The Management of Works Stress with the Aid of Certain Personality Variables in Middle Management Personnel

Ebben van Zyl¹ and Erna van Zyl²

¹Department of Industrial Psychology, ²Department of Psychology of Education, University of the Free State, Bloemfontein, South Africa 9301
E-mail: vanzyles@ufs.ac.za

KEYWORDS Work Stress. Personality. Management Personnel

ABSTRACT This study explored the effective management of work stress (level and causes of stress) by means of personality variables amongst a group of 105 middle levels managers working in the service sector. The Experience of Work and Life Circumstances Questionnaire as well as the Occupational Personality Profile were applied. From the results, it is evident that the following personality variables pose the possibility of predicting stress: apathy, self-assertiveness, optimism, pragmatism, trust and pessimism. The findings add valuable new knowledge by focusing not only on the effective handling of high stress levels but also on the effective handling of causes of stress (inside and outside the work), by means of personality variables. Based on the findings of the study, relevant recommendations were made.

I. INTRODUCTION

From the literature of Arnold et al. (1991), Bisson (2009), Botha (2007), Cartwright and Cooper (1997), Kaniner and Eagle (2010), Kreitner and Kinicki (1995), Pienaar and Van Zyl (2007), Sharma (2011), Singh et al. (2011), Smith (1993), Van den Berg and Van Zyl (2008), Van Zyl et al. (1994), it is apparent that work stress is a universal problem, and various evidence supports the fact that the stress levels of employees show a tendency to increase worldwide and especially in South African organizations.

Apart from the fact that stress related factors (which manifests in the form of medical claims, absenteeism and decreasing productivity) are crippling economies worldwide, no price can be attached to the physical and psychological impact of work stress on individuals. The permanent damage caused by work stress not only threatens an individual’s immediate work environment (in the form of promotion opportunities and job security), but also centres more generally around the individual’s marriage and family life. A further dilemma arises from the fact that middle management personnel are frequently expected to perform optimally under pressure, and are furthermore held responsible for the general well-being of their subordinates. The pressure that middle management personnel experience in terms of rapid change, optimal functioning and time limit, leads to the ignorance of the physical symptoms and psychic warnings of stress, and later results in high stress levels which can eventually result in burnout and serious illnesses (Van den Berg and Van Zyl 2008).

Current research indicates that certain personality factors in particular play a role in the manner in which individuals judge, experience and manage stressful situations (Van Zyl 2008). Organizations can thus make significant contributions to the general well-being of their employees by means of the identification of said traits for the purpose of developing seminars, courses and workshops to assist staff in the development of effective stress management techniques (Cartwright and Cooper 1997).

Previous research (Jacobs 2001) did demonstrate that high levels of stress can be predicted and managed using personality variables. Kaniner and Eagle (2010), however, are of the opinion that more research should be done focusing on risk groups (including middle level management), looking at the alleviating effect of personality on their experience of stress. Van Zyl (2008) indicated that the effective management of causes of work stress using personality variables, has not yet been demonstrated. Furthermore,
Sharma (2011) indicated that the negative effect of causes of work stress (like high task demands, poor remuneration and poor social relations), might be reduced by means of certain personality traits.

Although the organization can make a substantial contribution to the problem by means of information sessions and seminars, the identification of certain personality traits (what increases or decreases stress tolerance) should provide deeper insight into their problem areas, especially for managerial personnel. This should ultimately enable the individual to manage work stress more effectively and even to act proactively.

With regard to the alleged dilemmas, the general objective of the study is to determine whether the effective management of work stress (level and causes of stress) can be predicted for middle management personnel of a service organization in the Free State, using personality variables.

II. THE MANAGEMENT OF STRESS BY MEANS OF CERTAIN PERSONALITY VARIABLES

Bisson (2009), Botha (2007), Sharma and Sharma (2008) and Van den Berg (2001) allude to the following personality factors which can help to reduce levels and causes of stress:

Type B Behaviour

Barone et al. (1998) define type B behavior as a behavioral symptom characterized by composition, relaxation, a lack of time pressure and a tolerance for stress. Type B individuals do not set unrealistic goals for themselves, are flexible in their actions, cooperative by nature, have the ability to delegate and allow themselves relaxation after the completion of hard work.

