

**Manual
for**

STRESS MANAGEMENT SCALE S M S-KC

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INTRODUCTION

Stress is an inevitable aspect of the modern society. Stress is most easily understood as a negative emotional experience which is accompanied by predictable physiological, psychological, and behavioural changes and is alerting the stressful event or accommodation to its effects.

Stress is considered to be a silent killer and a deceiver. It has duality in nature. It is 'Boon' to one and 'Scourge' to another, sometimes predictable and sometimes unpredictable. On one hand it is stimulus and on the other it is a response. It may have 'real' or imaginary reasons in its roots. Although the intensity of stress depends on individual personality behaviour and circumstances, but it neither escapes the more vocalizing and expressing personalities nor the less expressing silent achievers. Continuous stress leads to tiredness, irritability and lack of concentration, anger, anxiety, disinterest, jealousy and hopelessness. Continuous exposure to stress reduces the bodily resistance and person starts feeling sick. It is one of the biggest causes of sickness, absence from work, under performance, low morale and ultimately high attrition levels.

Stress is a result of the process of appraising events as harmful or challenging, assessing potential responses and of responding to those events. Some of the early research on stress (conducted by Walter Cannon in 1932) established the existence of the well-known "fight-or-flight" response. His work showed that when an organism experiences a shock or perceives a threat, body undergoes many changes; it quickly releases hormones that help it to survive. These hormones quicken heart rate, breathing, metabolism and blood pressure. The body begins to sweat as a preventive measure to keep its temperature cool. These responses by the body to counter a stressful situation, help in handling the event effectively and perform well even under pressure. However after tackling the stressful event, the body returns to normal. This natural ability of the body to deal with stress is called stress response. Any event where body fails to respond in this manner can cause stress. In medical parlance, stress is defined as a perturbation of the body's homeostasis. This demand on mind-body occurs when it tries to cope with incessant changes in life.

Acute stressors affect an individual for a short term while chronic stressors over the longer term. Selye (1956) suggested three stages of stress. The first stage

is Alarm i.e. when the threat or stressor is identified or realized. During this stage adrenaline will be produced in order to bring about the fight-or-flight response. Resistance is the second stage i.e. if the stressor persists, it becomes necessary to attempt some means of coping with the stress. Although the body begins to try to adapt to the strains or demands of the environment, the body cannot keep this up indefinitely as a result its resources are gradually depleted. Exhaustion is the third and final stage. At this point, all of the body's resources are eventually depleted and the body is unable to maintain normal function. The initial autonomic nervous system symptoms may reappear (sweating, raised heart rate etc.). If stage three is extended, long term damage may result as the body, and the immune system is exhausted and function is impaired.

Stress is not always bad. An appropriate amount of stress by itself is important part of being an effective person. It motivates and helps to accomplish the goals which are important in building the self esteem of an individual. Too much stress i.e. hyperstress has a negative impact on person's health on the other hand too less of stress i.e. hypostress also has a negative impact, but on person's performance. Stress for that reason is an essential ingredient of everyone's life, and to achieve desired quality of life, each individual should try to unearth the level of stress that is most effective for oneself. As a matter of fact optimum efficiency and optimum stress are contemporaneous but vary for each individual. It is important that the person is able to find one's own ideal level of stress, to be able to use its appropriate amount in taking the challenges of life. It is important to counter stress when it exceeds the ideal level.

When an individual fails to counter a stress situation, the hormones and chemicals remain unreleased in the blood stream for a long period of time. It results in variety of physical symptoms that have detrimental effect on health as well as performance. Learning to understand and manage stress can prevent the counter effects of stress.

The Concept

A lot of research has been conducted into stress over the past hundred years. Some of the theories behind it are now settled and accepted, others are still being researched and debated, views have been passionately held and aggressively defended. What is widely accepted is that every individual has a unique pattern of responding to stressful events. It is important to consider person-environment fit to

identify the causes of stress. Stress results from the process of appraising events, of assessing potential responses, and of responding to those events. The potential stressors are appraised at distinct levels. At the primary appraisal level, events can be perceived as positive, neutral and negative in their implications. If negative, the extent to which it is harmful or threatening for the future and potentially challenging, is to be considered. At the secondary appraisal level, the focus is on the capabilities so as to overcome the event. The consequence of both the appraisals is stress in terms of physiological, cognitive, emotional and behavioral responses (Taylor, 2006). Social manifestations of stress include family conflicts, job tensions and change in sexual energy. A wide variety of symptoms and causes and their complex interrelationships make stress so difficult to manage that it may lead to considerable consequences like decreased efficiency and deterioration in individual's general well being.

