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**OCCUPATIONAL STRESS AND STRAINS IN
REHABILITATION SERVICE PROVISION:
SOME MODERATING AFFECTS OF
A SENSE OF COHERENCE**

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

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ABSTRACT

The sense of coherence was investigated as a potential moderator between psychological climate (PC) stressors and job satisfaction, intent to quit the organisation/ profession and psychological well-being. Respondents were a heterogeneous group of rehabilitation providers (n=89) drawn from a list provided by the New Zealand Rehabilitation Society, and from a list of individuals who had completed a post graduate diploma in rehabilitation at Massey university. The relationships between demographic variables and other variables were examined using Pearson r's correlations and t-tests. Significant demographic variables that were entered as control variables in a series of hierarchical multiple regressions. Hierarchical multiple regressions were also performed to analyse potential moderating effects. The results of the study, found that the PC variables role ambiguity, management awareness, job variety and challenge, and leader trust and support significantly predicted job satisfaction. Role ambiguity was also found to be significant predictor of positive affect and general happiness. The SOC subscales of meaningfulness, comprehensibility and manageability were found to be significant predictors of job satisfaction. Meaningfulness was also found to be a significant predictor of intent to quit the profession and organisation, and manageability and meaningfulness significantly predicted positive affect and negative affect. The interaction analyses found that meaningfulness moderated the effects of role ambiguity on job satisfaction, and manageability moderated the effects of role ambiguity on general happiness. Meaningfulness was found to be the pivotal aspect of the SOC construct. The research limitations and implications were discussed along with recommendations for future research.

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INTRODUCTION

CHAPTER 1. OVERVIEW

1.1. The problem of stress.

The costs of stress related outcomes is difficult to calculate or quantify, but estimates given by Matteson and Ivancevich in 1987 (as cited in Flett, Biggs, & Alpass, 1995) put the financial losses to industry at up to \$60 billion per annum. A more recent statistic given by Hanson (1989), puts the figure at approaching \$200 billion in North America alone. According to Hanson up to 80% of all illnesses have been linked to stress.

Due to high staff turnover, absenteeism, and decreased productivity, stress related costs are also high in the rehabilitation profession (Riggall, Hansen, & Crimando, 1987). Legislative changes such as the Americans with Disabilities Act of 1990, and the 1992 Rehabilitation Act Amendments have raised the profile as well as workload of the 'caring professions' (Flett et al., 1995). The restructuring of the New Zealand economy along with the 'user-pay' philosophy adopted en masse has also contributed to the increased responsibility and workload of the rehabilitation worker. Such an uncertain and unpredictable work environment for the rehabilitation provider has led Flett et al. (1995) to argue for a higher priority being given to research on stress related issues.

Given this argument, the present thesis focuses on some of the stressors and strains experienced by a heterogeneous group of New Zealand rehabilitation providers. The stressors of interest to the present study are various aspects of psychological climate (PC). The strains focused on are; job satisfaction, general well-being, and intent to quit the organisation and/or rehabilitation profession. The possible inter-

action effect of the individual's 'sense of coherence', a personality construct theorised by Antonovsky (1979), is also of interest to the present study.

While there appears to be an abundance of continual research into the causes and negative affects of job related stress, as well as studies focused on coping strategies, research which targets issues of stress in the rehabilitation service 'industry' is somewhat scarce. Wallis (1987) noted the lack of research on 'caring professions' in general. An analysis of publications in the *Journal of Occupational Psychology* undertaken by Wallis revealed that of 165 papers analysed, only 11 papers described studies of people employed in the 'caring professions'. Because human service professionals are often drawn towards work that gives them direct contact with needy individuals, they are frequently ill prepared for the wide range of emotional demands of such work (Leiter 1991). The reality of the workplace, for many in the 'caring' professions contributes to the high rate of work strain. The end-user of the human services are often individuals undergoing severe distress, and therefore demand much of others (Maslach, 1982, as cited in Leiter, 1991). Alternatively, Gross (1994), argued that human service professionals who engage in counselling emotionally distressed clients risk developing negative emotional reactions themselves.

Although some theorists have touted empathy as critical for therapeutic success (Day & Chambers, 1991), others (Lief & Fox, 1963; Pines, Aronson, & Kafry, 1981, cited in Day & Chambers, 1991), argue that 'detached concern' for one's clients is the key to buffer the deleterious effects of the counselling relationship. This juxtaposition of being empathic and detached, is a salient reminder of the ambiguous environment that the rehabilitation worker is in. Glisson and Durick (1988) studied human service workers from 22 organisations in the 'caring' industry, and paint a gloomy picture of their sample in general. These commentators describe the type of human services sampled as beset by low morale, high turnover and burnout rates. Swanson (1987), described the rehabilitation worker's environment as one filled

with ambiguity tension and closure tension “.... where the practitioner is continually faced with selecting the best alternative for a client from a vast array of possibilities (ambiguity) and an ever present array of half finished tasks (lack of closure)” (p. 23). The scenario of a distressed ‘carer’ coming to the aid of a distressed client, cannot contribute to an ideal outcome.

1.2. Organisation of the introduction

To set the scene chapter 2 will provide an overview on some of the definitions of stress, as well as briefly focusing on stress coping. Whilst coping is not a direct focus of the present study, the sense of coherence construct is essentially an instrument that measures how individuals manage stress and stay well (Antonovsky, 1987) . The concept of positive as well as negative stress will be highlighted, along with a brief discussion on the cognitive aspect of stress. The generally stressful environment of the rehabilitation provider will also be briefly examined.

Chapter 2 will also provide a discussion on psychological climate (PC), a construct that represents the individual’s perception of the work environment. The present research considers (PC) variables such as leader trust and support, leader goal facilitation, leader interaction facilitation, management concern and awareness, workgroup cooperation , workgroup friendliness and support as well as role conflict, role ambiguity, job challenge and variety as predictor variables. These PC variables were selected to provide a short-form questionnaire that nevertheless encompass the four components consistently utilised in studies of this kind (James, James, & Ash, 1990). These components are: Role stress and lack of harmony; Job challenge and autonomy; Leadership facilitation and support; and Workgroup cooperation, friendliness and warmth.

Several researchers focused on the ‘caring professions’ have highlighted the impact of PC variables on outcomes such as job satisfaction, turnover, the quality of worklife, and productivity. (Barrett, Crimando, & Riggat, 1993; Glisson & Durick, 1988. Kelley

& Satcher, 1992). According to James and James, (1989), and Florin, Giamartino, Kenny, and Wandersman (1990), the individual's perceptions of the organisation have been linked to job satisfaction, and turnover (Jackofsky & Slocum, 1988). Poulton (1988) asserts that an understanding of the 'personal glue' that holds the organisation together is essential. As Biggs, Flett, Voges and Alpass (1995) point out, if rehabilitation work involves teamwork, then organisational variables (and psychological climate variables) must become a focus of research.

The study also considers job satisfaction, intention to quit, and wellbeing or 'happiness' as 'outcome' variables. (See chapter 3). Some commentators have noted that human service organisations report lower levels of job satisfaction than other organisations (Glisson & Durick, 1988). High rates of staff turnover in human services have also been reported (Hanson, & Crimando, 1987). The deleterious effects of 'unhappy' rehabilitation practitioners has been highlighted by such commentators as Glisson and Durick (1988). Chapter 3 covers these issues in more detail.

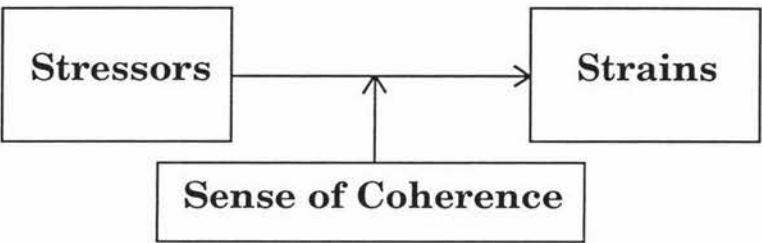
Chapter 4 provides a review of Antonovsky's , (1979) 'sense of coherence' (SOC). SOC is a personality characteristic, which for the purposes of the present research is viewed as a potential moderating variable. The present study intends to add to the rather limited research on the SOC, and therefore much of the findings will be considered exploratory in nature. Various studies have looked at the way personality variables or individual differences have interacted with stressors and strains encountered in the rehabilitation environment (e.g. Clanton, Rude & Taylor, 1992; Day & Chambers, 1991; Gross, 1994.).

1.3. Chapter Summary

Chapter one, has provided a preview of the subsequent chapters in the introduction, and discussed some of the general costs of stress to the 'caring industry'. The PC variables that are considered to be the stressors of the present study were briefly

looked at, as were the strain variables and the SOC which has been cast as the personality variable in the equation. The relation between these concepts is presented diagrammatically at figure 1.1.

Figure 1.1: Model used in present study



In general the rehabilitation literature paints a gloomy picture of the working environment in which the rehabilitation provider exists.

The following chapter will give a brief outline of some of the definitions given to the term ‘stress’, as well as examining the term ‘occupational stress’. Some models that fit the purpose of the present study will also be considered. A brief outline on coping issues will also be given. The rest of the chapter will focus on the PC variables, which are the stressors employed in the present study, and the part they play in the stressor-strain relationship. More specifically these are the following PC variables as defined by Jones and James (1979) and James and Sells (1981, as cited in Alpass, 1994); Role ambiguity, role conflict, management concern and awareness, job challenge and variety, leader trust and support, leader goal facilitation, leader interaction facilitation, workgroup cooperation, and workgroup friendliness and warmth. (See Appendix 1.)

CHAPTER 2. THE STRESSORS

2.1. Chapter Overview.

Before discussing the stressors of interest to the present study, a brief review on stress and occupational stress will be given. The chapter will also provide a brief overview on stress coping and how this links into the sense of coherence instrument used by the present study. Next, the chapter will provide a discussion on the psychological climate (PC) construct, the PC instrument used by the present study, and an overview of some research on PC variables. The similarity between the present study and the model presented by Kelley and Satcher (1992) will also be discussed.

2.2 General stress.

In the twentieth century stress is a universal phenomenon that has become a household word. According to Beare and Myers (1990) “..... Each individual has unique, highly personalised responses to stress. These responses may be either adaptive or maladaptive and are influenced by the context of the stress, the person’s vulnerability, and the stressor” (p. 42). In the broadest sense, the term ‘stress’ is often used to describe a situation when an individual is overtaxed in some way. According to Orsini (1987), within this broad framework several more specific definitions have evolved, each one accenting a different aspect of the ‘overtaxing’ situation. Orsini noted “..... each of these definitions also involves some explicit or implicit reference to strain - the negative, or pathological, outcome of stress” (p. 1085). Perhaps the most influential stress researcher was Hans Selye. In his publication ‘Stress without distress’, Selye (1974) defines stress as “..... the nonspecific response of the body to any demand made upon it” (p. 17). By adopting this parsimonious definition it becomes immaterial whether the situation or agent we face is positive or negative.

2.3 Occupational stress.

Since the ambiguity of the term 'stress' still remains, it is no surprise that the term "occupational stress" is also often misunderstood. Despite the many semantic differences, Wallis (1987) asserts "..... I do not think it sensible or helpful to discard the possibly much abused notion of 'occupational stress' . In any case, I believe we are stuck with it and should do the best we can with it" (p122). Alpass (1994) points out , that confusion has arisen in the literature because of a conceptual overlap of stress and strain constructs. The concept of work related stress is extremely broad encompassing a very diverse range of potential relationships among stressors and strains. Fletcher (1991), helps to clarify the problem, by using 'stressors' to refer to the antecedents of physical and mental health outcomes, (i.e. independent variables), and 'strains' to refer to the consequences (dependent variables) of an environment containing stressors.

According to Burke (1993), the person-environment fit model seems the most suitable framework for understanding occupational stress. In this approach occupational stress is viewed as a mismatch or misfit between the organisational or occupational demands and resources for dealing with these demands (Flett et al 1995). French, Kaplan, and Harrison (1982) are largely responsible for this model, which like Lazarus's (1966) influential model, emphasises the cognitive view of stress. Alpass (1994) succinctly explained that ".....the proportion of stressfulness experienced is a function of the fit between the individual and the work environment, by way of the fit between individuals' perceptions of themselves and their perceptions of that environment". (p.21). Harrison (1985, as cited in Burke, 1993), noted that most stress researchers advocate this model for understanding work related stress. To comprehend the experience of work stress, the entire environment (both subjective and objective) needs to be considered. According to Burke (1993), "...One must also consider stable individual difference characteristics and predispositions which influence both the nature and strength of occupational stressors that are perceived,

coping resources and responses that are available and utilised, and emotional and physical well-being.” (p77.). The present study will consider the already mentioned SOC, which is considered by Antonovsky (1987) to be a relatively stable individual characteristic.

2.4. Coping.

The stressful working environment of the rehabilitation worker is summed up by Parker (1990), who states that these professionals operate “... in a world of unremitting flux...” (p165), facing decisions on a daily basis using outdated and conflicting information, or no information at all. As mentioned earlier, the present research does not specifically examine coping. However the SOC is viewed as a form of coping, or managing stress, and therefore a brief discussion on coping follows.

Roessler and Rubin (1992, as cited in Flett et al., 1995), argued that, “To retain their effectiveness, counsellors must cope with many job related stressors....” (p.15). According to Latack and Havlovick (1992), this is reality for all types of rehabilitation practitioners. Therefore if increased service and quality is the paramount concern, a deeper understanding of how individuals cope and develop appropriate stress management strategies is essential. Antonovsky (1979, 1987, 1993) argues that it is possible to obtain some salutary outcomes from seemingly pathogenic stressors. The present study is also much influenced by this notion. If one accepts the premise that many stressors are unavoidable, it is of great importance that coping strategies be examined.

According to Alwin and Revenson (1987, as cited in Mitchell & Kampfe, 1990), how an individual appraises and copes with stress, determines the wellbeing of the individual. Baron and Greenberg (1989) point out, that some people ‘rise to the occasion’, and in times of high stress turn in exceptional performances. This is perhaps due to the fact that these individuals cognitively appraise the stress as a challenge

and not a threat. Antonovsky's (1977, 1987) salutogenic concept and the SOC scale were formulated in part, to calculate an individual's ability to manage stress and appraise stressors in a salutary manner. Various studies have focused on stress coping strategies. (e.g. Billings and Moos 1984; Carver, Scheier & Weintraub, 1989; Folkman and Lazarus, 1985; Rodin & Salovey, 1989). Empirical studies of coping as it relates to the work environment, is however, relatively scarce (Latack, 1986). In the rehabilitation context, research that targets coping in rehabilitation workers is also sparse (Flett et al., 1995).

Kampfe and Mithcell (1991), after conducting a national study of master's level rehabilitation counselling students, and their coping strategies, concluded that students expended significantly more effort on problem-focused and social support seeking strategies, than on wishful thinking, avoidance or self-blaming. These researchers also found that the most frequently cited 'open-ended' responses were emotion focused thoughts and stress reduction activities.

In an exploratory study focused on the coping strategies of undergraduate rehabilitation education students, Kampfe, Mitchell, Boyleless, and Saures (1995) found that these students like their M.A. counterparts expended significantly more effort on problem-solving techniques and social support strategies, than self-blaming, wishful thinking or avoidance strategies. According to Kampfe and his associates, because problem-solving and social support seeking strategies relate positively with measures of well-being, the findings suggest that rehabilitation interns tend to cope in more salutary than nonsalutary ways. The results of the same study however also indicated that some undergraduate interns use maladaptive coping strategies.

Flett and Biggs (1993) have conducted some research in the New Zealand rehabilitation context. Fifty-two rehabilitation service providers from a range of New Zea-

land rehabilitation agencies were studied and the results indicated that some forms of coping tend to be related to rehabilitation practitioners' wellbeing and satisfaction. Flett and Biggs concluded that practitioners who characteristically cope with stress by using restraint (i.e. holding back and not acting prematurely), experience greater life satisfaction and positive affect. Job satisfaction was also associated with coping by seeking social support for emotional reasons. These writers contend that, despite the limitations of the concept of coping, rehabilitation practitioner coping issues should remain firmly fixed on the research agenda.

The present study will tap into the 'sense of coherence' (Antonovsky 1979) of a sample of rehabilitation professionals. According to Antonovsky (1987), and other researchers (i.e. Carmel, Anson, Levenson, Bonnef & Maoz 1991; Sagy & Antonovsky, 1992), those with a weak SOC tend to become overwhelmed, whilst the individual (or group) with a strong SOC tend to cope successfully. As noted by Latack and Havlovic (1992), a more comprehensive empirical base of how individuals successfully handle job stressors is paramount in the process of designing pertinent stress management interventions.

2.5 Psychological climate overview

There has been growing interest in recent years, in identifying psychosocial and psychological factors that may affect the mental and physical health in the work environment (Alpass, 1994). For individuals who work in the 'caring' industries, dealing with people who are often emotionally distressed, psychological and psychosocial factors seem especially pertinent. The psychological climate of the rehabilitation environment has received little attention, and given the 'crisis mode' that is common for many in the rehabilitation workplace, interpersonal friction and tension may well be the norm.

According to James and James (1989), the concept of psychological climate evolved from the wish to comprehend the psychological processes linking cognitions of the work environment to affect and behaviour. Although this approach is not without its critics, there has been a rising acceptance for the distinction between organisational climates and psychological climates (Ekvall, 1987, as cited in Alpass, 1994; Schneider & Reichers, 1983). Alpass (1994) notes "Simply, psychological climate represents individuals' perceptions of their work environment and organisational climate represents averaged perceptions for groups across organisational settings" (p.53). James and Jones (1974), came to the conclusion that the 'organisational climate' construct served as a 'catch-all' type of concept, duplicating other situational aspects of the work environment, including structure, context, and process. Therefore psychological climate evolved from a desire to distinguish between climate as an organisational attribute, and climate as an attribute of the individual.

2.6. Psychological climate instruments.

Various forms of the Psychological Climate Questionnaire have been constructed. Jones & James (1979), give an account of a long-form questionnaire, containing 145 items represented by 35 composite variables. These variables were devised to measure four broad organisational environmental domains. These areas encompass perceptions of job or role related characteristics, leader oriented characteristics, measures of workgroup characteristics, and subsystem and organisational characteristics. For a detailed description of the development of the instrument refer to Alpass (1994).

