she has been with someone else)	15
Don't know	15
Feel angry	10
Upset she couldn't wait	10

Feel betrayed/abused trust	10
Feel inadequate	5
Can do nothing whilst in prison	5
Just not meant to happen	5
Feel suicidal	5

*Please note percentages do not add up to 100 as some participants highlighted more than one description

The above table indicates that participants who believed their partner having sexual intercourse with someone else (in percentages) was the worst scenario included (in order of size) being monogamous (faithful). This included references to being unfaithful and being 'dirty'. Upsetting them was another factor. This includes references to 'cracking them up' and feelings of suicide. Intimacy (e.g. thought that she has been with someone else) was another factor. This includes references to sleeping with someone else to be the worst thing. Don't know was a further factor.

Table ten. Table to demonstrate why participant believed their partner forming a deep attachment to someone else (in percentages) was the worst scenario (N = 13).

Why	**Percentage (%)***
One night stand is okay	23.1
Her thinking of someone else	15.4
Sex is natural - got to experiment	7.7
No chance of getting back together if she'd formed a deep attachment to someone else	7.7
Get angry	7.7
She's going to be with him	7.7
Kill myself	7.7
Upset me when I leave prison that she's found someone else	7.7
Don't know	7.7
She's pregnant	7.7

*Please note percentages do not add up to 100 as some participants highlighted more than one description

The above table indicates that participants who believed their partner forming a deep attachment to someone else (in percentages) was the worst scenario included (in order of size) a one night stand being acceptable. This includes references to her not really dating someone else, sleeping with someone being a one-off and no chance for a deep

attachment. Their partner thinking of someone else was another factor. This includes references to his partner being in love with someone else whilst still having a sexual relationship with him.

C. Support

Participants were asked to describe their level of support recieved whilst being in prison. These included:

- Internal and external support networks
- Type of support offered

47.6 per cent of participants reported to be receiving support from within the prison and 73.8 per cent reported to be receiving external support (N = 42).

Details of who they received the support from internally and externally, and the type of support they were offering is presented in tables eleven to fourteen.

Table eleven. Table to demonstrate who offers support (in percentages) whilst in prison (N = 20).

Support givers	Percentage (%)*
Prisoners	80
Officers	10

Type of support	Percentage (%)*
Protect you from others	5
Older	5
Old associates	5

*Please note percentages do not add up to 100 as some participants highlighted more than one description

□

The above table indicates that the type of support offered to the participants includes (in order of size) confiding in them/telling them their problems. This includes references to the doctor or chaplain arranging counselling. Help with day to day activities (e.g. domestics, rules, regulations) was another factor. This includes references to informing them of prison rules, helping them to write letters and going to the gym. Socialising with them was an additional factor. This included references to having a laugh with them and keeping their mind occupied.

Table thirteen. Table to demonstrate who offers support (in percentages) from outside of prison (N = 42).

Support givers	Percentage (%)*
Partner	71
Friends	51.6

Type of support	Percentage (%)*
Offer help on release	9.7
Writing report for court (probation officer)	3.2
Love/affection	3.2

*Please note percentages do not add up to 100 as some participants highlighted more than one description

The above table indicates that the type of support offered to the participants includes (in order of size) writing letters. This included references to saying that they miss them and telling them how they are. Visits was another factor. Money (financial etc) was was an additional factor. This included references to postal orders or promises of money loans upon release.

APPENDIX 2

(i) **Standardised instructions**
(ii) **Record of consents**
(iii) **Standardised interview instructions**
(iv) **Semi-structured interview**
(v) **Questionnaire battery (HQ-P, SIHS, CSQ, MHQ)**
(vi) **Six week, four month, six month covering letters**

(i) Standardised instructions

Standardised Instructions

1) Introduce yourself.

2) Currently research is being undertaken to examine how individuals like yourselves deal with the problems you may face during prison life.

3) In order to continue with this research, volunteers are needed to complete a number of questionnaires over a period of 6 months. This means that during the 6 months, if you decide to help with the research, you will be asked to complete a number of questionnaires on 3 occasions (today, 6 weeks later and then 6 months later). Of course, if you are released during this time your help with the research will stop when you leave prison.

4) It must be stressed that the research is *voluntary* and *confidential* and, if you decide to help, you can withdraw at any time during the research. Now, are you all happy to help with the research?

5) First of all, just to check, is there anyone here who has been in prison on THIS current offence (whether remand or sentenced) for longer than 2 weeks. (If there are, dismiss them as they have been in prison for too long).

6) (Hand out the questionnaires) Please make sure that you complete all of the questions, especially your personal details (name etc.) at the front. Especially remember to fill in your natnum (prison number) which will make it easier for me to trace you if you have gone to another prison.

7) If you are unsure about *any* of the questions on the questionnaire, please do not hesitate to ask me.

(ii) Record of consents

Carol Ireland,
Psychology Unit,
HMP Frankland,
Brasside,
Durham,
DH1 5YD.

Tel: (0191) 384 5544
Ex. 354

RECORD OF CONSENT

(Please feel free to question if you do not understand any aspect of this record)

I, ________________________________ have been asked to participate in a study which examines how prisoners deal with the problems that they experience in prison.

This study will be longitudinal. This means that I will be required on 3 occasions over the next 6 months to complete a small number of questionnaires.

The information collected from these questionnaires will be **strictly confidential** and will not be used to affect my position in the prison system in anyway. Any information concerning myself will not be used for or against me personally in anyway.

My participation in this study is purely voluntary, and I can withdraw at any time.

The data which is to be produced by this study is for scientific purposes only, in order to examine the problems experienced in prison.

I will remain anonymous in any reporting of the results of the study.

If I have any problems concerning this study at any time I will be able to contact the researcher by the address at the top of the record, either personally or via my personal officer.

My signature below indicates that I have read and understood the above, and I agree to participate in this research.

Signature: ____________________________________ Date: ________________

Carol Ireland,
Psychology Unit,
HMP Frankland,
Brasside,
Durham,
DH1 5YD.

Tel: (0191) 384 5544
Ex. 354

RECORD OF CONSENT

(Please feel free to question if you do not understand any aspect of this record)

I, ______________________________ have been asked to participate in a study which examines how prisoners deal with the problems that they experience in prison.

This study will be longitudinal. This means that I will be required on 3 occasions over the next 6 months to complete a small number of questionnaires. On the first of these occasions I will also be required to participate in an interview addressing the problems which I have experienced whilst I have been in prison.

The information collected from the interview and questionnaires will be **strictly confidential** and will not be used to affect my position in the prison system in anyway. Any information concerning myself will not be used for or against me personally in anyway.

My participation in this study is purely voluntary, and I can withdraw at any time.

The data which is to be produced by this study is for scientific purposes only, in order to examine the problems experienced in prison.

I will remain anonymous in any reporting of the results of the study.

If I have any problems concerning this study at any time I will be able to contact the researcher by the address at the top of the record, either personally or via my personal officer.

My signature below indicates that I have read and understood the above, and I agree to participate in this research.

Signature: ______________________________ Date: ________________

(iii) Standardised interview instructions
(iv) Semi-structured interview

Interview Schedule

Stages:

1. Say who you are (i.e. researcher).

2. (i) Explain that they have been asked to come here today as they have only recently entered the prison system.

   (ii) Explain that research is currently being undertaken which examines how people like yourself deal with prison life.

   (iii) Stress that their desire to participate in this research is entirely *voluntary* and, should they agree to participate, they can *withdraw at any time*.

   (iv) If you agree to participate, I will conduct a short interview. Some of the questions are of a sensitive nature, and you will not be forced to respond to any question you do not feel comfortable with. At the end of this interview I will then ask you to complete a small number of questionnaires. In approximately 6 weeks from today I will send you the same questionnaires to complete again. 6 months later, and providing you are still in the prison system and can be located, I will ask you to complete the same questionnaires for a final time.

   (v) Are you happy to participate? If so, can you please read and sign the record of consent form.

   (vi) Stress that they will remain *anonymous* in the research, and that the only reason their names are being recorded are so that they can be traced 6 weeks from now and 6 months later. Emphasise that once they have completed the research, their names will be *destroyed*.

3. **Issue of disclosure.** Explain that the information they offer will be treated confidentially, *unless* it affects the safety of themselves, others or the security of the prison. Such an instance would be the threat to self-harm or your plans to hold a prison riot, which I would have to report. If this does occur, then you will be informed that it will be reported during the interview.

4. Do they have any questions?

5. Ask them their name (including their christian name). Ask if it is okay to call them

A. PRISON LIFE

1) What kind of worries/problems have you experienced since you arrived into prison? (i.e. how is he getting on with other prisoners and staff? how is he coping with rules/regulations? daily worries - canteen, gym etc.? - if he mentions any problems, get him to expand. Try to get him to mention as many problems as possible and write them down in the table below)

Problem/Worry	**No of times worried about (on a daily basis)**
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	

If they mention none, go straight to question 3

2) With relation to each of the problems/worries you have experienced, how did you deal with each of these situations in turn? For example, did you avoid the problem, actively try to solve the problem, get depressed, sit back and consider how someone else may tackle and solve the problem before actually trying to solve it yourself.... ?

Problem	What they did about it

now go straight to question 4

3) If were to come up against any problems or a situation which you consider to be stressful, how would you deal with those situations in order to solve them? For example, did you avoid the problem, actively try to solve the problem....