Internal Locus of Control/Optimism

Individuals with a high internal locus of control attribute events in their lives to their own actions and believe that they can exercise direct control over their circumstances (Van Zyl 2008).

Extroversion

Studies conducted with extroverts found that these individuals are generally happier, more satisfied with their lives, and generally have a more positive approach to life regardless of the presence of other individuals (Botha 2007).

Openness to Experience

According to Botha (2007) “openness to experience” does not only lead to more flexible ideas and approaches, but also to the use of a variety of stress management techniques, such as seeing the humour in a stressful situation.

Self-esteem

According to Botha (2007) self-esteem centres around the concept of self-acceptance which makes a significant contribution to an individual’s general well-being and mental health.

Tolerance

The hardy person is often described as someone with enough self-confidence to exercise control over circumstances, who is involved in his/her actions and who has the ability to interpret environmental stressors as challenges (Barone et al. 1998).

Assertiveness

Assertive behavior is often characterized by factors such as effective communication, the protection of rights and setting of priorities. Such properties can thus be developed by the learning of effective verbal and non-verbal communication skills (such as looking a person straight in the eye while conversing), time management and priority determination techniques (Bartlett 1998; Fletcher 1991).

III. THEORETICAL MODEL

The Transactional Approach to Stress

The transactional approach to stress is the more popular approach to stress and is used in recent research (Meurs and Perrewe 2010; Pienaar and Van Zyl 2008; Van Zyl 2008). As the transactional approach to stress contains different models, the models of Cox and Mackay (1985), Lazarus (1991) and Sutherland and Cooper (1990) are combined in the three phases which comprehensively describes the transactional processes.
THE MANAGEMENT OF WORKS STRESS

Phase 1: Cognitive Assessment

According to Auerbach and Gramling (1998), a situation is only classified as a stressor when it endangers a specific individual. A potentially threatening situation may not even elicit a stress reaction from the individual as the particular individual is aware of his/her ability to effectively manage the particular situation (Patel 1991). Sutherland and Cooper (1990) refer to this phenomenon as cognitive assessment as the individual’s reaction to potential stressors depends on the manner in which he/she assesses such stressors (Smith 1993; Van den Berg 2001).

Phase 2: Stress Management

Where primary assessment includes an individual’s prior evaluation of environmental claims, secondary assessment involves the individual’s evaluation of his own abilities in order to decide how he will manage the particular stressful situation (Cox and Mackay 1985). Primary assessment is more discreet, includes the process of decision making and depends largely on the outcome of the original or primary assessment of the situation (Cooper and Payne 1991).

From the aforementioned, Lazarus (1991) identified two basic methods of stress management, namely problem oriented stress management and emotionally oriented stress management.

Problem oriented stress management is indicative of planned actions which are taken to decrease the impact of said stressful situations and/or the emotional impact of the stressful situation on the particular individual by focussing attention on other things or pretending that the problem does not exist for example.

Emotionally oriented stress management involves denial of the importance of a stressful situation or emotional reaction to it.

Sutherland and Cooper (1990) furthermore place emphasis on individual differences in terms of attitudes, needs, personality characteristics, perception and temperament, and explain that these differences play a prominent role in the effective management of stress.

Phase 3: Feedback (Re-evaluation)

The last phase is a continuous process of change, as the individual continuously revises and revalues the particular stressful situation (Smith 1993).

According to Sutherland and Cooper (1990) as well as Cox and Mackay (1985), this involves constant feedback which is built into all phases of the process, and which influences the individual’s future perceptions, decisions and cognitive assessments. Individuals’ vulnerability in the management of stress can thus increase or decrease after each assessment and revision process (Patel 1991).

It is apparent from the aforementioned discussion that in the transaction approach to stress, personality characteristics can be mediators in the cognitive assessment of stress and is thus suggested as the subject of this study. In light of the aforementioned discussion the following hypotheses are set:

Hypothesis 1

Ho: Certain personality variables will not predict the variance in the level of work stress in management personnel with statistical significance.