A number of researchers have utilised both full length and short form versions of the Psychological Climate (PC) questionnaire, (i.e. Butler & Jones, 1979; James, Hater & Jones, 1981; James & James, 1989) . Using a comprehensive version of the PC questionnaire on 181 health workers, Butler and Ehrlich (1991), produced four

components that were generally consistent with previous findings. According to James, James, and Ashe (1990), these four components are consistently found in studies using various versions of the PC instrument. These are; Role Stress and Lack of Harmony; Job Challenge and Autonomy; Leadership Facilitation and Support; and Workgroup Cooperation, Friendliness and Warmth. (See Table 2.1). The present study utilises a short-form PC questionnaire that nevertheless taps into these factor domains.

Table 2.1
Psychological Climate (PC) composite variables by four factor domains
(from James, James & Ashe, 1990)

| | |
|--|---|
| Role Stress and Lack of Harmony. Role ambiguity* Role conflict * Role overload Sub-unit conflict Lack of organisational identification Lack of management concern and awareness * | Leader Facilitation and Support Leader trust and support* Leader goal facilitation * Leader interaction facilitation * Psychological influence Hierarchical influence |
| Job Challenge and Autonomy Challenge and variety* Autonomy Job importance | Work Group Cooperation, Friendliness and Warmth Work group cooperation * Work group friendliness and warmth * Reputation for effectiveness Esprit de corps |

* PC variables used in the present study.

2.7. Similarities between the present study and Kelley and Satcher (1992) model of organisational support.

The present research, influenced somewhat by the writings of Kelley and Satcher (1992), views the above mentioned variables as antecedents rather than outcomes in the organisational setting. Kelley and Satcher provide a useful model of organisational support for rehabilitation agencies. According to these researchers, many interrelated variables impact upon the performance of the rehabilitation agency. These factors include: role conflict and strain, daily hassles and stress, task con-

figuration or complexity, leadership, autonomy, job commitment and satisfaction, organisational climate, individual expectations, values and goals, and structural characteristics of the organisation. Kelley and Satcher assert that, structural factors impact organisational commitment, and task-related variables influence job satisfaction. Both satisfaction, and commitment in turn, represent important antecedents of individual and organisational productivity.

Although Kelley and Satcher’s model also looks at organisational commitment (which is not a focus of the present study) and how it may interact with job satisfaction, the model does give support to the stressor-strain model upon which the current research is based, as job satisfaction and well-being, (as well as turnover), are treated as ‘outcome variables’. Variables that are similar to the psychological climate variables employed in the present study are presented as ‘predictors’, in the Kelley and Satcher (1992) model. Table 2.2 gives a comparison of some of the predictor variables employed by Kelley and Satcher and the present study.

TABLE 2.2 *Similarity between Kelley and Satcher (1992) model and present study.*

| Kelley and Satcher model | The Present Study |
|-------------------------------|---|
| Role ambiguity | Role ambiguity |
| Role conflict and strain | Role conflict |
| Task significance and variety | Variety and challenge |
| Workgroup cohesion | Workgroup cooperation Workgroup friendliness & warmth |
| Leadership and supervision | Leader interaction facilitation Leader trust & support Management concern & awareness Leader goal facilitation |

2.8. Psychological climate research overview.

Perhaps two of the most widely researched variables that are included in the PC variables of the present study are role conflict and role ambiguity. Rizzo, House and Lirtzman (1970), asserted that role conflict and role ambiguity were related to job dissatisfaction. According to these researchers, conflict and ambiguity may result in stress, and stress in turn results in poor performance and job dissatisfaction. Keller (1975) found that employees were more satisfied when expectations were clear and nonconflicting. More recently Newton and Keenan (1987, as cited in Baron & Greenberg, 1990), suggested that the adverse effects of role conflict are less pronounced in work settings characterised by warmth and support. According to Loscocco and Roschelle (1991), many studies have explored the possibility that the effects of both role conflict and role ambiguity on work attitudes are moderated by individual as well as situational characteristics.

For decades interpersonal relationships and compatibility with co-workers have been considered as important aspects of job satisfaction (Wright & Terrian, 1987). In a study focused on hospital personnel in Norway Richardsen, Burke and Leiter (1992), reported that interpersonal conflicts at work were major predictors of emotional exhaustion. Personality differences was also found to be one of the primary factors implicated in the high attrition rate of job coaches in the U.S. (Riggall, Hansen, & Crimaldo, 1987). As already mentioned, the 'personal glue' that holds an organisation together (Poulton, 1988), is an important aspect of the rehabilitation environment. Many of the PC variables currently of interest may also be construed as potential factors holding a rehabilitation organisation together. Indeed, closely related to leader trust and support, management concern and awareness, workgroup cooperation, and workgroup friendliness and warmth, is the concept of perceived organisational support. According to Kelley and Satcher (1992), the main function of organisational support is to convey information to individuals that the organisation cares for them and values their contribution.

Tangible support or assistance, belonging or affiliation support, appraisal support and self esteem support, are considered to be the four major factors related to organisational support (Saranson, Saranson, & Pierce, 1990). These factors have been linked to such outcomes as job satisfaction. According to Kelley and Satcher, self esteem support encompasses flexible authority structure, freedom to make decisions and favourable comparison with others. Appraisal support involves recognition, achievement, advancement, constructive feedback, availability of supervisor, joint decision making opportunities and brainstorming (Kelley & Satcher, 1992). Again the PC variables of interest in the present study, tap into most of the perceived organisational aspects just mentioned.

According to O'Driscoll and Schubert (1988), lack of support for lower-level staff, inadequate feedback, and the perception that supervisors are 'out of touch' with the problems of the subordinates have been related to increased emotional exhaustion and reduced feelings of personal achievement. In a New Zealand study focused on a large social service agency these researchers corroborated earlier observations of the critical role of leader support and trust at all levels within human service agencies.

While it is not within the scope of the present study to give an indepth discussion on the effects of social support in the stressor- strain relationship, lack of supportive relationships have consistently been found to directly contribute to burnout (Richardsen, Burke, & Leiter, 1992). Social support in an organisational context is encapsulated in such PC variables used in the present research as workgroup cooperation, leader trust and support, management concern and awareness, and leader interaction facilitation. In a rehabilitation context, the importance of organisational social support has been highlighted by Butterworth, Steere, Pancofar, and Powell (1990), Emener (1978, as cited in Kelley & Satcher, 1992), and Stephens (1990).

Such 'prosocial' behaviours as helping, volunteering, cooperating, listening, and showing consideration for the needs and feelings of others have been found to positively correlate with job satisfaction (Smith, Organ & Near, 1983, as cited in Wright & Terrian, 1987). According to Wright and Terrian (1987), because these types of behaviours play important roles in the effectiveness of the rehabilitation provider, they should remain on the research agenda. The current PC variables of Workgroup Cooperation and Workgroup friendliness and warmth are related to the above mentioned prosocial behaviours.

Another PC variable of interest in the present study is that of Job Challenge and Variety. According to Baron and Greenberg (1989), most individuals gain job satisfaction with work that is challenging and that keeps one busy (but not exhausted). In addition, work that provides some variation yields higher levels of job satisfaction than repetitive dull work (Curry, Wakefield, Price, & Mueller, 1986). Several researchers have presented compelling evidence that jobs which provide such intrinsic rewards as challenge, variety, meaning, and complexity are the most satisfying. (i.e. Gerhart, 1987; Glisson & Durick, 1988).

2.9. Chapter Summary

Chapter 2 discussed some of the ambiguities surrounding the term stress and occupational stress. Also briefly discussed were some of the many aspects of coping with stress. The ubiquitous nature of the stressors that are an everyday part of the rehabilitation environment was looked at, as was the concept of 'positive' and 'negative' stress. According to some theorists how stress is appraised often determines whether stress is a challenge or a threat. The SOC employed by the present study, to a certain extent, measures how respondents rate on a pathogenic-salutogenic continuum. Respondents who score higher and therefore towards the salutogenic end

of the continuum, according to Antonovsky (1987) view stressors more as a challenge than a threat.

Some research in the New Zealand rehabilitation context was also discussed, and the empirical problem of quantifying aspects of stress was acknowledged.

This chapter has also provided an overview of the psychological climate construct and PC instrument, along with a brief glimpse at some of the research involving the PC variables selected for the present study. A comparison was made between the PC variables selected for the present study, and the variables employed in the Kelley and Satcher (1992) model of organisational support. The Kelley and Satcher model views PC as predictors or stressors in the stressor-strain relationship explored in the present research. The picture that emerges from the literature is that, where a rehabilitation provider is confronted with 'positive' aspects of PC (i.e. high levels of leader trust and support, low levels of role conflict), the negative effects of stress are minimised. Conversely an environment high on 'negative' aspects of PC (i.e. high role ambiguity, high role conflict, low workgroup cooperation) predicts a more pathological outcome. Because of the interpersonal nature of rehabilitation work psychological climate is an important construct in the stressor-strain relationship.

Next the 'outcome variables' or strains of the stressor-strain relationship will be examined. The present research focuses on three broad outcome variables. These are; job satisfaction, intention to quit (the organisation and/or profession), and 'general wellbeing'. Chapter 3 will cover these variables, with special emphasis placed on the rehabilitation environment.

CHAPTER 3. THE STRAINS.

3.1. Chapter overview.

This chapter will focus on the strains of the stressor-strain relationship as studied in the present research. Following a brief overview of the job satisfaction construct, there is an abbreviated discussion on the measurement of job satisfaction. Next there will be glimpse at some of relationships between demographical variables and job satisfaction, followed by a discussion on the correlational research literature that targets job satisfaction. The chapter also focuses on subjective well-being or 'general happiness'. The Affectometer 2 instrument as employed by the present study is looked at, followed by a discussion on some research that has utilised the instrument in the rehabilitation context. Finally the chapter discusses some key research involving intent to quit the organisation and/or the rehabilitation profession.

3.2. Job satisfaction Overview.

Baron and Greenberg (1990) note that as work plays a dominant part in our lives, it is central to our self concept. According to these commentators, "Most persons can readily report positive and negative feelings towards their jobs, various beliefs about them, and behavioural intentions relating to them. In short , they report holding various attitudes towards their work and specific aspects of it. These aspects are generally summarised by the term **job satisfaction**." (p.160).

Like others in the 'caring professions', rehabilitation practitioners are rewarded for their efforts by more than extrinsic rewards alone (Wright & Terrian, 1987). According to these researchers... "Satisfaction in the instrumental role of rehabilitat-

ing individuals with disabilities derives from feelings of professional competency resulting from the personal challenge and contributions to client success" (p159). In considering job satisfaction for the rehabilitation practitioner, the relationship between occupational satisfaction (i.e., satisfaction with the profession of rehabilitation work), and job satisfaction (i.e. satisfaction with the present job where the individual works), must be considered (Wright & Terrian, 1987). The present study does not directly focus on the distinction between satisfaction with the profession, and satisfaction with the job, but intent to quit the current agency and/or the rehabilitation profession is a focus.

Glisson and Durick (1988), point out that as human service organisations tend to report lower levels of job satisfaction than other organisations, understanding the factors that contribute to lack of satisfaction is important. As job satisfaction (and commitment), play key roles in high staff turnover and burnout ".....prescriptive implications of understanding the etiology of satisfaction and commitment extend beyond concerns for the well-being of employees to include the quality of services and well-being of clients who receive those services" (p.64).

Packard (1989), noted that the concept of job satisfaction has always been an elusive one, adding that research in this area is rarely grounded in theory or put into an overall context. Wallis (1987), claims that despite 50 years of research, we are still far from comprehending how stress, satisfaction, and achievement interact. In his discussion about stress in the nursing profession, he warns that ".... the relationships between stressors, strains and performance are so widely variable and subject to moderating influences, that generalization from particular cases is hazardous in the extreme" (p.122).

According to Loscocco & Roschelle (1991) sociological research highlights the fact that many people are .."creative and resilient, often finding meaning and satisfac-

tion in the very jobs which many structuralists condemn" (p185). In the uncertain world of rehabilitation work, it may well be that the perceived purpose or meaning of the work is one of the most crucial aspects of job satisfaction. (See chapter 4 for a more detailed discussion on 'meaningfulness').

3.2.1 Measures of job satisfaction.

Kakabadse and Worrall (1978), note that there has been a considerable amount of research devoted to identifying the main dimensions of job satisfaction. These writers conclude that "job satisfaction is essentially a multi-dimensional construct requiring multiple indices for measurement " (p.53). Loscocco and Roschelle (1991) note that job satisfaction has been defined as the overall affective orientation to the job, and that individuals can balance specific job related satisfactions and dissatisfactions to calculate a general degree of satisfaction. Loscocco and Roschelle argue that the still common single-question approach to measure job satisfaction, is without validity.

The present study utilises a Likert style fifteen question measure that taps into; the physical work conditions; autonomy of work method; satisfaction with fellow workers and supervisors; recognition for work done; rate of pay; hours of work; job security; chances of promotion; the way the firm is managed; industrial relations between management and staff; amount of job variety; attention paid to suggestions made by individuals; the level of responsibility given; and opportunities to use abilities.

Wright and Terrian (1987), developed a job satisfaction instrument specifically for those working in the rehabilitation field. Called the 'Rehabilitation Job Satisfaction Inventory' (RJSI), this comprehensive instrument contains 94 items covering 8 categories of job satisfaction. These categories are: (satisfaction with) the current

job; work activities; work role; co-workers; the work environment; immediate supervisor; organisational administrative practices; and the organisation's policies and rules. Because of the large number of items, it was not within the scope of the present study to utilise the RJSI, but the instrument has been used with a New Zealand sample by Biggs, Flett, Voges, and Alpass (in press), and in a shortened form (35 items) by Flett, Biggs, and Alpass (1993).

3.2.2. Demographic variables and job satisfaction.

There is sufficient evidence to suggest that there is a positive relationship between age and job satisfaction (Loscocco & Roschelle, 1991). Alpass (1994), notes that there is a debate as to whether the relationship between job satisfaction and age is linear or curvilinear. There is contradictory and inconsistent evidence for differential job satisfaction regarding gender. However according to Loscocco & Roschelle, in the more current research, there is considerable gender similarity in the processes through which men and women determine work attitudes. These researchers also note that it is widely held that education raises expectations and therefore contributes to a lack of job satisfaction with reward levels. Alpass (1994) suggests that it may be inappropriate to explain differences in job satisfaction purely in terms of the amount of extrinsic rewards. Landy (1985) notes that when differences are found for ethnicity (and gender), the amount of explained variance almost disappears when other variables such as occupational level, pay, and education are controlled for.

3.2.3. Correlational studies: A brief review.

There has been a vast amount of research in the area of job satisfaction. Prior to 1983, Locke (1983), noted that more than 3300 studies on job satisfaction had been published. However there has been a lack of focus on the relationship between job

satisfaction and the workplace environment (Alpass, 1994). According to Glisson and Durick (1988), Packard (1989), and various other researchers (e.g. Blegen, 1993, cited Alpass, 1994; Fried, 1991, cited Alpass, 1994), there are distinct correlational links between job dissatisfaction and job stressors, suggesting that job satisfaction is an important component in the stressor-strain model.

Kelley and Satcher (1992) point out that organisational support facilitates job satisfaction and tenure, as well as productivity. (The present study will focus on tenure, or more specifically intention to quit later in the discussion). Scott and Taylor (1985), found an inverse relationship between job satisfaction and absenteeism. An inverse relationship between turnover and job satisfaction was reported by Porter and Stirrs (1973). Rosse and Hulin (1985), found job satisfaction to be negatively correlated to intention to quit, health disorders, and attempts to change jobs. Smith, Organ and Near (1983, as cited in Wright & Terrian, 1987), reported positive correlations between job satisfaction and “prosocial organisational behaviours” such as volunteering, helping, listening, cooperating, and sensitivity towards the needs of others. Common sense tells us that these variables are crucial in the rehabilitation field.

Kelley and Satcher (1992), and Oldham and Hackman (1981) note that as task significance, task identity (the degree to which an individual does an entire piece of work, and can clearly identify the results of his or her efforts), employee autonomy, the variety of skills required to do the job, and the internal motivation of the rehabilitation service provider increases, so does job satisfaction. (This ‘internal motivation’ is similar to Antonovsky’s (1987) meaningfulness aspect of the SOC scale used by the present study). However job satisfaction decreases, with an increase in role conflict, role strain and role ambiguity. (The SOC sub-scales measuring manageability and comprehensibility relate to these ‘role’ variables). Alpass (1994) and Glisson and Durick (1988), also report the consistent negative relationship between role conflict, ambiguity and overload, and job satisfaction.

Barrett, Crimando, and Riggart (1993), note that shared power results not only in higher job satisfaction but as higher performance throughout the rehabilitation organisation. Barret, et al., assert that establishing a climate for empowerment, leads to greater job satisfaction for workers in a rehabilitation organisation. According to these commentators non-empowered practitioners cannot nurture a sense of empowerment in the clients they serve. Block (1987, as cited in Barret et al., 1993), argued that organisations are unable to treat their customers any better than they treat the employees within the organisation. According to Kouzes and Posner (1987, as cited in Barrett et al., 1993), individuals are less likely to hoard power if it is freely shared. Shared power in turn leads to a 'doing together' atmosphere. As reported by Finch and Krantz (1991) in a study conducted at 'Fountain House', 'the doing together' emphasis is conducive to a less stressful rehabilitation environment, where there may be less turnover. (More will be discussed on the Fountain House experience later).

Locke (1983), conducted an extensive review of the psychological and organisational climate variables, and found that numerous work attributes were related to job satisfaction. These included; creativity; variety; amount of work; difficulty; responsibility; opportunity to use the individual's values, skills, and abilities; non-arbitrary pressure for performance; work autonomy; and job enrichment.

