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The Effect of Emotional Intelligence and Job Burnout on Mental and Physical Health

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The aim of this study was the determination of the effect size of emotional intelligence and occupational stress on mental and physical health. For this purpose 250 primary and high school teachers were selected with stratified random sampling selection from schools of Tehran, Iran. Three questionnaires Emotional Intelligence Scale (EIS), Teachers' Occupational Stress Questionnaire (TOSQ), and Mental Health Inventory (MHI)], and one checklist (Physical Health Checklist) were administered among the school teachers. The results showed that emotional intelligence and job burnout were explained 43.9% of mental health and 13.5% of variance of physical health.

Keywords: Occupational stress, emotional intelligence, job burnout, mental health, physical health

After surveying studies of maladjustment in teachers, Kaplan (1959) concluded that "three million children are daily exposed to teachers who are too maladjusted to be around children". It has been reported that teacher stress and burnout inevitably affect the learning environment and interfere with the achievement of educational goals insofar as they lead to teachers' detachment, alienation, apathy and absenteeism and ultimately the decision to leave the field (Farber, 1991; Jenkins & Calhoun, 1991). A general presumption of the occupational stress literature is that personal work stress and strain ultimately lead to failing individual health and illness (e.g., Fletcher, 1993; Ganster, & Schaubroeck, 1991). Some empirical support exists for this relationship. A National Institute of Mental Health summarizes literature concerning of the relationship between stress and susceptibility to various types of disease [Vitkovic and Kaslow (1994) as stated by Manning, Jackson and Fusilier (1996)]. In contrast, the quality of the teachers' work life can be a strong indicator of a healthy and therefore effective school. Hart (1994) has demonstrated clearly that psychological distress and morale are independent factors contributing to a teachers' overall quality of work life.

On the other hand, in recent years, educational system and organization has become the target of widespread scrutiny and criticism, while at the same time the rewards of teaching are often obscured by the difficult working conditions that are prevalent in many of our schools. Against this backdrop of heightened job pressure and reduced professional satisfaction, it is not surprising that alarming statements have been issued repeatedly in the educational literature about the growing prevalence of teacher stress and burnout (e.g., Farber, 1991; Hodge, Jupp, & Taylor, 1994). Research has shown that teachers are exposed to a number of sources of stress. Kyriacou (2001) reports that the main sources of teacher stress stem from teaching students who lack motivation, maintaining discipline in the classroom, confronting general time pressures and workload

demands, being exposed to a large amount of change, being evaluated by others, having difficult or challenging relationships with colleagues, administration, or management, and being exposing to generally poor working conditions.

The experience of stress for teachers is qualitatively different from the work stress experienced by many others in the work context. Van Der Linde (2000) describes teaching as characterized by great responsibility, with no freedom to leave the classroom for more than a few moments, and pressure to control one's emotions. In the school settings, there is little respite from the sever demand for emotional labor. The body's stress reaction is designed to prepare the organism to fly or fight when confronted with a threat to well being. For teachers however, situational constraints impinge heavily on their capacity to manage stress, regardless to its intensity (Dorman, 2003; Van Der Linde, 2000). For this occupational group, the sources of stress are manifold and intensify the conflict between preservation of well being and continuing to function in the face of such influences. Like their colleagues, teachers are subject to the interaction of organizational and individual level factors typically associated with work and work stress. The outcomes for teachers are more pronounced in light of the well-documented isolation they experience in the normal course of their work (Cochran-Smith & Lytle, 1992). Isolation produces a double-bind for teachers, in that it allows for privacy, but can also lead to loneliness and while it permits autonomy, it can amplify one's sense of separation (Dorman, 2003; Cochran-Smith & Lytle, 1992).

Emotional Intelligence

The popularity of the emotional intelligence during the past decade has led researchers to examine its potency in various areas of human functioning. Thus, it has been found that trait or ability EI are related to life success (Bar-On, 2001), life satisfaction and well-being (Palmer, Donaldson, & Stough, 2002), interpersonal relationships (Fitness, 2001), occupational stress (Nikolaou & Tsaousis, 2002; Slaski & Cartwright, 2002), work success and performance (Vakola, Tsaousis & Nikolaou, 2004), leadership (Palmer, Walls, Bergess, & Stough, 2000), etc. In recent years, there has been an increasing interest in how emotional reactions and experiences affect both physical as well as psychological health. For example, it has been claimed that negative emotional states are associated with unhealthy patterns of physiological functioning, whereas positive emotional states are associated with healthier patterns of responding in both cardiovascular activity and immune system (Herbert & Cohen, 1993). Salovey, Rothman, Detweiler, and Steward (2000) discussed extensively the importance of emotional states on physical health. Furthermore, extended research in the field of health psychology has demonstrated the effect of negative mood or unpleasant emotional experiences on a number of habits or behaviors that have been accused for unhealthy conditions, such as smoking (e.g. Brandon, 1994) and drinking (e.g. Cooper, Frone, Russell & Mudar, 1995). Several studies have also revealed a direct connection between emotional arousal (especially anger) and cardiovascular consequences (Friedman, 1992).