____

____

4) What are some of the things you miss most while being in prison?

5) Have any positive/good things happened to you whilst you have been in prison? (If he has, try and get him to expand in the space provided below) (e.g. got praised by an officer for cleaning his cell well)

B. RELATIONSHIPS

1) Do you currently have a partner/girlfriend? **YES** ____ **NO** ____

If they answer 'NO', go straight to question 2

(i) How long have you been together? (any children?)

____

____

____

(ii) How would you describe your relationship with them? (i.e. do your share intimate feelings with one another)

____

____

____

____

____

____

____

____

____

____

(iii) How are your feelings towards them now you are in prison?

____

____

____

(iv) Has your partner ever been unfaithful? **YES** ____ **NO** ____

If replied NO, go straight to (viii)

(v) Did this happen when you were in prison? (on this sentence or a previous one?)

(vi) Who was your partner being unfaithful with? (your close friend/ enemy/ stranger etc.)

(vii) How did you deal with your partner being unfaithful?

Now go straight to question (ix)

(viii) Do you ever worry that they might be unfaithful whilst you are in prison?

YES ____ **NO** ____

(ix) Do you keep an 'eye on their activities' at all? (i.e. get mates on the outside to keep an eye on her)

If the participant's partner has NEVER been unfaithful, ask the following question:

If you had ever found your current partner being unfaithful, how might you react?

____

____

____

____

____

____

____

Now go straight to question 3

2) Have you ever had a partner or girlfriend? **YES** ____ **NO** ____

If they replied no, go straight to question 4

3) Have you ever been in a relationship where your partner has been unfaithful?

YES ____ **NO** ____

If YES, how did you react?

____

____

____

____

____

____

____

____

4) What would upset or distress you more: (a) imagining your partner having sexual intercourse with someone else, or (b) imagining your partner forming a

C. SUPPORT

1) Are you currently getting any support/help from anyone who is in the prison?

YES ___ NO ___

If the answer is 'NO', go straight to question 2

If YES, write down who they are

(i) In what way are they offering you support/help?

2) Are you currently getting support/help from anyone on the outside?

YES ____ **NO** ____

If the answer is 'NO', go straight to next section

if YES, write down who they are

____

____

(i) In what way are they offering you support/help?

____

____

____

____

____

____

____

D. ADDITIONAL INFORMATION

1) Is there anything which you feel that this interview has missed out, or anything further you would like to discuss?

____

____

____

____

____

____

____

____

____

____

____

That now completes the interview. Thank you very much for your time. I will now just write down some of your personal details, and then move on to the next and final stage which will be the questionnaires.

Name: ______________________ **Number:** ______________

Prison: ______________

Date came into prison: ______________

Date of interview: ______________

(v) Questionnaire battery (HQ-P, SIHS, CSQ, MHQ)

HQ-P

This questionnaire examines *your* thoughts and feelings about being in prison. For each question consider how much it applies to you by circling the most suitable number on the 1 to 5 scale underneath each of the questions. Please read each question *carefully* and answer as *honestly* as you can. There are no right or wrong answers.

1. I can't help thinking about my home.

strongly disagree	mostly disagree	undecided	mostly agree	strongly agree
1	2	3	4	5

2. I can't concentrate on my work because I'm always thinking about home.

strongly disagree	mostly disagree	undecided	mostly agree	strongly agree
1	2	3	4	5

3. When I'm thinking about nothing in particular my thoughts always come back to home.

strongly disagree	mostly disagree	undecided	mostly agree	strongly agree
1	2	3	4	5

4. I hardly ever think about my home.

strongly disagree	mostly disagree	undecided	mostly agree	strongly agree
1	2	3	4	5

5. There is so much going on here that I hardly ever think about home.

strongly disagree	mostly disagree	undecided	mostly agree	strongly agree
1	2	3	4	5

6. Thinking about home makes me cry.

strongly disagree	mostly disagree	undecided	mostly agree	strongly agree
1	2	3	4	5

7. I dream about my friends at home.

strongly disagree	mostly disagree	undecided	mostly agree	strongly agree
1	2	3	4	5

8. I've settled in really well here.

strongly disagree	mostly disagree	undecided	mostly agree	strongly agree
1	2	3	4	5

9. I hate this place.

strongly disagree	mostly disagree	undecided	mostly agree	strongly agree
1	2	3	4	5

10. I get really upset when I think about home.

strongly disagree	mostly disagree	undecided	mostly agree	strongly agree
1	2	3	4	5

11. It upsets me if I am unable to phone home each week.

strongly disagree	mostly disagree	undecided	mostly agree	strongly agree
1	2	3	4	5

12. I can't concentrate on my work.

strongly disagree	mostly disagree	undecided	mostly agree	strongly agree
1	2	3	4	5

13. I feel empty inside.

strongly disagree	mostly disagree	undecided	mostly agree	strongly agree
1	2	3	4	5

14. I wish I had never committed the crime which placed me in here.

strongly disagree	mostly disagree	undecided	mostly agree	strongly agree
1	2	3	4	5

15. I dream about my home.

strongly disagree	mostly disagree	undecided	mostly agree	strongly agree
1	2	3	4	5

16. The people here annoy me.

strongly disagree	mostly disagree	undecided	mostly agree	strongly agree
1	2	3	4	5

17. I can't seem to settle here.

strongly disagree	mostly disagree	undecided	mostly agree	strongly agree
1	2	3	4	5

18. I often dream about my family back home.

strongly disagree	mostly disagree	undecided	mostly agree	strongly agree
1	2	3	4	5

19. I feel as if I've left part of me at home.

strongly disagree	mostly disagree	undecided	mostly agree	strongly agree
1	2	3	4	5

20. I feel restless here.

strongly disagree	mostly disagree	undecided	mostly agree	strongly agree
1	2	3	4	5

21. I would avoid going home on homeleave because it would be too upsetting

strongly disagree	mostly disagree	undecided	mostly agree	strongly agree
1	2	3	4	5

Thank-you for your co-operation.

This research is looking at the problems which you may experience in adjusting to prison life. Could you please answer the following questions.

How old are you? ___________

Have you been in prison before? _________

Are you currently on remand **OR** sentenced? ____________________

How long have you currently been in prison on remand/sentence? ______________

If you are sentenced, what is your current offence? ________________________

If you are sentenced, how long are you serving? _________________

1. Please write in the space provided below, your own definition of the word 'homesickness'.

____

____

____

____

____

Please consider how much each of the **following** questions applies to you by *circling* the most suitable number on the 1 to 4 scale underneath each of the questions. Please read each question *carefully* and answer as *honestly* as you can. There are *no* right or wrong answers.

2. Are you currently experiencing homesickness?

Not Homesick	Slightly Homesick	Homesick	Very Homesick
1	2	3	4

3. Did you experience homesickness on your arrival into prison?

Not Homesick	Slightly Homesick	Homesick	Very Homesick
1	2	3	4

NAME____________________________ **NUMBER**____________

PRISON ___________________________

The following questionnaire is examining how people cope in prison.

Your answers will be **CONFIDENTIAL** and you will remain anonymous in the report.

The answers which you give will not go for **OR** against you personally and they will not affect your position within this institution in anyway.

Thank you for your time.

CSQ items

Although people may react in different ways to different situations, we all tend to have a characteristic way of dealing with things which upset us. How would you describe the way you *typically* react to stress? Circle Always, Often, Sometimes, or Never for *EACH* item below:

1) Feel overpowered and at the mercy of the situation.

Always **Often** **Sometimes** **Never**

2) Work out a plan for dealing with what has happened.

Always **Often** **Sometimes** **Never**

3) See the situation for what it actually is and nothing more.

Always **Often** **Sometimes** **Never**

4) See the problem as something separate from myself so I can deal with it.

Always **Often** **Sometimes** **Never**

5) Become miserable or depressed.

Always **Often** **Sometimes** **Never**

6) Feel than no-one understands.

Always **Often** **Sometimes** **Never**

7) Stop doing hobbies or interests.

Always **Often** **Sometimes** **Never**

8) Do not see the problem or situation as a threat.

Always **Often** **Sometimes** **Never**

9) Try to find the positive side to the situation.

Always **Often** **Sometimes** **Never**

10) Become lonely or isolated.

Always **Often** **Sometimes** **Never**

11) Daydream about times in the past when things were better.

Always **Often** **Sometimes** **Never**

12) Take action to change things.

Always **Often** **Sometimes** **Never**

13) Have presence of mind when dealing with the problem or circumstances.

Always **Often** **Sometimes** **Never**

14) Avoid family or friends in general.

Always **Often** **Sometimes** **Never**

15) Feel helpless - there's nothing you can do about it.

Always **Often** **Sometimes** **Never**

16) Try to find out more information to help make a decision about things.

Always **Often** **Sometimes** **Never**

17) Keep things to myself and not let others know how bad things are for me.

Always **Often** **Sometimes** **Never**

18) Think about how someone I respect would handle the situation and try to do the same.

Always **Often** **Sometimes** **Never**

19) Feel independent of the circumstances.

Always **Often** **Sometimes** **Never**

20) Sit tight and hope it all goes away.

Always **Often** **Sometimes** **Never**

21) Take my frustrations out on the people closest to me.