Flett and Biggs (1992), point to intra-agency problems in the New Zealand rehabilitation context. According to Flett et al. (1995), over a third of their sample of rehabilitation professionals reported such intra-agency problems as; difficulties dealing with committees; dealing with intra-agency personality clashes and politics; a general lack of organisation; and problems with management within the employing agency, as major sources of job dissatisfaction and stress. Flett et al. note that high levels of dissatisfaction with the administration and communication practices are all too common in the rehabilitation environment. This situation has led Roessler & Rubin (1992) to call for the development and maintenance of an rehabilitation or-

ganisational environment that fosters communication, openness and trust. Finch and Krantz (1991) noted that staff members at Fountain House, a psychiatric rehabilitation facility in New York, in the face of significant stressors, reported a surprisingly low level of distress. The ideological structure at this facility fostered commitment leading to personal accomplishment and satisfaction from the staff.

3.3. Psychological well-being.

Ryff (1989) noted that increased interest in research on psychological wellbeing follows the recognition that psychologists have devoted much more attention to human unhappiness and suffering than to the causes and consequences of positive functioning. This echoes the sentiments often expressed by Antonovsky (1987). The basic structure of psychological well-being almost always centres on the distinction between positive and negative affect and life satisfaction (Ryff, 1989), and has been reviewed in detail elsewhere (e.g. Diener, 1984).

Kammann and Flett (1983) , assert that general happiness does not exist in one of two opposing states like black and white, but is a degree concept. Antonovsky (1979) also argues that well-being and ill-being are on a continuum (i.e. salutogenic-pathogenic).

Flett and Biggs (1993) using the Affectometer 2 with a small sample of New Zealand rehabilitation service providers, reported a relationship between well-being and some forms of coping. Practitioners who characteristically cope with stress by using restraint, experience greater positive affect and life satisfaction. As Jayaratne and associates (1991, cited Flett et al., 1995) assert, the good health and well-being of the rehabilitation practitioner is of paramount importance as the ultimate beneficiary is the consumer of the services. In a more recent study in New Zealand, Flett, Biggs, and Alpass (1994) found that amongst other things, participation in a

professional inservice training course had a significant effect on levels of perceived positive affect on a sample of rehabilitation practitioners.

Flett, Biggs, and Alpass (1995) examined the relationship between psychological well-being and job related concerns and job rewards, in a study using a non-random sample of 52 New Zealand rehabilitation service providers. These researchers found that among the job related concerns work overload was related to reports of high levels of negative affect. Among the job rewards, job recognition was related to low levels of negative affect. Under conditions of low job recognition and high work overload, levels of negative affect were found to be especially high.

The present study as already discussed is also interested in Antonovsky's (1979) 'sense of coherence' concept which is closely linked to 'meaning in life'. Ryff (1989), noted that in the study of well-being...."emphasis has been given to short term affective well-being (i.e., happiness), at the expense of more enduring life challenges, such as having a purpose and direction, achieving satisfying relationships with others, and gaining a sense of self-realization" (p1077). For the rehabilitation practitioner in particular realizing one's goals or purpose in life may be difficult, and require a great deal of effort and discipline, which may at times be at odds with short-term happiness.

3.4. Intention to quit.

According to Baron and Greenberg (1989), many factors relating to individuals, their economic conditions, their jobs, shape decisions to move from one job or vocation to another. A popular model presented by Mobley, Horner, and Hollingsworth (1978), proposed that a lack of job satisfaction leads individuals to consider the possibility of quitting. This in turn, leads to the decision to begin searching for

another job. Should this search be fruitful, the individual will most likely develop definite intentions to either remain in their job or quit.

Mobley et al. (1978), tested this model, on all the variables, in a hospital setting with data obtained from 203 employees at the hospital. The turnover data was examined almost a year later, and the results supported the model. It was reported that job satisfaction was most closely related to thoughts of quitting and intent to search for other work. Also, intention to quit was found to significantly relate to actually quitting the job. Buchko (1992), examined the relationship between turnover intention and subsequent actual turnover after six months and reported a moderately high correlation. A study by Carsten and Spector (1987), supports the notion that economic conditions, and thus the success of the initial search for another possible job, exerts a significant impact on voluntary turnover. Therefore when unemployment rates are low the correlation between job satisfaction and turnover are high, but when the individual perceives a lack of new opportunities in times of high unemployment, the correlation between job satisfaction and turnover is low.

Marini, Pell, and Black (1992), researched the high turnover rates of job coaches. Turnover rates for these rehabilitation service providers are considered to be amongst the highest for an occupation in the United States. Marini et al. summarised the reasons for this high turnover into the following twelve categories; lack of support and direction from supervisors; unrealistic job expectations; lack of recognition/rewards; lack of control over negative attitudes ; low salaries; lack of appropriate training; dealing with the uncertainty of placement problems/crises; isolation from co-workers; lack of consumer commitment; stress of filling quotas; ambiguity of follow-along services; and environmental barriers to client's successful habilitation.

Moore, Godbolt, Schwartz, Moriber, and Saltzberg (1991), in an exploratory analysis of job coach turnover rates found that nearly half of the job coaches in the study

had left their positions within an eight month period. Inadequate training, low salaries, and a perceived inability to provide adequate support services to their clients, were attributed to these high turnover rates. Moore et al. noted that turnover is very costly to the profession, in terms of training new staff. More importantly it is costly in terms of jeopardizing the needs of the clients and the employers.

Riggat, Hansen and Crimando (1987) found that the four most frequently cited reasons as to why rehabilitation professionals left state rehabilitation agencies were; little advancement potential; little job satisfaction; stress and/or burnout; and personality clashes with supervisors/management. The results of the Riggat et al. study also indicated considerable disparity as to the perceptions of management/supervisors about why and how rehabilitation providers leave and the views of those who themselves quit. According to these researchers, of the four above mentioned primary reasons for rehabilitation providers to withdraw from the agency, only the lack of advancement potential is not within the direct control of the immediate supervisors.

3.5. Chapter Summary

Chapter 3 focused on the strain part of the stressor-strain relationship. The strains used by the present study were examined, and emphasis was placed on the research findings pertaining to the rehabilitation environment.

The chapter has provided an outline of some of the voluminous research devoted to job satisfaction. Some distinct correlational links between job dissatisfaction and job stressors were discussed. Researchers have noted that human services agencies reported lower levels of job satisfaction than other organisations. Wright and Terrian's (1987) RJSI job satisfaction instrument designed specifically for the rehabilitation context was discussed, along with the findings of various researchers in-

cluding Flett and Biggs (1992) who focused on a New Zealand sample of rehabilitation providers. Various demographic links with job satisfaction were highlighted, and it was reiterated that despite the volume of research in the area of job satisfaction, there remains a plethora of unanswered questions.

Chapter three also discussed the concept of psychological well-being or general happiness. It was noted how positive and negative affect can be viewed as distinct dimensions of well-being, and that the balance between them is an index of happiness. Some research in a rehabilitation context utilising the affectometer 2, the instrument used in the present study, to measure well-being was also highlighted.

Finally the chapter discussed how many factors impact on the individual's decision to quit a job or profession. Mention was made of a popular model presented by Mobley et al. (1978). A brief selection of correlational research focused on intent to quit was presented, along with a discussion on turnover rates of job coaches, who arguably report the highest turnover rates amongst rehabilitation professionals. The overall costs of turnover to the rehabilitation industry was also noted.

Chapter 4 will give an overview of salutogenesis and the related concept of 'sense of coherence' (SOC). This construct, the personality variable utilised in the present study, forms a pivotal part of the present study. Special emphasis will be placed on the rehabilitation work environment.

CHAPTER 4. SENSE OF COHERENCE

4.1. Personality as a moderator.

Personality or individual difference variables have received attention as moderating variables or predictors of coping with adversity. It is not within the scope of this discussion to give a comprehensive outline on the literature pertaining to personality as a moderating or mediating variable. However a brief look at some studies that have focused on the interaction of personality variables follows.

One personality variable that has recently been researched in a rehabilitation context is that of 'learned resourcefulness' (LR). This construct incorporates self-control, actions and skills as well as beliefs (Clanton, Rude & Taylor, 1992). Rosenbaum (1983) pointed out that the assessment of LR could be useful in selecting individuals for jobs that were particularly taxing in terms of emotional resourcefulness. Clanton et al. (1992), investigated LR as a moderator of burnout among 260 rehabilitation professionals. These researchers concluded that the interaction of LR and years of experience significantly predicted scores on a Personal Accomplishment scale but not the Emotional Exhaustion or Depersonalisation scales of the Maslach Burnout Inventory.

In a pilot study of the contribution of empathy to burnout in Salvation Army officers, Gross (1994) found support for the hypothesis that emotional empathy rather than cognitive empathy was associated with burnout. However, Day and Chambers (1991) using empathy as a personality factor, concluded that rehabilitation counsellors who reported greater degrees of perspective-taking and empathic concern, were less likely to experience symptoms of burnout. These researchers, who point out that studies rarely search for underlying personality factors, suggest as one interpretation of their findings, that empathy may act as a moderating variable in

the stressor-strain relationship. These somewhat contradictory findings may be due to the construct's lack of specificity. Gladstein (1983), reviewing the empathy literature, suggests that researchers and psychotherapists have defined empathy differently.

In a study closer to the present research, Zika (1984), looked at personality as a modifier in the relationship between stressors and subjective well-being. It was found that locus of control, meaning in life, and assertiveness each have an additive rather than interactive relationship with stressors in moderating well-being. Meaning in life however, was found to have the strongest relationship to well-being. As will be discussed in the following segment, meaningfulness plays an important role in the present study.

4.2. Overview of Salutogenesis.

In developing a theory that shaped his research, Antonovsky (1993) coined a new word - *salutogenesis*- to communicate what he saw as a radical new orientation. Antonovsky noted that it was at least as important to study and understand the origins of health, as it was to understand the origins of disease. Suggesting that salutogenic thinking should not replace pathogenic thinking, Antonovsky (1979) argued for a complimentary relationship between the two orientations. Antonovsky (1993) asserts that ... "a salutogenic orientation facilitates seeing things that experts in a given pathology might fail to see" (p.111). Because experts in various fields have been trained to think pathogenically, that is to focus on 'breakdown' and 'disease', often the constructive processes have been ignored. Antonovsky, believes that as well as understanding the concept of 'risk factors', we should also examine 'salutary factors'. In this way we can at least acknowledge the possibility that even undesirable stressors can have salutary outcomes.

Ellis (1978), who was influenced by the great German philosopher Nietzsche's notion that those things that do not kill us make us stronger, considers it irrational to

expect 'stress not to happen'. Whilst Antonovsky does not cite Ellis, as an influence, there are various parallels, between Ellis's philosophies and Antonovsky's. Antonovsky (1987), admits to using a 'partisan' approach when interpreting various studies. In this way the salutogenic model is portrayed as in concert with the work of a very diverse group of theorists, including Bronfenbrenner, Selye, Frankl, Lazarus, and von Bertalanffy. Antonovsky provides a comparison between between the SOC model and five other models in his 1987 publication.

Bronfenbrenner (1986) speaking in a family research context, criticised the body of family research for being one- sided with its main focus on family disorganisation and developmental disarray....."yet, for every study that documents the power of disruptive environments, there is a control group that testifies to the existence and unrealised potential of ecologies that sustain and strengthen constructive processes.."(p.738). Antonovsky (1979, 1987) cites numerous examples such as smokers who do not develop cancer, and rats in experiments who despite enduring the same conditions as their fellow subjects do not develop the same pathologies. Perhaps the most salient example is given by a large number of concentration camp survivors. Whilst engaged in an analysis of data in a study focused on how women from different ethnic groups adapted to menopause, Antonovsky (1987) came across a group of women born in central Europe between 1914 and 1923 who had been in a concentration camp during the second world war. Comparing the concentration camp survivors to a control group it was found that 29% of the survivors were in reasonable overall emotional health. Whilst the control group yielded 51% in reasonable emotional health, it is remarkable that such a large minority of the concentration camp survivors were judged to be well (The physical health data was also similar). It was the realisation that despite the horror of the camp and the countless related stressors, nearly 30% of this group were in reasonable mental and physical health in 1970, that inspired Antonovsky to formulate his theory.

Frankl (1964), in his seminal book 'Man's Search for Meaning', also illustrated how despite the most severe levels of constant stress some individuals can extract salu-

tary outcomes. According to Antonovsky (1987), Frankl's work came to his attention only after his (Antonovsky's) 1979 publication had been written. Antonovsky does concede that the pivotal 'meaningfulness' component of the soon to be discussed sense of coherence concept, owes its name to Frankl.

Antonovsky (1993) was drawn into finding out how living systems cope with the entropic forces that are omnipresent. Throughout the literature there are stories of survival in the face of 'Murphy's law' or 'order out of chaos'. Christopher Reeves of the 'Superman' movies fame, on the TV documentary 20/20 (1995), gave salience to the salutogenic model. Faced with a lifetime of quadriplegia, the one time super fit actor focused on the salutary aspect of the stress he was under. It appears that the quadriplegia had 'enabled' Reeves to focus on the importance of the caring family unit, and channel his energy towards directing movies, that may influence viewers in a positive way. Likewise in New Zealand, Kitchen (1995), describes how Gary Brain the one time percussionist with the NZSO carved a new successful career as a conductor following an accident that prevented him from being a member of the orchestra. Individuals who turn 'stumbling blocks' into 'stepping stones', may well be the 'salutogenic' models that others may emulate. In the field of stress research, it seems vital that we learn what it is about the 'copers' that makes them defy the odds. Sagy and Antonovsky (1992) argue that the proposed answer to this salutogenic question is called the 'sense of coherence' (SOC). The SOC construct refers to an integrated way of looking at one's phenomenological world. Antonovsky (1987) formally defined the SOC as follows:

"The sense of coherence is a global orientation that expresses the extent to which one has a pervasive enduring though dynamic feeling of confidence that

(1) the stimuli deriving from one's internal and external environments in the course of living are structured, predictable, and explicable : (2) the resources are available to one to meet the demands posed by these stimuli; and (3) these demands are challenges, worthy of investment and engagement." (p.19).

4.3. Meaningfulness, comprehensibility, and manageability.

According to the salutogenic model, successful coping resources, called GRR's (generalised resistance resources), strengthen one or more of the three above mentioned prerequisites for successful coping (meaningfulness, comprehensibility, and manageability) (Antonovsky 1993). Put in a rehabilitation practitioner context, this means that to optimise the likelihood of coping successfully with a stressor, the rehabilitation professional must believe that he or she *understands* the problem, has the *resources* to cope, and *wants* to cope. Although all three components of the SOC are necessary, they are of unequal centrality. The motivational component of meaningfulness appears to be the most crucial. Nietzsche (as cited in Graham, 1965) when asked 'what is meaning?' answered "If a man (sic) has a why for his life he can bear with almost any how" (p70). Antonovsky (1987), asserts that without this meaningfulness, being high on comprehensibility or manageability is likely to be temporary. The committed and caring person is more likely to gain understanding and resources. The committed and caring rehabilitation professional in this view, is more likely to motivate themselves to manage and comprehend the stressful rehabilitation environment.

Comprehensibility, according to Antonovsky (1987) is next in importance, as high manageability is contingent on understanding. However this does not mean that manageability is unimportant. If a rehabilitation practitioner does not believe that

the resources are at their disposal, meaningfulness will be lessened and coping efforts impeded. Successful coping therefore hinges on the SOC as a whole.

The dynamic interrelatedness of the SOC components is shown on Table 4.1.

TABLE 4.1. *The Dynamic Interrelatedness of the SOC Components.*

| TYPE | Comprehensibility | Manageability | Meaningfulness | Prediction |
|------|-------------------|---------------|----------------|--------------------------|
| 1 | HIGH | HIGH | HIGH | STABLE |
| 2 | LOW | HIGH | HIGH | RARE |
| 3 | HIGH | LOW | HIGH | PRESSURE TO MOVE UP |
| 4 | LOW | LOW | HIGH | PRESSURE TO MOVE UP |
| 5 | HIGH | HIGH | LOW | PRESSURE TO MOVE DOWN |
| 6 | HIGH | LOW | LOW | PRESSURE TO MOVE DOWN |
| 7 | LOW | HIGH | LOW | RARE |
| 8 | LOW | LOW | LOW | STABLE |

(From Antonovsky 1987).

Table 4.1 shows the eight possible types that emerge when each of the three components are dichotomised. The 'prediction' column refers to the likelihood of the individual moving up or down with regards to the strength of their sense of coherence. Those who are stable tend to stay the same, whilst for reasons only known to Antonovsky, he does not indicate how those who fit type 2 and 7 are likely to move. Antonovsky merely suggests that these individuals are rare.

Types 1 and 8 being high or low on all three aspects suggest a stable pattern. A rehabilitation practitioner that understands, manages and finds meaning is likely to view his or her working environment as coherent. Antonovsky (1987) further asserts that such an individual will nearly always view the environment as coherent (stable). In relation to the present study this would suggest that an individual who falls into this category may be less inclined to quit, more satisfied with the job they are doing, and score higher in levels of wellbeing. A rehabilitation practitioner that is low in all aspects is likely to find the working environment incoherent. And consequently nearly always find this to be the case (stable). Given this scenario, the individual who fits this category may be more inclined to entertain notions of quitting, be less satisfied with the job, and score lower on measures of well-being.

As mentioned, types 2 and 7 according to Antonovsky (1987) are likely to be rare. High manageability seems contingent on high comprehensibility. If rehabilitation practitioners view the world as chaotic and unpredictable, it seems likely that manageability is impeded. However being high on comprehensibility does not automatically mean that the individual can manage well.

Antonovsky proposes that types 3 and 6 are inherently unstable. High comprehensibility combined with low manageability leads to strong pressure to change. Antonovsky (1987), suggests that the direction of this change (i.e., weakening or strengthening of the sense of coherence) is determined by the sense of meaningfulness. If the rehabilitation practitioners strongly care and feel that they understand the problem they are confronted they will be strongly motivated to seek out the

resources, loathing to give up the search until a solution is found. Without such motivation (meaningfulness), the individual ceases to respond to stimuli, and the environment soon becomes incomprehensible, and therefore the resources are not sought. Antonovsky (1987), notates these two scenarios as follows:

Type 3) High C+low MA +high ME —> High C+high MA +high ME

Type 6) High C+low MA +low ME —> Low C+low MA +low ME

The centrality of meaningfulness is likewise viewed in considering type 4 and 5. Even if the rehabilitation practitioner is high on comprehensibility and manageability, knowing the system and believing that the resources are attainable, without caring the type 5 soon falls behind in understanding and loses the command of resources. The type 4 by contrast, is low on comprehensibility and manageability, but high on meaningfulness. This ‘motivated’ rehabilitation worker suggests Antonovsky is likely to show a profound spirit, deeply engaged in the search for understanding and resources and consequently may stand a chance of succeeding. Antonovsky argues that Frankl, and other individuals, in Auschwitz and similar concentration camps fit into the ‘type 4’ category. The notation for types 4 and 5 is as follows:

Type 4) Low C+ low MA+ high ME ———>?

