

CHAPTER 2

REVIEW OF RELATED LITERATURE

This chapter seeks to identify the factors associated with coping with military training. It also compares findings based on samples drawn from the United States of America and Israel.

Factors Affecting Coping

The factors that are related to coping are reviewed in the following paragraphs.

Personality and Coping

Studies have been done to show the association between neuroticism and particular coping strategies. Endler and Parker (1990) found that neuroticism was correlated with increased emotion-focused coping in both men and women. The authors found a positive correlation between neuroticism and emotion-oriented coping. In men, neuroticism was related to avoidance-oriented coping. This is consistent with research done by McCrae and Costa (1986) where evidence was found that individuals high on neuroticism were more likely to engage in hostile reactions, self-blame, escapist fantasy, wishful thinking, passivity and

indecisiveness. Epstein and Meier (1989) showed that neuroticism is negatively associated with constructive thinking. Costa and McCrae, (1990) found that neuroticism was related to increased neurotic coping. They suggest that neuroticism may not only enhance poor coping strategies but also promote fewer adaptive strategies. They raised the question of whether maladaptive components of coping (self-blame, hostile reactions) may be components of neuroticism and not coping strategies in and of themselves. Rim (1986) found that for men, neuroticism correlates negatively with problem-focused style, and positively with wishful thinking, self-blame, tension reduction and keep-to-self. These studies together suggest that the neuroticism trait may give rise to less effective emotion-focused coping strategies and that persons high in the neuroticism trait are vulnerable to psychological pathology.

On the other hand, studies looking at the extraversion trait suggest that extraverts tend to be more resistant to stress-related disorders through the use of more effective coping strategies. McCrae and Costa (1986), provide evidence that extraversion was associated with adaptive strategies including rational thinking, substitution and restraint. Extraversion was not related to emotion-oriented or avoidance-oriented coping in men and women. Rim (1986) reported that extraversion may contribute to positive emotionality and maintenance of good spirits during stressful times. The study found that there was a negative correlation with wishful thinking.

Rim, (1986) showed that psychoticism is associated with emotion-focused coping. Rim found that on psychoticism, there is a high correlation with problem-focused coping, seeking support and focusing on the positive. Positive correlations were found for tension-reduction. However, this trait has received little attention with respect to coping.

Few studies have directly examined coping as a personality trait. Test-retest studies of coping measure would likely indicate that they have temporal stability. The study done by Billingsley, Waehler, and Hardin (1993) and McCrae (1989) yielded significant test-retest correlation. A prospective study of coping of Israeli soldiers also yielded high stability coefficients (Solomon, Mikulincer and Avitzur, 1988). These studies suggest that personality traits may in a large way determine the type of coping that people use. As such, it suggests that coping strategies may in fact be personality traits in action.

Other studies suggest that there the types of stressors also play an important role in the use of specific coping strategies. Compass, Forsythe and Wagner (1988) found that there was a tendency for subjects to use a consistent coping pattern when rating the same problem on different occasions. However, consistency was lower when comparing ratings across a different problem. Hence temporal consistency was greater than the cross-situational consistency. This finding suggests that when comparing studies, it is important to draw from other studies which have similar stressors, and that external validity is increased when such

comparisons are made, rather than using studies where stressors are of a different nature

Personality versus Situation Debate

Process theorists have challenged the usefulness of trait concept for predicting a person's ability to cope (structural approach). For example, Lazarus (1990) points to intra-individual variability in behaviour in stressful situations. Folkman and Lazarus (1985, p 151) argued that "structural approaches cannot reveal changes in stress-related phenomena". These authors claim that coping traits have had only modest predictive value to the coping process. This has led to the shift in popularity from one that looked at personality traits to one that focused on the contingencies of situational demands and specific patterns of coping behaviour. More recently, other authors (Costa and McCrae, 1990, Krohne, 1993) have counter-argued this view, suggesting that personality traits should be reconsidered as important predictors. Krohne (1996) argued that the antagonism between personality trait and process does not exist as described by Lazarus. He argues that process and structure represent different conceptual levels. Furthermore, change and stability do not exclude each other. Using the inductive and deductive method, one must first apply "fine-grained analysis of a stream of events... thus obtaining initial evidence for a cross-temporal or cross-situational consistency in this process." (Krohne, 1996, p.383). Next is to then apply theoretical concepts to deduce regularity or stability in this stream of behaviour.

