

CHAPTER 4

RESULTS AND INTERPRETATIONS

4.0 Introduction

This chapter presents data collected from the study and discusses the interpretation and implications of the data. Stress is treated as a dependent variable in this study. The purpose of the study is to identify the level of stress, occupational stressors, and stress responses of Assistant Registrars of the University of Malaya. Comparisons are made between or among various groups to see whether there is any difference in terms of the level of stress, the stressors, and the stress responses.

4.1 The Level Of Occupational Stress

Table 4.1 shows the self-reported level of occupational stress of Principal Assistant Registrars and Assistant Registrars of the University of Malaya. As is shown in Table 4.1, 54.1% of the respondents experience moderate amount of stress; 23% experience high stress; while 19.7% experience low stress and 3.3% experience no stress. None indicate experiencing extreme levels of stress.

Table 4.1

Level Of Stress

| level | freq. | % |
|-----------------|-------|-------|
| no stress | 2 | 3.3 |
| low stress | 12 | 19.7 |
| moderate stress | 33 | 54.1 |
| high stress | 14 | 23.0 |
| extreme stress | 0 | 0 |
| total | 61 | 100.0 |

While only a small proportion experience no or low stress, more than half of the respondents experience moderate stress with about a quarter experiencing high stress. The high proportion (77.1%) experiencing moderate to high stress levels indicates the prevalence of stress among administrators. This finding is in line with Rice's report (1992) that administrators as an occupational group suffer from high stress.

4.2 Stress Levels Of The Principal Assistant Registrars and Assistant Registrars

The position of Principal Assistant Registrar is higher than that of Assistant Registrar. The posts are usually occupied by senior administrators who usually have a few Assistant Registrars assisting them.

Table 4.2 shows that 45.5% of Principal Assistant Registrars as compared to 18 % of Assistant Registrars experience high stress, and 45.5% of Principal Assistant Registrars as compared to 56% of Assistant Registrars experience moderate stress. Only 9.1% of Principal Assistant Registrars experience low or no stress as compared to 26% of Assistant Registrars.

Table 4.2

Stress Level Of Principal Assistant Registrars (PAR) and Assistant Registrars (AR)

| stress \ job | <u>PAR</u> | | <u>AR</u> | |
|--------------|------------|-------|-----------|-----|
| | freq. | % | freq. | % |
| no or low | 1 | 9.1 | 13 | 26 |
| moderate | 5 | 45.5 | 28 | 56 |
| high | 5 | 45.5 | 9 | 18 |
| total | 11 | 100.0 | 50 | 100 |

Table 4.3 shows the t-test score comparing Principal Assistant Registrars and Assistant Registrars' level of stress. The mean score of Principal Assistant Registrars is 2.36 and the standard deviation is 0.67. The mean score of Assistant Registrars is 1.92 and the standard deviation is also 0.67. The t value is 2 and the probability is 0.5. At 0.05 level of significance, the difference in stress levels experienced by Principal Assistant Registrars and Assistant Registrars is significant. This means that there is a difference in the stress levels of Principal Assistant Registrars and Assistant Registrars. Principal Assistant Registrars experience more stress than that of Assistant Registrars.

Table 4.3

Comparison Between Principal Assistant Registrars (PAR) and Assistant Registrars (AR) In
Terms of Level Of Stress

| stress level | PAR | AR | t | p |
|--------------------|------|------|------|------|
| mean score | 2.36 | 1.92 | 2.00 | .05* |
| standard deviation | .67 | .67 | | |

* significant at 0.05.

Principal Assistant Registrars occupy a delicate position in the organizational structure. They are sandwiched between the heavy demands and pressures of the top management and the complaints of those lower than them, and they face problems of not having enough say in decision making. It is thus not surprising that this position is more stressful than that of Assistant Registrars. On top of that, they are usually heading certain departments or sections and are therefore given more responsibility for things as well as for people as compared to Assistant Registrars.

4.3 Stress Level Of Administrators In Central And Non Central Administration

Of the 61 respondents, 39 (63.9%) are placed in central administration while 22 (36.1%) are not. Table 4.4 compares the stress level of those in central administration and non central administration.

Table 4.4

Stress Level Of Administrators In Central and Non Central
Administration

| stress \ placement | <u>central</u> | | <u>non central</u> | |
|--------------------|----------------|-------|--------------------|-------|
| | freq. | % | freq. | % |
| no or low | 8 | 20.5 | 6 | 27.3 |
| moderate | 23 | 59.0 | 10 | 45.5 |
| high | 8 | 20.5 | 6 | 27.3 |
| total | 39 | 100.0 | 22 | 100.0 |

Of those placed in central administration, 20.5% experience no or low stress, 59% experience moderate stress, and 20.5% experience high stress. Of those who are not in central administration, 27.3% experience no or low stress, 45.5% experience moderate level of stress while 27.3% experience high stress. The table shows that there is a higher percentage of central administrative officers (59%) who experience moderate stress as compared to 45.5% of those in faculties or centres or departments of study. On the other hand, 27.3% of non central administrative officers experience high stress as compared to 20.5% of the central administrative officers.

Table 4.5

Comparison Between Administrators In Central and
Non Central Administration In Terms of Level Of Stress

| stress level | central | non central | t | p |
|--------------------|---------|-------------|-----|------|
| mean score | 2.00 | 2.00 | .01 | 1.00 |
| standard deviation | .65 | .76 | | |

As in Table 4.5, the central administration group has a mean score of 2 and standard deviation of 0.65 while the non central administration group has a mean score of 2 and standard deviation of 0.76. The table shows that there is no significant difference in the stress levels experienced by those in central administration and those who are not.

4.4 Stress Level Of Administrators By Years Of Service

To find out whether the length of service has any influence on stress level, comparison are made among the three groups of administrators with different lengths of service: those with less than 10 years, those with 10 to 19 years and those with more than 19 years. Table 4.6 shows that at 0.05 level of significance, there is a significant difference in the stress level of the three groups. The post-hoc analysis (using Scheffe procedure) reveals that the group with less than 10 years of service and the group with more than 19 years of service are different in their level of stress

experienced; and also the group with 10 to 19 years of service and the group with more than 19 years are different in their level of stress experienced. The more senior the group is in terms of years of service, the more stress the group has.

Table 4.6

Differences In Stress Level Among Administrators By Number Of Years Of Service

| group | mean | F ratio | probability |
|--------------------|------|---------|-------------|
| less than 10 years | 1.82 | 4.26 | .019 |
| 10 - 19 years | 1.90 | | |
| more than 19 years | 2.46 | | |

4.5 Stress Level Of Administrators By The Number Of Staff They Control

As can be seen in Table 4.7, the F score at 0.05 level of significance shows no significant difference in the stress level of the three groups of administrators: those with less than 6 staff, those with 6 to 15 staff and those with more than 15 staff. This means that the size of staff that an administrator controls has no relationship with the level of stress they experience.

Table 4.7

Differences In Stress Level For Administrators By Number of Staff They Control

| source | mean | F ratio | probability |
|-------------------|------|---------|-------------|
| less than 6 staff | 1.89 | .88 | .42 |
| 6 - 15 staff | 2.17 | | |
| more than 6 staff | 2.00 | | |

4.6 Stressors Affecting The Administrators

There are various sources that bring about occupational stress among the administrators in the University of Malaya. One of the main stressors is the University of Malaya as an organization.

Table 4.8 shows the level of stress caused by administrative policies, structure, change, territory and leadership as organizational stressors.

As far as administrative policies are concerned, 6.6% of the administrators experience low stress, 47.5% experience moderate stress, 27.9% experience high stress and 18% experience dangerous stress. While only 6.6% experience low stress, slightly less than half (47.5%) experience moderate amount of stress and another slightly less than half (45.9%) experience high and dangerous stress in areas of administrative policies. Indeed, 18% have reached the dangerous stress zone as far as administrative policies are concerned. Thus administrative policies represent a serious organizational stressor. The three areas in administrative policies examined by this study and need addressing are that of red tape, amount of administrative papers and non participation in decisions that affect the administrators' work.

Table 4.8

Level Of Stress Caused By Organizational Stressors

| stressor | <u>low</u> | | <u>moderate</u> | | <u>high</u> | | <u>dangerous</u> | |
|-------------------------|------------|------|-----------------|------|-------------|------|------------------|------|
| | freq. | % | freq. | % | freq. | % | freq. | % |
| administrative policies | 4 | 6.6 | 29 | 47.5 | 17 | 27.9 | 11 | 18.0 |
| structure | 6 | 9.8 | 33 | 54.1 | 15 | 24.6 | 7 | 11.5 |
| change | 6 | 9.8 | 28 | 45.9 | 19 | 31.1 | 8 | 13.1 |
| territory | 12 | 19.7 | 37 | 60.7 | 11 | 18.0 | 1 | 1.6 |
| leadership | 27 | 44.2 | 24 | 39.4 | 5 | 8.2 | 5 | 8.2 |

The structure of the University of Malaya is another important organizational stressor as 54.1% of administrators experience moderate stress, 24.6% experience high stress and 11.5% experience dangerous stress. The lack of control over one's work, no flexibility and the lack of personal touch are key areas that bring about this stressful structure.