Stress arises when there is little opportunity to exercise any choice or control, and where there is little support from others. Any situation is considered stressful when there are demands and pressures on the worker exceeding the individual's potential. The more the demands are matched to the individual's potential, the less likely is one to experience stress. Increased complexity in work environments has given rise to higher levels of job related stress experienced by organizational members. An individual may find it difficult to maintain a healthy balance between work and non work life when stress levels exceed the optimum level. Smith (2000) reported that the employees who reported high levels of occupational stress also reported more frequent exposure to potentially stressful working conditions and a greater frequency of minor symptoms and increased psychopathology. Work stress poses negative effect on the organizations by increased absenteeism, less committed employees, increased staff turnover, impaired performance and low productivity, unsafe work practices and increased accident rates and increased complaints from clients.

Stress is a matter of judgment and a mental response leading to a number of consequences. Stress may have a threefold effect on an individual i.e. physiological effects, effects on lifestyle and behavioral effects. The physiological effects include elevated lipid levels, high blood pressure, decreased immunity and increased hormonal activity. Increased smoking, use of alcohol and disturbed sleep are some effects on the lifestyle. Excessive stress affects the behavior in a way that it leads

to decreased patience and compliance, increased aggression and depression. Chronic stress can impair cardiovascular and neuroendocrine recovery from stressors and through such effects contribute to an increased risk for diseases, such as cardiovascular disorders in midlife (Mathews, Gump and Owen, 2001). Effects of stress often persist long after the stressful event itself is no longer present. Different kinds of stressors create different demands on the body, so they may be expected to show different effects on the immune system. Segerstrom and Miller (2004) suggest that immediate short term stressors produce a pattern of immune responses involving upregulation of natural immunity accompanied by down-regulation of specific immunity. Decreased work efficiency is supposed to be a major cause of lower satisfaction levels from professional and personal life. If stress is not addressed at the dormant stage, it progresses to higher levels where efficiency and productivity are negatively affected (Haider and Supriya, 2007). Measuring stress level independent of differences in people's personalities has always been difficult: some people are able to process many stressors simultaneously, while others can barely address a few. Unrelieved stress has physical and mental effects that can be difficult to fix. Vagg, Spielberg and Wasala (2002) suggested that stress adversely affects productivity, absenteeism and job turnover and contributes to health related problems. In the study, employees at higher organization levels reported that they experienced stress more often while making critical decisions and dealing with crisis situations than did workers at lower levels, for whom inadequate salary and lack of opportunity for advancement were more stressful. The findings of the study also present an evidence of gender differences in coping with stress. The results revealed that for males, work stress was more strongly related to concerns about their role in the power structure of an organization whereas female employees reported experiencing more severe stress when there was a conflict between job requirements and family relationships. Bernin et al (2003) concluded that covert coping strategy is predominantly adopted by females. In general, however male and female managers are more alike with regard to coping patterns that men and women in the population. This might indicate that the work patterns and the environment could be the determinants of the coping patterns followed by individuals in a particular setting. Coping strategies and stress responses play a dominant role in an individual's behavioral patterns in various situations. The instinctive stress response can be short term i.e. fight or flight response or long term i.e. General Adaptation Syndrome. Coping with stress requires changing the

internal attitudes and perceptions, interaction with the environment, physical ability to cope and sometimes changing the environment itself. It is not the same for every individual. It is important to have both physical and mental outlets for stress. Stress management encompasses techniques intended to equip a person with effective coping mechanisms for dealing with psychological stress. Stress management is