Parke (1986) studied the role of individual differences (extraversion and neuroticism), environmental factors (social support and work demand), and situational characteristics (type of stressful episode and its perceived importance) as predictors of general coping, direct coping and suppression. She studied how 135 first-year female student nurses coped with their first period of hospital ward experience in 2 different hospitals. The study found intra-individual, environmental, and situational factors were important as predictors of coping responses, and that both main and interactive effects contributed significantly to the explained variance in coping scores.

For direct coping, all three types of variables contributed significantly to the explained variance. For suppression, environmental variables were only marginally significant in contributing to the overall model. For general coping, environmental factors accounted for the largest proportion of the explained variance. The findings in Parke's study demonstrated that coping was determined not only by intra-individual process, but by external factors, particularly the nature of the environment in which the episode occurs. In sum, the findings support the interactional model of personality and coping since substantial proportions of the explained variance in the direct coping and suppression scores were due to interactions between person, environmental and situational factors.

Aldwin and Revenson (1987) used a longitudinal approach and explored the relation between coping strategies and psychological symptoms. They studied a

sample of 291 adults where which prior mental health history was known. They found bi-directionality in the relationship between coping strategies and psychological symptoms. Those with poorer prior mental health with tended to use maladaptive coping strategies, such as escapism, when placed under greater stress. However, coping efforts still affected also affected mental health independent of prior symptom levels and degree of stress. In their study, Aldwin and Revenson found that three coping strategies related directly to current symptom levels. These were instrumental action, support mobilization and , escapism. They postulated a causal model in which the greater the initial level of emotional distress and the greater the severity of the problem, the more likely it is for individuals with poorer initial mental health to use maladaptive coping. This further increases emotional distress and likely increasing the probability of future problems.

The authors also examined the two mechanisms through which coping strategies could affect mental health. They explored both additive or main effects model and the stress buffering or interaction model. They found both models operating, depending on whether problem- or emotion-focused modes of coping were examined. Two emotion-focused strategies (escapism and self-blame) had only direct effects on symptoms, by increasing emotional distress. Interactive effects were found with problem-focused scales, particularly instrumental action and negotiation. The direction of the relation between problem-focused scales and symptoms were found to be dependent in part on perceived efficacy. Only

instrumental action functioned as a classical stress buffer. When negotiation was used and the coping effort was perceived as successful, this markedly reduced symptoms. However, when the coping effort was not perceived as successful, emotional distress increased. Hence, negotiation appears to be a risky strategy to use. Frequent use of instrumental action did not vary with perceived efficacy. However, infrequent use of instrumental action coupled by low efficacy caused symptoms to increase markedly. When perceived efficacy was high, infrequent use of instrumental action was interestingly associated with low symptom levels.

Bolger (1990) did a prospective study of neuroticism, coping, and anxiety in students taking a medical school entrance examination. This study found that ineffective coping patterns of wishing thinking and self-blame explained over half the effect of neuroticism on anxiety. Neuroticism was related to these two coping modes under conditions of high stress and low stress. However, they also found that the situational factor (time of measurement) accounted for more of the variance than did neuroticism or the neuroticism-and-situation interaction. This study supports the interactional model.

Hewitt and Flett (1996) suggested that coping as a trait versus coping as a dynamic process are not necessarily mutually exclusive. Coping responses depend on the personality traits of the individual, the coping period being assessed, and the type of problem. They allude to coping repertoire as being

dispositional coping styles that become salient at certain points during the coping process.

In sum, the personality versus situation debate, fuelled by conflicting empirical evidence, continues to rage. However, more recent evidence such as Hewitt and Flett's (1996) study suggests that the two factors of personality and situation may not be mutually exclusive. They may perhaps represent different conceptual levels as mentioned by Krohne (1996).