Likewise, organizational change is stressful as 45.9% experience moderate stress, 31.1% high stress and 13.1% dangerous stress. Further discussions with some of the affected respondents revealed that this relatively high score in stress is tied up with recent developments in the University of Malaya, such as change in leadership, addition of new administrative structures headed by academicians, pending corporatization of the University, increase in workload, transfer of staff, and other changes in their work or office.

Territory as an organizational stressor is less important. Table 4.8 shows that 19.7% experienced low stress, 60.7% experienced moderate stress, 18% experienced high stress and only 1.6% experienced dangerous stress. Though territory is not as important a stressor as the others, it should not be ignored as a large group of administrators (60.7%) are already facing moderate stress in areas that concern territory.

Leadership as an organizational stressor occupies the least important place as 44.2% have low stress and 39.4% moderate stress, 8.2% in high stress and another 8.2% dangerous stress. Compared with the other organizational stressors, leadership seems to be the least important stressor as slightly less than half of the respondents (44.2%) experienced low stress.

The overall picture of organizational stressors is that 18% of the administrators are in the low stress zone, 49.2% are in the moderate stress zone, 21.3% are in the high stress zone and 11.5% are in the dangerous zone. This means that other than the 18% in the low stress zone, the rest are experiencing stress that needs intervention. The 32.8% who are in the high and dangerous stress zone need help!

Table 4.9

Level Of Stress Caused By Group Stressors

| stressor | <u>low</u> | | <u>moderate</u> | | <u>high</u> | | <u>dangerous</u> | |
|----------------------------|------------|------|-----------------|------|-------------|------|------------------|-----|
| | freq. | % | freq. | % | freq. | % | freq. | % |
| norm pressures | 24 | 39.3 | 35 | 57.4 | 2 | 3.3 | - | - |
| lack of group cohesiveness | 17 | 27.9 | 37 | 60.7 | 5 | 8.2 | 2 | 3.2 |
| inadequate group support | 26 | 42.6 | 27 | 44.3 | 7 | 11.5 | 1 | 1.6 |

Table 4.9 shows the level of stress experienced by administrators caused by group stressors. Norm pressures as a group stressor has caused 39.3% administrators experiencing low stress, 57.4% moderate stress and 3.3% high stress. Lack of cohesiveness as a stressor has caused 27.9% to experience low stress, 60.7% moderate stress, 8.2% high stress and 3.2% dangerous stress. Table 4.9 also shows that 42.6% find inadequate group support giving them low stress, 44.3% moderate stress, 11.5% high stress and 1.6% dangerous stress. Group stressors appears to be less important than organizational stressors as more of the respondents seem to be either in the low or moderate stress zones.

Table 4.10 shows the level of stress experienced by administrators caused by job stressors. In the area of role conflict, 9.8% are in the low stress zone, 57.4% are in the moderate stress zone, 19.7% are in the high stress zone and 13.1% are in the dangerous stress zone. The role conflict of

the administrators is mainly caused by the administrators having more than one "supervisor" and different demands from these "supervisors". Intersender role conflict often comes with the many levers of authorities in the administrative system and intrasender conflict comes with conflicting demands from the same person. Role conflict appears to play a role in causing stress among administrators in the University of Malaya with 19.7% in the high stress and 13.1% in the dangerous stress zones.

Table 4.10

Level Of Stress Caused By Job Stressors

| stressor | <u>low</u> | | <u>moderate</u> | | <u>high</u> | | <u>dangerous</u> | |
|------------------------------|------------|------|-----------------|------|-------------|------|------------------|------|
| | freq. | % | freq. | % | freq. | % | freq. | % |
| role conflict | 6 | 9.8 | 35 | 57.4 | 12 | 19.7 | 8 | 13.1 |
| role ambiguity | 15 | 24.6 | 28 | 45.8 | 12 | 19.7 | 6 | 9.9 |
| work overload | 5 | 8.2 | 40 | 65.6 | 7 | 11.5 | 9 | 14.7 |
| work underload | 17 | 27.8 | 39 | 64.0 | 4 | 6.6 | 1 | 1.6 |
| responsibility for people | 5 | 8.2 | 19 | 31.2 | 19 | 31.1 | 18 | 29.5 |
| time pressure | 3 | 4.9 | 27 | 44.3 | 16 | 26.2 | 15 | 24.6 |
| working conditions | 10 | 16.4 | 36 | 59.0 | 4 | 6.6 | 11 | 18.0 |

In the area of role ambiguity, 24.6% are in the low stress zone, 45.8% are in the moderate stress zone, 19.7% are in the high stress zone and 9.9% are in the dangerous stress zone. Role

ambiguity plays a lesser role than role conflict in causing stress among administrators. While only 9.8% experience low stress in role conflict, a larger group of 24.6% face low stress in role ambiguity. Even then, with 19.7% in the high stress zone and 9.9% in the dangerous stress zone are enough cause for alarm, as research has shown that role ambiguity is related to job tension (Khan et al., 1964), job dissatisfaction, anxiety, boredom, lowered productivity and psychological withdrawal (Latack, 1981).

Work overload causes 8.2% to experience low stress, 65.6% moderate stress, 11.5% high stress and 14.7% dangerous stress. Work underload causes 27.8% to experience low stress, 64% moderate stress, 6.6% high stress and 1.6% dangerous stress. Work overload and work underload represent the two extremes of work load. Thus while work overload is a stressor, the opposite is also the stressor. However in terms of the data shown in Table 4.11, work overload appears to be more of a stressor than work underload. This is so as 27.8% experience low stress in work underload as compared with 8.2% in the low stress zone for work overload. On the other hand, 26.2% experience high or dangerous stress zones in work overload while only 8.2% are in the high or dangerous stress zones in work underload. Those in the moderate stress zones are about the same for work overload (65.6%) and work underload (64%).

Responsibility for people appears to be a major stressor as 29.5% of the respondents are in the dangerous stress zone and 31.1% in the high stress zone. Responsibility for people seems to be affecting a large group of respondents as other than the 8.2% in the low stress zone, the rest are affected by this stressor. This finding supports the findings of research by others such as Wardwell, Hyman and Bahnson (1964), and French, Caplan, and Harrison (1982) that responsibility for

people is stressful. Stress caused by responsibility brings on coronary heart disease risk factors. Though responsibility for people is an important job stressor, but as can be seen in Table 4.7, there is no difference in the level of stress among administrators irrespective of the number of staff they control.

Coming very close to responsibility for people as a stressor is time pressure. Time pressure causes a large group to experience stress as other than the 4.9% in the low stress zone, the rest, that is 95.1% are facing stress. This 95.1% is made up of 44.3% in the moderate stress zone, 26.2% in the high stress zone and 24.6% in the dangerous stress zone. Therefore 50.8% of the respondents are either facing high or dangerous stress in terms of time pressure.

However, while work conditions do not affect 16.4% of the respondents much, it is causing moderate stress to 59%, high stress to 6.6% and dangerous stress to 18% of the respondents. Though the top management has done much to improve the physical aspects of the work conditions such as that of renovation of buildings, it is still at an unsatisfactory stage as far as 83.6% of the respondents are concerned. Common complaints on the work conditions in the University of Malaya include those of crowded office conditions, temperature being too cold or too hot, noisy environment created by the printer or photostating machine, and poor quality and quantity of food served in the canteen.

Table 4.11

Level Of Stress Caused By Career Stressors

| zones | freq. | % |
|------------------|-------|-------|
| low stress | 8 | 13.1 |
| moderate stress | 19 | 31.2 |
| high stress | 9 | 14.8 |
| dangerous stress | 25 | 41.0 |
| total | 61 | 100.0 |

Table 4.11 shows that career stressors are affecting 41% of the respondents badly as they are in the dangerous stress zone. On top of this, another 14.8% are experiencing high stress. Combining the two groups, a total of 55.8% are experiencing either high or dangerous stress in the area of career development. This delicate stress situation is typical of close organizations where career development is almost stagnant and promotion is subjected to vacancy due to retirement or resignation. The situation is made worse as one stays at the maximum salary without any movement in salary for some time. While 13.1% are in the low stress zone 31.2% are in the moderate stress zone. It is suspected that the 13.1% in the low stress zone contain among others those junior administrators or those who are already promoted to higher positions of Principal Assistant Registrars. Career stressor has taken the first place as a stressor as can be seen in Table 4.12.