The **Stress Management Scale** was developed to identify the strategies adopted by individuals to overcome stress. The selection of one's stress reduction techniques is mostly a matter of one's outlook, availability of resources and knowledge and ease in learning and implementing them. People indulge into unhealthy ways of coping with stress like smoking, alcohol and drug abuse, overeating or under-eating, withdrawing from social life and friends, using sleeping pills to relax or trying to avoid challenges of life as they may find them stressful. Such practices in the long term lead to dissatisfaction from life and decline in health. Sometimes bickering and angry outbursts are consequences leading to even worse circumstances. Dealing with stress is important but identifying healthy ways to do it is equally important. Acknowledging stress as good can be beneficial at times. Stress can be used to push one to work a bit harder so as to achieve the desired goal. Heavy breathing until the heart rate slows down and sweaty palms dry off can be used to relieve the body from muscular and mental stress. One can identify the stress trigger points and let oneself avoid them as much as it is in one's control. They should be avoided and a daily workout routine can prove to be beneficial in overcoming daily stresses of work and life. Scheier and Carver (1992) suggest optimism to be a major source in dealing with stress. The findings of the study reveal that hope and optimism are positively correlated to competency in life areas, that is, a perception of scholastic competence, social competence, physical appearance and an increasing feeling of self worth. Attaining positive affirmations and avoiding negative thought pattern can be helpful in reducing the impact of stressors. Hobbies can prove effective by distracting one from the stressors and are good ways to relieve tension. Making the mind sharp by indulging into mind games also can be helpful in making one ready to take challenges of life. Spiritual practices and meditation are considered to be effective stress relievers. Less consumption of caffeine and sugar not only leads to a healthy body but also helps in betterment of sleep patterns. Keegen (2003) suggested alternative and complementary therapies to overcome stress. These therapies include acupuncture,

aquatherapy and aromatherapy. Murphy (1996) reported that the combination of cognitive-behavioral and relaxation techniques in stress management is more effective than any of the single technique. Stress management can be effective in enhancing individual's physical and psychological health, but the choice of the technique to be used should be based on the specific health outcomes that are targeted for change.

Intervention programmes are found to be beneficial in reducing stress in various researches. Grahn, Ekdahl and Borgquist (1998) reported that a multidisciplinary rehabilitation program helped to improve health related quality of life in patients with prolonged musculoskeletal disorders. The intervention programme focused on body awareness therapy and cognitive and relaxation treatment are useful in extreme stress situations. Semmer (2003) suggests that stress management interventions are designed to deal with the sources of stress by changing the design, management and organization of work. Coffey (2009) reported that intervention programmes succeed in organizations where there is a strong commitment from senior management, the staff is willing to participate, there are realistic expectations, responsibilities and time frames argued on the onset of the project. Health promotion outcomes of intervention programmes are improved health literacy, changes to organizational policies and practices; and staff empowerment and participation. Giga et al (2003) recommend that organizational policies to sustain and develop employee health and well being should comprise plans to prevent and manage stress, support both individual and organization needs, and to be continually evaluated and reviewed.

A primary goal of such assessment is for all concerned to gain a deeper understanding of the stress and its effects on person's health and performance. Information from Stress Management Scale will allow sufferers to understand and experts to plan and implement programmes to address specific area and methodology to handle stress. It might also be helpful in identifying the problems and suggesting solutions; to plan and implement programmes for enhancing stress management proficiency. The tool can also be commonly employed in understanding the environment and the sufferer in formal and informal ways to handle the situation in a better manner.

Scale Construction

Stress Management Scale was developed on the lines of the Likert summated rating scale in order to recognize the common strategies used to overcome stress.

Final Form

The Stress Management scale had 36 items in all. The pattern was so developed as to be comprehensible. Items were kept short, limited to one idea and consisted of terms that are simple and understandable within a wide range of understanding ability. Statements used personal and individual pronouns. The items were created primarily from an in-depth study of subjects. The tool of items was given to a group of 100 experts in the field of psychology and management to rate the items at 6 levels of **zero (strongly disagree) to 5 (strongly agree)**. Based on the ratings of the experts, the item correlation and item differences were computed for item analysis. With the suggestions of the experts, a set of 36 items was finally selected. These statements had item correlation value higher than 0.9 and also high item discrimination (with 't' values ranging between 2.10 to 10.39).

The final scale with 36 items was administered on a sample of 200 respondents i.e. 100 males and 100 females in the age group of 25-35 years.

