Sains Kesihatan **1**(2003): 23-33

Coping Skills among Malaysian Armed Forces Paratrooper Trainees

NORMAH CHE DIN, SHAHIDAH LEONG ABDULLAH &
FAUZIAH SHAARI

ABSTRAK

Kajian ini dijalankan untuk mengkaji proses daya tindak dalam situasi tekanan yang spesifik dialami oleh 120 orang pelatih payung terjun. Markah daya tindak terus dan daya tindak beremosi yang diperolehi dari soalselidik "Ways of Coping" telah dianalisis untuk memeriksa peranan pengamatan, tahap kecemasan, kemurungan, dan tahap tekanan terhadap daya tindak seseorang. Personaliti jenis ekstrovert tidak mempengaruhi secara langsung terhadap daya tindak terus dan daya tindak beremosi pada ketiga-tiga fasa (Latihan dalam, Luar dan Fasa terjun). Personaliti neurotik mempengaruhi daya tindak terus pada fasa II dan daya tindak beremosi pada fasa III. Kecemasan mempengaruhi daya tindak terus dan daya tindak beremosi pada fasa II dan III. Kemurungan mempengaruhi kedua-dua daya tindak secara signifikan hanya pada fasa I. Tekanan mempunyai pengaruh yang signifikan terhadap kedua-dua daya tindak pada kesemua tiga fasa. Pengamatan mempengaruhi secara signifikan daya tindak terus pada semua fasa tetapi hanya fasa I dan II pada daya tindak beremosi.

Kata kunci: tekanan, daya tindak, episod tekanan spesifik, pelatih paying terjun, sifat personaliti

ABSTRACT

This study was carried out to investigate coping process in relation to specific distressful episodes experienced by 120 paratrooper trainees. Scores of direct coping and emotional coping that were derived from the "Ways of Coping" questionnaire were analyzed to examine the role of appraisal, level of anxiety, depression and level of stress as predictors of coping. Extrovert personality did not influence direct or emotional coping at all three phases (Training, Outdoor, and Jumping phases). Neurotic personality influenced direct coping in phase II and emotional coping in phase III. Anxiety affects emotional and direct coping in phase II and III. Depression significantly influenced emotional and direct coping at phase I only. Stress has significant contribution towards emotional and direct coping for all three phases.

Appraisal significantly affects direct coping at all phases but only phase I and II for emotional coping.

Key words: Stress, coping, specific stressful episodes, paratrooper trainees, personality traits.

INTRODUCTION

In studying coping in relation to specific stressful episodes, situational characteristics may either be assessed in subjective terms or independently classified on rational basis. Consistent with the emphasis on cognitive appraisal in transitional models, reported work has focused primarily on relations between coping and subjective perceptions of the stressful situations; for instance, the degree to which the individual concerned appraises the situation as controllable, desirable, unexpected, challenging or threatening (Folkman & Lazarus 1980; Parkes 1984; Stone & Neale 1984). These studies consistently find significant relations between situational appraisals and reported coping strategies. In McCrae's study (1984), threat appraisals were associated with the use of faith, fatalism, and wishful thinking whereas challenge appraisals elicited strategies such as rational action, positive thinking and self-restraint. One problem with this approach, noted by Folkman and Lazarus (1985) in relation to their own study, is the degree of conceptual overlap between self-reported situational perceptions, coping strategies and emotional process.

In the second approach, stressful situations or events are classified independently into rational categories according to content or domain of concern. Thus, differences have been found in the patterns of problem-focused and emotion-focused coping reported for different types of situations or events, assigned by independent raters whether to content categories, for example, illness, interpersonal conflicts or financial problems or to appraise categories such as loss, challenge or threat (Billings 1984). If data are collected at several different times during prolonged stressful experience, within subjects, comparisons of coping in different situations can be made. Using this approach, Folkman and Lazarus (1985) found that problem-focused coping was more salient during preparation for examination and that distancing strategies were more salient while waiting for the results.

In stressful situations, an individual attempts to evaluate the problem, to appraise, and implement possible course of action and to regulate his or her emotional responses. However, coping and appraisal varies among individuals as they are influenced by individual differences in psychological vulnerability, in personal resources, capacities, commitments and values (Rosenbaum 1983). Personality Type A has been found to have relationship with patterns of coping and defense (Pittner & Houston 1980), with internal

control and problem-oriented coping (Anderson 1977; Parkers 1984) and with trait anxiety and maladaptive coping (Parasuraman & Cleek 1984).