Always **Often** **Sometimes** **Never**

22) 'Distance' myself so I don't have to make any decision about the situation.

Always **Often** **Sometimes** **Never**

23) Resolve the issue by not becoming identified with it.

Always **Often** **Sometimes** **Never**

24) Assess myself or the problem without getting emotional.

Always **Often** **Sometimes** **Never**

25) Cry, or feel like crying.

Always **Often** **Sometimes** **Never**

26) Try to see things from the other person's point of view.

Always **Often** **Sometimes** **Never**

27) Respond neutrally to the problem.

Always **Often** **Sometimes** **Never**

28) Pretend there's nothing the matter, even if people ask what's bothering me.

Always **Often** **Sometimes** **Never**

29) Get things into proportion - nothing is really that important.

Always **Often** **Sometimes** **Never**

30) Keep reminding myself about the good things about myself.

Always **Often** **Sometimes** **Never**

31) Feel that time will sort things out.

Always **Often** **Sometimes** **Never**

32) Feel completely clear-headed about the whole thing.

Always **Often** **Sometimes** **Never**

33) Try to keep a sense of humour - laugh at myself or the situation.

Always **Often** **Sometimes** **Never**

34) Keep thinking it over in the hope that it will go away.

Always **Often** **Sometimes** **Never**

35) Believe that I can cope with most things with the minimum of fuss.

Always **Often** **Sometimes** **Never**

36) Try not to let my heart rule my head.

Always **Often** **Sometimes** **Never**

37) Eat more (or less) than usual.

Always **Often** **Sometimes** **Never**

38) Daydream about things getting better in future.

Always **Often** **Sometimes** **Never**

39) Try to find a way of logical way of explaining the problem.

Always **Often** **Sometimes** **Never**

40) Decide it's useless to get upset and just get on with things.

Always **Often** **Sometimes** **Never**

41) Feel worthless and unimportant.

Always **Often** **Sometimes** **Never**

42) Trust in fate - that things have a way of working out for the best.

Always **Often** **Sometimes** **Never**

43) Use my past experience to try to deal with the situation.

Always **Often** **Sometimes** **Never**

44) Try to forget the whole thing.

Always **Often** **Sometimes** **Never**

45) Just take nothing personally.

Always **Often** **Sometimes** **Never**

46) Become irritable or angry.

Always **Often** **Sometimes** **Never**

47) Just give the situation my full attention.

Always **Often** **Sometimes** **Never**

48) Just take one step at a time.

Always **Often** **Sometimes** **Never**

49) Criticise or blame myself.

Always **Often** **Sometimes** **Never**

50) Simply and quickly disregard all irrelevant information.

Always **Often** **Sometimes** **Never**

51) Pray that things will just change.

Always **Often** **Sometimes** **Never**

52) Think or talk about the problem as if it did not belong to me.

Always **Often** **Sometimes** **Never**

53) Talk about it as little as possible.

Always **Often** **Sometimes** **Never**

54) Prepare myself for the worst possible outcome.

Always **Often** **Sometimes** **Never**

55) Feel completely calm in the face of any adversity.

Always **Often** **Sometimes** **Never**

56) Look for sympathy and understanding from people.

Always **Often** **Sometimes** **Never**

57) See the thing as a challenge that must be met.

Always **Often** **Sometimes** **Never**

58) Be realistic in my approach to the situation.

Always **Often** **Sometimes** **Never**

59) Try to think about or do something else.

Always **Often** **Sometimes** **Never**

60) Do something that will make me feel better.

Always **Often** **Sometimes** **Never**

Thank you for your help

MHQ

The following questions are concerned with the way you feel or act. They are all straightforward. Please *circle* the answer that applies to you underneath each question. Don't spend long on any one question.

-----1. Do you often feel upset for no obvious reason?

Yes **No**

-----2. Do people ever say you are too conscientious?

No **Yes**

-----3. Are you troubled by dizziness or shortness of breath?

Never **Often** **Sometimes**

-----4. Can you think as quickly as you used to?

Yes **No**

-----5. Are your opinions easily influenced?

Yes **No**

-----6. Have you felt as though you might faint?

Frequently **Occasionally** **Never**

-----7. Do you think that "cleanliness is next to godliness"?

No **Yes**

-----8. Do you often feel sick or have indigestion?

Yes **No**

-----9. Do you feel that life is too much effort?

At Times **Often** **Never**

-----10. Have you, at any time in your life, enjoyed acting?

Yes **No**

-----11. Do you feel uneasy and restless?

Frequently **Sometimes** **Never**

-----12. Do you find that silly or unreasonable thoughts keep recurring in your mind?

Frequently **Sometimes** **Never**

-----13. Do you sometimes feel tingling or pricking sensations in your body, arms or legs?

Rarely **Frequently** **Never**

-----14. Do you regret much of your past behaviour?

Yes **No**

-----15. Are you normally an excessively emotional person?

Yes **No**

-----16. Do you sometimes feel really panicky?

No **Yes**

-----17. Are you happiest when you are working?

Yes **No**

-----18. Has your appetite got less recently?

No **Yes**

-----19. Do you wake unusually early in the morning?

Yes **No**

-----20. Do you enjoy being the centre of attention?

No **Yes**

-----21. Would you say you were a worrying person?

Very **Fairly** **Not at all**

-----22. Are you a perfectionist?

No **Yes**

-----23. Do you feel unduly tired and exhausted?

Often **Sometimes** **Never**

-----24. Do you experience long periods of sadness?

Never **Often** **Sometimes**

-----25. Do you find that you take advantage of circumstances for your own ends?

Never **Sometimes** **Often**

-----26. Do you often feel "strung-up" inside?

Yes **No**

-----27. Do you have to check things that you do to an unnecessary extent?

Yes **No**

-----28. Can you get off to sleep alright at the moment?

No **Yes**

-----29. Do you have to make a special effort to face up to a crisis or difficulty?

Very much **Sometimes** **Not more than anyone else**

-----30. Do you often spend a lot of money on clothes?

Yes **No**

-----31. Have you ever had the feeling you are "going to pieces"?

Yes **No**

-----32. Does it irritate you if your normal routine is disturbed?

Greatly **A little** **Not at all**

-----33. Do you often suffer from excessive sweating or fluttering of the heart?

No **Yes**

-----34. Do you find yourself needing to cry?

Frequently **Sometimes** **Never**

-----35. Do you enjoy dramatic situations?

Yes **No**

-----36. Do you have bad dreams which upset you when you wake up?

Never **Sometimes** **Frequently**

-----37. Do you find yourself worrying unreasonably about things that do not really matter?

Never **Frequently** **Sometimes**

-----38. Has your sexual interest altered?

Less **The same or greater**

-----39. Have you lost your ability to feel sympathy for other people?

No **Yes**

-----40. Do you sometimes find yourself posing or pretending?

Yes **No**

Thank you for your co-operation

(vi) Six week, four month, six month covering letters

Memorandum

'rom Carol Ireland,
Psychology Unit,
HMP Frankland,
Brasside,
Durham,
DH1 5YD.

'o Participant

Telephone (0191) 384 5544

Extension 354

Date

Your reference

Our Reference

Fax (0191) 384 9203

RE: Research

Dear Participant,

Approximately 6 weeks ago you very kindly volunteered to help me with my research project. As explained, this will involve completing a number of questionnaires on three separate occasions over the following 6 months.

It would be greatly appreciated if you could spare the time to complete these questionnaires again. It is important and vital to the research that you complete **all** of the questions on **each** of the questionnaires. If you have any problems you can contact me on the above telephone number or express any concerns to the researcher/s handing out these questionnaires.

Once you have completed the questionnaires please place and seal them in the envelope, and a researcher will return to collect them from you. Approximately four months from now, providing you are still in the prison system and can be found, you will be contacted to completed the questionnaires for a final time.

Thank you very much for your time and help,

All the best

From Carol Ireland,
Psychology Unit,
HMP Frankland,
Brasside,
Durham,
DH1 5YD.

Telephone (0191) 384 5544

Extension 354

Date

To Participant

Your reference

Our Reference

Fax (0191) 384 9203

RE: Research

Dear Participant,

Approximately 4 months ago you very kindly volunteered to help me with my research project. As explained, this will involve completing a number of questionnaires on three separate occasions over the following 6 months.

It would be greatly appreciated if you could spare the time to complete these questionnaires again. It is important and vital to the research that you complete **all** of the questions on **each** of the questionnaires. If you have any problems you can contact me on the above telephone number or express any concerns to the researcher/s handing out these questionnaires.

Once you have completed the questionnaires please place and seal them in the envelope, and a researcher will return to collect them from you. Your completion of these questionnaires will signify the end of your involvement in this research project. May I take this opportunity to thank you very kindly for your help over the last 6 months.

Thank you very much for your time and help,

All the best

Memorandum

From Carol Ireland,
Psychology Unit,
HMP Frankland,
Brasside,
Durham,
DH1 5YD.

To Participant

Telephone (0191) 384 5544

Extension 354

Date

Your reference

Our Reference

Fax (0191) 384 9203

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Once you have completed the questionnaires please place and seal them in the envelope, and a researcher will return to collect them from you. Your completion of these questionnaires will signify the end of your involvement in this research project. May I take this opportunity to thank you very kindly for your help over the last 6 months.