Scoring

The final version of 36 items scale on Stress Management Techniques has half of the items randomly identified and worded as negative statements and the rest worded as positive. The item responses are to be elicited on a Likert Scale that range from zero (strongly disagree) to 5 (strongly agree). While scoring, the positively worded items will get higher scores for agreement and lower for disagreement; whereas the scoring pattern for negatively worded statements will be reversed i.e. disagreement with a negatively worded statement will earn a respondent more score.

TABLE 1 : Scoring Pattern

Response	Strongly Disagree	Disagree (high)	Disagree (low)	Agree (low)	Agree (High)	Strongly Agree
Positive	0	1	2	3	4	5
Negative	5	4	3	2	1	0

TABLE 2
Positively and Negatively Worded Items

Items	ITEM NO.	Total
Positive	1, 2, 4, 6, 7, 9, 11, 13, 17, 18, 20, 22, 24, 26, 28, 30, 31, 33	18
• Negative	3, 5, 8, 10, 12, 14, 15, 16, 19, 21, 23, 25, 27, 29, 32, 34, 35, 36	18
Total Number of Item		36

Agreement to the positively worded items will earn the respondent more score indicating higher proficiency in managing stress and agreement to the negatively worded items will earn the respondent lesser scores, indicating lower proficiency in managing stress.

Reliability of Scale

After item-analysis the scale was subjected to test of reliability to find out the consistency in providing results after repeated use. The reliability was found by calculating the correlation coefficient of scores by Test-Retest and Split-Half methods.

Test-Retest Method

The respondents were supposed to complete the scale at a gap of 6 months. The reliability of the scale was then estimated by the correlation between the two scores. The accuracy of this method rests on the assumption that the participants are fundamentally the same during two test periods. Thus it was made sure that the respondents did not remember any of their specific responses.

Split-Halves Method

The Split-Halves method was used to calculate the reliability estimate of the scale. The scale items were divided into two sections (the even-numbered items and the odd-numbered items) and scores were calculated for each half. The correlation between these two scores was determined.

TABLE 3

Reliability scores of the scale developed

S. No.	Method	Reliability
1	Test-Retest	0.87
2	Split-Half	0.91

Validity of the Scale

The tool was validated to ensure its dependability in recognizing the stress management techniques. A number of measures were adopted to establish the content and construct validity viz., creation of items after thorough literature scanning and brainstorming with panel of 100 experts. The Panel was requested to comment

on favorability and unfavorability of the items to the concept that help in suitably modifying the scale without affecting the meaning of desired aspects to be enquired in the item. The stress management scale may be useful in assessing the proficiency of an individual in managing stress.

The reliability estimates and validity indicate that the scale was highly reliable and valid for the purpose it was developed.

The scale is designed for assessing the proficiency of an individual in managing stress. The level of stress management proficiency can be assessed by cumulative scores of any single dimension on 0-30 or of the total scale on a 0-180 scale. Weighted score is assigned for each response opted and the scores obtained by individual respondent on 36 items are added.

Instructions for the administration of Scale

Any investigator can use this scale to assess an individual's proficiency in managing stress.

The responses are to be taken by marking on any one choice out of six choices (strongly agree, agree (high), agree (low), disagree (low), disagree (high), strongly disagree).

The care must be taken by the investigator that no item is left without responding.

SCORING, NORMS AND INTERPRETATION

Scoring

For scoring the scale following the scoring system given in Table 1. Findout the total score for the respondent on 36 items. The total score shall be the Raw Score for the respondent.

Norms and Interpretation

z-Score Norms have been developed for interpretation of the Raw Scores. Convert Raw Scores into z-Scores given in Table 3, then findout the level of Stress Management by testing the z-Scores as per norms given in Table 4. It will give an indepth knowledge about the respondent's stress management style.