A more extensive study of personality characteristics and coping was carried out by Fleishman (1984) who found that mastery and self-esteem were only weakly related to coping but that self-denial (the tendency to avoid thinking about negative aspects of one's life) and nondisclosure (the tendency to avoid revealing problems to others) were reflected in predictable ways in the coping patterns. McCrae and Costa (1986) demonstrated the influence of neuroticism and extraversion on coping mechanism.

Breakdown in combat has been labeled as shell shock, combat exhaustions and combat stress reaction (Solomon et al. 1986). Combat stress reaction is a condition in which soldiers are unable to perform their duty because of extreme situational psychological disturbance. The study of combat stress reactions and factors that may prevent it is important because psychological breakdown in combat endangers both individual soldier and their comrades and it disturbs military functioning and may lead to continued psychiatric disturbance. Para-jumping is perceived as a threat to life and limb that result in both worry and anxiety. The nature of threat is heightened by anticipatory fear.

The model in Figure 1 is used to predict coping responses distinguished between two separate sources of influence: Situational and person variables. Situational factors are related to immediate nature of stressful transactions which was the specific focus of the individual's coping attempt. Person factors or intra-individual differences are represented by personality characteristics assessed prior to occurrence of episode.

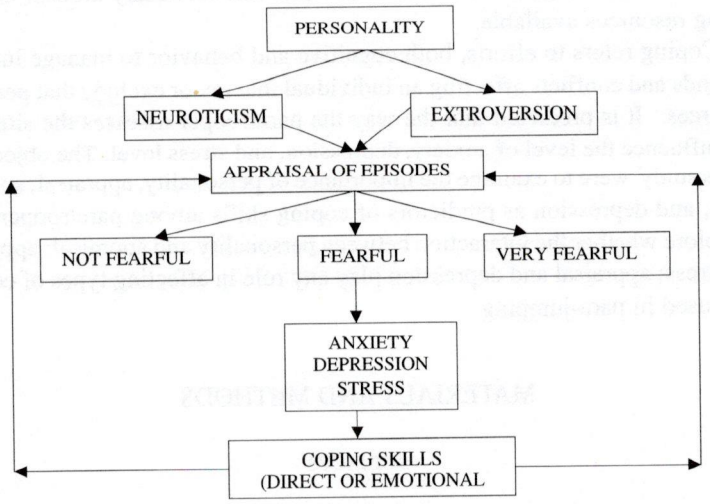

FIGURE 1. Theoretical framework for individual differences, types of appraisals, anxiety, depression, stress and coping in fearful episodes

It is predicted that the type of personality among the paratroopers and their appraisal of situations would influence the level of anxiety, depression and stress. As coping skills are seen as a process, coping strategies adopted in each phase of training are influence by anxiety, depression and stress level faced by the paratroopers. However, coping strategies will lead to reappraisal of situation.

In terms of person-environment interaction, two types of individual differences were identified that are extroversion and neuroticism. Extroversion is characterized by sociable, easygoing, active, and optimistic tendencies while neuroticism refers to emotional stability which comprises of vulnerable, anxious, moody and rigid tendencies. These traits have been found to have wide ranging implications for behavior and mental health. It is predicted that paratroopers with high neuroticism and introverted scores respond less adaptively to the demanding circumstances and more vulnerable to emotional distress than those with low scores (Eysenck 1970). Therefore, the effects of appraisal would differ between high-low neurotic and extroverted-introverted paratroopers.

The perceived importance of the episode could be regarded as analogous to life events severity. Anxiety, depression, and stress have been found to interact with para-jumping to predict coping strategies (Parasuraman & Cleek 1984). Appraisal and reappraisal refers to continually reevaluated judgments about demands and constraints in ongoing transactions with situation, option and resources to manage them. These evaluations determine the person's stress reactions, the various emotions experienced and adaptive outcomes. Primary appraisal is the evaluation of what is at stake and secondary arousal is what coping resources available.

Coping refers to efforts, both cognitive and behavior to manage internal demands and conflicts affecting an individual that tax or exclude that person's resources. It is predicted that the way the paratrooper assesses the situation will influence the level of anxiety, depression, and stress level. The objectives of this study were to examine the importance of personality, appraisal, anxiety, stress, and depression as predictors of coping skills among paratroopers and to explore whether the interaction between personality and appraisal; appraisal and stress; appraisal and depression play any role in affecting types of coping style used in para-jumping

MATERIALS AND METHODS

SUBJECTS

There are three phases of training which involves physical, outdoor and para-jumping. Participation is voluntary with successive entry during the final week of each phases of training. From 126 new paratrooper trainees,

only 120 male were selected. Two females were excluded due to insignificant female population. Four male paratrooper trainees returned back due to poor performance. 57.5% are from Special Forces, 31.7% from Infantry, and 10.8% are service corps. 74.2% are Malay and 25% are natives. 75% of them have served for 2 years. 89.2% have Private rank and 4.2% as officer.