Type 5) HighC + high MA+ Low ME —> Low C+ low MA+ low ME

The dynamic interrelatedness of the SOC components as proposed by Antonovsky, is purely theoretical, and Antonovsky (1987) himself suggests that ... “if there is merit to this little game, it suggests that the three components of the SOC are, though all necessary, of unequal centrality” (p.22).

4.4 Generalized resistance resources/deficits.

A generalised resistance resource (GRR) according to Antonovsky (1974) is “the power which can be applied (by an individual) to resolve the tension expressive of a state of disturbed homeostasis” (p. 246). It is important to recognise that Antonovsky (1993) asserts that a fundamental aspect of this ‘power which can be applied’, has a cognitive component. Like Lazarus (1984) and Ellis (1989), Antonovsky (1979, 1993) acknowledges what he calls one of sociology’s most important epigrams: “If men (sic) define situations as real, they are real in their consequences” (Merton, 1957, as cited in Antonovsky 1993, p. 113). However, the cognitive component is only a part of the equation, and Antonovsky (1993) argues that the instrumental and affective issues must also be considered. He warns that cognitive strategies alone are inadequate. Antonovsky (1993) asserts that the salutogenic approach enables the individual to deal simultaneously with the entire complexity of the ‘problem’. Put simply “...successful coping is a many splendoured sword” (Antonovsky, 1993, p. 113).

The whole concept of GRRs and GRDs (Generalised Resistance Deficits), enables the researcher to view coping resources as a gestalt. By treating various known resources such as social supports, money, ego strength and training, as GRRs , Antonovsky (1987) provides a potential mechanism for amalgamating some of the research literature. Indeed Antonovsky (1987) proposes an even more unified concept, one he calls GRR-RDs or ..“major psychosocial generalised resistance resources-resistance deficits” (p.28). Using this formulation, the individual’s wealth, ego strength, cultural stability, social support system, and so on can be ranked on a continuum. According to Antonovsky (1987), the higher one is on the continuum, the higher the likelihood that the individual’s life experiences are conducive to a

strong SOC. And conversely those who are lower on the continuum, are more likely to have life experiences conducive to a weak SOC.

Antonovsky (1987), speaking from a systemic approach, argues that a stressor can best be defined as "... a characteristic that introduces entropy into the system- that is, a life experience characterised by inconsistency, under- or overload, and exclusion from participation in decision making" (p. 28). This definition encapsulates the 'comprehensiveness', 'manageability', and 'meaningfulness', components of the SOC. Antonovsky (1987), asserts that a distinction among three types of stressors that have been identified in the literature must be made in order to get the full benefit of the GRR-RD concept. These stressor types are; chronic stressors, major life events, and daily hassles. Although there are no sharp boundaries between them, and they flow into each other, they are nevertheless qualitatively different. The chronic stressor is similar to the GRR, in that it is some life situation, characteristic, or condition that is crucially descriptive of an individual's life.

According to Antonovsky (1987) chronic stressors or chronic resources are generalised and long-lasting, built into the individual's life situation. It is these stressors or resources that largely determine the SOC of the individual. Major life events that are specifiable in time and space have been given considerable attention by Holmes and Rahe (1967, as cited in Weiten, 1989), who developed the schedule of recent experiences (SRE), and later the social readjustment rating scale (SRRS). Antonovsky (1987) views these as 'discrete events', and argues that it is the many consequences of these events that is significant rather than the event itself.

The strength of the SOC of the individual experiencing the major life event determines whether the outcome is noxious, salutary, or neutral. The third type of stressor under discussion the 'daily hassle', was introduced into stress research by Lazarus (1984, as cited in Antonovsky, 1987). Antonovsky (1987) noted that on the one hand, Lazarus views the daily hassle as a proximal discrete event, and on the other he includes chronic environmental conditions, ongoing concerns, and distressed emo-

tional reactions. Later in the same discussion, Lazarus (1984, as cited in Antonovsky, 1987), is in agreement with Antonovsky when he hypothesises that perhaps the most crucial hassles are those that have a major significance for an individual's long range values and goals, those that create a distinct pattern of vulnerability.

Because all of these approaches to stress research derived from a pathogenic orientation, stressors were almost exclusively cast as bad for health. Many researchers limited their hypothesis to negative events, exits, or uncontrolled or unexpected events. Common to all of these approaches, according to Antonovsky (1987), was a failure to specify why only negative outcomes were considered. Utilising the salutogenic model, Antonovsky focused on GRRs which build up a strong SOC, paramount to the individual's ability to manage tension well. By subsuming stressors, and in particular chronic, endemic stressors, under the overarching GRR-RD concept, Antonovsky (1987) provided a theoretical basis for constructing a measurement tool that links the stressors and resources through the SOC to a health outcome.

Antonovsky's background is more in medical and sociological areas. However the concept of salutogenesis, has universal relevance. In the area of rehabilitation, research is also dominated by a pathological orientation. Much could be gained by studying rehabilitation practitioners who despite the same level and intensity of stressors, cope well, and indeed enjoy the challenges of the rehabilitation environment.

As long as research remains focused on 'what is wrong' in the world of the rehabilitation practitioner, there is a risk of overlooking the salutary variables occurring in the same arena. For example, the already mentioned research by Flett, Biggs, and Alpass (1993), found that low levels of job satisfaction and job rewards were significantly associated with high levels of subsequent burnout in a sample of New Zealand rehabilitation practitioners. A salutogenic approach would focus on the 'renegade' subjects who despite low levels of job satisfaction and job rewards had low

levels of subsequent burnout. Again, Antonovsky (1979,1987,1993), is not calling for a halt to studying the 'disease' end of the health-disease continuum, but a complimentary examination of the 'health' end. With this notion in mind perhaps the already mentioned 'Fountain House' model studied by Finch and Krantz (1991), could be viewed as a somewhat 'salutogenic' model from which other rehabilitation facilities could take heart. The 'Fountain House' salutary atmosphere is consistent with the Antonovsky (1987) notion that not only individuals but collectives have a SOC. In the case of 'Fountain House' if Antonovsky's theory is correct the SOC score would be very high.

The literature on salutogenesis and the SOC scale is relatively sparse, and although the scale has been used in many countries and by 1993, translated into twelve languages (Antonovsky 1993b), with Antonovsky's recent death, much of the impetus may be lost.

Antonovsky (1979, 1986), had always hinted at his own short-fallings with regard to the hard data required to clarify many of the issues empirically. Therefore much of the concept of salutogenesis and the SOC scale remains theoretical. Antonovsky (1979,1986) asserted that it was largely up to other scientists to test the model, and he was always ready to accept findings that supported or contradicted his theoretical base.

Antonovsky (1993b) via his global networking (by 1993, there were 113 members in 20 countries in the SOC network) and "The Sense of Coherence Newsletter", had personally invited debate on his theories. Indeed by 1993, he had conceded that there was validity in breaking the SOC scale down into its three subsets (meaningfulness, manageability, and comprehensibility). Members of the SOC network were also raising questions about the notion that a sense of coherence was a stable trait. At a United States SOC workshop where Antonovsky (1993b) was in attendance, it was collectively concluded that..."(1) It appears that the stability of the SOC is linked

to the stability of one's life. 2) The value of a strong SOC shows during times of stress, and is not a big deal during other times..." (p3)

If work on the model does continue, the constructs may become more than just theoretical or Antonovsky may rightly become accused of hypothesis myopia (Dunham, 1988). By viewing the world from a salutogenic perspective for so long, Antonovsky may have become too partisan in interpreting research data. As Dunham points out.. "it does not matter how old you are, but it *does* matter how firmly you are committed to your assumptions." (p97).

4.5. Chapter summary

Chapter 4 provided a brief discussion on how personality has received attention as a potential moderating variable. Empathy, learned resourcefulness, and meaning in life, were presented as some examples in the literature illustrating personality as a moderator. The present study considers SOC as a personality variable and potential moderator in the stressor-strain relationship. Next an overview of Antonovsky's (1979) salutogenesis concept and the sense of coherence instrument was presented along with other similar models from the literature. The meaningfulness, manageability, and comprehensibility components of the SOC model was discussed, and the pivotal nature of meaningfulness was highlighted. Generalised resistance resources and deficits were presented along with a discussion on stress coping, centred around the SOC and these 'resources', and 'deficits'. A brief review of some of the literature was given along with a discussion on the somewhat overly theoretical status of the salutogenic model.

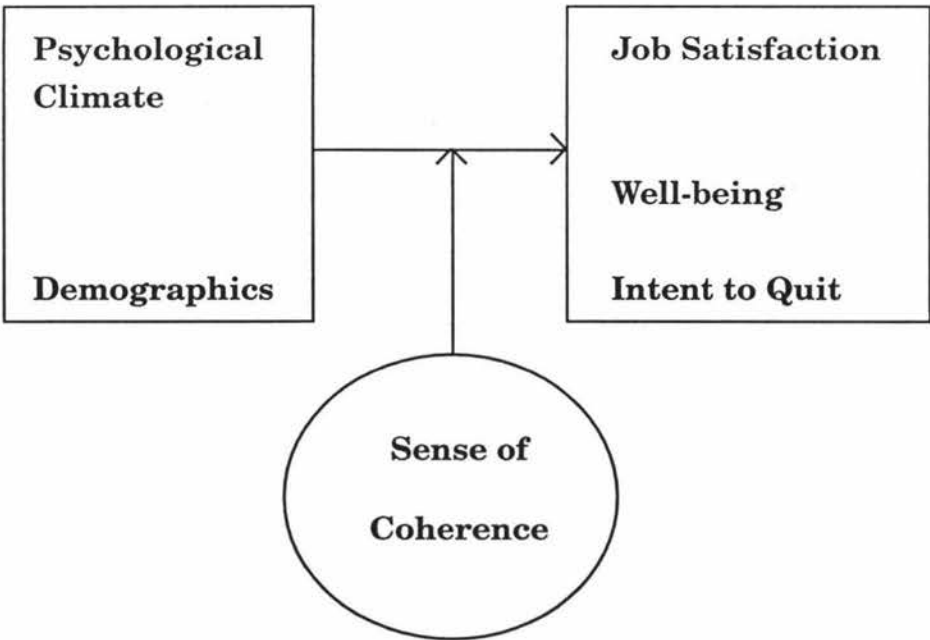
Chapter 5, describing the current model and research goals of the present study, follows.

CHAPTER 5. MODEL, AND RESEARCH GOALS.

The line of argument arising from the literature supports various basic premises pertinent to the present study. Firstly, it has been demonstrated that psychological climate (PC) variables associated with role stress and lack of harmony; leadership facilitation and support; job challenge and autonomy; and work group cooperation, friendliness and warmth, act as **stressors** predicting job-related outcomes or **strains**, (including job satisfaction, subjective well-being, and intent to quit). Secondly, personality constructs can have a part to play in the stressor-strain relationship. For instance personality can buffer the effects of stressors, lessening their impact and consequently leading to a more healthful outcome.

The present study employs PC variables as stressors or predictors, and well-being, job satisfaction, and intent to quit as strains, or outcomes. Personality, in the form of the individual's 'sense of coherence' is viewed as a moderator of the stressor-strain relationship. A diagrammatic representation of the model is presented in figure 5.1.

FIGURE 5.1: DIAGRAMMATIC REPRESENTATION OF MODEL USED IN PRESENT STUDY.



Because of the scarcity of research specific to the work of the rehabilitation practitioner, the nature of the present study is largely exploratory. To examine the current model, several research questions will be asked. In the first instance the relationship between demographic data and all the outcome variables used in the present study will be examined. This is undertaken to find the significant demographical variables. These variables will then be entered as control variables on the first step of the relevant multiple regression analyses. The PC predictor variables will be tested for their relationship to the three outcome variables. The present study will also examine the effects of the SOC as a potential moderator in the stressor-strain relationship.

More specifically, the research questions for the present study are:

- 1) Given the literature that has been discussed, are there significant relationships between the demographic data obtained from the participants, and job satisfaction, well-being, and intent to quit the profession and/or organisation? More specifically, do age, sex, ethnicity, marital status significantly predict job satisfaction, general happiness, or intent to quit? Loscocco and Roschelle (1991) note that studies consistently find that older employees are more satisfied with their work. These researchers also assert that there are few gender differences in job satisfaction, does the present study support these findings?
- 2) Antonovsky (1979, 1987), suggests that individuals who have a stronger SOC seek more salutary outcomes when presented with stressors. Given this argument, despite the negative effects of the PC stressors, do respondents who have a stronger SOC report higher levels of well-being and job satisfaction, and are these individuals less likely to intend quitting the profession and/or current position?
- 3) Psychological climate (PC) or the individuals' perception of their work environment (Alpass, 1994) has been identified in the literature as a significant stressor in the workplace. Role ambiguity and role conflict have been related to job satisfaction

(Keller, 1975; Rizzo, et al., 1970.). Interpersonal conflicts have been cited as major stressors (Poulton, 1988; Richardsen et al., 1992; Wright & Terrian, 1987.). Job variety and challenge according to Baron and Greenberg (1989), correlate positively with job satisfaction. Which PC variables used in the present research best predict lower levels of well-being, and job satisfaction, and higher intent to quit the organisation and/or profession?

4) Studies have found that meaningfulness is the most influential aspect of the SOC instrument in predicting salutary outcomes (Antonovsky, 1979, 1987; Chamberlain & Zika, 1988.). From the data collected, which aspect(s) if any, of the SOC construct (meaningfulness, manageability, comprehensibility) is/are the most influential in the stressor-strain relationship?

5) Is Antonovsky's (1987) assertion that individuals who score low on comprehensibility, and low on meaningfulness, but high on manageability are rare, supported by the present data?

6) Is Antonovsky's (1987) assertion that individuals who score low on comprehensibility, and high on both meaningfulness and manageability are rare, supported by the present data?

7) Antonovsky (1991) compared scores from a selection of published studies utilising the short-form SOC 13, instrument, as employed by the present study. How does the heterogeneous sample of New Zealand rehabilitation professionals compare with these other populations in SOC ratings?

8) The Affectometer 2 was developed by Kammann and Flett (1983) using a sample representing the general population. How does the present sample compare in levels of positive affect, negative affect and general happiness?

The following chapter is the Method section.

CHAPTER 6 METHOD

6.1 Method

Data was collected by a cross-sectional survey method. The survey instruments were sourced from various areas, including previous organisational, occupational, and health research literature.

6.2 Sample

The non-probability convenience sample was drawn from a range of rehabilitation agencies, obtained with the consent of the New Zealand Rehabilitation Association, who gave access to the researchers to contact its members. All the individuals on a membership list provided were invited to participate in the study. Another source was the list of individuals who had completed the Diploma in Rehabilitation at Massey University. Of the 228 questionnaires sent, 93 were returned completed. This represented a return rate of 40.8%. Of these 4 were deleted due to incomplete data. 16 questionnaires (7%) were returned unopened with 'no known address'. As the instruments were sent late in the year, and no follow-up prompts were undertaken this may account for the low/moderate return rate. A description of the present sample description is given in the results section (Chapter 7).

6.3 Procedure

Respondents were informed that the survey consisted of a single questionnaire, to be returned in a prepaid envelope, and that it would take about 30-45 minutes to complete. Confidentiality was assured, and those who chose to participate could refuse to answer any questions or withdraw at any time. Participants were invited

to contact the researchers at any time, and were informed that they could receive information about the results of the study on its completion. Ninety eight individuals (5 more than completed the questionnaire) indicated that they wished to receive information about the results of the study.

6.4 Measures

Biographical Information: Data was sought on the participants' date of birth, gender, marital status, ethnicity, education, children at home, personal and family income, years in the profession, years at the present job, how many hours worked per week, and employment status.

INDEPENDENT VARIABLES

Psychological Climate: Perceptions of characteristics of the rehabilitation work environment were measured using a Psychological Climate Questionnaire (PCQ) that was a shortened and modified version of an instrument developed by Jones & James (1979). This broad focus scale, encompasses perceptions of jobs and work roles as well as organisational properties, aspects of leadership style, and leadership trust. The original PCQ consisted of 145 items. The present study utilises 45 items from the original instrument. Using the same classification of item composites employed by James and James (1989), nine perceived work environment variables were measured: role ambiguity, role conflict, management concern and awareness, job challenge and variety, leader trust and support, leader goal facilitation, work group cooperation, and work group friendliness and warmth (see appendix one for a brief description of these 9 PC variables included in the questionnaire). Each of these variables is composed of a number of items. Composites were scored by summing across relevant items. The coefficient alpha for each of the 9 PC composite variables, in the present study are reported in table 7.1 in the following chapter.

DEPENDENT VARIABLES

Job satisfaction: To assess work satisfaction, a fifteen item instrument from the Work and Life Attitudes Survey (Warr, Cook & Hall, 1979) was employed. The measure asks respondents to rate various job aspects on a seven point scale, ranging from I'm extremely dissatisfied, to I'm extremely satisfied. A total score is calculated ranging from 15 to 105, with a higher score indicating greater overall satisfaction. The authors report coefficient alphas of 0.85 and 0.88 for two blue collar samples and a test-retest correlation of 0.63 observed across six months.