TABLE 4

z-Score Norms for Stress Management Scale

Mean : 112.50 SD : 16.32 N = 200

Score	Score	Score	Score	Score	Score	Score	Score
73	-2.42	93	-1.19	113	+0.03	133	+1.25
74	-2.35	94	-1.13	114	+0.09	134	+1.31
75	-2.29	95	-1.07	115	+0.15	135	+1.37
76	-2.23	96	-1.01	116	+0.22	136	+1.43
77	-2.17	97	-0.94	117	+0.27	137	+1.50
78	-2.11	98	-0.88	118	+0.33	138	+1.56
79	-2.05	99	-0.82	119	+0.39	139	+1.62
80	-1.99	100	-0.76	120	+0.45	140	+1.68
81	-1.93	101	-0.70	121	+0.52	141	+1.74
82	-1.86	102	-0.64	122	+0.58	142	+1.80
83	-1.80	103	-0.58	123	+0.64	143	+1.86
84	-1.74	104	-0.52	124	+0.70	144	+1.93
85	-1.68	105	-0.45	125	+0.76	145	+1.99
86	-1.62	106	-0.39	126	+0.82	146	+2.05
87	-1.56	107	-0.33	127	+0.88	147	+2.11
88	-1.50	108	-0.27	128	+0.94	148	+2.17
89	-1.43	109	-0.22	129	+1.01	149	+2.23
90	-1.37	110	-0.15	130	+1.07	150	+2.29
91	-1.31	111	-0.09	131	+1.13	151	+2.35
92	-1.25	112	-0.03	132	+1.19	152	+2.42

TABLE 5

Norms for Interpretation of z-Score and Stress Level

Sr. No.	Range of Raw Scores	Range of z-Scores	Grade	Stress Management Level
1.	146 and above	+2.01 and above	A	Excellent Management
2.	134-145	+1.26 to +2.00	B	Very Good Management
3.	121-133	+0.51 to +1.25	C	Good Management
4.	105-120	-0.50 to +0.50	D	Moderate Management
5.	92-104	-0.51 to -1.25	E	Poor Management
6.	80-91	-1.26 to -2.00	F	Very Poor Management
7.	79 and below	-2.01 and below	G	Extremely Poor Management

REFERENCES

- Bernin, P., Theorell, T., Cooper, C. L., Sparks, K., Spector, P. E., Radakrisnan, P. and Russinova, V. (2003). Coping strategies among Swedish female and male managers in international context. *International Journal of Stress Management*, 10(4), 376-391.
- Coffey, M., Dugdill, L. and Andy, T. (2009). Designing a Stress management intervention in social services. *International Journal of workplace health management*, 2(2), 98-114.
- Giga, S. I., Copper, C. L. and Faragher, B. (2003). The development of a framework for a comprehensive approach to stress management interventions at work. *International Journal of Stress Management*, 10(4), 280-296.
- Grahn, B., Ekdahl, C. and Borgquist, L. (1998). Effect of a multidisciplinary rehabilitation programme on health related quality of life in patients with prolonged musculoskeletal disorders. A 6 month follow up of a prospective controlled stud. *Disability and Rehabilitation*, 20(8), 285-297.
- Haider, Y. and Supriya, M. V. (2007). Career Management: A view through stress window. *International Review of Business Research Papers*, 3(5), 182-192.
- Keegan, L. (2003). Alternative and complementary modalities for managing stress and anxiety. *Critical Care Nurse*, 23, 55-58.
- Mathews, K.A., Gump, B. B. and Owens, J. E. (2001). Chronic stress influences cardiovascular and neuroendocrine responses during acute stress and recovery, especially in men. *Health Psychology*, 20, 403-410.
- Murphy, L.R. (1996). Stress Management in work settings A critical review of the health effects. *Am J. Health Promot. Nov-Dec*, 11(2): 112-135.
- Scheier, M. and Carver, C. (1992). Effects of optimism on psychological and physical well being: Theoretical overview and empirical update. *Cognitive Therapy and Research*, 16, 201-228.
- Segerstrom, S. C. and Miller, G.E. (2004). Psychological stress and the human immune system. A meta-analytic study of 30 years of inquiry. *Psychological Bulletin*, 130, 601-630.
- Semmer, N. (2003). Job Stress Interventions and organization of work. *Handbook of occupational health psychology* Washington, D. C. American Psychological Association, 325-353.
- Smith, A. (2000). The scale of perceived occupational stress. *Occup Med* 50(5), 294-298.
- Taylor, S.E. (2006). Stress and Coping. *Health Psychology VI Ed. McGraw Hill International Edition*, 156-157.
- Vagg, P.R., Spielberg, C.D., Wasala, C.F. (2002). Effects of organizational level and gender on stress in the workplace. *International Journals of Stress Management*, 9(4), 243-261.