INSTRUMENTS

Eysenck Personality Questionnaire by Eysenck (Eysenck & Eysenck 1975) was used to assess extroversion-introversion and neuroticism (Coefficient alpha = 0.93). Ways of Coping Questionnaire (Parkers 1986) was used to identify coping strategies. It is a checklist of a broad range of behavior. It is divided into direct and emotional coping strategies. Coefficient alpha is .71 and .65 respectively. Depression-Anxiety-Stress Scales (DASS) was used to evaluate level of stress, anxiety, and depression. Appraisal Questionnaire was administered to the paratroopers where they were asked to rank each phase as (1) not fearful to (2) very fearful.

RESULTS

Figure 2 shows that appraisal levels declined from phase I (2.74) to phase III (1.23); anxiety levels increased from phase I (1.97) to phase III (2.78); depression levels peaked during phase II (1.53); stress levels increased with each phase (1.25 to 2.70); and direct coping skills decreased with each phase (2.73 to 1.27) and emotional coping took over as stress and anxiety level increased (1.28 to 2.79).

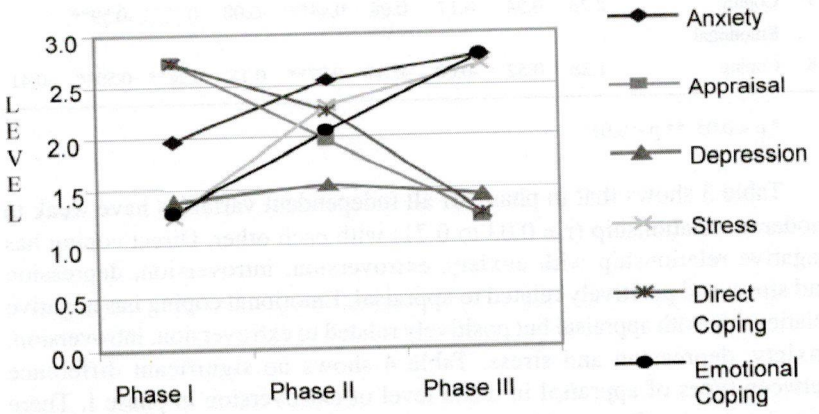

FIGURE 2. Level of anxiety, appraisal, depression, stress, direct and emotional coping in phase I to phase III.

In Phase I, direct coping is negatively correlated with emotional coping (r = -0.41) (Table 1). Direct coping is negatively related to anxiety (r = -0.08), depression (r = -0.36), and stress (r = -0.59)and positively related with extroversion (r = 0.17), neuroticism (r = 0.08), and appraisal (0.44) while emotional coping are positively related to anxiety (r = 0.18), depression (r = 0.28) and stress (r = 0.50) but negatively correlated with extroversion (r = -0.08), neuroticism (r = -0.06), and appraisal (r = -0.77). All variables have low to high relationships. Table 2 shows that in phase II, all the variables have low to high relationship (r = 0.01 to 0.90). This phase confirm the earlier finding that the more emotional coping was used, the less likely direct coping style was used. Direct coping has negative relationship with stress but positively related to neuroticism, appraisal and anxiety. Emotional coping has positive relationship with depression and stress but negatively related to extroversion, neuroticism, appraisal, and anxiety.

TABLE 1. Pearson correlation, means and standard deviation of coping scales, personality, appraisal, depression and stress in phase I

	Scales	M	SD	1	2	3	4	5	6	7
1	Extroversion	1.46	0.5	-						
2	Neuroticism	1.64	0.48	-0.15	-					
3	Appraisal	2.74	0.51	0.07	0.13	-				
4	Anxiety	1.97	0.35	-0.07	-0.05	-0.08	-			
5	Depression	1.40	0.65	-0.21*	-0.02	-0.19*	0.12	-		
6	Stress	1.25	0.59	-0.11	-0.04	-0.50**	0.69	-0.34**	-	
7	Direct Coping	2.73	0.54	0.17	0.08	0.44**	-0.08	-0.39**	-0.59**	-
8	Emotional Coping	1.28	0.52	-0.08	-0.06	-0.77**	0.18	0.28**	0.50**	-0.41