Thank you very much for your time and help,

All the best

APPENDIX 3

Preliminary Study

Modification of a homesickness measure for use in a prison population[1]

1.1 Chapter structure

1.1.1. This chapter will describe the preliminary part of the thesis, namely the modification of the homesickness measure by Archer et al (1998). This will include a brief introduction, a brief description of the procedure of the study, concluding with the findings and discussion.

1.2 Introduction

1.2.1. Homesickness occurs when an individual misses their home after leaving to reside elsewhere and it has been regarded as an example of a separation reaction, similar to grief (Fisher, 1989). Fisher, Murray and Frazer (1985), further define homesickness as when a *"person grieves or yearns for the old environment and is depressed because of their removal from it"*. Homesickness is applicable to a variety of situations where an individual becomes separated from their family and friends, such as boarding school and the armed forces (Fisher, 1986, Vormbrock, 1993). The majority of research examining homesickness has been conducted on students leaving home to go to university (Fisher and Hood, 1987, Fisher, Frazer and Murray, 1986), and has included a single-item homesickness measure.

[1] Please note that this paper represents a draft version of a paper published by Ireland, C and Archer, J (2000), Homesickness amongst a prison population, *Legal and Criminological Psychology*, **5**, 97-106. Consequently, contributions to this paper aside from myself were John Archer, with some minimal contribution from Paul J. Lattimore. A copy of the published paper is also included at the end of this draft.

1.2.2. Archer, Ireland, Amos, Broad and Currid (1998) designed a 33-item questionnaire to assess homesickness based on the reactions described in studies of grief. Factor analysis of the scale revealed two factors; adaptation to a new environment and the separation of an individual from their family and friends (Fisher, 1989). Such components are clearly applicable to a prison, which involves a more sudden and complete separation than the environment of a university. Wapner, Kaplan and Ciottone (1981) argue that there are moves that can have more of a profound effect upon the individual than other moves. They describe the most severe form as a 'critical transition' where an individual is led into 'forced migration', described as 'obliging one to leave the locus of one's habitual action'. By these definitions, a prison environment could be regarded as an example of a critical transition. Zamble and Porporino (1988) found that 82% of prisoners in their sample reported missing their family and friends to be the most common problem and stressor that they were experiencing. Such experiences of homesickness in prisoners are higher than in student samples. Kane (1987) found in a sample of first year students, that 50% reported feeling initially homesick on their arrival to university, yet this decreased to 37% after the first month of arrival. Fisher and Hood (1987) designed a small questionnaire (SIHS) that asked each participant to write down their own definition of homesickness, and to rate their initial and current levels of homesickness. From this, they found that 34% of students were currently experiencing homesickness. In another student sample using the Fisher and Hood (1987) measurement of homesickness, Archer et al (1998) found that 37% of their sample rated themselves as currently experiencing homesickness.

1.2.3. There are negative consequences for the physical and psychological health of an individual who is homesick. In a longitudinal study using a student sample, Fisher and Hood (1987) found elevated symptoms of depression and anxiety among homesick students compared with those who were not. Thurber (1995) found in a sample of male children that homesickness was experienced as a combination of anxiety and depression, with 5.8% of the homesick sample experiencing severe depressive and anxious

symptoms. Archer et al (1998) in a student sample found higher levels of anxiety, depression and somatic symptoms in homesick individuals than in the non-homesick. In the same study, Archer et al (1998) conducted a meta-analysis on their own study and three other studies (Fisher and Hood, 1987, 1988, and Kane, 1987) which also examined the physical and psychological consequences of homesickness. The meta-analysis proved to be significant, in that homesick individuals demonstrated higher levels of psychological and physical disturbance in comparison to the non-homesick. There is also evidence suggesting that those suffering from homesickness may manifest more physical symptoms of stress than those who are not homesick (Fisher et al, 1986).

1.2.4. There are, to the author's knowledge, only two questionnaires designed to measure homesickness, namely the single item measurement of homesickness by Fisher and Hood (1987) and the homesickness questionnaire by Archer et al (1998). Both of these measures are very specific, asking about university life or boarding schools. No questionnaire has been designed to examine a prison population.

1.3 Purpose of the current study

1.3.1. The aim of this study is to modify and validate the homesickness questionnaire (HQ) as designed by Archer et al (1998) for use within a prison population, and to determine the current and initial levels of homesickness experienced by prisoners using Fisher and Hood's (1987) single item measurement of homesickness (SIHS).

Homesickness measures

1.4.1. Items from the HQ (Archer et al, 1998) were modified for use within a young offender prison population. This involved omitting some items and rewording others. Items that were omitted as they were unsuitable for re-wording included "I visit home as often as I can.....I am really happy to be here at university.......If I go home for the weekend I feel excited at the prospect of coming to university". Items that were re-worded were modified in order to ensure that they still fitted into their appropriate features of grief. After modifications, 30 homesickness items remained and the questionnaire was renamed the HQ-P. The features of grief which were used to construct the HQ of Archer et al (1998) were pre-occupation/intrusive thoughts, seeking to maintain attachment, pangs/distress related to missed attachment, dreams related to home, restlessness, avoidance, identification, anger/blame, loss of self and guilt. Table 1.1 presents the modified HQ items which forms the HQ-P.

Table 1.1 Modified items of the HQ, which form the HQ-P.

Questionnaire item
1. I can't help thinking about my home.
2. I can't concentrate on my work because I'm always thinking about home.
3. When I'm thinking about nothing in particular my thoughts always come back to home.
4. I hardly ever think about my home. (R)
5. There is so much going on here that I hardly ever think about home. (R)
6.I intend to write home every week.

7. Thinking about home makes me cry.
8. I dream about my friends at home.
9. I've settled in really well here. (R)
10. If I ever went home for the day I wouldn't want to come back.
11. I try to make my cell/dorm like my room at home.
12. I rarely write home. (R)
13. I hate this place.
14. I would hardly visit home when allowed. (R)
15. I am drawn towards people who come from my hometown.
16. I get really upset when I think about home.
17. It upsets me if I am unable to phone home each week.
18. I can't concentrate on my work.
19. I feel empty inside.
20. I would avoid going home on homeleave because it would be too upsetting.
21. I wish I had never committed the crime which placed me in here.
22. I dream about my home.
23. I try to shut off thinking about my home.
24. The people here annoy me.
25. I can't seem to settle here.

26. My friends/family pushed me into committing my crime.
27. I often dream about my family back home.
28. I feel as if I've left part of me at home.
29. I blame myself for having ended up in here.
30. I feel restless here.

Notes:

1. *(R) Represents reversed items*

1.4.2. In addition to the HQ-P, the SIHS (Fisher and Hood, 1987) was also used for comparison. This questionnaire asks the participant to supply their own definition of the term 'homesickness' and to then rate on a 4 point Likert scale (not homesick to very homesick) their initial and current homesickness. Again, this questionnaire was slightly modified, with the use of the term 'prison' on the item 'Did you experience homesickness on your arrival into prison?'. A number of demographic variables were also included at the start of the questionnaire. This included their age, first time in prison, whether they were currently on remand or sentenced, the length of time they had currently spent in prison, and, if sentenced, their offence and serving length.

Sample

1.4.3. 179 young male offenders from two young offender institutes, one in the north-west and one in the north-east of England, took part in the study. All participants were volunteers. Ages of the participants ranged between 15 to 21 years, with a mean age of 18.5 years. Of the sample who had been sentenced and were not on remand, 28% had been sentenced for a non-violent offence such as burglary, 18% for a violent offence such

as actual bodily harm, 18% with robbery, 12% with driving offences, 2% with a breech of their probation order, 2% for rape and 2% for kidnap. The remaining 18% did not offer their offences on the questionnaire.

Procedure

1.4.4. Questionnaires were distributed in two male young offender institutes, one in the north-west of England and another in the north-east. The prison in the north-east housed mainly remand prisoners, whereas the north-west prison housed mainly sentenced prisoners. Permission to conduct the research was received from each Governor, one via verbal consent, and the other written.

1.4.5. Either a principal prison officer or a psychologist handed out the questionnaires. Questionnaires were distributed whilst prisoners were locked in their cells. The purpose of the study was explained, that is was to examine problems that may be experienced when adapting to prison life. Providing the prisoner agreed to participate, the questionnaires were left and collected by the same distributor 45 minutes later. In each instance anonymity and confidentiality was assured. A cover letter was attached to each questionnaire to explain further the exact nature of the study and to offer a contact number if required. Eighty-five per cent of prisoners approached agreed to take part.

1.4.6. Each questionnaire was individually examined for participant's definitions of homesickness. Of those participants who offered definitions, their responses were recorded using pre-selected definitions of what constituted homesickness as provided by Fisher and Hood (1987). This was carried out to determine if both the homesick and non-homesick groups defined homesickness in a similar manner. A second investigator was used to re-record 20 of the sample using Fisher and Hood's (1987) definitions in

order to determine inter-rater reliability. There were found to be no discrepancies between the two researchers. The data was inputted into SPSS and analysed using Cronbach's alpha, Correlations and Factor Analysis.

1.5 Results

SIHS (Fisher and Hood, 1987)

1.5.1. Participants were classified as homesick and non-homesick in accordance with Fisher and Hood's (1987) criteria. A participant was classified as homesick if they rated themselves as currently homesick. Those participants who did not rate themselves as currently homesick were classified as non-homesick. From this, 135 participants (75%) were classified as homesick, and 44 (25%) were classed as non-homesick.