H1: Certain personality variables will predict the variance in the level of work stress in management personnel with statistical significance.

Hypothesis 2

Ho: Certain personality variables will not predict the variance in causes of stress within and outside of the work place with statistical significance.

H1: Certain personality variables will predict the variance in causes of stress within and outside of the work place with statistical significance.

IV. RESEARCH DESIGN

Research Approach

The researcher made use of the survey method of data collection where information was collected by means of questionnaires with the aim of evaluating groups (Coetzee and Schreuder 2009).

Research Method

Sample

The relevant service organization’s commercial division consists of a total of 105 middle managers (M-band) in the Free State. The total
population in the relevant section was involved in the study. Descriptive statistics indicated that the sample was fairly evenly distributed with regard to population groups (52% other racial groups and 48% whites). Forty-three percent of respondents had a Grade 12 qualification, 86% of the respondents were men (14% were women) and 75% of the respondents were older than 30 years of age.

**Measuring Instrument**

The measuring instruments used in the investigation include a biographical questionnaire, a stress questionnaire: the Experience of Work and Life Circumstances Questionnaire (WVL), and a personality questionnaire, namely the Occupational Personality Profile (OPP).

The Experience of Work and Life Circumstances Questionnaire has construct validity supported by affiliations with questionnaires such as the Sixteen Personality Factor Questionnaire (16PF) and PHSF Relationship Questionnaire, as well as reasonable relationships between the various fields of the Work and Life Circumstances Questionnaire (Van Zyl 1994, 2008). The dimensions measured by 115 items include: level of stress, causes of stress outside of workplace and causes of stress within the workplace (organizational functioning, task properties, career opportunities, social issues, as well as compensation, benefits and personnel policy). The questionnaire’s reliability coefficients vary between 0.62 and 0.92 as measured by the Kuder-Richardson formula 8 and test-retest (Van Zyl 1994, 2008).

The OPP is a general personality profile (consisting of 45 items) designed to measure a broad spectrum of personality characteristics. The OPP focuses especially on individual traits and measures behaviors by using a wide range of situational questions. The following personality traits are measured by the OPP: assertiveness, flexibility, trust, persuasiveness, apathy, sociability/ extraversion, optimism, competitiveness and pragmatism (Van den Berg 2001). The OPP has a high degree of construct validity and shows correlations with a variety of other questionnaires such as the Sixteen Personality Factor Questionnaire (16PF), Fifteen Factor Questionnaire (15FQ), the Occupational Personality Questionnaire (OPQ5), and Jung’s Type Indicator Questionnaire (JYI). The PPP also has a fair amount of criterion validity which can be used for prediction (Van den Berg 2001).

The internal reliability, as measured by Cronbach’s Alpha coefficient, shows not only reliability coefficients of 0.60 and higher for each dimension in men and women, but also for different occupations.

**Research Procedures**

Questionnaires were administered upon all the middle managers in the commercial section of the service organization in group context. Individuals indicated that they preferred not to divulge their names.

**Statistical Methods**

For the purposes of this study use was made of Stepwise Regression Analysis in order to make predictions. When using Regression Analysis it is assumed that the variance in the dependent variable (Y) can possibly be predicted or explained with statistical significance by the independent variable (X).

V. RESULTS

**Level of Work Stress (Criteria) and Personality Traits**

It is apparent from the F-Statistic (F=11, 24575) (see Table 1), that the personality trait P4 (apathy) is statistically significant on the 0.01 level (P=0.0011). This means that of the variance in stress levels (dependent variable) can be attributed to the independent variable, P4 (apathy), with statistical significance.

The null hypothesis (HO) is thus rejected and the alternative hypothesis is accepted, which means that certain personality variables do indeed predict the variance in the level of work stress in management personnel with statistical significance.

**Causes of Stress Outside of the Work Place (Criteria) and Personality Traits**

The F-Statistic (F=5.25126) (see Table 2), is significant on the 0.01 level (P=0.0068). This means that 09.591% of the variance in causes of stress outside the workplace (dependant variable) can be attributed to personality traits (indepe-
THE MANAGEMENT OF WORKS STRESS

229

ident variable), identified by means of variance analysis in the second step, with statistical significance.