Table 4.12

Ranking of Importance of Occupational Stressors

| stressor | mean score | ranking |
|----------------|------------|---------|
| job | 4.07 | 2 |
| organizational | 3.93 | 3 |
| group | 3.13 | 4 |
| career | 4.46 | 1 |

Table 4.12 shows the ranking of stressors in order of importance. Career stressor with a mean score of 4.46 causes the most serious stress, followed by job stressor with a mean score of 4.07. Organizational stressors are next in importance and occupy the third place in the hierarchy. The last is the group stressor, with a mean score of 3.13. This means that the stressors that cause the most stress are those which are related to career while the ones that cause the least stress are those of group stressors.

4.7 Stressors Affecting Principal Assistant Registrars And Assistant Registrars

In Table 4.13, Principal Assistant Registrars have a mean score of 4.55 and a standard deviation of .82 while Assistant Registrars have a mean score of 4.28 and a standard deviation of 1.28 for administrative policies. The t value is .66 with a probability of .52. At .05 level of significance, the difference is not significant; thus there is no difference in the level of stress caused by administrative policies between Principal Assistant Registrars and Assistant Registrars.

Table 4.13

Comparison Between Principal Assistant Registrars (PAR) And Assistant Registrars (AR) In The Level Of Stress Caused By Organizational Stressors

| type of stressors | PAR | AR | t | p |
|-------------------------|------|------|-----|-----|
| administrative policies | | | | |
| mean score | 4.55 | 4.28 | .66 | .52 |
| standard deviation | .82 | 1.28 | | |
| structure | | | | |
| mean score | 4.18 | 4.06 | .32 | .75 |
| standard deviation | 1.08 | 1.17 | | |
| change | | | | |
| mean score | 4.45 | 4.18 | .98 | .33 |
| standard deviation | .67 | 1.32 | | |
| territory | | | | |
| mean score | 3.36 | 3.12 | .77 | .45 |
| standard deviation | .92 | .96 | | |
| leadership | | | | |
| mean score | 3.27 | 3.02 | .53 | .60 |
| standard deviation | 1.42 | 1.42 | | |

There is also no difference in the level of stress caused by structure between Principal Assistant Registrars and Assistant Registrars. This means that Principal Assistant Registrars and Assistant Registrars experience the same degree of stress in terms of structure as a stressor.

The data in Table 4.13 shows no difference in the level of stress between Principal Assistant Registrars and Assistant Registrars as far as change as a stressor is concerned. Likewise, for

territory and leadership, the data indicate that there are no differences in the level of stress caused by territory and leadership between Principal Assistant Registrars and Assistant Registrars.

Table 4.14

Comparison Between Principal Assistant Registrars (PAR) And
Assistant Registrars (AR) In The Level Of Stress Caused By Group Stressors

| type of stressors | PAR | AR | t | p |
|----------------------------|------|------|------|-----|
| norm pressures | | | 1.53 | .13 |
| mean score | 3.09 | 2.62 | | |
| standard deviation | .70 | .97 | | |
| lack of group cohesiveness | | | -.53 | .60 |
| mean score | 3.00 | 3.22 | | |
| standard deviation | 1.00 | 1.28 | | |
| inadequate group support | | | .26 | .80 |
| mean score | 3.09 | 2.98 | | |
| standard deviation | .94 | 1.35 | | |

Table 4.14 shows the t-test scores for group stressors. For norm pressure as a group stressor, Principal Assistant Registrars have a mean score of 3.09 and standard deviation of .70 while Assistant Registrars have a mean score of 2.62 and standard deviation of .97. The t value is 1.53 and the probability is .13. At .05 level of significance, there is no significant difference in the stress experienced by Principal Assistant Registrars and Assistant Registrars.

Principal Assistant Registrars have a mean score of 3 and a standard deviation of 1 while Assistant Registrars have a mean score of 3.22 and a standard deviation of 1.28 in the area of lack

of group cohesiveness. The t value of .53 and the probability of .60 at .05 level of significance for lack of group cohesiveness shows that there is no significant difference.

Inadequate group support as a stressor is also not perceived differently for both the groups of Principal Assistant Registrars and Assistant Registrars. This is indicated by the t value of .26 and the probability of .80 which at .05 level of significance is not significant. Therefore, there is no difference in the level of stress caused by inadequate group support between Principal Assistant Registrars and Assistant Registrars.

Table 4.15 shows the t-test score for differences in job and career stressors between Principal Assistant Registrars and Assistant Registrars. Among the job and career stressors, only in the time pressure there is a significant difference between Principal Assistant Registrars and Assistant Registrars. For time pressure, Principal Assistant Registrars have a mean score of 5.27 and a standard deviation of 1.1 and Assistant Registrars have a mean score of 4.38 and a standard deviation of 1.32. At .05 level of significance, the t score of 2.08 shows that there is a significant difference in the level of stress experienced by the Principal Assistant Registrars and Assistant Registrars caused by time pressure. This shows that Principal Assistant Registrars face more time pressure than Assistant Registrars. Table 4.15 also shows that at .05 level of significance, in role conflict, role ambiguity, work overload, work underload, responsibility for people, working conditions and career development there is no significant difference in perception about these stressors between the Principal Assistant Registrars and Assistant Registrars.

Table 4.15

Comparison Between Principal Assistant Registrars And
Assistant Registrars In The Level Of Stress Caused By Job And Career Stressors

| Type of stressors | PAR | AR | t | p |
|---------------------------|------|------|------|------|
| <u>Job Stressors</u> | | | | |
| role conflict | | | .44 | .66 |
| mean score | 4.18 | 4.00 | | |
| standard deviation | .75 | 1.31 | | |
| role ambiguity | | | .23 | .82 |
| mean score | 3.73 | 3.62 | | |
| standard deviation | 1.42 | 1.41 | | |
| work overload | | | 1.51 | .14 |
| mean score | 4.45 | 3.86 | | |
| standard deviation | 1.13 | 1.20 | | |
| work underload | | | -.89 | .38 |
| mean score | 3.00 | 3.32 | | |
| standard deviation | .78 | 1.13 | | |
| responsibility for people | | | 1.79 | .08 |
| mean score | 5.45 | 4.56 | | |
| standard deviation | 1.21 | 1.56 | | |
| time pressure | | | 2.08 | .04* |
| mean score | 5.27 | 4.38 | | |
| standard deviation | 1.10 | 1.32 | | |
| working conditions | | | -.00 | .99 |
| mean score | 3.82 | 3.82 | | |
| standard deviation | 1.47 | 1.51 | | |
| <u>Career Stressors</u> | | | | |
| career development | | | -.28 | .78 |
| mean score | 4.63 | 4.80 | | |
| standard deviation | 1.43 | 1.83 | | |

* significant at 0.05.

Table 4.16

Comparison Between Principal Assistant Registrars(PAR) And
Assistant Registrars(AR) In The Level Of Stress Caused By Overall Organizational,
Group, Job And Career Stressors

| Type of stressors | PAR | AR | t | p |
|--------------------------|------|------|------|-----|
| organizational stressors | | | .24 | .81 |
| mean score | 4.00 | 3.92 | | |
| standard deviation | .89 | 1.01 | | |
| group stressors | | | .50 | .62 |
| mean score | 3.27 | 3.10 | | |
| standard deviation | .79 | 1.07 | | |
| job stressors | | | .45 | .66 |
| mean score | 4.18 | 4.04 | | |
| standard deviation | .75 | .99 | | |
| career stressors | | | -.28 | .78 |
| mean score | 4.63 | 4.80 | | |
| standard deviation | 1.43 | 1.83 | | |

Table 4.16 shows that there is no significant difference in the level of stress caused by organizational, group, job and career stressors between Principal Assistant Registrars and Assistant Registrars. This means that Principal Assistant Registrars and Assistant Registrars do not face different levels of stress caused by these stressors in terms of their job positions.

4.8 Stressors Affecting Administrators Placed In Central And Non Central Administration

The results of the t-test as indicated in Table 4.17 shows that there is no significant difference in the level of stress caused by the organizational stressors at 0.05 level of significance. Therefore, there is no difference in the level of stress caused by administrative policies, structure, change, territory, and leadership between administrators in the central administration and administrators in the faculties, centres, and departments of study.