1.5.2. Before comparisons of each group scores, their definitions of homesickness were examined to determine whether or not each group differed in their description of homesickness. Out of the 135 participants who were homesick, 114 offered definitions, and out of the 44 participants who were non-homesick, 25 offered definitions. Each participant's description of homesickness was examined to determine whether or not it could be classed into one or more of Fisher and Hood's (1987) definitions. Table 1.2 presents the main features of these definitions of homesickness.

Table 1.2. Features used in definitions of homesickness for the currently homesick and non-homesick prisoners, and the percentages of each group who chose each feature. The frequencies are shown in [ ]

Features of homesickness	Currently Homesick (n = 114)		Currently Non-homesick (n = 25)	
1. Missing home environment; missing house, home area	36.8%	[42]	52 %	[13]
2. Missing parents/family; longing for people at home	65 %	[74]	60 %	[15]
3. Missing friends/people	42.1 %	[48]	28 %	[7]
4. Missing familiar environments	5.3 %	[6]	0 %	
5. Longing/wishing to return home	2.6 %	[3]	0%	
6. Feeling depressed/listless; feeling sad, upset/unhappy	12.3 %	[14]	5.6 %	[1]
7. Missing daily routines; feeling lost without routines	14 %	[16]	12 %	[3]
8. Difficulty in coping with new place; fear of new environment; difficulty adjusting	3.5 %	[4]	12 %	[3]
9. Missing comforts of home; missing objects/food at home	1.8 %	[2]	5.6 %	[1]
10. Feeling lonely	3.5 %	[4]	0 %	
11. Missing boyfriend/girlfriend	15.8 %	[18]	8 %	[2]

Notes:

1. Percentages will not add up to 100% as each individual's definition could fall into a number of different features.

1.5.3. Table 1.2 suggests that on the whole, both the homesick and non-homesick groups define homesickness as missing the home environment, missing their parents/family and missing their friends/people.

Table 1.3 Demographic details and levels of initial homesickness of the currently homesick and non-homesick groups.

Demographic Details	**Currently Homesick (N = 135)**	**Currently Non-Homesick (N = 44)**
Mean age	18.6 years	18.4 years
First time in prison	38%	20.5%
Currently on remand	63%	55%
Length of time spent in prison to date	81 days	86 days
Experienced homesickness on their initial arrival into prison	87%	34%

1.5.4. Chi-squared and t-tests were carried out on the above results. The findings are presented in the section below.

1.6 Demographic variables in relation to homesickness

1.6.1. There was no significant difference in age between the homesick and non-homesick groups (t = .70; ns). There was a significant association between first time in prison and the homesick and non-homesick groups (X2 = 4.47, P< 0.035). A larger proportion of the currently homesick group were serving their first prison sentence in comparison to the currently non-homesick. There was no significant association between remand status and the currently homesick and non-homesick groups (X2 = 0.99). There

was no significant difference in the length of time currently spent in prison between the currently homesick and non-homesick groups ($t = -.27$; ns). There was a highly significant association between initial experiences of homesickness and the currently homesick and non-homesick groups ($X2 = 47.4$, $P < 0.001$). A larger proportion of the currently homesick experienced homesickness on their initial arrival into prison in comparison to the currently non-homesick.

1.7 Reliability of the HQ-P

1.7.1. To test the internal consistency of the revised Homesickness questionnaire (HQ-P), Cronbach's Alpha was computed. The scale was found to be highly consistent: (N of cases = 179, N of items = 30, Alpha = 0.92).

1.8 Factor Analysis

1.8.1. Factor Analysis was conducted using principal components analysis with varimax rotation. A scree plot was calculated in order to omit factors demonstrating the least variance. On the basis of this, a two-factor solution accounting for 43.8% of the variance was indicated. The items that loaded above .4 are displayed in Table 1.4. Factor one accounted for 37 % of the variance and contained high loadings on 21 items. Factor 2 accounted for 6.8% of the variance and contained high loadings on 4 items. Item 5 (in Table 1.4) showed a high loading on both factors. Five items did not demonstrate high loadings on either factor (numbers 10, 11, 15, 23, 29).

Table 1.4. Items loading above .4 on Factors one and two.

Item number and description	Factor one	Factor two
16. I get really upset when I think about home	.85	
19. I feel empty inside	.83	
2. I can't concentrate on my work because I am always thinking about home	.83	
30. I feel restless here	.82	
18. I can't concentrate on my work	.80	
22. I dream about my home	.80	
7. Thinking about home makes me cry	.79	
25. I can't seem to settle here	.77	
28. I feel as if I've left part of me at home	.76	
1. I can't help thinking about my home	.76	
27. I often dream about my family back home	.75	
9. I've settled in really well here	.73	
3. When I'm thinking about nothing in particular my thoughts always come back to home	.70	
8. I dream about my friends at home	.69	
4. I hardly ever think about my home	.61	
17. It upsets me if I am unable to phone home each week	.58	
21. I wish I had never committed the crime which placed me in here	.54	
5. There is so much going on here that I hardly ever think about home	.50	.42

20. I would avoid going home on homeleave because it would be too upsetting	.49	
13. I hate this place	.49	
24. The people here annoy me	.45	
12. I rarely write home		.66
6. I intend to write home every week.		.65
14. I would hardly ever visit home when allowed		.57
26. My friends/family pushed me into committing my crime		-.44
EIGENVALUES	11.1	2.0

1.8.2. Factor one appears to consist of items reflecting an attachment to home, also reflected by a dislike of the current environment. Interpretation of factor two was difficult. It appeared to consist of items representing a removal from home. Due to its ambiguity and because it only accounted for a small percentage of the overall variance, it was decided to omit items from factor two from the final questionnaire.

1.8.3. The items which did not load on either factor one or two were also omitted from the final questionnaire. Consequently, the final version of the HQ-P consisted only of the factor one items. As a result of this, the reliability analysis was re-computed after the items from Factor two and the other items which did not load highly were removed. The scale was still found to be highly consistent: (N of cases = 179, N of items = 21, Alpha = 0.95).

1.9 Comparisons of individual HQ-P items between groups

1.9.1. Individual items were compared for the homesick and non-homesick groups using t-test and point biserial correlations (table 1.5).

Table 1.5. Means, standard deviations (in brackets), effect sizes (r) and t-values (t1) of the items on the HQ-P of the homesick and non-homesick.

Questionnaire item	**Homesick**	**Non-Homesick**	**t**	**r**
1. I can't help thinking about my home.	4 (1.05)	2.3 (1.11)	9.34	0.57
2. I can't concentrate on my work because I'm always thinking about home.	3.2 (1.31)	1.5 (0.81)	9.64*	0.51
3. When I'm thinking about nothing in particular my thoughts always come back to home.	4.1 (1.14)	2.6 (1.45)	6.25*	0.47
4. I hardly ever think about my home. (R)	4.2 (1.11)	3.2 (1.31)	4.57*	0.35
5. There is so much going on here that I hardly ever think about home. (R)	4.4 (0.99)	3.4 (1.4)	4.05*	0.34
6.I intend to write home every week.	4.6 (0.87)	3.8 (1.5)	3.08*	0.29
7. Thinking about home makes me cry.	2.5 (1.5)	1.1 (0.55)	8.84*	0.4
8. I dream about my friends at home.	3.7 (1.28)	2.6 (1.28)	5.01	0.35
9. I've settled in really well here. (R)	3 (1.32)	1.6 (0.97)	8.03*	0.46
10. If I ever went home for the day I wouldn't want to come back.	3.6 (1.54)	3.4 (1.68)	0.53	0.04
11. I try to make my cell/dorm like my room at home.	3.7 (1.51)	3.7 (1.56)	-0.12	-0.01
12. I rarely write home. (R)	4.4 (1.13)	3.7 (1.6)	2.77*	0.24
13. I hate this place.	4.1 (1.25)	3.0 (1.48)	4.43*	0.34

Questionnaire item	Homesick	Non-Homesick	t	r
14. I would hardly visit home when allowed. (R)	4.5 (0.95)	3.9 (1.49)	2.71*	0.25
15. I am drawn towards people who come from my hometown.	4.0 (1.08)	3.7 (1.25)	1.36	0.1
16. I get really upset when I think about home.	3.2 (1.45)	1.6 (0.87)	8.82*	0.46
17. It upsets me if I am unable to phone home each week.	3.7 (1.39)	2.5 (1.36)	5.28	0.37
18. I can't concentrate on my work.	3.0 (1.31)	1.5 (0.8)	9.0*	0.47
19. I feel empty inside.	3.5 (1.36)	1.8 (1.16)	8.37*	0.5
20. I would avoid going home on homeleave because it would be too upsetting.	2.1 (1.25)	1.5 (0.8)	3.57*	0.21
21. I wish I had never committed the crime which placed me in here.	4.4 (1.16)	2.9 (1.7)	5.42*	0.44
22. I dream about my home.	3.8 (1.26)	2.3 (1.16)	7.31	0.48
23. I try to shut off thinking about my home.	3.4 (1.43)	3.0 (1.5)	1.6	0.12
24. The people here annoy me.	3.6 (1.2)	2.6 (1.4)	4.64	0.33
25. I can't seem to settle here.	3.2 (1.44)	1.6 (0.91)	8.56*	0.46
26. My friends/family pushed me into committing my crime.	1.8 (1.34)	1.4 (0.9)	2.55*	0.16
27. I often dream about my family back home.	3.9 (1.2)	2.8 (1.45)	4.78*	0.37
28. I feel as if I've left part of me at home.	3.7 (1.23)	2.0 (1.19)	8.55	0.54
29. I blame myself for having ended up in here.	4.3 (1.23)	4.3 (1.36)	-0.13	-0.01
30. I feel restless here.	3.8 (1.32)	2.1 (1.19)	7.47	0.49

Notes:

1. (R) indicates that the item has been reverse scored. Therefore, all scores are in the direction of higher scores for those who are homesick. This was the case, except for items 11 and 29.