The personality trait, P1 (Assertiveness), is statistically significant on the 0.01 level (P=0.0040), while the personality trait P9 (Pragmatic) is statistically significant on the 0.05 level (P=0.0233).

Causes of Stress within the Workplace (Criteria) and Personality Traits

The F-Statistic (F=10.14160) (see Table 3), is statistically significant on the 0.01 level (P=0.0011). This means that 9.208% of the variance in organisational functionality (as a cause of stress within the workplace) can be attributed to the personality trait P3 (Trust) with statistical significance.

Organisational Functionality and Personality Traits

Table 1: The prediction of level of work stress by means of personally traits
Regression table: stress levels = Dependent variable, Personality traits 1-9 = Independent variable

Table 2: The prediction of level of work stress outside the work place by means of personally traits
Causes of stress outside the work place (OBUW) = dependant variable, Personality traits 1 – 9 = independent variables

Table 3: The prediction of level of work stress by means of personally traits
Regression table: stress levels = Dependent variable, Personality traits 1-9 = Independent variable
Table 3: The prediction of causes of stress within the work place (organisation functionality) by means of personality traits

Regression table: Causes of stress within the work place (OBIW), namely Organisation functionality = dependant variables, personality traits 1 – 9 = independent variables

<table>
<thead>
<tr>
<th>Multiple R</th>
<th>R-squared</th>
<th>Source of variance</th>
<th>Degree of freedom</th>
<th>Some of squares</th>
<th>Gem. squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adapted R Squared</td>
<td>0.08300</td>
<td>Regression</td>
<td>2</td>
<td>1.78378</td>
<td>1.78378</td>
</tr>
<tr>
<td>Standard error</td>
<td>0.41939</td>
<td>Residual</td>
<td>99</td>
<td>17.58877</td>
<td>0.17589</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variables in comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Variables</td>
</tr>
<tr>
<td>P1 (Assertiveness)</td>
</tr>
<tr>
<td>P2 (Flexibility)</td>
</tr>
<tr>
<td>P3 (Trust)</td>
</tr>
<tr>
<td>P4 (Apathy)</td>
</tr>
<tr>
<td>P5 (Sociability/Extroversion)</td>
</tr>
<tr>
<td>P6 (Persuasiveness)</td>
</tr>
<tr>
<td>P7 (Competitiveness)</td>
</tr>
<tr>
<td>P8 (Optimism)</td>
</tr>
<tr>
<td>P9 (Pragmatism)</td>
</tr>
<tr>
<td>Constant</td>
</tr>
</tbody>
</table>

Table 4: The prediction of causes of stress within the work place (task characteristics) by means of personality traits

Regression table: Cause of stress within the work place (OBIW), namely Task characteristics = dependant variables, Personality traits 1 – 9 = independent variables

<table>
<thead>
<tr>
<th>Multiple R</th>
<th>R-squared</th>
<th>Source of variance</th>
<th>Degree of freedom</th>
<th>Some of squares</th>
<th>Gem. squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adapted R Squared</td>
<td>0.04947</td>
<td>Regression</td>
<td>1</td>
<td>0.83412</td>
<td>0.83412</td>
</tr>
<tr>
<td>Standard error</td>
<td>0.36514</td>
<td>Residual</td>
<td>100</td>
<td>13.33255</td>
<td>0.13333</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variables in comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Variables</td>
</tr>
<tr>
<td>P1 (Assertiveness)</td>
</tr>
<tr>
<td>P2 (Flexibility)</td>
</tr>
<tr>
<td>P3 (Trust)</td>
</tr>
<tr>
<td>P4 (Apathy)</td>
</tr>
<tr>
<td>P5 (Sociability/Extroversion)</td>
</tr>
<tr>
<td>P6 (Persuasiveness)</td>
</tr>
<tr>
<td>P7 (Competitiveness)</td>
</tr>
<tr>
<td>P8 (Optimism)</td>
</tr>
<tr>
<td>P9 (Pragmatism)</td>
</tr>
<tr>
<td>Constant</td>
</tr>
</tbody>
</table>

Task Properties and Personality Traits

The F-Statistic (F=6.25626) (see Table 4) is statistically significant on the 0.05 level (P=0.0140). This means that 5.888% of the variance in task properties (as a cause of stress within the workplace) can be attributed to the personality trait P9 (Pragmatic) with statistical significance.