Family Characteristics and Coping

Rim (1986) studied the effects of family structural variables and found that birth order is a factor that affects the use of coping strategies. Singletons were high on problem-focused coping and low on all other styles. First-borns were high on problem-focused, focusing on the positive and self-blame. Second-borns were high on problem-focused, focusing on the positive and keep-to-self styles and seeking social support. Later-borns were high on tension-reduction, self-blame, focusing on the positive, seeking social support and detachment, but low on problem-focused style.

Social Support and Coping

Two alternative perspectives on the effects of social support are the general “assets-benefits” hypothesis and the “stress buffering” hypothesis. In the “general-assets” hypothesis, having little or no social support is stressful and having high levels of social support is beneficial with or without stress. Research showed that the loss of close friends or family can have a negative health consequence (Holmes and Masuda, 1974). The “stress-buffering” hypothesis, holds that high levels of social support helps people to cope with stress. In the absence of stress, social support is neither helpful nor harmful, that is low levels of support are not stressful by themselves. Several studies have shown that having social support is beneficial during high stress periods (Andrews, Tennant, Hewson and Vaillant (1978).

Fleming, Baum, Gisriel and Gatchel (1985) studied the effects of social support on stress in residents affected by the nuclear accident at Three Mile Island. It was found that these residents exhibited greater evidence of stress across psychological, behavioural and biochemical measures than did control subjects. Having little or no social support was associated with greater incidence of stress-relevant problems for the Three Mile Island residents and vice versa. However, the intervening influence of social support was not uniform across all three domains of measurement. Social support was found to have a significantly positive effect on a sense of psychological well being, suggesting that social

support had a stress-buffering effect. However, in observing biochemical measures, it was found that Three Mile Island residents' catecholamine level remained higher than controls. Hence perceived social support was effective in reducing psychological and behavioural effects on stress but not particularly effective in reducing somatic symptoms of physiological arousal associated with stress. This finding suggests that social support may have a more significant relationship with one's psychological state, but may be less related to physiological arousal. The importance of this vigilant state of hyper-arousal is a feature of persons who suffer from post-traumatic stress disorders, and this finding suggests that the use of social support has little therapeutic effect on reducing this state.

Adjustment to Military Life

The factors related to coping with military stress are reviewed. Studies are drawn from samples of recruits and soldiers serving the United States of America Armed Forces and the Israeli Armed Forces.

Coping with Military Training in the United States of America

In examining the risk factors for mental health discharge from the military, Lubin, Fiedler and Van Whitlock (1996) found that in a sample of recruits who signed on to the United States Air Force, scores obtained on a depression inventory early in Basic Military Training were predictive of training outcome. Quick, Joplin,

Nelson, Mangelsdorff and Fiedler (1996) studying another group of United States Air Force recruit trainees, found self-reliance, as defined by a healthy balance of independence and the ability to derive social and emotional support from others, to also predict training outcome.

Carbone, Cigrang, Todd and Fiedler (1999) analyzed motivational, biographical and psychological variables to develop a model predictive of training outcome amongst recruits in the United States Air Force. They studied 632 recruits who were referred for psychological evaluation as a result of emotional difficulties during Basic Military Training and who subsequently returned to training. The purpose of this study was to determine the rate of attrition of basic trainees returned to duty following psychological evaluation. It was found that the significant factors for discharge were medical condition existing prior to service, mental health problems, self-declared homosexuality, drug use prior to enlistment, marginal performance, misconduct, family hardship and fraud. Nine of the scales on the Minnesota Multiphasic Personality Inventory-Two scales were also statistically significant in differentiating trainees who failed; these were Scales on Depression (D), Conversion Hysteria (Hs), Hypochondriasis (Hy), Paranoia (Pa), Psychopathic Deviate (Pd), Psychastenia (Pt), Schizophrenia (Sc) and Social Introversion (Si).