Table 4.17

Comparison Between Administrators In Central
And Non Central Administration In The Level Of Stress Caused By Organizational
Stressors

| Type of stressors | central | non central | t | p |
|-------------------------|---------|-------------|-------|-----|
| administrative policies | | | -1.06 | .29 |
| mean score | 4.20 | 4.54 | | |
| standard deviation | 1.08 | 1.41 | | |
| structure | | | -1.95 | .06 |
| mean score | 3.87 | 4.45 | | |
| standard deviation | 1.01 | 1.30 | | |
| change | | | -1.07 | .09 |
| mean score | 4.10 | 4.45 | | |
| standard deviation | 1.12 | 1.41 | | |
| territory | | | .17 | .87 |
| mean score | 3.17 | 3.14 | | |
| standard deviation | .99 | .89 | | |
| leadership | | | -1.44 | .16 |
| mean score | 2.87 | 3.41 | | |
| standard deviation | 1.36 | 1.47 | | |

Table 4.18 compares the level of stress experienced by the administrators in the group stressors between the administrators placed in central and non central administration. As can be seen in Table 4.18, none of the group stressors shows any significant difference at 0.05 level of significance. Therefore it can be concluded that the group stressors faced by administrators in the central administration are not different from the group stressors faced by administrators in the faculties, centres, and departments of study.

Table 4.18

Comparison Between Administrators In Central
Administration and Non Central Administration In The Level Of Stress Caused By
Group Stressors

| Type of stressors | central | non central | t | p |
|----------------------------|---------|-------------|-------|-----|
| norm pressures | | | -1.29 | .20 |
| mean score | 2.59 | 2.91 | | |
| standard deviation | .85 | 1.07 | | |
| lack of group cohesiveness | | | -.65 | .52 |
| mean score | 3.10 | 3.32 | | |
| standard deviation | 1.05 | 1.52 | | |
| inadequate group support | | | -1.04 | .30 |
| mean score | 2.87 | 3.23 | | |
| standard deviation | 1.26 | 1.31 | | |

Table 4.19 indicates the t value of the various job and career stressors of administrators placed in central and non central administration. The results of the t-test shown in Table 4.19 show none of the job and career stressors shows any significant difference at 0.05 level of significance. Therefore it can be concluded that the level of stress caused by job and career stressors for

administrators in the central administration is not different from administrators in the faculties, centres, and departments of study.

Table 4.19

Comparison Between Administrators In Central
Administration and Non Central Administration In The Level Of Stress Caused By Job
and Career Stressors

| Type of stressors | central | non central | t | p |
|---------------------------|---------|-------------|-------|-----|
| <u>Job Stressors</u> | | | | |
| role conflict | | | -.93 | .36 |
| mean score | 3.92 | 4.23 | | |
| standard deviation | 1.06 | 1.48 | | |
| role ambiguity | | | -.94 | .35 |
| mean score | 3.51 | 3.86 | | |
| standard deviation | 1.41 | 1.39 | | |
| work overload | | | -1.28 | .21 |
| mean score | 3.82 | 4.23 | | |
| standard deviation | 1.14 | 1.27 | | |
| work underload | | | -.55 | .59 |
| mean score | 3.20 | 3.36 | | |
| standard deviation | 1.13 | 1.00 | | |
| responsibility for people | | | -.72 | .48 |
| mean score | 4.61 | 4.92 | | |
| standard deviation | 1.41 | 1.74 | | |
| time pressure | | | .18 | .86 |
| mean score | 4.56 | 4.50 | | |
| standard deviation | 1.17 | 1.60 | | |
| working conditions | | | .90 | .37 |
| mean score | 3.94 | 3.59 | | |
| standard deviation | 1.49 | 1.50 | | |
| <u>Career Stressors</u> | | | | |
| career development | | | -.76 | .45 |
| mean score | 4.64 | 5.00 | | |
| standard deviation | 1.43 | 1.83 | | |

Table 4.20

Comparison Between Administrators In Central and
Non Central Administration In The Overall Level Of Stress Caused By Organizational,
Group, Job and Career Stressors

| Type of stressors | central | noncentral | t | p |
|--------------------------|---------|------------|-------|-----|
| organizational stressors | | | - .93 | .35 |
| mean score | 3.85 | 4.10 | | |
| standard deviation | .90 | 1.11 | | |
| group stressors | | | - .55 | .59 |
| mean score | 3.07 | 3.23 | | |
| standard deviation | .92 | 1.19 | | |
| job stressors | | | -1.00 | .32 |
| mean score | 3.97 | 4.22 | | |
| standard deviation | .84 | 1.11 | | |
| career stressors | | | - .76 | .45 |
| mean score | 4.64 | 5.00 | | |
| standard deviation | 1.43 | 1.83 | | |

As indicated in Table 4.20, there is no significant difference in the level of stress caused by the overall organizational, group, job and career stressors at 0.05 level of significance between the administrators placed in central and non central administration. Therefore it can be concluded the stress level caused by the overall organizational, group, job and career stressors is no different for administrators in central administration and administrators in the faculties, centres, and departments of study.

4.9 Stressors Of Administrators By Years Of Service

This section explores the differences in stressors that are experienced by administrators with less than ten years of service, ten to nineteen years of service, and more than nineteen years of service. In Table 4.21, the oneway ANOVA shows that there is no significant different in organizational stressors at 0.05 level of significance. This means that the organizational stressors as experienced by these three groups of administrators with different lengths of service are the same.

Table 4.22 shows that there is no difference in the level of stress caused by the group stressors experienced by the three groups of administrators with different years of service at 0.05 level of significance. This means that the group stressors as experienced by these three groups of administrators with different lengths of service are the same.

Table 4.23 explores the differences of the job and career stressors of the administrators with less than ten years of service, ten to nineteen years of service, and more than nineteen years of service. The results show that at 0.05 level of significance, the level of stress caused by the job and career stressors as experienced by these three groups of administrators with different lengths of service are the same.

Table 4.21

Differences In The Stress Level Caused By Organizational Stressors For Administrators With Less Than 10 Years Of Service, 10 To 19 Years, And More Than 19 Years

| Organizational stressors | mean | F ratio | probability |
|--------------------------|------|---------|-------------|
| administrative policies | | .22 | .81 |
| less than 10 years | 4.18 | | |
| 10-19 years | 4.36 | | |
| more than 19 years | 4.46 | | |
| structure | | .33 | .72 |
| less than 10 years | 4.06 | | |
| 10-19 years | 4.00 | | |
| more than 19 years | 4.31 | | |
| change | | .52 | .60 |
| less than 10 years | 4.12 | | |
| 10-19 years | 4.16 | | |
| more than 19 years | 4.54 | | |
| territory | | .44 | .65 |
| less than 10 years | 3.12 | | |
| 10-19 years | 3.10 | | |
| more than 19 years | 3.38 | | |
| leadership | | .47 | .63 |
| less than 10 years | 2.88 | | |
| 10-19 years | 3.03 | | |
| more than 19 years | 3.38 | | |

Table 4.22

Differences In The Stress Level Caused By Group Stressors For Administrators With Less Than 10 Years Of Service, 10 To 19 Years, And More Than 19 Years

| group stressors | mean | F ratio | probability |
|----------------------------|------|---------|-------------|
| norm pressures | | 1.40 | .25 |
| less than 10 years | 2.53 | | |
| 10-19 years | 2.65 | | |
| more than 19 years | 3.08 | | |
| lack of group cohesiveness | | .44 | .64 |
| less than 10 years | 3.85 | | |
| 10-19 years | 3.19 | | |
| more than 19 years | 2.92 | | |
| inadequate group support | | .03 | .96 |
| less than 10 years | 3.00 | | |
| 10-19 years | 3.03 | | |
| more than 19 years | 2.92 | | |

Table 4.23

Differences In The Stress Level Caused By Job and Career Stressors For Administrators With Less Than 10 Years Of Service, 10 To 19 Years, And More Than 19 Years

| stressors | mean | F ratio | probability |
|---------------------------|------|---------|-------------|
| <u>Job Stressors</u> | | | |
| role conflict | | .66 | .52 |
| less than 10 years | 4.29 | | |
| 10-19 years | 3.87 | | |
| more than 19 years | 4.08 | | |
| role ambiguity | | .08 | .92 |
| less than 10 years | 3.65 | | |
| 10-19 years | 3.58 | | |
| more than 19 years | 3.77 | | |
| work overload | | 1.01 | .36 |
| less than 10 years | 3.83 | | |
| 10-19 years | 3.87 | | |
| more than 19 years | 4.39 | | |
| work underload | | .92 | .40 |
| less than 10 years | 3.53 | | |
| 10-19 years | 3.23 | | |
| more than 19 years | 3.00 | | |
| responsibility for people | | 1.25 | .30 |
| less than 10 years | 5.06 | | |
| 10-19 years | 4.42 | | |
| more than 19 years | 5.00 | | |
| time pressure | | .69 | .51 |
| less than 10 years | 4.41 | | |
| 10-19 years | 4.45 | | |
| more than 19 years | 4.92 | | |
| work conditions | | 1.07 | .35 |
| less than 10 years | 3.41 | | |
| 10-19 years | 4.06 | | |
| more than 19 years | 3.77 | | |
| <u>Career Stressor</u> | | | |
| career development | | .37 | .69 |
| less than 10 years | 4.47 | | |
| 10-19 years | 4.84 | | |
| more than 19 years | 5.00 | | |

Table 4.24 shows that there is no significant difference in the level of stress caused by the overall organizational, group, job and career stressors for the administrators with less than ten years of service, ten to nineteen years of service, and more than nineteen years of service at 0.05 level of significance. This means that taken together these three groups of administrators experienced the same level of stress caused by the organizational, group, job and career stressors.