Physical Working Conditions and Personality Functions

The SPPS computer program of the University of the Free State found no causal relationship between one or more of the personality traits and physical working conditions.
Table 5: The prediction of causes of stress within the workplace (career issues) by means of personality traits

Regression table: Causes of stress within the workplace (OBIW), namely
Career issues = Dependant variable Personality Traits 1 – 9 = Independent variables

<table>
<thead>
<tr>
<th>Multiple R</th>
<th>R-squared</th>
<th>Source of variance</th>
<th>Degree of freedom</th>
<th>Some of squares</th>
<th>Gem. squared</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.29681</td>
<td>Regression</td>
<td>1</td>
<td>1.41641</td>
<td>1.41641</td>
</tr>
<tr>
<td></td>
<td>0.08809</td>
<td>Residual</td>
<td>100</td>
<td>14.66202</td>
<td>0.14662</td>
</tr>
</tbody>
</table>

\[ F = 9.66040 \text{ Bed. F}=0.0025 \]

Table 6: The prediction of causes of stress with the workplace (benefits, remuneration and personnel policy) by means of personality traits

Regression table: Cause of stress with the workplace (OBIW), namely.
Remuneration, Benefits, Personnel Policy = Dependant variable Personality
Traits 1 – 9 = Independent variables

<table>
<thead>
<tr>
<th>Multiple R</th>
<th>R-squared</th>
<th>Source of variance</th>
<th>Degree of freedom</th>
<th>Some of squares</th>
<th>Gem, squared</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.28881</td>
<td>Regression</td>
<td>1</td>
<td>1.69435</td>
<td>1.69435</td>
</tr>
<tr>
<td></td>
<td>0.08341</td>
<td>Residual</td>
<td>100</td>
<td>18.61938</td>
<td>0.18619</td>
</tr>
</tbody>
</table>

\[ F = 9.09991 \text{ Bed. F}=0.0032 \]

Career Matters and Personality Traits

The F-Statistic \( F=9.66040 \) (see Table 5) is statistically significant on the 0.01 level \( P=0.0025 \). This means that 8.89% of the variance in career matters (as a cause of stress within the workplace) can be attributed to the personality trait \( P8 \) (Optimistic/Internal Locus of Control) with statistical significance.

- Social issues and personality traits

The SPSS computer program (Statistical Package for the Social Sciences 1993) of the University of the Free State found no causal relationship between one or more of the personality traits and social issues.
Remuneration, Benefits, Personnel Policy and Personality Traits

The F-Statistic (F=9.09991) (see Table 6), is statistically significant on the 0.01 level (P=0.0032). This means that 8.341% of the variance in remuneration, benefits and personnel policy (as a cause of stress within the workplace) can be attributed to the personality trait P8 (Pessimistic/External Locus of Control) with statistical significance.

With the exception of physical working conditions and social issues, the null hypothesis is thus rejected and the alternative hypothesis is accepted, which means that certain personality traits do indeed predict the variation in causes of stress within the work situation with statistical significance.

VI. DISCUSSION

Regression analysis identified the following personality variables as significant predictors of stress: apathy with level of stress, assertiveness with causes outside the work situation, pragmatism with causes outside the work situation, trust in how the organisation functions, pessimism with task properties, optimism/internal locus of control with career matters and optimism/internal locus of control with remuneration, benefits and personnel policy.

The aforementioned results can be interpreted as follows:

Individuals who obtain a score high on apathy often have a degree of adaptability which enables the individual not only to influence his/her environment, but also to judge a stressful situation as a challenge (O’Connel and Mcneely 2011; Pines and Aronson 1988; Wangro et al. 2011; Westman and Etzioni 2001). In this manner an apathetic manager working under high pressure time schedules should attempt to confront his time limits with enough energy, enthusiasm and self confidence while simultaneously calmly completing the work without panicking or becoming anxious about it.