In another study, Salovey, Bedell, Detweiler, and Mayer (1999) reported that individuals who can regulate their emotional states are healthier because they "accurately perceive and appraise their emotional states, know how and when to express their feelings, and can effectively regulate their mood states". This set of characteristics, dealing with the perception, expression, and regulation of moods and emotions, suggests that there must be a direct link between EI and physical as well as psychological health. Indeed, Taylor (2001) argues that if you are emotionally

intelligent then you can cope better with life's challenges and control our emotions more effectively, both of which contribute to good psychological and physical health. Moreover, Bar-On (1997) includes stress management and adaptability as two major components of EI, while Matthews and Zeidner (2000) stated that "adaptive coping might be conceptualized as emotional intelligence in action, supporting mastery emotions, emotional growth, and both cognitive and emotional differentiation, allowing us to evolve in an ever-changing world" (p. 460).

Additionally, Salovey (2001) claims that the failure of emotional self-management leads to significant influences on health, for example, excessive cardiovascular reactivity. He suggests that a way of coping for people who are low on this dimension is through smoking, drinking, and eating fatty foods, which can also lead to long term health damage. However, he also emphasized that suppressing negative feelings is not a healthy strategy either, suggesting that emotions' manifestation has a positive impact on physical health when people are confident about their abilities to regulate them.

In another interesting study, Ciarroch, Deane, and Anderson (2002) identified the moderating role of EI in the relationship between stress and a number of measures of psychological health, such as depression, hopelessness and suicidal ideation among young people. These studies, but mainly the core essence of EI, indicate that a negative correlation exists between stress, ill health and EI levels, assuming that people scoring high in EI are expected to cope effectively with environmental demands and pressures as those commonly assessed by occupational stress and health measures (Nikolaou & Tsaousis, 2002).

Dulewicz, Higgs, and Slaski (2003), using a relatively small sample of retail managers, examined the role that variables such as stress, distress, morale and poor quality of working life play in everyday life. They demonstrated that EI was strongly correlated with both physical and psychological health.

Occupational Stress

Kyriacou & Sutcliffe (1978) defined occupational stress as experience of unpleasant emotions, such as tension, frustration, anxiety, anger, and depression. This definition has been used extensively in the occupational stress literature (e.g., Newton, 1989), and is similar to definitions of psychological distress (Headey & Wearing, 1992) and negative affect (Watson, 1988). But some researchers draw a distinction between stress and psychological distress (e.g., Quick, Murphy, & Hurrell, 1992). For example, Jex, Beehr, & Roberts (1992) told that occupational stress is typically associated with the negative feelings that employees have about their work.

Employers and governments have had increasing concern about occupational stress for over twenty years (Le Fevre, Matheny, and Kort, 2003). In the past decade, effects of economic globalization and rapid technological changes have resulted in increased workloads and faster pace in the work place (Dollard, 2003). Modern trends such as organizational downsizing, competition for funding, and high demand jobs have led to rising occupational stress (Dollard, 2003). The cost of occupational stress in the United States is estimated to range between 200 and 300 billion dollars annually (Le Fevre, Matheny, & Kort, 2003). One study in the United States revealed that 54 percent of absence from work is estimated to be stress-related (Elkin & Rosch, 1990). Another report was that 75 percent to 90 percent of physician visits are estimated to be for stress-related complaints and illnesses. Unmanaged stress for employees can result in short-and-long term negative health effects including exhaustion, physical pain, depression, sleep disturbances, and even death (Brock & Grady, 2002; Le Fevre, Matheny, & Kort, 2003).

Method

Participants:

A total of 250 teachers from India in both gender participated in the study. Teachers (woman, and man) were selected with stratified random sampling. First 10 schools in different parts of the city, and 25 teachers from each school were selected randomly. The table number 1 is showed the maximum, minimum, mean, and standard deviation of the samples' age and table number 2 is showed maximum, minimum, mean, and standard deviation of the samples' teaching experience.

Measures:

Emotional Intelligence Scale (E.I.S): Participants' emotional intelligence was measured by a scale developed and standardized by Singh (2004). It is consisted of 60 statements which were grouped under five categories namely: Self Awareness, Self Regulation, Motivation, Social Awareness, and Social Skills. Higher score indicates high level of emotional intelligence in that respective area. The author has reported the value of internal reliability (á=0.88), and content and face validity is examined by asking from 10 specialists. In the present study, internal reliability was satisfactory (á=0.93).

Mental Health Inventory: Participants' mental health were measured by a scale developed by Srivastava and Jagdish (1983) (stated by Pestonjee, 2003). Lower scores on the measure of mental-ill health have been supposed to indicate higher mental health. This scale consists of 55 items and the authors reported the satisfactory internal reliability for each subscale and total scale. Positive self-evaluation (á=0.75), Realistic Perception (á=0.71), Integration of Personality (á=0.72), Autonomy (á=0.72), Group Oriented Attitudes (á=0.74), Environmental Mastery (á=0.79), and total scale (á=0.73). Criterion validity was examined by Well-Being scores and correlation of scores reported significant. In the present study, internal reliability was satisfactory (á=0.87).