Of these factors that were put through analysis using logistic regression, a small number of variables were found to be predictive with up to 70 percent accuracy.

Variables reflecting level of motivation and expectancy to complete training were found to have a significant effect on training outcome. Optimism, as measured by expectancy of graduation and a positive attitude toward gaining new skills, was a major factor in motivational persistence. A third attitude item was self-reliance. Trainees who were self-reliant were more likely to graduate. This is consistent with literature on perceived self-efficacy, postulated by Bandura (1994), where self-reliant persons maintain a firm commitment to challenging goals, whereas those low on perceived self-efficacy tended to lose motivation and experience higher levels of stress when facing difficulties. History of physical abuse was also found to be significant in the predictive model. Frequency of visits to the trainee health clinic was also a major contributor. Scales D and Sc on the MMPI-2 were also included but added little to the power of the model.

Clemons (1996) monitored the anxiety levels of United States Navy recruits through their 8-week boot-camp training. The sample comprised of 80 recruits. The instruments used in this study included the Undergraduate Stress Questionnaire, the State-Trait Anxiety Inventory, the Ways of Coping Questionnaire and the Retrospective Self-Report Stress Questionnaire. Data was collected over three sessions, in the first week, fifth and eighth week of training. They found that the stress levels for recruits peaked in the fifth week of training. State-anxiety was found to be highest in the first week. Problem solving was the most frequently used coping skill, followed by self-control and accepting responsibility. Escape/ avoidance was the coping skill that was least used. Life

events that were endorsed by the recruits as stressful included uncertainty about their future, being physically away from their sexual partners, anticipating the near future, having lots of tests and insufficient sleep. On the self-report stress questionnaire, recruits endorsed difficulties in adjusting to lack of sleep, being away from home, not knowing anyone, being confused and afraid, and the fast pace of training during the first week of training. In the subsequent weeks, they endorsed failing tests and being homesick as stressful. Clemons (1996) recommended that anticipatory guidance should be given throughout the different periods of training and especially during weeks of high stress. They suggested that guidance could take the form of teaching recruits to recognize individual signs of stress, equipping them with measures to reduce stress, and allowing them time for activities such as making telephone calls to significant others and the use of prayer. It would also be of interest to compare the cultural differences and similarities in what recruits consider are important factors to maintain psychological well being. It is also of interest to compare the adaptation process of these two groups, for example to compare how long it takes the American and Singaporean recruit to adjust to training and military life. Differences in the adaptation and coping processes between American and Singaporean recruits may be due to cultural factors as well as the difference between a regular and conscripted army.

McCraw and Bearden (1990) studied a sample of United States Air Force and Navy personnel below the rank of sergeant who were seen at the mental health

clinic. They compared three groups of enlisted military personnel, including those with adjustment problems and who were seeking discharge; those with adjustment problems but who were motivated to remain in the army, and a well-adjusted group. They found that the Dominance scale of the California Psychological Inventory was a significant predictor of whether individuals fall into the Discharge or Non-Discharge groups. This scale assesses leadership ability, dominance, persistence and social initiative. Persistence was the main factor that differentiated the two groups. Low scorers tended to lack self-confidence, avoid stressful situations and decision-making. The Achievement via Conformance scale was another strong predictor for discharge. Low scorers tended to be stubborn, insecure, opinionated, pessimistic, and easily disorganized under stress or pressures to conform. The authors explored the use of pre-enlistment screening procedures using the California Psychological Inventory to sieve out potential non-copers. They used various cut-off criteria on the two scales to find out the specificity and sensitivity of the screening assessment. It would be of interest to compare cultural differences in what are the factors that predict coping. This study has implications of using pre-enlistment or pre-vocational screening for sieving out potentially good and poor performers, which in turn has tremendous cost savings in the recruitment of regular personnel.