2. r indicates point biserial correlations between the homesick/non homesick and the individual items from the HQ-P.
3. t indicates the t-values for the group differences. Items 10, 11, 15, 23, 29 were not significant. All other items were significant at the 0.01 level.
4. * indicates that the variance within the t-test was not homogenous and as a result the t-values for unequal variances are used.
5. Due to loading highly on factor two, items 6, 12, 14 and 26 were removed from the final HQ-P, as well as items 10, 11, 15, 23 and 29 which did not load on either factor.

2.0 Correlations

2.1.1 Correlations were computed to determine whether there was a relationship between the SIHS (Fisher and Hood, 1987) and the total scores from the HQP. There were positive correlations found between the current experience of homesickness and the total HQP scores (r = .76, N = 179), and the initial experience of homesickness and the total HQP scores (r = .66 , N = 179).

2.1.2. Correlations were computed to determine if there was a relationship between the SIHS (Fisher and Hood, 1987) and the total scores from the final HQ-P. There were also positive correlations between the current experience of homesickness and the final HQ-P (r = .78, N = 179), and the initial experience of homesickness and the final HQ-P (r = .67, N = 179).

2.2 Discussion

2.2.1. The 30 item homesickness questionnaire for prisoners (HQ-P) was found to be internally consistent. 25 of the 30 individual items from the HQ-P demonstrated significant differences between the homesick and non-homesick groups on the basis of these two groups being defined by the SIHS (Fisher and Hood, 1987) scale. Two factors were produced from the factor analysis, and after consideration, the second factor and its items were removed from the final modified questionnaire. Items which did not load highly on either of the factors were also removed from the final analysis. This left 21 items on the final HQ-P. There were also high correlations between the total scores of

the HQ-P and the SIHS. Individuals who were currently homesick were also more likely to be on their first prison sentence. Those who were currently homesick were also significantly more likely to report feeling initially homesick on their arrival into prison than the currently non-homesick.

2.2.2. Overall, the results would indicate that the HQ-P represents a reliable measurement of homesickness in a prison population.

2.2.3. There is one main similarity between the factor analysis of the HQ-P and the HQ (Archer et al, 1998). Archer et al, (1998) found two factors in their questionnaire, namely attachment to home and disliking their new environment. The factor analysis of the HQ-P also produced two factors, yet the second factor explained only a small percentage of the variance and was ambiguous in what it represented. Therefore, it was removed. This left one factor that, in agreement with Archer et al (1998), appeared to demonstrate an attachment to home. This remaining factor explained 37 % of the variance, which was more than factors one and two found by Archer et al (1998) combined. Archer et al found 11 items in their factor one compared to 21 items in this present study. By comparison, two of Archer et al's (1998) factor one items were omitted from the modified HQ-P as they were unsuitable and could not be modified. This left 9 items in their factor one of which 7 of these same items also loaded onto factor one in this study (HQ-P items 9, 13, 19, 21, 24, 25, 30).

2.2.4. 75% of the sample classified themselves as currently experiencing homesickness on Fisher and Hood's (1987) SIHS, with 74% of the sample classifying themselves as experiencing homesickness on their current arrival into prison. The percentage of current levels of homesickness is substantially higher than the 38% found by Archer et al (1998) for students at university. It is also higher than the 50% found in Kane's (1987) student

sample. This demonstrates as expected that the levels of homesickness experienced by these prisoners are substantially higher than has been found in student samples. The high levels of homesickness found in the prison sample agree with the 82% of Zamble and Porporino's (1988) prison sample who regarded missing their family and friends as their most significant stressor. The results also suggest that those prisoners who initially experience homesickness on their arrival continue to do so for some time after. This may be explained by the nature of entering prison not unlike the critical transition and forced migration described by Wapner et al (1981). Unlike a student who could return home if the homesickness becomes too great, a prisoner does not have the same option.

2.2.5. The findings here also suggest that the most pronounced aspect of homesickness in a prison population is a separation reaction i.e. missing home. Archer et al's (1998) study found two factors to homesickness, attachment to home and disliking their environment. This current study only reproduced the factor representing attachment to home. This may be a result of the prison environment being disliked by most prisoners, and producing little variation in levels of adjusting to the new environment.

2.2.6. The findings in this study have a number of potential implications for managing young offenders. Homesickness is not a condition that, to the author's knowledge, has ever been considered in a prison population. The high levels of homesickness found in the current sample certainly suggest that homesickness is an important factor in prison life and as such needs to be addressed further. Individuals who experience initial homesickness tend to remain homesick for some time after. Individuals who are homesick may become more prone to anxiety, depression and physical symptoms of stress (Archer et al, 1998, Fisher and Hood, 1987, Fisher, Frazer and Murray, 1986). Clearly the continuing chapters will be able to determine more clearly the link between homesickness and psychological health, and to ascertain if the same levels of homesickness can be repeated with a similar population.

Legal and Criminological Psychology (2000), 5, 97–106 *Printed in Great Britain*

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Homesickness amongst a prison population

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Purpose. The aim of this study is to validate a modified version of the 33-item Homesickness Questionnaire (HQ; Archer, Ireland, Amos, Broad, & Currid, 1998) for use within a prison population.

Methods. The HQ was reworded to fit the experiences of prisoners rather than students. 179 male young offenders completed the 30-item scale (the modified Homesickness Questionnaire, HQ-P), and a single-item homesickness measure (SIHM; Fisher & Hood, 1987).

Results. The HQ-P was internally consistent, and 25 items showed significant differences between homesick and non-homesick groups formed on the basis of the SIHM. Factor analysis revealed a main factor consistent with one of two found by Archer *et al.* (1998), representing attachment to the home. Removal of other items left a total of 21 items in the final HQ-P. There were high positive correlations between the HQ-P total scores and the SIHM for current and initial levels of homesickness.

Conclusions. The findings reveal a coherent construct of homesickness among these prisoners, and provide a simple way of assessing and screening inmates for homesickness.

Homesickness occurs when people miss their homes after leaving to reside elsewhere. Following many older discussions of the topic (McCann, 1941), Fisher, Murray, and Frazer (1985) defined homesickness as occurring when a 'person grieves or yearns for the old environment and is depressed because of their removal from it'. It can therefore be regarded as a separation reaction, similar to grief (Archer, 1999). A variety of circumstances can lead to homesickness, for example attending boarding school (Fisher, Frazer, & Murray, 1986; Harris, 1989), going away to a residential summer camp (Thurber, 1995), attending a college or university (Brewin, Furnham, & Howes, 1989; Fisher & Hood, 1987, 1988; Fisher *et al.*, 1985; McCann, 1941), and entering the armed forces (Vormbrock, 1993). The majority of research on homesickness has been conducted on students leaving home to go to university, and has involved a subjective assessment of the degree of homesickness using a single-item measure (e.g. Fisher & Hood, 1987).

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Archer *et al.* (1998) designed a 33-item questionnaire to assess homesickness, based on the reactions described in studies of grief. Factor analysis of the scale revealed two factors, disliking the new environment and attachment to the home, which were consistent with previous models of homesickness emphasizing either separation distress (Fisher, 1989; Fisher & Hood, 1988) or environmental strain (Fisher & Hood, 1987).

There are negative consequences for the physical and psychological well-being of an individual who is homesick. McCann (1941) found that depression and despair were reported by around half of their samples of homesick students. In a longitudinal study of a university sample, Fisher & Hood (1987) found elevated symptoms of depression and anxiety among homesick students compared with those who were not. Similarly, Thurber (1995) found in a longitudinal sample of adolescent boys that homesickness was experienced as a combination of depression and anxiety, with a minority of homesick boys experiencing severe depressive and anxious symptoms. A meta-analysis of four studies comparing homesick and non-homesick groups of students (Archer *et al.*, 1998) showed that homesick individuals had higher levels across five measures of negative affect, somatic and obsessional symptoms, and cognitive failure ('absent-mindedness' or slips of action). There is also evidence that homesick individuals show more physical symptoms of stress than those who are not homesick (Fisher *et al.*, 1986).

Prison involves a more sudden and complete separation, of an involuntary nature, from home, family, and friends, in an environment where freedom of action is restricted. One should expect the degree of homesickness to be pronounced under such circumstances, particularly among first-time offenders. Wapner, Kaplan, and Ciottone (1981) discussed the extent to which some relocations have more profound effects on the individual than others. They referred to the most severe forms as 'critical transitions', when the person is led into a 'forced migration'. Entering prison would be an example of a critical transition. Zamble and Porporino (1988) found that 82% of prisoners in their sample reported that missing their family and friends was the most common problem and stressor that they were experiencing. Such a rate of homesickness is higher than that reported for student samples, which ranges from 34% (Fisher & Hood, 1987) to 37% (Archer *et al.*, 1998) and 50% (Kane, 1987), but it is similar to the 83% reported for adolescent boys at summer residential camps in the USA (Thurber, 1995).