* $p < 0.05$; ** $p < 0.01$

Table 3 shows that in phase III all independent variables have weak to moderate relationship (r = 0.03 to 0.71) with each other. Direct coping has negative relationship with anxiety, extroversion, introversion, depression and stress and positively related to appraisal. Emotional coping has negative relationship with appraisal but positively related to extroversion, introversion, anxiety, depression and stress. Table 4 shows no significant difference between types of appraisal in mean level of extroversion in phase I. There was also no significant difference in types of appraisal in the mean level of neuroticism in phase I and II but significant between phase I and III.

TABLE 2. Pearson correlation, means and standard deviation of coping scales, personality, appraisal, anxiety, depression, and stress in phase II

	Scales	M	SD	1	2	3	4	5	6	7
1	Extroversion	1.46	0.50	-						
2	Neuroticism	1.64	0.48	-0.15						
3	Appraisal	1.96	0.42	-0.05	0.01					
4	Anxiety	2.56	0.59	-0.09	0.07	0.54**				
5	Depression	1.53	0.64	-0.14	0.08	-0.09	-0.03			
6	Stress	2.3	0.60	-0.18*	0.06	-0.58**	-0.29**	0.13		
7	Direct Coping	2.25	0.61	-0.17	0.24*	0.51**	0.54**	0.10	-0.28**	
8	Emotional Coping	2.05	0.47	-0.06	-0.07	-0.90**	-0.51**	0.15	0.65**	-0.49**

* $p < 0.05$; ** $p < 0.01$

TABLE 3. Pearson correlation, means and standard deviation of coping scales, personality, appraisal, anxiety, depression, and stress in phase III

	Scales	M	SD	1	2	3	4	5	6	7
1	Extroversion	1.46	0.50	-						
2	Neuroticism	1.64	0.48	-0.15						
3	Appraisal	1.23	0.54	-0.10	-0.06					
4	Anxiety	2.78	0.56	0.21*	0.08	0.03				
5	Depression	1.42	0.76	-0.07	-0.04	-0.04	-0.39**			
6	Stress	2.7	0.61	-0.10	0.12	-0.71**	-0.02	0.17		
7	Direct Coping	1.27	0.64	-0.03	-0.25**	0.25**	-0.27**	-0.38**	-0.40**	
8	Emotional Coping	2.79	0.56	0.10	0.21*	-0.11	0.30**	0.07	0.23*	-0.74**

* $p < 0.05$; ** $p < 0.01$

TABLE 4. Result of ANOVA: appraisal by personality

		Phase I		Phase II		Phase III	
Personality	df	MS	F	MS	F	MS	F
Extroversion	119	1.45E-02	0.006	4.57E-02	0.25	0.337	0.131
Neuroticism	119	0.201	0.077	5.45E-02	0.3	1.168	4.018

Table 5 shows that all factors interact significantly towards direct coping. The highest contribution is from stress and appraisal factors at phase I which account for 38% of the variance that predict direct coping. The lowest contribution is from extroversion and appraisal at phase III which account for only 6.3%. Table 6 shows that combination of two factors contributes significantly towards emotional coping. The highest combination are between appraisal and stress in phase II (83.8%) while the lowest combination are between extroversion and appraisal in Phase III (which indicates that the real jumping is not as stressful once they have gone through the outdoor training in phase II).

TABLE 5. Interactive effects of two factors on direct coping

Factors	Phase I (r^2)	Phase II (r^2)	Phase III (r^2)
Extroversion-Appraisal	19.8%**	28.3%**	6.3%*
Neuroticism-Appraisal	22.7%**	32.9**	10.5%**
Anxiety-Appraisal	19.95**	36.1%**	13.7%**
Depression-Appraisal	27.5%**	26.4%**	7.2%*
Stress-Appraisal	26.2%**	26.2%**	14.7%**

* $p < 0.05$; ** $p < 0.01$

TABLE 6. Interactive effects of two factors on emotional coping

Factors	Phase I (r^2)	Phase II (r^2)	Phase III (r^2)
Extroversion-Appraisal	59.1%**	81.5%**	2.6%
Neuroticism-Appraisal	58.5%**	81.5%**	6.5%*
Anxiety-Appraisal	59.7%**	81.6%**	10.8%**
Depression-Appraisal	60.3%**	81.9%**	1.8%
Stress-Appraisal	60.2%**	83.8%**	5.8%*