Table 4.24

Differences In The Stress Level Caused By Organizational, Group, Job And Career Stressors For Administrators With Less Than 10 Years, 10 To 19 Years, And More Than 19 Years Of Service

| overall stressors | mean | F ratio | probability |
|--------------------|------|---------|-------------|
| organizational | | .17 | .84 |
| less than 10 years | 3.88 | | |
| 10-19 years | 3.90 | | |
| more than 19 years | 4.08 | | |
| group | | .01 | .99 |
| less than 10 years | 3.12 | | |
| 10-19 years | 3.12 | | |
| more than 19 years | 3.15 | | |
| job | | .04 | .96 |
| less than 10 years | 3.76 | | |
| 10-19 years | 3.65 | | |
| more than 19 years | 3.85 | | |
| career | | .37 | .69 |
| less than 10 years | 4.47 | | |
| 10-19 years | 4.84 | | |
| more than 19 years | 5.00 | | |

4.10 Stressors Of Administrators By Number Of Staff They Control

Table 4.25 shows the differences in stress level caused by organizational stressors that are experienced by administrators with less than six staff, six to fifteen staff, and more than fifteen staff. F scores shown indicate that there are no differences at 0.05 level of significance. This means that there is no significant difference in the level of stress as experienced by the three groups of administrators with different number of staff to control.

Table 4.26 looks at the differences in the stress level caused by group stressors that are experienced by administrators with less than six staff, six to fifteen staff, and more than fifteen staff. The one way ANOVA scores show that there are no differences at 0.05 level of significance. This means that these three groups of administrators experienced the same level of stress caused by group stressors though they have different number of staff to control.

Table 4.25

Differences In Stress Level Caused By Organizational Stressors For Administrators With Less Than 6 Staff, 6 To 15 Staff, And More Than 15 Staff

| organizational stressors | mean | F ratio | probability |
|--------------------------|------|---------|-------------|
| administrative policies | | .86 | .43 |
| less than 6 staff | 4.29 | | |
| 6-15 staff | 4.61 | | |
| more than 15 staff | 4.07 | | |
| structure | | .98 | .38 |
| less than 6 staff | 4.00 | | |
| 6-15 staff | 4.39 | | |
| more than 15 staff | 3.87 | | |
| change | | .08 | .93 |
| less than 6 staff | 4.21 | | |
| 6-15 staff | 4.17 | | |
| more than 15 staff | 4.33 | | |
| territory | | .58 | .56 |
| less than 6 staff | 3.25 | | |
| 6-15 staff | 3.22 | | |
| more than 15 staff | 2.93 | | |
| leadership | | 2.02 | .14 |
| less than 6 staff | 2.79 | | |
| 6-15 staff | 3.61 | | |
| more than 15 staff | 2.93 | | |

Table 4.26

Differences In The Stress Level Caused By Group Stressors For Administrators With Less Than 6 Staff, 6 To 15 Staff, And More Than 15 Staff

| group stressors | mean | F ratio | probability |
|----------------------------|------|---------|-------------|
| norm pressures | | .88 | .42 |
| less than 6 staff | 2.54 | | |
| 6-15 staff | 2.89 | | |
| more than 15 staff | 2.80 | | |
| lack of group cohesiveness | | 1.11 | .34 |
| less than 6 staff | 3.14 | | |
| 6-15 staff | 3.50 | | |
| more than 15 staff | 2.87 | | |
| inadequate group support | | 1.58 | .22 |
| less than 6 staff | 2.82 | | |
| 6-15 staff | 3.44 | | |
| more than 15 staff | 2.80 | | |

Table 4.27 shows that there is no difference in the stress level caused by job and career stressors. This means that the stress level as caused by job and career stressors as experienced by those with different number of staff to control are the same.

Table 4.27

Differences In Stress Level Caused By Job and Career Stressors For Administrators With Responsibility to
Less Than 6 Staff, 6 To 15 Staff, And More Than 15 Staff

| stressors | mean | F ratio | probability |
|---------------------------|------|---------|-------------|
| <u>job stressors</u> | | | |
| role conflict | | 1.92 | .16 |
| less than 6 staff | 3.82 | | |
| 6-15 staff | 4.50 | | |
| more than 15 staff | 3.87 | | |
| role ambiguity | | 2.33 | .11 |
| less than 6 staff | 3.36 | | |
| 6-15 staff | 4.22 | | |
| more than 15 staff | 3.47 | | |
| work overload | | .72 | .49 |
| less than 6 staff | 3.79 | | |
| 6-15 staff | 4.22 | | |
| more than 15 staff | 4.00 | | |
| work underload | | .94 | .40 |
| less than 6 staff | 3.39 | | |
| 6-15 staff | 3.33 | | |
| more than 15 staff | 2.93 | | |
| responsibility for people | | .84 | .44 |
| less than 6 staff | 4.46 | | |
| 6-15 staff | 5.06 | | |
| more than 15 staff | 4.80 | | |
| time pressure | | .40 | .67 |
| less than 6 staff | 4.43 | | |
| 6-15 staff | 4.78 | | |
| more than 15 staff | 4.47 | | |
| work conditions | | .85 | .43 |
| less than 6 staff | 3.89 | | |
| 6-15 staff | 4.06 | | |
| more than 15 staff | 3.48 | | |
| <u>Career Stressors</u> | | | |
| career development | | .15 | .86 |
| less than 6 staff | 4.64 | | |
| 6-15 staff | 4.83 | | |
| more than 15 staff | 4.93 | | |

Table 4.28 shows the differences in stress level caused by the overall organizational, group, job and career stressors of the administrators with less than six staff, six to fifteen staff, and more than fifteen staff. The results show that no two groups are significantly different at 0.05 level of significance. The F probability for organizational stressors is .26, for group stressors is .45, for job stressors is .13, and for career stressors is .86. All the F probabilities in Table 4.28 are above that of 0.05. This means that taken together, the overall organizational, group, job and career stressors as experienced by these three groups of administrators with different number of staff to control are the same.

Table 4.28

Differences In The Stress Level Caused By Overall Organizational, Group, Job And Career Stressors For Administrators With Less Than 6 Staff, 6 To 15 Staff, And More Than 15 Staff

| overall stressors | mean | F ratio | probability |
|--------------------|------|---------|-------------|
| organizational | | 1.37 | .26 |
| less than 6 staff | 3.89 | | |
| 6 - 15 staff | 4.22 | | |
| more than 15 staff | 3.67 | | |
| group | | .81 | .45 |
| less than 6 staff | 3.04 | | |
| 6 - 15 staff | 3.39 | | |
| more than 15 staff | 3.00 | | |
| job | | 2.15 | .13 |
| less than 6 staff | 3.93 | | |
| 6 - 15 staff | 4.44 | | |
| more than 15 staff | 3.97 | | |
| career | | .15 | .86 |
| less than 6 staff | 4.64 | | |
| 6 - 15 staff | 4.83 | | |
| more than 15 staff | 4.93 | | |

4.11 The Stress Response

Different people have different ways of responding to occupational stress. The different responses can be divided into three types of stress responses, namely, the cognitive stress response, the physical stress response and the behaviour stress response. Table 4.29 shows the cognitive, physical and behavioural stress responses of the respondents.

Table 4.29

Stress Responses Of Respondents

| stress response | <u>low</u> | | <u>moderate</u> | | <u>high</u> | |
|--------------------|------------|------|-----------------|------|-------------|-----|
| | freq. | % | freq. | % | freq. | % |
| cognitive | 21 | 34.4 | 37 | 60.7 | 3 | 4.9 |
| physical | 37 | 60.7 | 20 | 32.8 | 4 | 6.5 |
| behaviour | 40 | 65.6 | 21 | 34.4 | - | - |

4.11.1 Cognitive Stress Response

In terms of cognitive response, 60.7% falls into the moderate stress group. This group is experiencing some negative thoughts. Though it does not pose any serious danger yet for this moderate cognitively stressed group, it warrants attention as 60.7 % of respondents involve a large proportion of the administrative staff.