So far, measures of homesickness have mainly been confined to the single-item measure used by Fisher and Hood (1987) in studies of students, and by Thurber (1995) for adolescent boys. An exception is the 33-item Homesickness Questionnaire (HQ) referred to above, which was designed to assess homesickness among students by Archer *et al.* (1998). There is no detailed measure suitable for investigating the experience of homesickness in a prison population. The aim of the present study is, therefore, to modify and validate the HQ for use within a prison population, to determine the current and initial levels of perceived homesickness of prisoners using Fisher and Hood's (1987) single-item measure, and to examine the extent of agreement between these two ways of assessing homesickness among prisoners.

Method

Sample

In all, 179 young male offenders from two young offender institutes, one in the North-West of England (providing 36.3% of the sample, and housing mainly remand prisoners), and one in the North-East of England (housing mainly sentenced prisoners), took part in the study. Permission to conduct the research was received from each Governor, one via verbal consent, and the other written.

All participants were volunteers. Ages of the participants ranged between 15 and 21 years, with a mean of 18.5 years. Of the sample, 37.4% had been sentenced, and 62.6% were on remand. Of those who had been sentenced, 28% had committed a non-violent offence such as burglary, and 54% a violent offence, usually with another offence such as burglary, or driving offences. The remaining 18% did not state their offences on the questionnaire.

Homesickness and other measures

Items from the HQ (Archer *et al.*, 1998) were modified to use with a young offender prison population. This involved omitting two of the original items ('I am really happy here at university' and 'If I go home for the weekend I feel excited at the prospect of coming back to university') because their positive tone was viewed as being unsuitable for prison. Eleven other items were reworded. For example, 'I visit home as often as I can' was changed to 'I apply for home leave as often as I can', since these prisoners could not visit home as often as they wanted, but could make frequent applications for home leave; 'If I ever went home for the weekend I wouldn't want to come back' was changed to 'If I ever went home for the day I wouldn't want to come back' because one day's home leave was the most usual form of leave for these prisoners. Whenever items were reworded, it was ensured that they still fitted the appropriate features of grief which were used to construct the original questionnaire (preoccupation/intrusive thoughts; seeking to maintain attachment; pangs/distress related to missed attachment; dreams related to home; restlessness; avoidance; identification; anger/blame; loss of self; and guilt). After modification, 30 homesickness items remained and the questionnaire was renamed the HQ-P (the items are listed in Table 3).

The single-item measure (SIHM) of Fisher and Hood (1987) was also used. It involves the participants rating on a 4-point Likert scale (1 = not homesick; 2 = slightly homesick; 3 = homesick; 4 = very homesick) their initial and current homesickness levels. Again, the measure was slightly modified, with the use of the term 'prison' on the question. 'Did you experience homesickness on your arrival into prison?'. A number of demographic variables were also assessed at the start of the questionnaire. They included age, whether it was the first time in prison, whether the person was on remand or sentenced, the length of time they had currently spent in prison and, if sentenced, their offence and serving length. Participants also supplied their own definitions of homesickness.

Procedure

The questionnaires were distributed by either a principal prison officer or a psychologist, whilst the prisoners were locked in their cells. The purpose of the study was explained, that is it was to examine problems that may be experienced when adapting to prison life. Providing the prisoner agreed to participate, the questionnaires were left and collected by the same distributor 45 minutes later. In each instance anonymity and confidentiality was assured. A covering letter was attached in each questionnaire to explain further the exact nature of the study and to offer a contact number if required.

Each set of questionnaires was individually examined by the first author for correct definitions of homesickness. Of those participants who offered definitions, responses were assessed using the definitions of homesickness provided by Fisher and Hood (1987). This was undertaken to determine whether both homesick and non-homesick participants defined it in a similar manner. An additional coder (a forensic psychologist) determined the reliability of the first author's classification of each participant's statements by independently examining 20 participants' responses. No discrepancies were found between the two classifications.

Table 1. Features used in definitions of homesickness for the currently homesick and non-homesick prisoners, and the percentages of each group who chose each feature. Frequencies are shown in parentheses

Features of homesickness[a]	Homesick (N=114)		Non-homesick (N=25)	
1. Missing home environment; missing house, home area	36.8%	(42)	52.0%	(13)
2. Missing parents/family; longing for people at home	65.0%	(74)	60.0%	(15)
3. Missing friends/people	42.1%	(48)	28.0%	(7)
4. Missing familiar environments	5.3%	(6)	0.0%	
5. Longing/wishing to return home	2.6%	(3)	0.0%	
6. Feeling depressed/listless; feeling sad, upset/unhappy	12.3%	(14)	5.6%	(1)
7. Missing daily routines; feeling lost without routines	14.0%	(16)	12.0%	(3)
8. Difficulty in coping with new place; fear of new environment; difficulty adjusting	3.5%	(4)	12.0%	(3)
9. Missing comforts of home; missing objects/food at home	1.8%	(2)	5.6%	(1)
10. Feeling lonely	3.5%	(4)	0.0%	
11. Missing boyfriend/girlfriend	15.8%	(18)	8.0%	(2)

[a]Percentages do not total 100% as each individual's definition might consist of several features.

Results

Comparison of homesick and non-homesick participants based on the SIHM

Participants were classified as homesick and non-homesick according to Fisher and Hood's (1987) criteria. A participant was classified as homesick if he rated himself as *currently* showing at least some degree of homesickness on the SIHM (58 scored 2; 35 scored 3; 42 scored 4 along the 4-point scale). Those participants who did not rate themselves as currently homesick (i.e. scored 1 along the 4-point scale) were classified as non-homesick. On this criterion, 135 (75%) were classified as homesick, and 44 (25%) as non-homesick.[2]

Before comparing the two categories, their definitions of homesickness were examined to determine whether they corresponded to Fisher and Hood's (1987) definitions, and whether those from the two categories differed. Of the 135 participants who were homesick, 114 offered definitions, and of the 44 participants who were non-homesick, 25 offered definitions. Table 1 shows the main features of these definitions, which indicate that both the homesick and non-homesick groups define homesickness as missing the home environment, missing their parents or family and missing friends or people. Two-sample χ^2 tests indicated that none of the definitions showed different frequencies in the two groups.

There were no significant differences between the homesick and non-homesick groups in their ages, the proportion on remand, and the length of time currently spent in prison. A larger proportion of the homesick than the non-homesick group

[2]This classification was used for consistency with previous studies (Archer *et al.*, 1998; Fisher & Hood, 1987, 1988).

Table 2. Items loading above .4 on Factors 1 and 2 of the HQ-P

Item	Factor 1	Factor 2
16. I get really upset when I think about home.	.85	
19. I feel empty inside.	.83	
2. I can't concentrate on my work because I am always thinking about home.	.83	
30. I feel restless here.	.82	
18. I can't concentrate on my work.	.80	
22. I dream about my home.	.80	
7. Thinking about home makes me cry.	.79	
25. I can't seem to settle here.	.77	
28. I feel as if I've left part of me at home.	.76	
1. I can't help thinking about my home.	.76	
27. I often dream about my family back home.	.75	
9. I've settled in really well here.	.73	
3. When I'm thinking about nothing in particular my thoughts always come back to home.	.70	
8. I dream about my friends at home.	.69	
4. I hardly ever think about my home.	.61	
17. It upsets me if I am unable to phone home each week.	.58	
21. I wish I had never committed the crime which placed me in here.	.54	
5. There is so much going on here that I hardly ever think about home.	.50	.42
20. I would avoid going home on homeleave because it would be too upsetting.	.49	
13. I hate this place.	.49	
24. The people here annoy me.	.45	
12. I rarely write home.		.66
6. I intend to write home every week.		.65
14. I would hardly ever visit home when allowed.		.57
26. My friends/family pushed me into committing my crime.		−.44
Eigenvalue	11.1	2.0

were serving their first prison sentence (38% vs. 20.5%; $\chi^2 = 4.47$, $p < .035$). A larger proportion of the homesick than the non-homesick group experienced homesickness on their arrival in prison (87% vs. 34%; $\chi^2 = 47.4$, $p < .001$).

Reliability and factor structure of the HQ-P

Examination of the questionnaires indicated that 28 participants had omitted to complete one item, and two had omitted two items, from the HQ-P. In each case their mean responses to the HQ-P were calculated, and used to replace the omitted item.