Well-being: The Affectometer 2, which takes about five minutes to complete, is closely patterned on Bradburn's (1969, cited Kammann & Flett, 1983) 'Affect Balance Scale' (ABS). Affectometer 2 like the ABS measures separate items of positive and negative affect (PA, NA). The overall degree of well-being is conceptualised as to the extent to which good feelings predominate over bad feelings. This is reflected in the balancing formula (PA minus NA) used to calculate the total score. Like the ABS, the Affectometer 2 normally asks subjects to report their feelings 'over the past few weeks'. However, the Affectometer 2 differs from the ABS in the content of items. The ten ABS items (how often have you felt; satisfied, free and easy, helpless, depressed, good natured, discontented, insignificant, confident, useful, withdrawn), were selected solely by the researchers, whilst the Affectometer items were empirically gathered from a candidate pool of 435 adjectives and sentences (Kammann, Christie, Irwin, & Dixon, 1979, as cited in Kammann & Flett, 1983). Whilst the ABS asks subjects to respond yes or no, the Affectometer 2 grades the response; not at all/occasionally/some of the time/often/all of the time. Research experience with various prototype versions of the Affectometer scale is reported in Kammann et al. (1979, as cited in Kammann & Flett, 1983). In a sample of 110 random adult subjects from Dunedin, New Zealand, Affectometer 2 rendered an alpha of .95, comparable with earlier results obtained by the Affectometer 1 scale. According to

Kammann & Flett (1983) repeated experience with Affectometer 1 and 2 over sixteen studies have consistently failed to detect any interesting difference between scores based on the adjectives and sentences. The correlation between the separate balance scores for sentences and adjectives was .87. For a full discussion on the development of the Affectometer 2 see Kammann and Flett (1983).

Intent to quit scale: The present study utilises a six question measure that asks the subject on a 7 point continuum to what degree he/she thinks about leaving, (and the likelihood of doing so) their current employer/organisation, and profession. This measure was modelled on an 'intention to quit the nursing profession' measure constructed by Meyer, Allen, and Smith (1993). These authors report coefficient alphas of .83 for both intent to quit the profession and intent to quit the organisation with a sample of 603 Canadian registered nurses.

PERSONALITY VARIABLE

Sense of Coherence: A modified version of Antonovsky's (1986) short-form sense of coherence scale was employed for the present study. The long-form instrument consists of twenty nine items. The short-form instrument consists of thirteen items (five measuring comprehensibility, four measuring meaningfulness, and four measuring manageability), Instead of the original 7 point likert style format which utilised verbal anchors only at the extreme ends, the modified version employed five verbal anchors (very seldom or never, seldom, sometimes, often, very often or always, - or definitely true, probably true, may or may not be true, probably not true, definitely not true). Questions asked, or statements given included 'How often do you have the feeling that you are being treated unfairly?', and 'Your life has very clear goals and purpose'. A summary of eleven studies using the SOC scale demonstrate it to have high internal consistency, with cronbach alphas ranging from 0.84 to 0.93 (Antonovsky, 1987).

The complete questionnaire is provided in appendix 2.

6.5 Analysis

The SPSS /PC statistical package was employed to examine data and relationships among the variables used in the study. Various analyses were undertaken. First, the variables were screened for evaluations of assumptions of statistical analysis. Conventional but conservative alpha levels (e.g. $p < .001$) was used to evaluate the significance of skewness and kurtosis for small to moderate samples (Tabachnick & Fidell (1989). As a result, transformation of the variables were deemed to be unnecessary. There were no univariate outliers ($p < .001$) and no cases were identified through Mahalanobis distance as being multivariate outliers with $p < .001$. Screening for missing data revealed that a considerable number of the subjects had omitted to answer some items on the questionnaire. Items omitted never exceeded five percent of the total items answered, and it was therefore decided that deleting cases was the least desirable option. Because of the already small size of the sample it was decided to maximise the available data by taking a mean total based on the number of items answered.

The relationships between demographic information and other variables were examined via correlations (Pearson r 's) and t -tests. In all instances where t -tests were performed, an F test of sample variances was carried out for each comparison. Following the suggestion of Snedecor & Cochran, (1980), if the probability of F was $> .05$ then it was assumed that the sample variances were equal and t statistics based on pooled (equal) variance estimates were used. If the probability of F however was $< .05$ then it was assumed that the sample variances were unequal and t statistics based on separate estimates were used.

The relationships between PC variables and job related outcomes were examined via hierarchical multiple regression analysis (Tabachnick & Fidell, 1989). Significant demographic variables were entered on step one as control variables. Climate variables were entered on a subsequent step. Multiple regression analyses were also undertaken to test for interaction results.

CHAPTER 7. RESULTS.

7.1. Chapter overview.

Chapter 7 will present the results of the present study. Following the analysis of the demographic data, the findings of the various multiple regression analyses will be presented along with the tables indicating the dependent variables, the independent variables, the R^2 and adjusted R^2 calculation the R and the relevant p values. Where the interaction terms were found to be significant, the results of the hierarchical regression analysis will be presented along with the table of results and a diagrammatic representation of the interaction equation.

7.2. Demographic data.

Analysis of the demographic information indicated that the sample ($N=89$) consisted of 73 females and 12 males with 4 individuals unanswering this item. This calculates to 86% females and 14% males of the 85 respondents who answered this item. The mean age for the group was 40.9 years ($SD=11.11$), and 94% of the respondents considered themselves to be European New Zealanders. (15.2%) of the respondents held Honours or MA degrees, (41.8%) had undergraduate degrees, (38%) had Polytech diplomas or certificates, and (5.1%) had other qualifications.

Of the 86 respondents who answered the item on employment status 62 (72.1%) were employed full-time, and 24 (27.9%) were employed part-time. Mean hours worked per week were 36 ($SD=8.42$), the mean personal income was \$35,800 ($SD=18621.9$), and the mean household income was \$64,900 ($SD=38331.7$). The mean for the time employed with current employer was 4.9 years ($SD=6.43$), and the time worked in the profession was 7.85 years ($SD=7.62$). Of the 87 respondents who answered the item on marital status 65 (74.7%) were currently partnered, and 22 (25.3%) were not.

Table 7.1 displays the means, standard deviations and Cronbach alpha levels for all the variables of the present study. Most of the Cronbach levels exceeded the .07 level considered by Nunnaly (1977) to be acceptable.

TABLE 7.1 Cronbach's alphas, Means, and Standard Deviations for variables used in the present study.

| Variable | | Cronbachs Alpha | Means | Standard Deviations |
|----------------------------------|-------|-----------------|-------|---------------------|
| Role Ambiguity | (R/A) | .58 | 2.40 | .68 |
| Role Conflict | (R/C) | .71 | 2.89 | .65 |
| Job Variety and Challenge | (V/C) | .74 | 3.60 | .58 |
| Leader Trust and Support | (T/S) | .84 | 3.37 | .80 |
| Work Group Cooperation | (W/C) | .78 | 3.81 | .77 |
| Work Group Friendliness & Warmth | (W/W) | .74 | 3.88 | .86 |
| Management Concern & Awareness | (M/A) | .73 | 3.19 | 1.04 |
| Leader Goal Facilitation | (G/F) | .73 | 3.50 | .85 |
| Leader Interaction Facilitation | (I/F) | .82 | 3.55 | .88 |
| Job Satisfaction | (J/S) | .85 | 4.81 | .88 |
| Intent to Quit Profession | | .78 | 2.73 | 1.48 |
| Intent to Quit Organisation | | .86 | 3.58 | 1.79 |
| Negative Affect | | .80 | 1.00 | .68 |
| Positive Affect | | .82 | 2.61 | .58 |
| Meaningfulness | | .72 | 4.06 | .66 |
| Manageability | | .63 | 3.60 | .56 |
| Comprehensibility | | .64 | 3.55 | .50 |

There were no significant sex differences, ethnicity differences marital status differences, or age differences on any of the dependent measures. Level of education, and years employed at the current agency, also did not correlate significantly with any of the dependent measures. There was however a significant correlation between years in the profession and intent to quit the organisation $r(79) = -.24, p < .05$. There were no significant correlations between personal income and the dependent measures, however there was a significant correlation between family income and intent to quit the profession $r(71) = -.25, p < .05$. Significant differences were also found between employment status and job satisfaction $t(83) = -2.80, p < .05$, this suggesting that those who work part-time are more satisfied with their job.

7.3. Multiple regression analysis of employment status and PC on job satisfaction.

A standard multiple regression was performed with job satisfaction as the dependent variable and employment status (E/S) which represented whether subjects were employed full-time or part-time, plus all the PC variables as the independent variables. Table 7.2 displays the correlations between the variables, the standardized regression coefficients (beta), and \underline{R} , R^2 , and adjusted \underline{R}^2 .

Table 7.2 Standard Multiple Regression of Employment Status and Psychological Climate on Job Satisfaction

| Variables | J/S | E/S | M/A | R/C | W/W | V/C | G/F | R/A | W/C | T/S | I/F | beta |
|-----------|------|------|------|------|------|------|------|------|-----|-----|-----|-------|
| | (DV) | | | | | | | | | | | |
| E/S | .30 | | | | | | | | | | | .18° |
| M/A | .62 | .04 | | | | | | | | | | .22° |
| R/C | -.41 | -.18 | -.30 | | | | | | | | | -.16 |
| W/W | .43 | .18 | .31 | -.20 | | | | | | | | -.12 |
| V/C | .40 | -.05 | .39 | .01 | -.20 | | | | | | | .21° |
| G/F | .35 | .31 | .43 | -.36 | .32 | -.74 | | | | | | -.06 |
| R/A | -.57 | -.14 | -.42 | .36 | -.40 | -.30 | -.36 | | | | | -.22° |
| W/C | .37 | .26 | .27 | -.27 | .64 | .06 | .25 | -.30 | | | | -.03 |
| T/S | .60 | .21 | .63 | -.24 | .41 | .18 | .58 | -.39 | .43 | | | .27° |
| I/F | .35 | .21 | .57 | -.25 | .46 | .16 | .57 | -.60 | .37 | .70 | | -.02 |

Adjusted $R^2=.64$
 $R^2=.59$
 $R=.80^{***}$

*** $p<.001$
* $p<.05$

The \underline{R} for regression was significantly different from zero, $F(10,70)=12.39$, $P<.0001$. Five of the independent variables contributed significantly ($p<.05$) to

7.5. Interaction analysis of SOC and role ambiguity on job satisfaction.

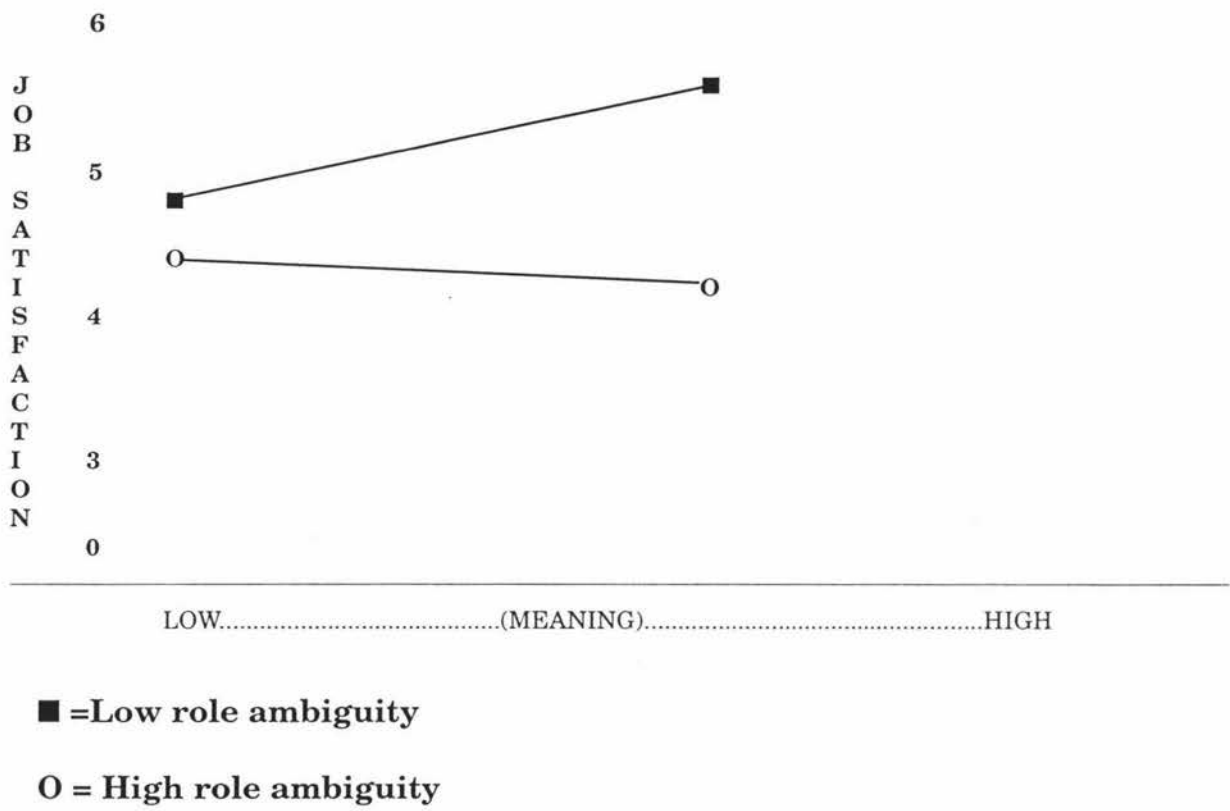
To test whether the SOC construct interacted with the other predictor variables on the outcome measures of the present study, further hierarchical multiple regressions were performed with the significant demographic, SOC and PC variables. For the first of these regressions with job satisfaction as the dependent variable, employment status, the SOC variables and the following PC variables; variety and challenge (V/C; leader trust and support (T/S); role ambiguity (R/A); and management concern and awareness (M/A), were entered as the independent variables. A vector created by calculating the cross product term of the variables deviation scores was then added at the next step. In this manner the variance accounted for by the interaction term was assessed after controlling for the main affects of the demographic, PC, and SOC variables.

After step one with the above mentioned independent variables in the equation, $R^2=.67$ (adjusted $R^2=.63$), $F(8,75)=19.03$, $p<.0001$. After step two with the addition of the interaction terms in the equation, $R^2=.71$ (.67 adjusted), $F(10,73)=17.71$, $p<.0001$. The change in R^2 with the interaction terms added was significant ($p<.05$) with the addition of the interaction terms, but only the meaningfulness x role ambiguity term was found to be significant ($p<.01$).

The data in figure 7.1 were derived by conducting a median split on the meaningfulness aspect of the SOC and the role ambiguity (R/A) PC variable. This classification was done solely for the purpose of illustration and the variables were treated as continuous in all the statistical analyses. Figure 7.1 illustrates that R/A moderates the effects of meaningfulness on job satisfaction. Under conditions of low R/A rehabilitation professionals who have a low sense of meaning in their job report higher levels of job satisfaction (4.8) than their counterparts who are under conditions of higher R/A. Those who are in conditions of low R/A and score higher on the

meaningfulness instrument report the highest levels (5.48) of job satisfaction overall. Rehabilitation professionals who are in conditions of high R/A and low meaningfulness, report slightly higher job satisfaction (4.5) than those who are high in R/A and high in meaningfulness (4.3).

Figure 7.1. Schematic representation of meaningfulness X role ambiguity interaction in the prediction of job satisfaction.



7.6. Standard multiple regression of family income and SOC on intent to quit the profession.

Another standard multiple regression was performed with intent to quit as the dependent variable and family income and SOC as the independent variables. Table 7.4 displays the correlations between the variables, the standardized regression coefficients (beta), R , R^2 , and adjusted R^2 .

Table 7.4 Standard Multiple Regression of Family income and Sense of Coherence on intent to quit the profession.

| Variables | I/Q/P (DV) | F/I | Manage | Meaning | Compre | beta |
|-------------------|---------------|-----|--------|--|--------|--------|
| Family Income | -.23 | | | | | -.18 |
| Manageability | -.21 | .13 | | | | -.10 |
| Meaningfulness | -.47 | .15 | .37 | | | .48*** |
| Comprehensibility | -.17 | .20 | .59 | .47 | | .16 |
| Adjusted | | | | R ² =.26 R ² =.22 R=.51*** | | |

***p<.001

The R for regression was significantly different from zero, F (4,71)= 6.33, p<.0005. The meaningfulness independent variable (p<.0001), contributed significantly to predicting intent to quit the profession. The family income variable was significant in the first step of the regression but non significant when the three SOC variables were included. Altogether 26% (22% adjusted) of the variability in intent to quit the profession was predicted by knowing the scores of these four independent variables.

7.7. Standard multiple regression analysis of total years in rehabilitation and PC on intent to quit the organisation.

A standard multiple regression was then performed with intent to quit the profession as the dependent variable and family income (F/I) and the nine PC variables as the independent variables. Table 7.5 displays the correlations between the variables, the standardized regression coefficients (beta), R, R², and adjusted R².

Table 7.5 Standard Multiple Regression of Family Income and Psychological Climate on Intent to quit the Profession.

| Variables | I/Q/P (DV) | F/I | M/A | R/C | W/W | V/C | G/F | R/A | W/C | T/S | I/F | beta |
|-----------|---------------|------|------|------|------|------|------|------|-----|-----|-----|------|
| F/I | -.25 | | | | | | | | | | | -.20 |
| M/A | -.05 | .12 | | | | | | | | | | .13 |
| R/C | .04 | .03 | -.31 | | | | | | | | | -.02 |
| W/W | -.35 | .06 | .38 | -.16 | | | | | | | | -.29 |
| V/C | -.13 | .20 | .34 | .04 | .18 | | | | | | | -.04 |
| G/F | -.10 | -.01 | .43 | -.11 | .35 | .07 | | | | | | -.05 |
| R/A | .28 | -.21 | -.45 | .37 | -.46 | -.30 | -.38 | | | | | .21 |
| W/C | -.31 | .13 | .34 | -.29 | .66 | .11 | .31 | -.40 | | | | -.12 |
| T/S | -.09 | .05 | .63 | -.29 | .48 | .15 | .61 | -.44 | .44 | | | .06 |
| I/F | -.12 | .13 | .57 | -.27 | .50 | .15 | .57 | -.62 | .40 | .70 | | .14 |
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Table 7.6 Standard Multiple Regression of Total Years in Rehabilitation and Psychological Climate on Intent to quit the Current Organisation

| Variables | I/Q/O (DV) | Y/R | M/A | R/C | W/W | V/C | G/F | R/A | W/C | T/S | I/F | beta |
|-----------|---------------|------|------|------|------|------|------|------|-----|-----|-----|-------|
| Y/R | -.21 | | | | | | | | | | | -.23° |
| M/A | -.31 | -.06 | | | | | | | | | | -.21 |
| R/C | .17 | .06 | -.31 | | | | | | | | | .06 |
| W/W | -.24 | -.14 | .32 | -.20 | | | | | | | | -.003 |
| V/C | -.10 | .04 | .40 | .01 | .12 | | | | | | | .06 |
| G/F | -.12 | -.12 | .44 | -.11 | .33 | .09 | | | | | | .11 |
| R/A | .34 | -.16 | -.43 | .36 | -.41 | -.31 | -.37 | | | | | .19 |
| W/C | -.31 | -.13 | .27 | -.27 | .64 | .06 | .24 | -.29 | | | | -.23 |
| T/S | -.29 | -.11 | .63 | -.24 | .41 | .19 | .59 | -.40 | .43 | | | -.12 |
| I/F | -.27 | -.05 | .57 | -.25 | .46 | .17 | .57 | -.61 | .37 | .70 | | .05 |

*p<.05.