In Table 4.29, 34.4% are low in cognitive stress response which means the respondents in this low group are in control and are comfortable with the occupational situation. The table also shows that 4.9% of the respondents are high in cognitive stress response. Thus 4.9% are thinking stressfully. However this small group will benefit from management action like counselling.

It can be seen from the ranking of the mean in Table 4.30 that amongst the more important cognitive stress response are that of (1) seriously questioning future, (2) questioning contributions, (3) angry thoughts, (4) worried a lot about self, (5) boredom, and (6) depressing thoughts.

It can be seen in Table 4.30 that 26.2% occasionally, 24.6% sometimes, 14.8% often, and 16.4% frequently questioned their future and this is indicative of the effects of career stressors which is the most serious of the stressors as discussed in Section 4.6. The cognitive stress response of questioning one's contribution is another indicator of the stress caused by career development. In this aspect, 26.2% occasionally, 31.1% sometimes, 14.8% often, and 8.2% frequently questioned their contributions. While 19.6% indicate they rarely or never had angry thoughts, 34.4% occasionally, 21.3% sometimes, 21.3% often and 3.3% frequently had angry thoughts due to occupational stress. Another stress response which is indicative of the lack of career development is that of worry about oneself. While 19.7% rarely worried a lot about themselves, 37.7% occasionally, 24.6% sometimes, 11.5% often, and 6.6% frequently worried a lot about themselves

Table 4.30
The Cognitive Stress Response Ranked According To Intensity

| Stress response | R | OC | S | O | F | mean | rank |
|--|------|------|------|------|------|------|------|
| Thought I was alone | 37.7 | 27.9 | 24.6 | 8.2 | 1.6 | 2.08 | 8 |
| Worried a lot about myself | 19.7 | 37.7 | 24.6 | 11.5 | 6.6 | 2.48 | 4 |
| Considered myself helpless | 39.3 | 24.6 | 24.6 | 11.5 | 0 | 2.08 | 8 |
| Had angry thoughts | 19.6 | 34.4 | 21.3 | 21.3 | 3.3 | 2.53 | 3 |
| Had depressing thoughts | 26.2 | 24.6 | 32.8 | 14.8 | 1.6 | 2.39 | 5 |
| Seriously questioned my future | 18.0 | 26.2 | 24.6 | 14.8 | 16.4 | 2.84 | 1 |
| Been bored | 26.2 | 29.5 | 29.5 | 8.2 | 6.6 | 2.39 | 5 |
| Questioned my contributions | 19.6 | 26.2 | 31.1 | 14.8 | 8.2 | 2.64 | 2 |
| Not thought well of other people | 31.1 | 36.1 | 23.0 | 8.2 | 1.6 | 2.12 | 7 |
| Been alienated toward others | 45.9 | 23.0 | 24.6 | 6.6 | 0 | 1.90 | 10 |
| Thought that others were picking on me | 47.5 | 29.5 | 16.4 | 1.6 | 4.9 | 1.87 | 11 |
| Believed that people should not be trusted | 37.7 | 39.3 | 11.5 | 8.2 | 3.3 | 2.00 | 9 |
| Believed that I was fighting a losing battle | 31.1 | 39.3 | 16.4 | 9.8 | 3.3 | 2.13 | 6 |
| Thought that I should quit | 47.5 | 18.0 | 21.3 | 11.5 | 1.6 | 2.00 | 9 |
| Had thoughts that scare me | 39.3 | 44.3 | 9.8 | 6.6 | 0 | 1.82 | 12 |

R = rarely or never OC = occasionally S = sometimes
O = often F = frequently
(Figures for R, OC, S, O, and F are in percentages)

The above findings show that stress created by career development has affected the thoughts of the majority of the respondents. Boredom occupies the fifth rank in the cognitive stress response. Only 26.2% are rarely bored, 29.5% are occasionally bored, another 29.5% are sometimes bored, while 14.8% are often or frequently bored. Boredom is hardest on health (Mattesson and Ivancevich, 1982) and is found when there is qualitative work underload (Caplan et al. in Yates, 1979). Yates (1979) reports that boredom brings about fatigue. This may partly explain the reason for the high percentage in the lack of energy in the physical stress response. Depression is also quite high among the respondents as other than the 26.2% who are rarely depressed, 24.6% occasionally, 32.8% sometimes, 14.8% often and 1.6% frequently have depressing thoughts.

4.11.2 Physical Stress Response

In terms of physical response, 60.7% are in the low group, 32.8% are in the moderate group, and 6.5% are in the high group (Table 4.30). The high physical stress response as experienced by 6.5% is a message that there is something wrong. The health, quality of life and interpersonal relationships suffer if the high physical stress response is ignored. So will organizational productivity.

Table 4.29 shows that 32.8% are responding with moderate physical stress response. Some physical response of stress are seen in this group, but the problem is not major yet. Low

physical stress response indicates that the respondents are able to handle physical stress effectively and 60.7% of the respondents belong to this group.

Table 4.31 shows the breakdown of the physical stress response of which the more serious ones by ranking according to the mean are that of headaches, lack of energy, backaches, stomach disorders, dizziness, and frequent cold. Other than the 27.8% who rarely suffer from headaches, 29.5% occasionally, 19.7% sometimes, 11.5% often and 11.5% frequently suffer from headaches as a result of occupational stress. Lack of energy is also experienced by 31.1% occasionally, 24.6% sometimes, 16.4% often and 1.6% frequently. Backaches are occasionally experienced by 36.1%, 21.3% sometimes, 11.5% often, and 3.3% frequently. Stomach disorders are occasionally experienced by 23%, 26.2% sometimes, 9.8% often, and 4.9% frequently.

All the above as well as the rest of the physical stress responses in Table 4.31 show that stress has affected physical health and the administrators are suffering as a result of occupational stress. If the 32.8% in the moderate and the 6.5% in the high physical stress response group are left neglected, these physical symptoms will develop into stress inflicted diseases. Butler (1995) in his research on a group of university administrators has found that allergies, debility and headaches are common stress related illnesses in his group of respondents. Comparison between the present physical response with that of Butler's study shows that the physical problems are almost the same.

Table 4.31

The Physical Response Ranked According To Intensity

| Physical stress response | R | OC | S | O | F | mean | rank |
|---|------|------|------|------|------|------|------|
| Headaches | 27.8 | 29.5 | 19.7 | 11.5 | 11.5 | 2.48 | 1 |
| Backaches | 27.8 | 36.1 | 21.3 | 11.5 | 3.3 | 2.25 | 3 |
| Stomach disorders | 36.0 | 23.0 | 26.2 | 9.8 | 4.9 | 2.23 | 4 |
| Hot or cold flashes | 55.8 | 13.1 | 24.6 | 3.3 | 3.3 | 1.82 | 7 |
| Chest pains | 62.3 | 21.3 | 9.8 | 3.3 | 3.3 | 1.62 | 11 |
| Skin problems | 62.3 | 24.6 | 4.9 | 4.9 | 3.3 | 1.61 | 12 |
| Bowel/bladder problems | 70.5 | 13.1 | 8.2 | 4.9 | 3.3 | 1.53 | 13 |
| Dizziness | 45.9 | 26.2 | 9.8 | 14.8 | 3.3 | 2.0 | 5 |
| Contraction of muscles or shakes due to nervousness | 72.1 | 14.8 | 11.5 | 1.6 | 0 | 1.41 | 14 |
| Lack of energy | 26.2 | 31.1 | 24.6 | 16.4 | 1.6 | 2.34 | 2 |
| Skin rashes | 62.4 | 21.3 | 9.8 | 4.9 | 1.6 | 1.61 | 12 |
| Rapid heart rate | 52.5 | 27.9 | 13.1 | 4.9 | 1.6 | 1.72 | 10 |
| Bloated feeling | 49.2 | 24.6 | 19.7 | 6.6 | 0 | 1.75 | 9 |
| Joint or muscle stiffness | 50.8 | 26.2 | 14.8 | 8.2 | 0 | 1.77 | 8 |
| Frequent colds | 37.7 | 34.4 | 19.7 | 6.6 | 1.6 | 1.98 | 6 |

R = rarely or never OC = occasionally S = sometimes

O = often F = frequently

(Figures for R, OC, S, O, and F are in percentages)

4.11.3 Behaviour Stress Response

Table 4.29 shows that 65.6% are low in behaviour stress response. This 65.6% have shown that their behaviour are not getting in the way of job performance. Stress has gone to some of the behaviour of the 34.4% in the moderate stress group affecting interpersonal and work behaviour. However their present behaviour are under control and within the tolerable range. None of the respondents indicates that they suffer from high behaviour stress response.

Table 4.32 shows the ranking of behaviour stress response of which the common ones are (1) working extra hours to catch up, (2) had problems finishing work, (3) slept too much or not enough, (4) had trouble concentrating, (5) been overly sensitive to constructive criticism, and (6) experienced a decrease in job performance. The problems of finishing work and working extra hours to catch up and the trouble in concentration are closely connected and it is suggestive that stress has affected work productivity.