Butters, Retzlaff and Gibertini (1986) used the Millon Clinical Multiaxial Inventory to predict discharge from military service amongst United States Air Force recruits. The principal components found on the Millon Clinical Multiaxial

Inventory were divided into four factors, including generalized distress, high social activity, social submissiveness and suspiciousness. The non-adaptive group was found to be high on generalized distress, suspiciousness, and submissiveness and low on social activity. Rudd and Orman (1996) studied 2 groups of active duty male soldiers from the United States, one group comprised to outpatients at the mental health clinic and the other was a control group. The authors found the Avoidant and Passive-Aggressive personalities on the to Millon Clinical Multiaxial Inventory discriminated copers from non-copers. Their findings concurred with that found by Butters et al (1986)

Coping with the Impact of War among Israeli Soldiers

Noy, Nardi and Solomon (1986) propose that the number of Israeli soldiers succumbing to combat stress reaction is a direct function of two sets of variables. The first is the number of direct casualties. The second is a set of situational factors, which acts to provide stress inoculation against the detrimental effects of the combat situation. These include the nature of combat, that is advance versus retreat, and its duration, the comprehensibility of the mission, the extent of tactical support and resources; and confidence in the unit's leadership, the unit's level of training as well as cohesiveness.

Solomon, Noy and Bar-On (1986) studied two entire populations of combat soldiers who had participated in an earlier phase of the war in Lebanon. It was

found that the soldiers at high risk of combat stress reaction tended to be from older age groups, in the reserves, with a low suitability score at the time of induction, lower in educational level, and in military rank. Reservists were disadvantaged because they tended to have a lessened capacity for strenuous physical activity as well as lower resilience because of previous exposure to traumatic combat events in earlier wars. They also had competing loyalties to their civilian and to their military families and a more drastic transition to combat duty when they were mobilized from civilian life. Unit cohesiveness and confidence in leadership were also less in the reserves as they serve only one month per year, compared to the continuous training of the regular units. Furthermore, reserve units were also reorganized from time to time, resulting in reservists not being familiar with one another and with their officers. Those with low combat suitability, educational level, military rank were less motivated for combat duty. They had less to lose by succumbing to a transient combat stress reaction than those who were officers who had a military career.

Segal and Margalit (1986) examined the premorbid adjustment of men with combat stress reactions in the war in Lebanon. These men had not responded to forward-echelon treatment and had severe symptomology with high probability of chronicity. Their scores on the Minnesota Multiphasic Personality Inventory showed that they were highly disturbed, and were consistent with their diagnosed psychiatric status. In examining their files, it was found that they were more maladjusted in early life and before entering the military service, compared to

normal controls. Maladjustment included difficulties in interpersonal relations in the context of pathological nuclear family (85%) It also included difficulties in school adjustment such as poor habits in concentration, behaviour disturbances and inconsistency in achievement (70%) It also included difficulties in social adjustment and in intimate relationships (70%), problems in marriage and family life (70%) and disciplinary problems during military service (60%) They had all received diagnoses on the Diagnostic and Statistical Manual-III on Axis II indicating premorbid personality disorders The major disorders were anxiety, somatoform, dissociative, psychosexual, and adjustment.

Segal and Margalit (1986) postulated that if high levels of premorbid adjustment and low levels of premorbid risk factors are found, then the major contributing factors to their breakdown would be situational in nature. If, on the other hand, there was low premorbid adjustment and high risk factors, then predisposing factors in these men would contribute to their breakdown and recalcitrance to forward-echelon treatment. It was concluded that soldiers whose combat stress reaction was refractory to treatment are at greater risk of full-blown post-traumatic stress disorder because of their initial vulnerability.

These findings suggest that there are certain factors that make certain groups of people vulnerable to combat stress reactions. Unlike the American studies, Noy et al. (1986) and Solomon et al. (1986) suggest that exogenous and endogenous factors are predictive of combat stress reactions. Segal and Margalit found that

both exogenous and endogenous factors as well as personality factors were predictors of poor adjustment. The present study will help to elucidate on the relative importance of exogenous factors, endogenous factors and personality factors. The difference in emphasis on factors that predict psychological adjustment may also be due to the difference between real combat situations versus training situations, or between voluntary enlistment into the United States Armed Forces versus real war situations in Lebanon. This suggests that the findings of this current study may not be entirely applicable in wartime situations, but are more indicative of factors related to military training in peacetime.