R² = .25

Adjusted R² = .14

R = .50*

The R for regression was nonsignificant when only the years in rehabilitation (Y/R) was considered. The R for regression was significantly different from zero, F (10,70)=2.4, p<.05, when the PC variables were added to the equation. Years in rehabilitation (p<.05) contributed significantly to predicting intent to quit the organisation. Altogether 25% (14% adjusted) of the variability in intent to quit the organisation was predicted by knowing the scores on these ten independent variables.

7.9. Standard multiple regression analysis of total years in the profession and SOC on intent to quit the organisation.

A standard multiple regression was then performed with intent to quit the organisation (I/Q/O) as the dependent variable, and years in rehabilitation and the three

SOC variables as dependent variables. Table 7.7 displays the correlations between the variables, the standardized regression coefficients (beta), \underline{R} , \underline{R}^2 , and adjusted \underline{R}^2 .

Table 7.7 Standard Multiple Regression of Total Years in Rehabilitation and Sense of Coherence on intent to quit the Current Organisation

| Variables | I/Q/O (DV) | Y/R | Manage | Meaning | Compre | beta |
|-------------------|---------------|-----|--------|---------|--------|------|
| Years in Rehab. | -.20 | | | | | -.17 |
| Manageability | -.17 | .06 | | | | -.12 |
| Meaningfulness | -.37 | .11 | .36 | | | .38* |
| Comprehensibility | -.12 | .12 | .60 | .47 | | .16 |

$R^2=.18$

Adjusted $R^2=.14$

$R=.42^{**}$

****p<.01**

The \underline{R} for regression was nonsignificant when the years in rehabilitation variable was entered on its own. The \underline{R} for regression was significantly different from zero $F(4,82)=4.4$, $p<005$ with the SOC variables included. Meaningfulness ($p<005$), contributed significantly to prediction of intent to quit the organisation. Altogether 18% (14% adjusted) of the variability in intent to quit the organisation was predicted by knowing the scores of these four independent variables.

7.10. Standard multiple regression analysis of SOC on positive affect.

Next a standard multiple was performed with positive affect as the dependent variable, and the three SOC variables as independent variables. Table 7.8 displays the correlations between variables, the standardized regression coefficients (beta), \underline{R} , \underline{R}^2 , and adjusted \underline{R}^2 .

Table 7.8 Standard Multiple Regression of Sense of Coherence on Positive Affect

| Variables | Pos Affect (DV) | Manage | Meaning | Compre | beta |
|-------------------|--------------------|--------|---------|--------|-------|
| Manageability | .47 | | | | .27* |
| Meaningfulness | .48 | .35 | | | .32** |
| Comprehensibility | .45 | .60 | .47 | | .14 |

Adjusted

R² = .34

R² = .32

R = .59***

*p<.05

**p<.01

*** p<.001

The R for regression was significantly different from Zero, F(3,84)=14.57, P<.0001. Meaningfulness (p<.005) and manageability (p<.05), contributed significantly to the prediction of positive affect. Altogether 34% (32% adjusted) of the variability of positive affect was predicted by knowing the scores of the three SOC independent variables.

7.11. Standard multiple regression analysis of PC on positive affect.

A standard multiple regression was then performed with positive affect as the dependent variable, and the nine PC variables as the independent variables. Table 7.9 displays the correlations between variables, the standardized regression coefficients (beta), R, R², and R² adjusted.

Table 7.9 Standard Multiple Regression of Psychological Climate on Positive Affect

| Variables | Pos Affect (DV) | M/A | R/C | W/W | V/C | G/F | R/A | W/C | T/S | I/F | beta |
|---|--------------------|------|------|------|------|------|------|-----|-----|-----|-------|
| M/A | .20 | | | | | | | | | | -.08 |
| R/C | -.29 | -.32 | | | | | | | | | -.13 |
| W/W | .36 | .32 | -.22 | | | | | | | | .11 |
| V/C | .14 | .41 | -.01 | .13 | | | | | | | .05 |
| G/F | .16 | .43 | -.14 | .34 | .11 | | | | | | -.03 |
| R/A | -.43 | -.45 | .35 | -.41 | -.30 | -.38 | | | | | -.31* |
| W/C | .36 | .27 | -.30 | .64 | .08 | .25 | -.30 | | | | .18 |
| T/S | .24 | .63 | -.25 | .41 | .20 | .57 | -.42 | .41 | | | .02 |
| I/F | .30 | .57 | -.27 | .47 | .19 | .58 | -.61 | .38 | .69 | | -.01 |
| <div><div></div><div>Adjusted</div><div>R²=.26** R²=.17 R=.51</div></div> | | | | | | | | | | | |
| <div>*p<.05</div> <div>**p<.01</div> | | | | | | | | | | | |

The R for regression was significantly different from zero, F (9,72)=2.87, P<.01. Only one of the independent variables, role ambiguity (R/A) (p<.05) contributed significantly to predicting positive affect. Altogether 26% (17% adjusted) of the variability in positive affect was predicted by knowing the scores of these independent variables.

7.12. Standard multiple regression analysis of PC on negative affect.

Next a standard multiple regression performed with negative affect as the dependent variable and the nine PC variables as the independent measures. Table 7.10 displays the correlations between the variables, the standardized regression coefficients (beta), R, R², and adjusted R².

Table 7.11 Standard Multiple Regression of Sense of Coherence on Negative Affect

| Variables | Neg Affect (DV) | Manage | Meaning | Compre | beta |
|-------------------|--------------------|--------|---------|--------|---------|
| Manageability | -.60 | | | | -.42*** |
| Meaningfulness | -.49 | .35 | | | -.28*** |
| Comprehensibility | -.51 | .60 | .47 | | -.13 |

Adjusted R²= .45
Adjusted R²= .43
R = .67***

***p<.001

The R for regression was significantly different from zero, F (3,84)=22.97, p<.0001. Meaningfulness (p<.005) and manageability (p<.0001) contributed significantly to the prediction of negative affect. In total 45% (43% adjusted) of the variability in negative affect was predicted by knowing the scores of the three SOC independent variables.

7.14. Standard multiple regression analysis of SOC on happiness.

A standard multiple regression was then performed general happiness as the dependent variable and the three SOC variables as independent variables. Table 7.12 displays the correlations between variables, the standardized regression coefficients (beta), R, R², and R² adjusted.

Table 7.12 Standard Multiple Regression of Sense of Coherence on ‘Happiness’

| Variables | Happiness (DV) | Manage | Meaning | Compre | beta |
|-------------------|-------------------|--------|---------|--------|--|
| Manageability | .60 | | | | .39*** |
| Meaningfulness | .55 | .35 | | | .34*** |
| Comprehensibility | .55 | .60 | .47 | | .15 |
| | | | | | <div>R²= .50 Adjusted R²= .49 R = .71***</div> |
| ***p<.001 | | | | | |

The R for regression was significantly different from zero, F, (3,84)=28.39, p<0001. Manageability (p<.0001) and meaningfulness (p<.005) contributed significantly to the prediction of happiness. In total 50% (49% adjusted) of the variability in happiness was predicted by knowing the scores on the three SOC independent variables.

7.15. Standard multiple regression analysis of PC on happiness.

Next a standard regression was performed with general happiness as the dependent variable and the nine PC measures as independent variables. Table 7.13 displays the correlations between variables, the standardized regression coefficients (beta) , R, R², and adjusted R².

Table 7.13 Standard Multiple Regression of Psychological Climate on Happiness.

| Variables | Happiness (DV) | M/A | R/C | W/W | V/C | G/F | R/A | W/C | T/S | I/F | beta |
|-----------|-------------------|------|------|------|------|------|------|-----|-----|-----|-------|
| M/A | .16 | | | | | | | | | | -.12 |
| R/C | -.31 | -.32 | | | | | | | | | -.21 |
| W/W | .27 | .32 | -.22 | | | | | | | | .11 |
| V/C | .12 | .41 | -.01 | -.13 | | | | | | | .05 |
| G/F | .14 | .43 | -.14 | .34 | .11 | | | | | | -.004 |
| R/A | -.37 | -.45 | .35 | -.41 | -.30 | -.38 | | | | | -.31* |
| W/C | .25 | .27 | .30 | .64 | .08 | .25 | -.30 | | | | .05 |
| T/S | .24 | .63 | -.25 | .41 | .20 | .57 | -.42 | .41 | | | .18 |
| I/F | .20 | .57 | -.27 | .47 | .19 | .58 | -.61 | .38 | .69 | | -.18 |

Adjusted

R²= .21
R²= .12
R = .46*

*p<.05

The R for regression was significantly different from zero, $F(9,72)=2.19, p<.05$. Only role ambiguity (R/A) ($p<.05$) contributed significantly to the prediction of general happiness. Altogether 21% (12% adjusted) of the variability in general happiness was predicted by knowing the scores of the PC independent variables.

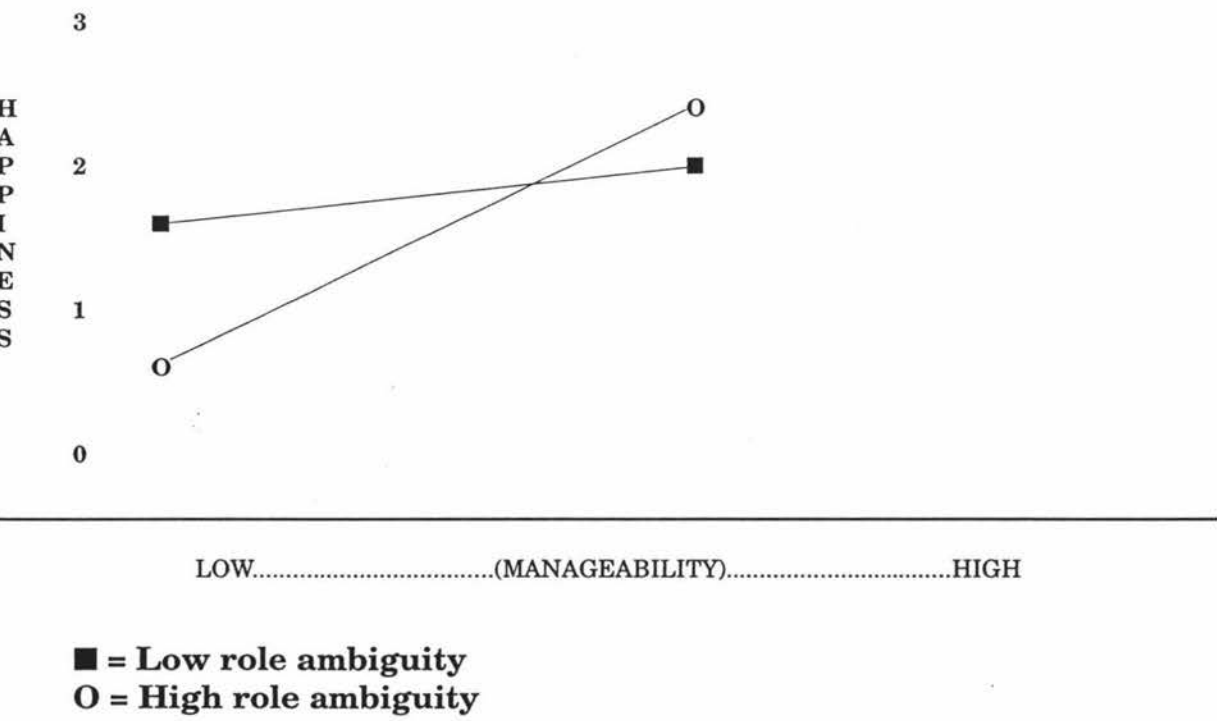
7.16 . Interaction analysis of PC and SOC on happiness.

The final multiple hierarchical regression was performed with general happiness as the dependent variable. In the first equation role ambiguity, manageability and meaningfulness were entered as the independent variables. Next the interaction terms meaningfulness x role ambiguity and manageability x role ambiguity were added to the equation. Before the interaction variables were entered $R^2=.52$ (adjusted $R^2 .51$), $F(3,84)=30.78, p<.0001$. After the interaction variables were entered into the equation, $R^2=.56$ (adjusted $R^2 .53$), $F(5,82)= 20.95, p<.0001$. The change

in R^2 was significant ($p<.05$) with the addition of the interaction terms, but only the manageability X role ambiguity term was found to be significant ($p<.05$).

The data in figure 7.2 was derived by conducting a median split on the manageability aspect of the SOC instrument and the PC variable role ambiguity (R/A). Again, this classification was done solely for the purpose of illustration, and the variables were treated as continuous in all the statistical analyses. Figure 7.2 illustrates that manageability moderates the effects of role ambiguity on happiness. Under conditions of high R/A the rehabilitation provider who reports a low degree of manageability achieves the lowest happiness score (.61). However the rehabilitation provider who is high on R/A and also high on manageability records the highest (2.38) happiness score. The low R/A, and low manageability individual scores slightly lower (1.63) than the low R/A on high manageability (1.9).

Figure 7.2 Schematic representation of manageability X role ambiguity interaction in the prediction of happiness.



7.17. Comparison of happiness between present sample and general population.

To determine how generally 'happy' the sample of the present study was, a comparison between the mean scores of this group was made with the scores reported by Kammann & Flett (1983) ,of their original random sample of 112 Dunedin adults involved in constructing the Affectometer 2. The present sample scored 2.61 for positive affect against the Dunedin group who scored 2.5. For negative affect, the present sample scored 1.0 against .99 for the Dunedin group, and in general happiness the present scored 1.61 and the Dunedin sample 1.43. This comparison indicates that the present sample was not unusually high or low in positive or negative affect compared with the general population.

7.18. SOC score comparison between present study and other samples.

The results of comparing the overall SOC scores with the selection of samples from published studies using the SOC-13 measure (see table 7.14) suggests that the present sample of rehabilitation providers as a group have a very high sense of coherence. At 67.55 the present sample scored slightly higher than a sample of U.S university faculty men (66.7) and women (66.4). Indeed only a religious kibbutz sample scored higher at 68.7. The lowest rating of this selection of samples was achieved by U.S High school students (53.78) closely followed by U.S minority homeless women (54.96).

Table 7.14 A selection of published studies utilising the SOC-13 measure.

| SAMPLE | N | MEAN | SD |
|--|-----|-------|-------|
| Kibbutz (religious) mean | 105 | 68.7 | 10.0 |
| Kibbutz (secular) mean | 125 | 66.4 | 9.9 |
| U.S. university faculty (men) | 145 | 66.7 | 9.8 |
| U.S. university faculty (women) | 157 | 66.4 | 10.6 |
| Israeli adolescent girls | 371 | 59.2 | 11.0 |
| Israeli adolescent boys | 371 | 58.6 | 10.4 |
| U.S. undergraduates | 59 | 58.5 | 12.1 |
| U.S. minority homeless (women) | 581 | 54.96 | 0.7 |
| Mature Australian students (mean age 35) | 542 | 60.96 | 12.0 |
| U.S. High school students | 200 | 53.78 | 13.31 |
| U.S. assistant professors | 302 | 66.56 | 10.2 |

(From Antonovsky, 1991).

7.19. Analysis of combinations of dichotomised SOC variables split into high and low.

By splitting the SOC variables of meaningfulness, manageability, and comprehensibility at the median, a crude analysis was undertaken to determine whether Antonovsky’s (1987) notion that respondents who score low on comprehensibility, and high on the other two SOC’s are rare, was supported using data from the present study. The same procedure was used to determine whether respondents who score low on meaningfulness and comprehensibility, but high on manageability are rare. Table 7.15 displays all of the dichotomised SOC variable combinations.

TABLE 7.15. COMBINATIONS OF THE THREE SOC VARIABLES SPLIT AT THE MEDIAN INTO HIGH AND LOW FOR THE PRESENT STUDY.

| COMPREHENSIBILITY | MANAGEABILITY | MEANINGFULNESS | % |
|-------------------|---------------|----------------|-------|
| High | High | High | 13.5% |
| Low | Low | Low | 36% |
| High | Low | Low | 2% |
| High | High | Low | 11% |
| Low | High | High | 4.5% |
| Low | High | Low | 17% |
| High | Low | High | 6% |
| Low | Low | High | 10% |

As can be seen from the above data, the largest combination of dichotomised SOC sub-set scores, was reported by the rehabilitation provider who scored low for all three parts of the SOC (36%). The two combinations that according to Antonovsky (1987) are rare scored as follows with the present sample; 4.5% reported low comprehensibility, high manageability and high meaningfulness ; 17% reported low comprehensibility, high manageability and low meaningfulness. The rarest combination at 2% for the present sample was for high comprehensibility, low manageability, and low in meaningfulness. Therefore the rehabilitation provider in the present sample, who understands the work environment, but does not have the resources or motivation to carry out tasks is in the smallest minority.

CHAPTER 8. DISCUSSION.

8.1. Overview of chapter.

The final chapter constitutes the discussion section of the present study. Following a look at the limitations of the current research, the research questions as introduced in chapter 5 will be discussed. The implications of the present research will then be looked at, and finally the conclusions and recommendations for further research are given.

8.2. Limitations of the present study.

The present study has a number of limitations that must be acknowledged. An obvious limitation was the sample size, and this raises issues of statistical power (Rosnow & Rosenthal, 1989). Caution must therefore be exercised in the interpretation of the simple interaction effects and regression analyses.

The non-random nature of the sample means that the extent to which the findings are replicable in other contexts, and with other groups of rehabilitation providers is unclear. The extent and nature of underlying causal relationships is also uncertain due to the cross sectional nature of the study.