As shown in Table 4.32, 45.9% have occasionally, 24.6% have sometimes, and 3.3% have often experienced a decrease in job performance. This finding is an eye opener to the management that stress reduction programmes are necessary if productivity and performance are not to be affected. Stress has also affected sleep !

Table 4.32

The Behaviour Stress Response Ranked According To Intensity

| Behaviour | R | OC | S | O | F | mean | rank |
|---|------|------|------|------|-----|------|------|
| Consumed more alcoholic beverages than I usually do | 96.7 | 1.6 | 1.6 | 0 | 0 | 1.03 | 14 |
| Had difficulty making decisions | 29.5 | 42.6 | 26.2 | 1.6 | 0 | 2.00 | 6 |
| Had trouble concentrating | 27.9 | 32.8 | 34.4 | 4.9 | 0 | 2.16 | 3 |
| Had problems finishing my work | 29.5 | 36.1 | 23.0 | 8.2 | 3.3 | 2.20 | 2 |
| Been absent more than usual | 82.0 | 11.5 | 3.3 | 1.6 | 1.6 | 1.29 | 11 |
| Consumed tranquilizers or sedatives | 86.9 | 6.6 | 4.9 | 0 | 1.6 | 1.20 | 12 |
| Eaten more than I usually do | 55.7 | 21.3 | 11.5 | 6.6 | 4.9 | 1.84 | 9 |
| Had difficulties communicating | 47.5 | 24.6 | 21.3 | 4.9 | 1.6 | 1.89 | 8 |
| Worked extra hours to catch up | 14.7 | 31.1 | 34.4 | 14.8 | 4.9 | 2.62 | 1 |
| Lost my temper with others | 44.3 | 24.6 | 21.3 | 8.2 | 1.6 | 1.98 | 7 |
| Been overly sensitive to constructive criticism | 31.1 | 36.1 | 24.6 | 6.6 | 1.6 | 2.12 | 4 |

(to be continued)

| Behaviour | R | OC | S | O | F | mean | rank |
|--|------|------|------|-----|-----|------|------|
| Experienced a decrease in my job performance | 26.2 | 45.9 | 24.6 | 3.3 | 0 | 2.05 | 5 |
| Slept too much or not enough | 37.7 | 24.6 | 24.6 | 9.8 | 3.3 | 2.16 | 3 |
| Smoked more than I usually do | 91.8 | 3.3 | 1.6 | 3.3 | 0 | 1.13 | 13 |
| Made more errors than usual | 47.5 | 36.1 | 11.5 | 4.9 | 0 | 1.74 | 10 |

R = rarely or never OC = occasionally S = sometimes
 O = often F = frequently
 (Figures for R, OC, S, O, and F are in percentages)

Based on the above discussions, it can be concluded that the various cognitive, physical, and behaviour stress responses of the administrators of the University of Malaya are enough to pronounce the presence of the negative effects of occupational stress. The stress responses are serious enough to demand some form of preventive action, both from the administrators as individuals as well as from the University of Malaya as the employing organization.

4.12 Stress Response Of The Principal Assistant Registrars And Assistant Registrars

Table 4.33 compares the cognitive stress response of the Principal Assistant Registrars and Assistant Registrars. Both the groups are highest in the moderate cognitive stress response, followed by low cognitive stress and ultimately high cognitive stress as indicated in the table where 54.5% of Principal Assistant Registrars and 62% of Assistant Registrars in the moderate stress response group; followed by 27.3% of Principal Assistant Registrars and 36% of Assistant Registrars in the low cognitive response group and lastly 18.2% of Principal Assistant Registrars and 2% of Assistant Registrars in the high cognitive stress response group.

Table 4.34 shows the physical stress response of the Principal Assistant Registrars and Assistant Registrars where it is shown that 36.4% of Principal Assistant Registrars have low response, 36.4% have moderate response and 27.3% have high response. The table also shows that 66% of Assistant Registrars are in the low group, followed by 32% in the moderate group and 2% in the high group.

Table 4.33

Cognitive Stress Response Of Principal Assistant Registrars (PAR) And
Assistant Registrars (AR)

| response \ position | <u>PAR</u> | | <u>AR</u> | |
|---------------------|------------|-------|-----------|-----|
| | freq. | % | freq. | % |
| low | 3 | 27.3 | 18 | 36 |
| moderate | 6 | 54.5 | 31 | 62 |
| high | 2 | 18.2 | 1 | 2 |
| total | 11 | 100.0 | 50 | 100 |

Table 4.34

Physical Stress Response Of Principal Assistant Registrars(PAR) And
Assistant Registrars(AR)

| response \ position | <u>PAR</u> | | <u>AR</u> | |
|---------------------|------------|-------|-----------|-----|
| | freq. | % | freq. | % |
| low | 4 | 36.4 | 33 | 66 |
| moderate | 4 | 36.4 | 16 | 32 |
| high | 3 | 27.3 | 1 | 2 |
| total | 11 | 100.0 | 50 | 100 |

Table 4.35 shows that both the groups (Principal Assistant Registrars and Assistant Registrars) do not have high behaviour stress response. Both the groups are higher on the low behaviour stress response with 54.5% for the Principal Assistant Registrars and 68% for the

Assistant Registrars. The table also shows 45.5% of Principal Assistant Registrars and 32% of Assistant Registrars have low behaviour stress response.

Table 4.35

Behaviour Stress Response Of Principal Assistant Registrars(PAR) And
Assistant Registrars(AR)

| response \ position | <u>PAR</u> | | <u>AR</u> | |
|---------------------|------------|-------|-----------|-----|
| | freq. | % | freq. | % |
| low | 6 | 54.5 | 34 | 68 |
| moderate | 5 | 45.5 | 16 | 32 |
| high | - | - | - | - |
| total | 11 | 100.0 | 50 | 100 |

To test whether the two groups differs in their stress response, t-test is used (Table 4.36).

Principal Assistant Registrars have a mean score of 1.91 and standard deviation of .70 while Assistant Registrars have a mean score of 1.66 and standard deviation of .52. The t value is 1.35 and probability is .18 for the cognitive stress response. At the 0.05 level of significance, the difference in the cognitive stress response is not significant.

Table 4.36

Comparison Between Principal Assistant Registrars(PAR) and
Assistant Registrars(AR) In Terms of Stress Responses

| response | PAR | AR | t | p |
|--------------------|------|------|------|-----|
| cognitive | | | 1.35 | .18 |
| mean score | 1.91 | 1.66 | | |
| standard deviation | .70 | .52 | | |
| physical | | | 2.10 | .06 |
| mean score | 1.91 | 1.36 | | |
| standard deviation | .83 | .53 | | |
| behavioural | | | .84 | .40 |
| mean score | 1.46 | 1.32 | | |
| standard deviation | .52 | .47 | | |

Likewise, the details in Table 4.36 show that both the groups do not differ significantly in their physical and behavioural stress responses at 0.05 level of significance. This means that there is no difference in the cognitive, physical and behavioural stress responses of Principal Assistant Registrars and Assistant Registrars.

4.13 Stress Response Of Administrators Placed In Central And Non Central Administration

Table 4.37 shows that the trend of cognitive stress response for the administrators placed in central and non central administration is about the same. The largest number of administrators placed in central and non central administration are in the moderate cognitive stress response group where 59% of the Principal Assistant Registrars and 63.6% of the Assistant Registrars experience moderate stress. This is followed by those in the low cognitive stress response with 38.5% of the Principal Assistant Registrars and 27.3% of the Assistant Registrars experiencing low cognitive stress response. Lastly is the high cognitive stress response where only 2.6% of the Principal Assistant Registrars and 9.1% of the Assistant Registrars experience high cognitive stress response.

Table 4.37

Cognitive Stress Response Of Administrators Placed In Central And Non Central Administration

| response \ position | <u>central</u> | | <u>non central</u> | |
|---------------------|----------------|-------|--------------------|-------|
| | freq. | % | freq. | % |
| low | 15 | 38.5 | 6 | 27.3 |
| moderate | 23 | 59.0 | 14 | 63.6 |
| high | 1 | 2.6 | 2 | 9.1 |
| total | 39 | 100.0 | 22 | 100.0 |

Table 4.38 shows the physical stress response of administrators of central and non central administration. The majority of both groups of administrators show low physical stress response as indicated by 66.7% of those in central administration and 50% in non central administration. Moderate physical stress response occupies second position in terms of size for both these groups of administrators with 30.8% for those in central administration and 36.4% in non central administration. Only 2.5% in the central administration and 13.6% in the non central administration indicate high physical stress response.