Table 3. Means, standard deviations (in parentheses), t values and point-biserial correlations (r) for comparisons between homesick and non-homesick groups for items on the HQ-P

Questionnaire item[a]	Homesick	Non-homesick	t^b	r^c
1. I can't help thinking about my home.	4.0 (1.05)	2.3 (1.11)	9.34	0.57
2. I can't concentrate on my work because I'm always thinking about home.	3.2 (1.31)	1.5 (0.81)	9.64*	0.51
3. When I'm thinking about nothing in particular my thoughts always come back to home.	4.1 (1.14)	2.6 (1.45)	6.25*	0.47
4. I hardly ever think about my home. (R)	4.2 (1.11)	3.2 (1.31)	4.57*	0.35
5. There is so much going on here that I hardly ever think about home. (R)	4.4 (0.99)	3.4 (1.40)	4.05*	0.34
6. I intend to write home every week.	4.6 (0.87)	3.8 (1.50)	3.08*	0.29
7. Thinking about home makes me cry.	2.5 (1.50)	1.1 (0.55)	8.84*	0.40
8. I dream about my friends at home.	3.7 (1.28)	2.6 (1.28)	5.01	0.35
9. I've settled in really well here. (R)	3.0 (1.32)	1.6 (0.97)	8.03*	0.46
10. If I ever went home for the day I wouldn't want to come back.	3.6 (1.54)	3.4 (1.68)	0.53	0.04
11. I try to make my cell/dorm like my room at home.	3.7 (1.51)	3.7 (1.56)	− 0.12	− 0.01
12. I rarely write home. (R)	4.4 (1.13)	3.7 (1.60)	2.77*	0.24
13. I hate this place.	4.1 (1.25)	3.0 (1.48)	4.43*	0.34
14. I would hardly visit home when allowed. (R)	4.5 (0.95)	3.9 (1.49)	2.71*	0.25
15. I am drawn towards people who come from my hometown.	4.0 (1.08)	3.7 (1.25)	1.36	0.10
16. I get really upset when I think about home.	3.2 (1.45)	1.6 (0.87)	8.82*	0.46
17. It upsets me if I am unable to phone home each week.	3.7 (1.39)	2.5 (1.36)	5.28	0.37
18. I can't concentrate on my work.	3.0 (1.31)	1.5 (0.80)	9.00*	0.47
19. I feel empty inside.	3.5 (1.36)	1.8 (1.16)	8.37*	0.50

Table 3. (continued).

Questionnaire item[a]	Homesick	Non-homesick	t^b	r^c
20. I would avoid going home on homeleave because it would be too upsetting.	2.1 (1.25)	1.5 (0.80)	3.57*	0.21
21. I wish I had never committed the crime which placed me in here.	4.4 (1.16)	2.9 (1.70)	5.42*	0.44
22. I dream about my home.	3.8 (1.26)	2.3 (1.16)	7.31	0.48
23. I try to shut off thinking about my home.	3.4 (1.43)	3.0 (1.50)	1.60	0.12
24. The people here annoy me.	3.6 (1.20)	2.6 (1.40)	4.64	0.33
25. I can't seem to settle here.	3.2 (1.44)	1.6 (0.91)	8.56*	0.46
26. My friends/family pushed me into committing my crime.	1.8 (1.34)	1.4 (0.90)	2.55*	0.16
27. I often dream about my family back home.	3.9 (1.20)	2.8 (1.45)	4.78*	0.37
28. I feel as if I've left part of me at home.	3.7 (1.23)	2.0 (1.19)	8.55	0.54
29. I blame myself for having ended up in here.	4.3 (1.23)	4.3 (1.36)	− 0.13	− 0.01
30. I feel restless here.	3.8 (1.32)	2.1 (1.19)	7.47	0.49

[a]R indicates that the item has been reverse scored. For all items, except 11 and 29 scores are in the direction of higher scores for those who are homesick.
[b]t indicates the t values for the group differences. All items except 10, 11, 15, 23 and 29 were significant at the .01 level.
[c]r indicates point-biserial correlations between the homesick/non-homesick category and the item from the HQ-P.
*Indicates that the variance within the t test was not homogeneous and as a result t values for unequal variances were computed.
Note: Due to loading highly on Factor 2, items 6, 12, 14 and 26 were removed from the final HQ-P, as well as items 10, 11, 15, 23 and 29 which did not load on either factor (note that these were the non-significant items in the comparisons shown in this table).

The HQ-P showed a Cronbach's α of .92 (N = 179, 30 items).

Factor analysis was carried out using Principal Components Analysis with Varimax Rotation. The Scree Plot indicated a two-factor solution accounting for 43.8% of the variance. Items that loaded above .4 are shown in Table 2. Factor 1 accounted for 37% of the variance and contained high loadings on 21 items. Factor 2 accounted for 6·8% of the variance and contained high loadings on 4 items. Item 5 (in Table 2) loaded on both factors. Five items (10, 11, 15, 23, 29; Table 3) did not load on either factor.

Factor 1 consists of items describing an attachment to home. Factor 2 was difficult to interpret: it appeared to consist of items representing removal from home. Because of its ambiguity and because it only accounted for a small percentage of the variance, it was decided to omit items from Factor 2 from the final questionnaire. The items which did not load on either factor were also omitted. Consequently, the final version of the HQ-P consisted of the Factor 1 items only. The scale was found to be highly internally consistent (α = .95).

Comparisons of individual HQ-P items between groups

Individual items on the HQ-P were compared between the homesick and non-homesick groups (defined on the basis of SIHM scores—see above). Table 3 shows the t values and point biserial correlations resulting from these comparisons, and the means and standard deviations for the two groups. Of the 30 items, 25 were significantly different between the two groups at the .01 level in the predicted direction. The five items which were not significantly different were those which did not load on either factor in the factor analysis.

Correlations

Correlations were first compared between the SIHM and total HQ-P scores. High positive values were found for both current SIHM scores (r = .76, N = 179) and the initial experience of homesickness (r = .66, N = 179). The values for the final 21-item HQ-P were little different from these values (r = .78 and .67 respectively).

Discussion

The 30-item homesickness questionnaire for prisoners (HQ-P), based on the earlier HQ designed for students, was internally consistent. When it was factor analysed, however, two factors resulted. The main one, accounting for 43.8% of the variance, was equivalent to the factor representing attachment to home, which was one of two factors found in the previous study with student samples (Archer *et al.*, 1998). The present findings, therefore, suggest that the most pronounced variation in homesickness experienced in prison is associated with the degree to which a separation reaction—missing home—is experienced. In contrast, among university students, this was secondary to the more pronounced variation in the extent to

ch they liked or disliked their new environment, which was most strongly ciated with satisfaction with the university and in particular satisfaction with alizing. These different findings may be the result of the prison environment g disliked by most prisoners, and producing little variation in levels of liking or king the new environment. A final, shorter HQ-P comprising the 21 items from tor 1 was established for use in future studies, and this showed a high internal sistency.

risoners were also classified into those who rated themselves as not at all iesick and those who rated themselves as homesick at least to some degree. se who said they were currently homesick were more likely to be on their first on sentence and to have felt homesick on arrival in prison. Overall correlations veen the single-item measure and both the initial and final versions of the HQ-P wed an acceptable degree of convergence between the two measures, one based a subjective classification using the term 'homesick', and the other based on a e detailed and indirect assessment inasmuch as the term 'homesickness' was not l in the questionnaire. Instead, items were derived from the features of grief ded so as to apply to a separation rather than a death.

urther convergence between the two approaches to measuring homesickness shown by comparing each item on the initial HQ-P for the homesick and -homesick groups formed from the SIHM: 25 of the 30 items were significantly erent in the predicted direction between the homesick and non-homesick ips. The five that were not were those which did not load on either of the two ors in the factor analysis of the initial HQ-P.

lthough this evidence supports a coherent construct measured by the HQ-P stionnaire, and also supports its association with subjective endorsement of the n 'homesickness', there are some limitations to this study. First, no test–retest bilities were obtained from this sample; secondly, there were no alternative isures which might be expected to be associated with homesickness (e.g. health negative affect).

he overall rate of self-reported homesickness, based on the SIHM, was 75%, iparable with the 82% of Zamble and Porporino's (1988) prison sample who rded missing their family and friends as their most significant stressor. It is also lar to the 83% found among adolescent boys attending summer camps in the by Thurber (1995). As indicated at the start of this paper, these values are stantially higher than those found among university students in several British lies. The present findings also indicate that those prisoners who initially erience homesickness on their arrival continue to do so for some time rwards. This was also found among the longitudinal sample of adolescent boys stigated by Thurber. As noted earlier, entering prison is a form of critical sition and forced migration of the sort described by Wapner *et al.* (1981). Unlike student, the prisoner does not have the option to return home if the iesickness becomes too great.

he high levels of homesickness found in the current sample suggest that iesickness is an important feature of prison life, and as such needs to be essed in relation to prisoners' welfare and health. Individuals who experience al homesickness tend to remain homesick for some time afterwards. As

indicated at the start of this paper, they are more prone to anxiety, depression and physical symptoms, as well as experiencing behavioural and cognitive problems (Archer *et al.*, 1998; Fisher *et al.*, 1986; Fisher & Hood, 1987).

The HQ-P could be used as a screening device during induction into the prison to identify homesickness-prone individuals. They could then be observed in a similar way to those most at risk of self-harm and suicide. One would expect such prisoners to be at risk of coping poorly with prison life, and a follow-up to the present research is investigating the association between initial homesickness measured by the HQ-P and subsequent somatic and psychological measures associated with stress.

Acknowledgements

The authors thank Paul Lattimore for his help with the analysis and comments on the write-up, and Jane Ireland for assisting with the reliability assessment of the homesickness categories. Carol Ireland thanks Sandy McEwan and Jan Thorne for granting study leave from HMP Frankland, Brasside, Durham.

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Received 12 November 1998; revised version received 28 April 1999