The largely theoretical basis of Antonovsky's (1979, 1987) SOC construct, and possible cultural bias resulting from the fact that a majority of the research has been conducted with a Jewish sample, may also lessen the generalisability of findings. The qualitative foundations of the SOC and salutogenesis construct as described by Antonovsky (1979), raises some serious questions. More specifically, the sample of Jewish 'survivors' of the concentration camps may well have extracted a religious meaning out of the horrific suffering around them. After all, the Bible prophesied that the Jewish race would be persecuted, and the whole anti-semitic nature of the

second world war may have given salience to the Jewish teachings, and the belief that they are God's 'chosen race'.

Despite these limitations, tentative speculations are possible. Although the *t*-tests and pearson *r*'s produced very few statistically significant differences or correlations, the directions of the correlations and *t*-tests generally followed the trend of most of the findings reported in the stressor-strain literature.

8.3. Discussions of findings to research questions.

Question 1.

A primary research goal of the present research was to seek out significant relationships between the demographic data, and three general strains or outcome variables- well-being, intent to quit the job/profession and job satisfaction. Given the literature that has been discussed, are there significant relationships between the demographic data obtained from the participants, and job satisfaction, well-being, and intent to quit the profession and/or organisation? More specifically, do age, sex, ethnicity, marital status significantly predict job satisfaction, general happiness, or intent to quit? Loscocco and Roschelle (1991) note that studies consistently find that older employees are more satisfied with their work. These researchers also assert that there are few gender differences in job satisfaction, does the present study support these findings?

Because of the small number of males in the present sample, gender differences were not analysed. Almost all the present sample considered themselves to be European New Zealanders. Therefore ethnic differences were also not investigated.

Family income was implicated in intending to quit the current organisation, and the total time engaged in the rehabilitation profession was related to quitting the current agency but not the profession. This finding suggests that those individuals

who were more financially secure were more committed to a career in rehabilitation. Those who had worked in the rehabilitation profession the longest, were less likely to leave the current agency. Given the current political climate, and the resulting constant 'restructuring' mentality, it may just be that the more experienced individual who currently has a job in rehabilitation feels more secure staying where they are. Compared to the turnover statistics of U.S. job coaches, who last an average six to eight months on the job (Marini, Pell & Black, 1992), the present sample seem very 'settled' with a mean of five years with the current employer, and nearly eight years in the rehabilitation profession.

Age did not correlate significantly with job satisfaction in the present study, failing to support the conclusions of Blegen (1993), Glisson and Durick (1988), and Loscocco and Roschelle (1991). The present study also failed to replicate the findings of Bedian, Ferris and Kacmar (1992) who report that tenure is a relatively stable predictor of job satisfaction. As Griffin and Bateman (1986) suggest, further theoretical development is advisable if we are to better comprehend the complexities between individual demographics and job satisfaction.

Only the entire family income level correlated significantly with intending to leave the rehabilitation profession. This finding suggests that the more financially secure the rehabilitation professional is, the less likely she or he is to leave the profession. Although the average income of the respondent was around the New Zealand national average at \$35,800, the mean household income of \$64,900 was quite high.

Dichotomising the intent to quit instrument would indicate that scores above 3.5 on the seven point measure that was employed, translates to a higher intention to quit. The mode for quitting the organisation was 2.0 and the mean 3.6, suggesting that overall the sample registered a low to medium intent to quit the current agency. Quitting the profession, using the same crude indicator was even less likely for

most respondents, with a mode of 1 and a mean of just 2.7. Tentatively it may be speculated that financial concerns are not uppermost in the stress equation for the present sample.

There was a significant difference between the part-time and full-time rehabilitation provider in terms of job satisfaction. Part-time work in the profession appears to be more satisfying. Perhaps there is a link between the financially secure individual, choosing to work part-time as a 'carer', and consequently having less time to perceive a lack of trust and support from supervisors or lack of workgroup cooperation. These workers may perceive themselves as working for altruistic reasons, rather than purely for extrinsic rewards. As noted earlier such prosocial deeds as helping others and volunteering, as well as being considerate of others correlate positively with job satisfaction (Smith et al., 1983, as cited in Wright & Terrian, 1987).

When the PC variables and the demographic variable employment status were analysed via a standard multiple regression, employment status, management awareness, job variety and challenge, role ambiguity and leader trust and support were found to be significant predictors of job satisfaction. This is consistent with the findings of Moore et al., (1991), Richardsen et al., (1992), Baron and Greenberg (1989), Curry et al., (1986), and Hirsch and Rapkin, (1986, as cited in Kelley & Satcher, 1992).

Question 2.

Antonovsky (1979, 1987), suggests that individuals who have a stronger SOC seek more salutary outcomes when presented with stressors. Given this argument, despite the negative effects of the PC stressors, do respondents who have a stronger SOC report higher levels of well-being and job satisfaction, and are these individuals less likely to intend quitting the profession and/or current position?

All three components (meaningfulness, manageability, and comprehensibility) significantly impacted on job satisfaction. Meaningfulness was important with regards to quitting the profession and organisation. Manageability and meaningfulness were important in predicting general happiness, positive affect and negative affect, but comprehensibility was not significantly associated with these outcomes. This suggests that to the rehabilitation provider, understanding what is going on, is not as important as being motivated and having the resources to do the work.

When the SOC variables and employment status were included in a multiple regression analysis, the three SOC variables were significant predictors. The importance of finding meaning in the work one does has also been documented in the sociological literature (Loscocco et al., 1991). Interestingly, the SOC component that measures comprehensibility provided a negative correlation. It can be tentatively argued that despite not understanding fully what is going on, the rehabilitation provider who works part-time, and has a strong sense of meaning in the work, as well as having the resources to do the work, is likely to be more satisfied with the job. Perhaps it is a case of 'ignorance is bliss'.

Perhaps relationship between subjective well-being the SOC construct was the most significant with the present sample. However only meaningfulness and manageability were found to be significant predictors. Multiple regression analyses indicated that over a third of the variability of positive affect was predicted by knowing the SOC scores. Approximately half of the explained variance of negative affect and general happiness was predicted by knowing these SOC scores. Noteworthy is the fact that comprehensibility, (although as already noted it was not statistically significant) which had a negative correlation with job satisfaction, correlates in the other direction for general happiness and positive affect. This would suggest that although 'ignorance may be bliss' when it comes to satisfaction at the workplace, this may not be so when it comes to subjective well-being.

Multiple regression analyses designed to shed light on the intent to quit the rehabilitation profession, found only meaningfulness to be a significant predictor, when the three SOC variables and family income were considered. This relationship suggests that the rehabilitation provider who gets a lot of meaning from doing the work is less likely to seek work in another profession. This finding may also support Ryff's (1989) assertion that individuals who seek a sense of self-realization, and having a purpose, are more prepared to sacrifice short-term goals (such as finding a new job). Including the PC variables in the regression analysis failed to yield any significant predictor of intent to quit the profession.

Question 3.

Psychological climate (PC) or the individuals' perception of their work environment (Alpass, 1994) has been identified in the literature as a significant stressor in the workplace. Role ambiguity and role conflict have been related to job satisfaction (Keller, 1975; Rizzo, et al., 1970.). Interpersonal conflicts have been cited as major stressors (Poulton, 1988; Richardsen et al., 1992; Wright & Terrian, 1987.). Job variety and challenge according to Baron and Greenberg (1989), correlate positively with job satisfaction. Which PC variables used in the present research best predict lower levels of well-being, and job satisfaction, and higher intent to quit the organisation and/or profession?

The data from the present study suggests that less role ambiguity, more job variety and challenge, more leader trust and support, and greater management awareness, contribute to higher levels of job satisfaction. This finding lends support to Kelley & Satcher's (1992) model. As a group the PC variables predicted intent to quit the current agency, but none of the PC variables on their own were found to be significant.

Role ambiguity, and role conflict seem to dominate the literature (Landy, 1989, Baron & Greenberg, 1990). While role conflict was not found to be a significant predictor in the present study, role ambiguity as mentioned, was found to be significant as a predictor of job satisfaction, and also interacted with meaningfulness on job satisfaction. Role ambiguity was also found to be a significant predictor of positive affect and general happiness. Manageability and role ambiguity also interacted on happiness. However caution must be exercised, as the Cronbach alpha level of .58 was very low, indicating a low level of internal consistency for the measure used in the present study.

Question 4.

Studies have found that meaningfulness is the most influential aspect of the SOC instrument in predicting salutary outcomes (Antonovsky, 1979, 1987; Chamberlain & Zika, 1988.). From the data collected, which aspect(s) of the SOC construct (meaningfulness, manageability, comprehensibility) is/are the most influential in the stressor-strain relationship?

With regards to positive affect, meaningfulness and manageability, but not comprehensibility, were found to be significant predictors. This suggests that for the present sample, understanding the work environment was not as important as having the resources to do the work and feeling that the work was worthwhile. When the three SOC variables were considered in predicting general happiness, manageability and meaningfulness, but **not** comprehensibility were found to be significant indicators.

Meaningfulness was also the only significant predictor of intending to quit the current agency, when the three SOC variables and years in the profession were considered. This indicates that the more meaning the rehabilitation provider attaches to the work, the less likely that individual is to leave the job.

One of the analyses undertaken to test for possible moderating variables, found that meaningfulness may moderate the effects of role ambiguity on job satisfaction. The data of the present study indicates that the rehabilitation provider who reports a low degree of role ambiguity at the workplace, and gains a high level of meaning from the work done, derives the most satisfaction from the work- more than the counterpart who reports less meaningfulness. The rehabilitation provider who reports high levels of role ambiguity but gets little meaning from the work, recorded slightly higher levels of job satisfaction, than the counterpart who with high levels of role ambiguity, finds the work meaningful. This curious finding perhaps suggests that by somehow inhibiting meaning, or intrinsic rewards when presented with high levels of role ambiguity, the rehabilitation provider buffers her or himself against perceived job dissatisfaction. Perhaps the 'detached empathy' quality that those in the 'caring professions' need, as noted earlier, provides some explanation for this finding.

The present study detected another potential moderating effect: this being manageability moderating the effects of role ambiguity on general happiness. The present data suggests that the least happy rehabilitation provider is the individual who reports high levels of role ambiguity and low levels of manageability. Again this seems to be intuitively logical. However, from the data obtained from the present sample, it would seem that the rehabilitation professional who experiences high levels of role ambiguity and has a strong sense of manageability, is generally happier than the rehabilitation professional who is high on manageability but low on role ambiguity. A possible explanation is that having the resources to complete the task, supersedes the detrimental effects of role ambiguity. Perhaps some rehabilitation providers become somewhat immune to, or accustomed to the negative effects of ambiguity in the workplace. This however is a very speculative interpretation, and further research is needed on this interaction, and the before mentioned meaningfulness and role ambiguity interaction on job satisfaction, before less caution can be exercised.

Meaningfulness for the present sample, appeared to be the most significant component of the SOC. This supports Antonovsky's (1987) assertion that meaningfulness, is the pivotal aspect of the SOC. Comprehensibility, which according to Antonovsky is the second most important component of the SOC scale, was only found to be a significant predictor on job satisfaction in the present study. Because the Cronbach alpha for comprehensibility and manageability were below what Nunnally (1977) considered to be acceptable, all interpretations of the data on these two SOC components must be viewed with caution.

Question 5.

Is Antonovsky's (1987) assertion that individuals who score low on comprehensibility, and low on meaningfulness, but high on manageability are rare, supported by the present data?

Data obtained from the crude median split analysis employed by the present study, does not support Antonovsky's notion. Indeed 17% of the respondents fell into this group, the second most popular group of the eight possible combinations.

Question 6

Is Antonovsky's (1987) assertion that individuals who score low on comprehensibility, and high on both meaningfulness and manageability are rare, supported by the present data?

Data obtained from the crude median split analysis employed by the present study, does not fully support Antonovsky's notion, as 4.5% fell into this category. It was the group who scored high on comprehensibility, and low on meaningfulness and manageability (2 individuals or approx 2%) that was the rarest.

The present sample overall scored very high on the SOC 13 instrument. This perhaps goes some way to explain why the combinational-dichotomised data generally fails to support Antonovsky's (1987) belief that those who have a low sense of comprehensibility and high sense of meaningfulness and comprehensibility, and those who have a low sense of meaningfulness, and comprehensibility but high sense of manageability, are rare. The 'low' representing the median split point for the present sample, no doubt is relatively high given the strong SOC mean score of the present sample. Because initially Antonovsky (1979, 1987, 1993), called on researchers to refrain from calculating the individual component scores of the SOC variables, there is little data in the literature to make comparisons of anything other than composite SOC scores. However the fact that the most common combination of the three SOC component scores reported with the current sample yielded a low for each variable, makes it a safe assumption, given the overall high score that the median split for the present sample is too crude a method for a conclusive finding against Antonovsky's belief that the two types nominated are indeed rare.

Question 7.

Antonovsky (1991) compared scores from a selection of published studies utilising the short-form SOC 13, instrument, as employed by the present study. How does the heterogeneous sample of New Zealand rehabilitation professionals compare with these other populations in SOC ratings?

Using the normative data provided by Antonovsky (1991) of a selection of samples exposed to the short-form SOC-13 scale as a comparison, only individuals living in a religious kibbutz reported (fractionally) higher levels of SOC. This would suggest that the present sample of rehabilitation providers as a group have a very strong sense of coherence.

Question 8.

The Affectometer 2 was developed by Kammann and Flett (1983) using a sample representing the general population. How does the present sample compare in levels of positive affect, negative affect and general happiness?

Compared to 112 randomly sampled Dunedin adults, (Kammann & Flett, 1983) the present sample of rehabilitation providers, report slightly higher levels of positive affect, negative affect and general happiness. However these differences are minimal, suggesting that the present sample are similar to the general population in terms of general well-being.

8.4 Implications.

Given the already mentioned limitations of the present research, and assuming that the findings are replicable, some tentative implications for the rehabilitation provider can be presented. Whilst it can not be said that extrinsic rewards are unimportant, it would appear that finding one's work worthwhile, and having the resources to do it is at least equally as important.

Selecting personnel who can afford to work part-time, may also have some merit in the recruitment of rehabilitation providers. Given that the present study found that job satisfaction was significantly predicted by the strength of individual's overall SOC, it may be useful to incorporate a SOC scale at the staff recruitment stage. The sub-scales that measure the meaningfulness and manageability components of the SOC instrument, may also be useful staff assessment tools, relating to psychological well-being and intent to quit.

While reducing role ambiguity and increasing job variety and challenge, may warrant some prominence in future job design, workgroup cooperation, leader trust and support, and the other PC components need to remain on the research agenda.

Training programmes that emphasise how best to manage the limited resources available, (i.e. increase the sense of manageability as conceptualised by Antonovsky), may also be beneficial. The present study could also have implications in the design of stress management programmes. As mentioned, the data obtained from the present sample suggests that general well-being, as well as positive affect and negative affect were significantly predicted by the strength of the individual's sense of meaningfulness. A stress programme that included teaching participants how to focus on the meaningfulness of their profession, when they were distressed at work, may have merit for the rehabilitation profession.

8.5 Conclusions and suggestions for future research.

The findings from the present study indicate that personality may indeed play an important part in the stressor-strain relationship for the rehabilitation provider. Whilst as discussed, the SOC measure as developed by Antonovsky (1979) may never gain the prominence that Antonovsky had hoped for, the pivotal aspect measuring the meaningfulness that the individual attaches to a task or life goal should remain on the research agenda. Perhaps similar instruments such as Crumbaugh's (1968) 'purpose in life (PIL) or various 'optimism', 'self-esteem', or 'self-efficacy' (Bandura, 1977), instruments that correlate highly with meaning in life, will ultimately explore the meaning of life construct so important to those who are influenced by the philosophy of existentialism.

Given the low Cronbach alpha levels for the manageability and comprehensibility components of the SOC, and as comprehensibility appeared to be relatively unim-

portant in the analyses that were performed, perhaps just the meaningfulness aspect of the SOC should be employed for future research. Alternatively, the above mentioned PIL (Crumbaugh, 1977), may be employed. This instrument was designed to measure Frankl's meaning in life, and seems to have enjoyed more widespread use than Antonovsky's measure. According to Zika and Chamberlain (1992), who conducted some factor analyses on the SOC and the PIL, the Crumbaugh measure may be the best measure of the meaningfulness construct. The PIL instrument is a twenty item scale designed to assess the degree to which an individual experiences a sense of meaning and purpose. Antonovsky (1979) when he originally constructed the SOC, viewed the three components as a whole. The meaningfulness component was never intended by Antonovsky to be employed as a 'stand alone' meaning of life measure. Zika and Chamberlain point out that although the SOC meaningfulness items were separated out in the first order analysis, none loaded on the second-order analysis. These researchers note that "The second-order analysis does not support the conceptual distinction on which scale construction was based, and neither does it provide evidence of more general factors relating to life meaning as underlying the scale" (p.354).

Antonovsky may well have been more a philosopher than a social scientist, but any seminal thinker that can help bridge the gap between the sociologist, the psychologist, the educationalist and researchers from the various other paradigms, deserves to have his theories explored. If only a small minority of researchers become more salutogenically focused in their research methods at least the meaningfulness of Antonovsky's life work will itself be made more salient. In today's harsh 'survival of the fittest' world, intrinsic values and meaning in life may well become more important aspects as the ever present stressors continue to invade our daily lives.

It makes sense to at least consider the 'renegade' rat who despite being subjected to huge doses of electric shocks in a maze, escapes 'cancer free'. It is also useful to ask

why despite being exposed to the same level of stressors as other individuals, some escape the pathogenic consequences. There is merit in asking these 'salutogenic' questions, but Antonovsky's logic can also be accused of being circular. After all, is it not also a valid question to ask why despite having a 'weak' sense of coherence, some people live productive and healthy lives?

Future research may benefit from utilising a more complete list of PC variables. Although only half of the PC measures significantly predicted outcomes in the present study, the interrelatedness of the PC variables may have confounded the findings. For example Newton and Keenan (1987, as cited in Baron & Greenberg, 1990) report that the adverse effects of role conflict are less pronounced in work settings characterised by warmth and support. Employing the already discussed RJSI job satisfaction instrument (Wright & Terrian, 1987), may also facilitate greater understanding of the complex stressor-strain connection, as it applies to the rehabilitation profession.