Table 4.38

Physical Stress Response Of Administrators Placed In Central And
Non Central Administration

| response \ position | <u>central</u> | | <u>non central</u> | |
|---------------------|----------------|-------|--------------------|-------|
| | freq. | % | freq. | % |
| low | 26 | 66.7 | 11 | 50.0 |
| moderate | 12 | 30.8 | 8 | 36.4 |
| high | 1 | 2.5 | 3 | 13.6 |
| total | 39 | 100.0 | 22 | 100.0 |

Table 4.39 shows central administration displaying more low than moderate behavioural stress. The table shows that 74.4% of central administrators are in the low stress group as compared to 25.6% in the moderate stress group. The non central administration is divided between low and moderate behavioural stress with 50% for each group.

Table 4.39

Behaviour Stress Response Of Administrators Placed In Central And
Non Central Administration

| response \ position | <u>central</u> | | <u>non central</u> | |
|---------------------|----------------|-------|--------------------|-----|
| | freq. | % | freq. | % |
| low | 29 | 74.4 | 11 | 50 |
| moderate | 10 | 25.6 | 11 | 50 |
| high | - | - | - | - |
| total | 39 | 100.0 | 22 | 100 |

Table 4.40

Comparison Between Administrators Placed In Central
Administration and Non Central Administration In Terms of Stress Responses

| stress response | central | non central | t | p |
|--------------------|---------|-------------|-------|------|
| cognitive | | | 1.19 | .24- |
| mean score | 1.64 | 1.81 | | |
| standard deviation | .56 | .59 | | |
| physical | | | -1.70 | .09 |
| mean score | 1.36 | 1.63 | | |
| standard deviation | .54 | .73 | | |
| behavioral | | | -1.95 | .06 |
| mean score | 1.26 | 1.50 | | |
| standard deviation | .44 | .51 | | |

Table 4.40 compares the differences in the stress responses of those in the central and non central administration. At 0.05 level of significance the differences in the cognitive, physical and behaviour responses are not significant. Therefore, it can be concluded that the cognitive, physical and behavioural stress responses for both the central and non central administrators are the same.

4.14 Stress Response Of Administrators By Years Of Service

Table 4.41 shows that 35.3% of administrators with less than ten years have low cognitive response, 58.8% of them have moderate response, and 5.9% of them have high cognitive response.

Of those with ten to nineteen years of service, 38.7% show low cognitive stress response, 61.3% show moderate cognitive stress response with none on high cognitive response. Of those with more than nineteen years of service, 23.1% display low cognitive response, 61.5% display moderate cognitive stress response and 15.4% display high cognitive stress response.

Table 4.41

Cognitive Stress Response Of Administrators By Years Of Service

| response \ years | <u>less than 10</u> | | <u>10 - 19</u> | | <u>more than 19</u> | |
|------------------|---------------------|------|----------------|------|---------------------|------|
| | N | % | N | % | N | % |
| low | 6 | 35.3 | 12 | 38.7 | 3 | 23.1 |
| moderate | 10 | 58.8 | 19 | 61.3 | 8 | 61.5 |
| high | 1 | 5.9 | - | - | 2 | 15.4 |
| total | 17 | 27.9 | 31 | 50.8 | 13 | 21.3 |

Table 4.42 shows that 60.7 % of administrators with less than ten years have low physical response, and 39.3% of them have moderate physical response, with none for high physical response. Of those with ten to nineteen years of service, 61.1% show low physical stress response, 27.8% show moderate physical stress response and 11.1% show high physical stress response. Of those with more than nineteen years of service, 60% display low physical response, 26.7% display moderate physical stress response and 13.3% display high physical stress response.

Table 4.42

Physical Stress Response Of Administrators By Years Of Service

| response \ years | <u>less than 10</u> | | <u>10 - 19</u> | | <u>more than 19</u> | |
|------------------|---------------------|------|----------------|------|---------------------|------|
| | N | % | N | % | N | % |
| low | 17 | 60.7 | 11 | 61.1 | 9 | 60.0 |
| moderate | 11 | 39.3 | 5 | 27.8 | 4 | 26.7 |
| high | - | - | 2 | 11.1 | 2 | 13.3 |
| total | 28 | 45.9 | 18 | 29.5 | 15 | 24.6 |

Table 4.43 shows that 71.4% of administrators with less than ten years have low behaviour stress response, 28.6% of them have moderate response, with none on high behaviour stress response. Of those with ten to nineteen years of service, 44.4% show low behaviour stress response, 55.6% show moderate behaviour stress response with none on high behaviour stress response. Of those with more than nineteen years of service, 80% display low behaviour stress response, and 20% display moderate behaviour stress response with none on high behaviour stress response.

Table 4.43

Behaviour Stress Response Of Administrators By Years Of Service

| response \ years | <u>less than 10</u> | | <u>10 - 19</u> | | <u>more than 19</u> | |
|------------------|---------------------|------|----------------|------|---------------------|------|
| | N | % | N | % | N | % |
| low | 20 | 71.4 | 8 | 44.4 | 12 | 80 |
| moderate | 8 | 28.6 | 10 | 55.6 | 3 | 20 |
| high | - | - | - | - | - | - |
| total | 28 | 45.9 | 18 | 29.5 | 15 | 24.6 |

Table 4.44 shows that there is no difference in the cognitive stress response of the three groups of administrators at 0.05 level of significance. There is also no difference in the behavioural stress response of the three groups of administrators at 0.05 level of significance. However in terms of physical stress response, administrators of 10 to less than 19 years of service with the mean of 1.32 is significantly different from administrators of more than 19 years of service with the

mean of 1.84 at 0.05 level of significance. This means that there is a significant difference in the physical stress response between these two groups. Those administrators with more than 19 years of service experienced more physical stress response as compared with those of 10 to less than 19 years of service.

Table 4.44

Differences In Stress Response For Administrators With Less Than 10 Years, 10 To 19 Years, And More Than 19 Years Of Service

| stress response | mean | F ratio | probability |
|--------------------|------|---------|-------------|
| cognitive | | 1.44 | .25 |
| less than 10 years | 1.71 | | |
| 10 -19 years | 1.61 | | |
| more than 19 years | 1.92 | | |
| physical | | 3.61 | .03 * |
| less than 10 years | 1.41 | | |
| 10 -19 years | 1.32 | | |
| more than 19 years | 1.85 | | |
| behaviour | | .08 | .92 |
| less than 10 years | 1.35 | | |
| 10 -19 years | 1.32 | | |
| more than 19 years | 1.38 | | |

* significant at 0.05 level of significance.

The significant difference in the stress level as shown in Table 4.6 earlier is in line with findings of Table 4.44. Administrators with more than 19 years of service suffer from more stress than the other two groups (Table 4.6). Those with more than 19 years of service are also

significantly different from the group with 10 to 19 years of service in terms of physical stress response. Those with more than 19 years suffer from more physical stress response and this shows that stress inflicted physical symptoms are showing in those with more than 19 years of service. However those with more than 19 years of service are not different from the younger ones in terms of cognitive and behaviour stress responses.

It can thus be concluded that while years of service do not influence on the cognitive and behaviour stress responses, seniority of service has an influence in the physical stress response of the administrators of the University of Malaya.

4.15 Stress Response Of Administrators By Number Of Staff They Control

Table 4.45 presents the mean in the cognitive, physical and behaviour stress responses of the three groups of administrators: those with less than 6 staff to control, those with 6 to 15 staff to control and those with more than 15 staff to control. For the cognitive stress response, the F ratio is 1.47 and the probability is .24. For the physical stress response, the F ratio is .30 and the F probability is .74. For the behaviour stress response, the F ratio is 2.8 and the F probability is .07. At 0.05 level of significance, the differences in all the three stress responses are not significant.

Table 4.45

Differences In Stress Responses For Administrators With Less Than 6 Staff, 6 To 15 Staff,
And More Than 15 Staff

| stress responses | mean | F ratio | probability |
|--------------------|------|---------|-------------|
| cognitive | | 1.47 | .24 |
| less than 6 staff | 1.61 | | |
| 6 - 15 staff | 1.89 | | |
| more than 15 staff | 1.67 | | |
| physical | | .30 | .74 |
| less than 6 staff | 1.39 | | |
| 6 - 15 staff | 1.50 | | |
| more than 15 staff | 1.53 | | |
| behavioural | | 2.80 | .07 |
| less than 6 staff | 1.29 | | |
| 6 - 15 staff | 1.56 | | |
| more than 15 staff | 1.20 | | |

The results show the number of staff an administrator's control has no influence on the way an administrator responds to stress. Therefore the number of staff is not an important variable to determine the stress response of the administrators of the University of Malaya though responsibility for people constitutes an important stressor as discussed earlier in Section 4.6.