* $p < 0.05$; ** $p < 0.01$

DISCUSSION

In the present study, coping was treated as a process. Information has been collected in relation to specific tense episodes of para-jumping. In general, both direct and emotional coping can be regarded as potentially adaptive forms of coping. Even though they were divided into two distinct factors it does not imply that in any particular para-jumping phases only one form of

coping will be used in exclusion of the other. Both are being used together consistently in all phases of para-jumping. These findings also demonstrate that coping is not determined solely by individual personality but related to appraisal, stress, anxiety and depression levels. It also provide support for transactional models of stress and coping by showing effects between appraisals and temperament of episodes variables account for significant proportions of the variance in coping styles. Folkman and Lazarus (1980) found that both direct problem-focused and emotion-focused strategies were significantly inter-correlated ($r = 0.44$) in almost all episodes.

Substantial proportions of the variance were due to interaction across different types of variables. Interaction between personality, appraisal, anxiety, depression and stress are implicit in transactional theories of coping. Theoretically, this study demonstrated that coping is not determined solely by intra-individual processes related to individual difference and perceptions of particular episodes but are also determined by external factors particularly the different environments in the training. In this respect, the results are consistent with Parkes (1980) and Folkman and Lazarus (1984) which examine the influence and interactive relationship of personality in predicting coping skills.

Personality in the context of this study does not change across phases so it was administered before the actual training. Among the four groups of extroverted and introverted and high and low neuroticism, their personality did not differ in the frequencies of using different appraisal categories. Extroversion was found to have no significant effect on appraisal. However both extroversion and appraisal significantly affect both direct and emotional coping in all phases. Neuroticism alone is significant only in phase III but interaction with appraisal is significant in all phases for both direct and emotional coping. McCrae and Costa (1986) and Parkes (1984) show that the low neurotic (emotionally stable group) appraised situation less fearful than the high neuroticism group. Under fearful situation, emotionally stable participants reported low level of stress and anxiety. High neuroticism participants showed potentially less adaptive pattern of response than low neuroticism in terms of highly demanding work.

Appraisal alone has significant contribution in all three phases for direct coping and in phase I and II for emotional coping. Personality and appraisal together were identified as significant predictors of coping behavior. Appraisal together with anxiety or depression or stress was found to be important predictors of coping styles. Studies had shown that interaction of appraisal with work risk and personality towards life stress to be significant for neuroticism. Type of appraisal of situation shows significant effect on emotional stability but no effect on extroversion.

According to Parkes (1984), under high demand, low neurotic subjects reported high level of suppression. In contrast, high neuroticism was

relatively unresponsive to work demand, showing inconsistently low levels of direct coping. In conclusion, coping styles – direct and emotional coping – were significantly related to appraisal, level of anxiety and stress but non significant with depression except in physical training phase.

However, this study has a few limitations that needed to be addressed. The methodology does not encompass empirical complexity of coping, does not capture the fluctuating emotions, coping and cognitive appraisal, and does not provide assessment of the effectiveness of coping sequences.

The result, though tentative, have a number of implications for future research. First, it appears that the assessment of coping in naturalistic occurring specific stressful situation yields meaningful differences. Future research should assess soldier's perception prior to and immediately following deployment to provide conclusive insight into stress resistance in the face of extreme stressors. Information will be beneficial to understand other major stress circumstances such as natural disasters, terrorist attacks, battle and conventional warfare deployment under United Sates. A war related study may have special contribution to understand reactions to massive stress among Malaysian soldiers. Intervention would be to improve coping skills in order to limit soldiers developing combat stress reactions. Support would include a combination of solid instrumental aid aimed at surviving in the nightmare of combat, deployment, terrorist attacks and special training to provide emotional support.

CONCLUSION

Predicted differences between appraisal, anxiety, depression and stress levels made significant contributions to the coping skills among paratroopers. Regression analysis shows that type of appraisal, level of anxiety, depression and stress were the most important influences on both direct and emotional coping. Personality types (extroversion and neuroticism) did not show significant contribution to appraisal and coping strategies but interaction with appraisal produce significant contribution to the proportion of the variance in direct and emotional coping styles.

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Normah Che Din
Shahidah Leong Abdullah
Fauziah Shaari
Health Psychology Unit
Faculty of Allied Health Sciences
Universiti Kebangsaan Malaysia
Jalan Raja Muda Abdul Aziz
50300 Kuala Lumpur
Malaysia