Adopting a more 'salutogenic' approach, by actively focusing more on the healthy end of the stressor-strain continuum, could be achieved by undertaking comprehensive and perhaps longitudinal studies of establishments such as 'Fountain House' (Finch & Krantz, 1991) and programmes like the New York City Intensive Case Management Programme. (Carney et al, 1993). It would seem that those who work at Fountain House, or who are engaged as New York intensive care managers, report significantly less pathological symptoms than might otherwise be expected. By focusing on 'what is right' about such examples researchers can compliment the existing literature on 'what is wrong' in various other rehabilitation settings.

The above mentioned New York intensive care managers (ICM's), despite being subjected to high levels of anxiety, expectancy, and work loads, experienced low levels of burnout (Carney et al., 1993). The perceived support, from superiors and

fellow ICM's, and the fostering of group work **with** clients seems to mirror the work atmosphere nurtured at Fountain House . Had Antonovsky still been alive he may well have argued for the need to measure the group SOC (Antonovsky, 1987) of these New York ICM's and agencies such as Fountain House. If a high SOC is measured for groups such as these, then other agencies may benefit from modelling themselves on these 'salutogenic' examples. But the important point is to unravel what it is about these rehabilitation agencies that results in the salutary outcomes.

Any research that can illuminate how or why 'order can be achieved out of chaos' must have potential worth. In the rehabilitation environment where stress, or to be more precise 'distress' levels are particularly high (Glisson & Durick, 1988; Latack & Havlovick, 1992; Parker, 1990; Riggart et al., 1987.), this research is of paramount importance. The challenge is to conduct the research in a systematic scientific manner , free from the many ambiguities that seems to accompany research on such subjective constructs as 'meaning in life'.

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APPENDIX 1

Description of the nine Psychological Climate Variables used in the present study.

| | |
|------------------------------------|---|
| Role Ambiguity | Degree of perceived ambiguity in demands, criteria and interfaces with other jobs-tasks-roles. |
| Role Conflict | Degree to which role performance is seen as affected by pressures to engage in conflicting or mutually exclusive behaviours. |
| Management Concern and Awareness | Degree to which management is perceived as attempting to assess and to respond to employees' needs and problems. |
| Job Challenge and Variety | Degree of perceived opportunity to make full use of abilities, skills, and knowledge; and the perceived range of tasks, equipment and behaviours involved in the job. |
| Leader Trust and Support | Degree to which leader is aware of and responsive to needs of subordinate and shows consideration for feelings of personal worth; and degree of confidence and trust in leader. |
| Leader Goal Facilitation | Degree to which leader is perceived as stimulating subordinate's involvement in meeting group goals. |
| Leader Interaction Facilitation | Degree to which leader is perceived as encouraging development of a close and cohesive work group. |
| Work Group Cooperation | Degree of perceived cooperative effort among work members to carry out tasks. |
| Work Group Friendliness and Warmth | Degree to which warm and friendly relations, trust and mutual liking among work group members are perceived. |

From Jones and James (1979) and James and Sells (1981)

APPENDIX 2

THE QUESTIONNAIRE USED IN THE PRESENT STUDY

| | | |
|--|--|--|
| | | |
|--|--|--|

First we would like some general background.

Remember that the information you give us is confidential. Please circle or fill in the space where appropriate.

What is your year of birth? _____

| | |
|--|--|
| | |
|--|--|

Are you? Female 1
 Male 2

| |
|--|
| |
|--|

What ethnic group do you identify with?

- New Zealander of European descent 1
- New Zealander of Pacific Island descent 2
- New Zealander of Maori descent 3
- New Zealander of Asian descent 4

| |
|--|
| |
|--|

Do you have any tertiary educational qualifications?

- Completed Polytechnic Certificate or Diploma 1
- Completed University Undergraduate Certificate, Diploma, or Degree 2
- Completed University Honours or Masters Degree 3
- Other qualifications (specify _____)

| |
|--|
| |
|--|

What is your current employment status?

- Employed full time 1
- Employed part time 2

| |
|--|
| |
|--|

How many paid hours of work are you on average contracted for per week?

.....hours

| | |
|--|--|
| | |
|--|--|

What is your present gross annual personal income?

\$.....

| | | | | |
|--|--|--|--|--|
| | | | | |
|--|--|--|--|--|

What is your present gross annual household income?

\$.....

| | | | | |
|--|--|--|--|--|
| | | | | |
|--|--|--|--|--|

How long have you been with your current employer?

..... years months

| | | |
|--|--|--|
| | | |
|--|--|--|

How long have you worked in the disability & rehabilitation field?

..... years months

| | | |
|--|--|--|
| | | |
|--|--|--|

Are you married or currently partnered?

_____ yes

_____ no

How many (if any) children currently live with you?

_____ children _____ not applicable

For each of the following items, circle the one number which best represents the way you see your work situation

How often are you kept informed about things you need to know about your work?

1 ----- 2 ----- 3 ----- 4 ----- 5
Almost always Practically never

☐

My job responsibilities are clearly defined.

1 ----- 2 ----- 3 ----- 4 ----- 5
Strongly agree Strongly disagree

☐

New employees get the on-the job training they need.

1 ----- 2 ----- 3 ----- 4 ----- 5
Strongly agree Strongly disagree

☐

It is **not often clear** who has the authority to make a decision regarding my job.

1 ----- 2 ----- 3 ----- 4 ----- 5
Strongly agree Strongly disagree

☐

Do you understand how your job fits into the overall objectives of the organization?

1 ----- 2 ----- 3 ----- 4 ----- 5
Always understand Never understand

☐

To what extent are you aware of the opportunities for promotion and advancement in your job?

1 ----- 2 ----- 3 ----- 4 ----- 5
Not at all To a considerable extent

☐

Excessive rules and regulations interfere with how well I am able to do my job.

1 ----- 2 ----- 3 ----- 4 ----- 5
Strongly agree Strongly disagree

☐

How often do you feel that the amount of work you have to do interferes with how well it gets done?

1 ----- 2 ----- 3 ----- 4 ----- 5
Never Almost always

☐

Opportunities to complete the work I start are:

1 ----- 2 ----- 3 ----- 4 ----- 5
Non-existent Outstanding

☐

How often do you feel that your job tends to interfere with your family life?

1 ----- 2 ----- 3 ----- 4 ----- 5
Never Almost always

☐

How often do you feel that you have too little authority to carry out the responsibilities assigned to you?

1 ----- 2 ----- 3 ----- 4 ----- 5
Never Almost always

☐

How often do you feel unable to satisfy the conflicting demands of various people over you?

1 ----- 2 ----- 3 ----- 4 ----- 5
Never Almost always

☐

How much **variety** is there in your job?

1 ----- 2 ----- 3
Very little Very much

☐

How much opportunity do you have to do a number of different things in your job?

1 ----- 2 ----- 3 ----- 4
A minimum amount A maximum amount

☐

How often do you have opportunities to work on different jobs?

1 ----- 2 ----- 3 ----- 4 ----- 5
Never Nearly all the time

☐

Opportunities to do creative work in my job are:

1 ----- 2 ----- 3 ----- 4 ----- 5
Non-existent Outstanding

☐

Opportunities to make full use of my knowledge and skills in my job are:

1 ----- 2 ----- 3 ----- 4 ----- 5
Non-existent Outstanding

☐

To what extent does your job challenge your abilities?

1 ----- 2 ----- 3 ----- 4 ----- 5
Not at all To a considerable extent

☐

How often do you work on difficult and challenging problems in your job?

1 ----- 2 ----- 3 ----- 4 ----- 5
Never Nearly all the time

☐

To what extent does your job require a high level of skill and training?

1 ----- 2 ----- 3 ----- 4 ----- 5
Not at all To a considerable extent

☐

How well does your supervisor recognise and reward good performance by his/her staff?

1 ----- 2 ----- 3 ----- 4 -----
Not very well Extremely well

☐

Where I work, personnel are almost always certain to hear about mistakes but seldom hear about their successes.

1 ----- 2 ----- 3 ----- 4 ----- 5
Strongly agree Strongly disagree

☐

To what extent is your supervisor willing to listen to your problems?

1 ----- 2 ----- 3 ----- 4 ----- 5
Not at all To a very great extent

☐

To what extent is your supervisor friendly and easy to approach?

1 ----- 2 ----- 3 ----- 4 ----- 5
Not at all To a very great extent

☐

To what extent is your supervisor attentive to what you say?

1 ----- 2 ----- 3 ----- 4 ----- 5
Not at all To a very great extent

☐

Personnel generally trust their supervisors/bosses.

1 ----- 2 ----- 3 ----- 4 ----- 5
Strongly agree Strongly disagree

☐

The members of my work group trust their supervisors/managers.

1 ----- 2 ----- 3 ----- 4 ----- 5
Strongly agree Strongly disagree

☐

A spirit of cooperation is evident in my workgroup.

1 ----- 2 ----- 3 ----- 4 ----- 5
Strongly agree Strongly disagree

☐

How much friction is there in your workgroup?

1 ----- 2 ----- 3 ----- 4 ----- 5
A great deal Very little

☐

The people I work with cooperate to get the job done.

1 ----- 2 ----- 3 ----- 4 ----- 5
Strongly agree Strongly disagree

☐

Assistance from my co-workers in carrying out difficult jobs is:

1 ----- 2 ----- 3 ----- 4 ----- 5
Non-existent Outstanding

☐

To what extent does a friendly atmosphere prevail among most of the members of your workgroup?

1 ----- 2 ----- 3 ----- 4 ----- 5
To a very small extent To a considerable extent

☐

Members of my workgroup trust each other.

1 ----- 2 ----- 3 ----- 4 ----- 5
Strongly agree Strongly disagree

☐

Communication is good in my workgroup.

1 ----- 2 ----- 3 ----- 4 ----- 5
Strongly agree Strongly disagree

☐

Managers generally know what is going on in their area of responsibility.

1 ----- 2 ----- 3 ----- 4 ----- 5
Strongly agree Strongly disagree

☐

Do you feel that people at managerial levels of your workplace and workgroup are aware of the problems and needs at lower levels?

1 ----- 2 ----- 3 ----- 4 ----- 5
No, quite unaware Yes, very aware

☐

Managers/supervisors keep well informed about the needs and problems of the workplace.

1 ----- 2 ----- 3 ----- 4 ----- 5
Strongly agree Strongly disagree

☐

To what extent does your supervisor emphasise high standards of performance?

1 ----- 2 ----- 3 ----- 4 ----- 5
Not at all To a very great extent

☐

To what extent does your supervisor set an example by working hard him/herself?

1 ----- 2 ----- 3 ----- 4 ----- 5
Not at all To a very great extent

☐

To what extent does your supervisor encourage people to give their best effort?

1 ----- 2 ----- 3 ----- 4 ----- 5
Not at all To a very great extent

☐

Personnel are encouraged to work for promotion.

1 ----- 2 ----- 3 ----- 4 ----- 5
Strongly agree Strongly disagree

☐

How often does your supervisor hold group meetings where he/she and the people who work for him/her really discuss things?

1 ----- 2 ----- 3 ----- 4 ----- 5
Never Nearly all the time

☐

Generally, how are decisions made in your workgroup?

1 ----- 2 ----- 3 ----- 4 ----- 5
By the supervisor alone By the whole group equally

☐

To what extent does your supervisor encourage the people who work for him/her to work as a team?

1 ----- 2 ----- 3 ----- 4 ----- 5
Not at all To a very great extent

☐

To what extent does your supervisor encourage the people who work for him/her to exchange ideas and opinions?

1 ----- 2 ----- 3 ----- 4 ----- 5
Not at all To a very great extent

☐

Different people have different views of their lives. For these next questions, circle the number to indicate the answer that most clearly reflects your view.

☐

How often do you have the feeling that you don't really care about what goes on around you?

- Very seldom or never 1
- Seldom 2
- Sometimes 3
- Often 4
- Very often or always 5

☐

How often have you been surprised by the behaviour of people whom you thought you knew well?

- Very seldom or never 1
- Seldom 2
- Sometimes 3
- Often 4
- Very often or always 5

☐

How often have people whom you counted on disappointed you?

- Very seldom or never 1
- Seldom 2
- Sometimes 3
- Often 4
- Very often or always 5

☐

Your life has very clear goals and purpose.

- Definitely true 1
- Probably true 2
- May or may not be true 3
- Probably not true 4
- Definitely not true 5

☐

How often do you have the feeling that you are being treated unfairly?

- Very seldom or never 1
- Seldom 2
- Sometimes 3
- Often 4
- Very often or always 5

☐

How often do you have the feeling that you are in an unfamiliar situation and don't know what to do?

- Very seldom or never 1
- Seldom 2
- Sometimes 3
- Often 4
- Very often or always 5

☐

Everyday activities are a source of deep pleasure and satisfaction for you:

- Definitely true 1
- Probably true 2
- May or may not be true 3
- Probably not true 4
- Definitely not true 5

How often do you have very mixed-up feelings and ideas?

☐

| | |
|--------------------------------|---|
| Very seldom or never | 1 |
| Seldom | 2 |
| Sometimes | 3 |
| Often | 4 |
| Very often or always | 5 |

How often do you have feelings inside that you would rather not feel?

☐

| | |
|--------------------------------|---|
| Very seldom or never | 1 |
| Seldom | 2 |
| Sometimes | 3 |
| Often | 4 |
| Very often or always | 5 |

Many people - even those with a strong character, sometimes feel really defeated.

How often have you felt this way in the past?

☐

| | |
|--------------------------------|---|
| Very seldom or never | 1 |
| Seldom | 2 |
| Sometimes | 3 |
| Often | 4 |
| Very often or always | 5 |

When certain things have happened you generally found that you estimated their importance correctly - you saw things in the right proportion.

☐

| | |
|--------------------------------|---|
| Very seldom or never | 1 |
| Seldom | 2 |
| Sometimes | 3 |
| Often | 4 |
| Very often or always | 5 |

How often do you have the feeling that there is little meaning in the things you do in your daily life?

☐

| | |
|--------------------------------|---|
| Very seldom or never | 1 |
| Seldom | 2 |
| Sometimes | 3 |
| Often | 4 |
| Very often or always | 5 |

How often do you have feelings that you are not sure you can keep under control?

☐

| | |
|--------------------------------|---|
| Very seldom or never | 1 |
| Seldom | 2 |
| Sometimes | 3 |
| Often | 4 |
| Very often or always | 5 |

following responses relate to your intentions with regard to your occupation and current employer (remember that this survey is confidential)

se circle the appropriate response as described.

1 ----- 2 ----- 3 ----- 4 ----- 5 ----- 6 ----- 7
never all the time
very unlikely definitely

frequently do you think about leaving your
nt employer 1 2 3 4 5 6 7

likely is it that you would search for a
1 another organisation 1 2 3 4 5 6 7

likely is it that you will actually leave
rganisation within the next year 1 2 3 4 5 6 7

frequently do you think about leaving your
nt profession 1 2 3 4 5 6 7

likely is it that you would search for a job
other profession 1 2 3 4 5 6 7

likely is it that you will actually leave the
ssion within the next year 1 2 3 4 5 6 7

Please indicate how satisfied or dissatisfied you are with the following aspects of your job using the following categories:

- 1 = I'm extremely dissatisfied
- 2 = I'm very dissatisfied
- 3 = I'm moderately dissatisfied
- 4 = I'm not sure
- 5 = I'm moderately satisfied
- 6 = I'm very satisfied
- 7 = I'm extremely satisfied

| | | |
|---|---------------|--------------------------|
| The physical work conditions | 1 2 3 4 5 6 7 | <input type="checkbox"/> |
| The freedom to choose your own work method | 1 2 3 4 5 6 7 | <input type="checkbox"/> |
| Your fellow workers | 1 2 3 4 5 6 7 | <input type="checkbox"/> |
| The recognition you get for good work | 1 2 3 4 5 6 7 | <input type="checkbox"/> |
| Your immediate supervisor | 1 2 3 4 5 6 7 | <input type="checkbox"/> |
| The amount of responsibility you are given | 1 2 3 4 5 6 7 | <input type="checkbox"/> |
| Your rate of pay | 1 2 3 4 5 6 7 | <input type="checkbox"/> |
| Your opportunity to use your abilities | 1 2 3 4 5 6 7 | <input type="checkbox"/> |
| Industrial relations between management and workers . . | 1 2 3 4 5 6 7 | <input type="checkbox"/> |
| Your chance of promotion | 1 2 3 4 5 6 7 | <input type="checkbox"/> |
| The way your firm is managed | 1 2 3 4 5 6 7 | <input type="checkbox"/> |
| The attention paid to suggestions you make | 1 2 3 4 5 6 7 | <input type="checkbox"/> |
| Your hours of work | 1 2 3 4 5 6 7 | <input type="checkbox"/> |
| The amount of variety in your job | 1 2 3 4 5 6 7 | <input type="checkbox"/> |
| Your job security | 1 2 3 4 5 6 7 | <input type="checkbox"/> |

Affectometer 2 - Short Form

DIRECTIONS: These next questions concern **how often** you have had certain positive and negative feelings over the **past few weeks**.

For each item please circle the number that best describes how often you have felt that way over the past few weeks.

| | Not at all | Occasionally | Some of the time | Often | All of the time |
|---------------|---------------|--------------|---------------------|-------|--------------------|
| satisfied | 0 | 1 | 2 | 3 | 4 |
| free-and-easy | 0 | 1 | 2 | 3 | 4 |
| helpless | 0 | 1 | 2 | 3 | 4 |
| depressed | 0 | 1 | 2 | 3 | 4 |
| good natured | 0 | 1 | 2 | 3 | 4 |
| discontented | 0 | 1 | 2 | 3 | 4 |
| insignificant | 0 | 1 | 2 | 3 | 4 |
| confident | 0 | 1 | 2 | 3 | 4 |
| useful | 0 | 1 | 2 | 3 | 4 |
| withdrawn | 0 | 1 | 2 | 3 | 4 |

(These are all the questions we have - Thank you for taking the time to complete this questionnaire - Please return the completed questionnaire in the large freepost envelope provided - your help is greatly appreciated)