The study by Nardi, Lichtenberg and Kaplan (1994) is of particular interest because of its similarity to the Singapore context. Both armies are based on conscription. The authors discuss the impact of conscription on the adolescent into National Service in the Israeli Armed Forces. These include the effect of conscription on the kinds of problems manifested in conscripted recruits, the management of soldiers with diagnostic labels, the placement and training possibilities which are limited for such soldiers and the implications of a military discharge on their educational and employment opportunities. The authors studied the use of several therapeutic approaches to manage the negative effects of poor adjustment to military life amongst recruits undergoing basic military training. They used two principles of management. The first was to view such disorders as phobias rather than personality disorders. Secondly, therapy was brief and structured and was given early in the course of service. The authors

suggested that these principles helped to prevent the deleterious labelling of the maladjusted soldiers as psychologically handicapped. To counteract avoidance behaviours and anxious emotions, the authors used a behavioural-cognitive treatment approach. This involved three steps. Firstly, the patients learnt to use self-directed desensitization, which is to invoke relaxation techniques while being exposed to anxiety arousing situations. They were also taught to self-monitor the duration, intensity, and frequency of their problematic behaviours as well as their own progress and to use self-reinforcement to reward themselves for improvements. Secondly cognitive techniques were used in which the faulty internalized beliefs which produced anxiety were identified and replaced. In this cognitive technique, the patients were taught to identify internal verbalizations that promoted anxiety, and to replace these with alternative self-statements that would reduce anxiety. Thirdly, the patients were taught to increase their repertoire of coping skills, such as self-control and self-regulation of emotions and behaviour, assertiveness training and problem-solving. Nardi et al. found these techniques to be effective in managing maladjusted Israeli recruits. The desensitization technique has been found to be effective in treatment of combat stress reactions for the purpose of eliminating avoidant behaviour in situations arousing recollections of the trauma (Kean and Kaloupek, 1982) and in treatment of Israeli stress reaction casualties in the Lebanon war (Wozner and Margalit, 1986). Such brief techniques and early intervention are suited to the particular exigencies of the military, where rapid solutions are necessary and where brevity is necessary in order that manpower loss is minimized.

Evaluation of the Ways of Coping Questionnaire

According to Schwarzer and Schwarzer (1996), one problem with the Ways of Coping Questionnaire is that all measures are based on many factors and thus there may be theoretical cross-linked relationships between scales. For example, mobilizing relationship can have an emotional as well as problem-solving component. Another difficulty is that the large number of extracted factors may not have the same weight or be on the same theoretical level. Some may be closer to a higher-order factor, accounting for a larger amount of variance, whilst others may be peripheral. Stone, Greenberg, Kennedy-Moore and Newman (1991) also raised the issue of the applicability of the coping items on the Scale to specific problems. The authors found that the Scale might vary in the number of items that are potentially relevant to particular kinds of problems and that there were ceiling effects. Hence, problem type had a significant influence on coping. This complicated interpretation of the coping scales since it might not be possible to draw generalizations. The second issue was that of stages of the stressful event for which coping was reported. They found variability in the stages for which different subjects reported coping. If such variability exists, it cannot be assumed that there is uniformity across problem stages. However, the authors suggested that this methodological concern could be corrected by changes in the administration of the questionnaire. The authors also found discrepancies in the way that subjects used the response keys in the questionnaire, that is, some subjects reported how well they thought a particular strategy worked rather than

how frequently the strategy was used. This confounded the results. The authors cautioned that the way in which the Ways of Coping Questionnaire is used could produce results that were difficult to interpret.

In sum, this chapter on literature review discusses the findings on the factors related to adjustment during military training of recruits undergoing basic training in the United States, and the factors related to combat stress reactions amongst Israeli soldiers in the Lebanon war. These findings help the author in the conceptualization of the present study and in the planning and development of the methodology.