It appears that causes of stress outside the workplace (for example demands from family and friends) may decrease when an increase in P1 (assertiveness) and in P9 (pragmatism) appear. An assertive individual’s ability to protect his own boundaries (Cattell 1989; Nader 2011) might enable the manager to effectively balance his home role and work role, and in so doing eliminate the stressful impact thereof.

In contrast the pragmatic individual’s tolerance of stressful circumstances outside the workplace is found in his ability to solve problems in a practical and realistic way. Typical management skills such as analytical skills, decision-making skills and conceptual skills, enable the individual to approach and solve problems in a systematic, realistic and concrete way (Le Roux Venter et al. 1995; Rathus 2010).

Organizational functioning (for example, organizational climate and the manner in which decisions are made) may decrease (as a cause of stress in the workplace) should an individual become more trusting (and therefore less critical). Managers who attained high scores on trust will frequently establish a quiet working environment and maintain good interpersonal relationships with their colleagues that eventually leads to an overall reduction in organizational functioning as a cause of stress in the workplace (Sharma and Sharma 2008).

Task properties (for example the amount of work to be done), as a cause of stress in the workplace, can decrease when a person becomes more pragmatic (and thus less abstract). Intrinsic features of a post, such as little potential for creativity and innovation, usually contributes to an individual’s stress levels (Fletcher 1992). The concrete manager may have the ability to solve problems related to his role in a practical and concrete manner.

When optimism/internal locus of control is weighed up with career issues (for example, promotion opportunities in the organization), a person who is very optimistic (or who has a high internal locus of control it) will thus be less inclined to be influenced by career issues (as a cause of stress in the workplace). Thus an increase of P8 (Optimism / Internal Locus of Control) and a more positive attitude will be necessary to decrease career issues (as a cause of stress in the workplace).

Compensation, benefits and personnel policies as a cause of stress in the workplace may decrease when an individual is more optimistic (and thus more positive). The optimistic and responsible manager believes his/her poor salary, poor benefits and the unfair personnel policies of an organization can be changed by being performance oriented. As an optimistic individual (and therefore an individual with a high internal
locus of control) expects the best outcome in a stressful situation, such a manager should utilize purposeful efforts to increase his visibility and to believe that he will receive a higher salary and better benefits should he perform (Tehrani 2011).

VII. CONCLUSION

The effective management of work stress (level and causes of work stress), can be predicted by means of certain personality traits, among middle level managers working in a service organisation.

VIII. RECOMMENDATIONS

As it is apparent from the research that certain personality variables indeed present prediction possibilities for the effective management of work stress, it is recommended that organizations become involved with the analysis of management’s personalities in order to manage not only high levels of stress but also stressors within and outside of the work situation.

This process can take place by means of the presentation of courses, seminars and workshops on personality traits that increase stress tolerance, as well as the organization’s assistance in changing managers’ personal orientations.

The following skills in particular can be focused on:

- Apathy which can decrease high levels of stress includes emotional stability, good adaptability and the elimination of feeling anxious.
- Assertiveness which can decrease the causes of stress outside the work situation includes the setting of priorities, protection of personal boundaries, standing up for rights as well as verbal and non-verbal methods of effective communication.
- Pragmatic skills which can decrease the causes of stress outside the work situation as well as causes within the work place (task characteristics), include being concrete, practical and realistic.
- Optimism, which can decrease the causes of stress within the workplace (career issues as well as remuneration, benefits and personnel policies), includes the following: high internal locus of control, action steps to exercise control over stressful situations, performance motivation and to approach problems with a positive disposition.
- Trust, which can manage causes within the workplace (organisation functionality), includes assessing individuals at face value and to have trust in the sincerity of individuals.

Should the aforementioned recommendations be implemented, high levels of stress and causes of stress within and outside of the work place will be proactively manageable, which can lead to the improvement of productivity levels. Kriegler (n.d.) in Van Zyl (2008) indicates that methods to increase and improve the well being and productivity of all South Africans (including middle management) must be found. The results of this study can aid in the achievement of this goal.

REFERENCES