Occupational Stress: Participants' occupational stress was measured by a scale developed by Mohammadyfar and Khan (2008). This scale consists of 48 items and authors reported sufficient level of reliability and validity for this scale. For content validity authors were deleted 4 items which had not sufficient level of relative in the view of experts and the rest of items entered to SPSS for Factor Analysis, then those items that existed in computing had sufficient level of content validity. For criterion validity Maslach's Job Burnout questionnaire is applied and correlations between the scores of subscales and total scales were significant. Internal reliability was reported is satisfactory, also (á=0.87).

Physical Health: Researchers were listed the physical check list, and the opinion of the experts were considered as a content validity and criterion validity is also examined by correlation of the scores of mental health. Significant positive correlation is proved the criterion validity of check list. Internal reliability was reported is satisfactory, also (á=0.76).

Results and Discussion

Table-1: Mean, SD and Correlation of variables

Variable	M	SD	1	2	3
1. Emotional Intelligence	232.95	26.47	-	-	-
2. Occupational Stress	100.66	19.98	-0.32**	-	-
3. Mental Health	130.91	17.19	-0.55**	0.52**	-
4. Physical Health	4.62	2.65	-0.28**	0.32**	0.31**

*P<0.05; **P<0.01; ***P<0.001.

Table-2: Regression analysis to predict Mental Health from Occupational Stress and Emotional Intelligence

Dependent variable	Independent variables	ß	t	Overall R^2	F(1,248)
Mental Health	Emotional Intelligence	-0.431	-8.577***	0.439	96.746
	Occupational Stress	0.383	7.621***		

*P<0.05; **P<0.01; ***P<0.001.

Table-5: Regression analysis to predict Physical Health from Occupational Stress and Emotional Intelligence

Dependent variable	Independent variables	ß	t	Overall R^2	F(1,248)
Physical Health	Emotional Intelligence	-0.194	-2.918**	0.135	17.184
	Occupational Stress	0.253	3.813***		

*P<0.05; **P<0.01; ***P<0.001.

Emotional intelligence and occupational stress were explained 43.9% of variance of mental health in Indian teachers' sample. Results showed that emotional intelligence was negative significant predictor (ß=-0.431, P<0.001). That is, teachers who have reported higher emotional intelligence have better mental health. Salovey, Bedell, Detweiler, and Mayer's, (1999) believed who can regulate their emotional states are healthier because they accurately perceive and appraise their emotional states, know how and when to express their feelings, and can effectively regulate their mood states. On the other hand positive emotions may indeed undo the lingering effects of negative emotions that narrow one's thought-action repertoires. Fredrickson and her co-researchers had named it the undoing hypothesis (Fredrickson & Levenson, 1998). More research tends to support the notion that positive emotions may indeed act as a coping resource during periods of experienced stress and threat (e.g., Folkman & Moskowit, 2000). The undoing hypothesis predicts that positive emotions will restore autonomic quiescence (physiological undoing) following negative emotional arousal, as well as restore flexible thinking following negative emotional experiences. This should contribute to higher levels of efficiency and may in turn build ego-strength and resilience. Also, emotional intelligence was significant negative predictor for prediction of physical health (ß= -0.194, P<0.01). This result means that, emotional intelligence like positive emotions undoing the lingering consequences of negative emotions; they may shorten the damaging impact of such reactivity on the cardiovascular system. Studies that investigated the relationship between positive affective states and health also found correlations between positive mood and immune functioning. This creates the possibility of greater control over well-being and physical health via the purposeful cultivation of positive experiences. Maybe emotional intelligence can, also, affect on immune functioning by cultivation of positive affective. In other words, an expected result of emotional intelligence can be positive affection. And via positive affection it can affect on physical health.

Also, emotional intelligence and occupational stress were explained 13.5% of variance of physical health in Indian teachers' sample. Results showed that occupational stress was positive significant predictor (ß=0.253, P<0.001) in prediction of physical health. That is higher perceived stress will produce worse physical health. Also, this

variable was significant positive predictor in prediction of mental health (ß=0.383, P<0.001). This result showed the effect of environmental factors on teachers' health. Then school managers far having a healthy school should consider occupational stress that teachers are tolerated it. But, researches showed that different people react differently in the work situation. Some have better abilities to cope than others and are able to adapt their behavior in order to meet the challenge. According to numerous authors (e.g. Cooper, & Bright, 2001) many factors contribute to these differences, ranging from personality, gender, motivation, inability to deal with problems in an area of expertise, and fluctuations in ability (often related to age). But, in this research results showed that emotional intelligence is very important factor for prediction of teachers' health, and also the correlation of the emotional intelligence and occupational stress id significant. Then this personally variable should consider in the selection of teaching staff.

References

Bar-On, R. (1997). *Bar-On Emotional Quotient Inventory (EQ-I): Technical manual.* Toronto, Canada: Multi-Health Systems.

Bar-On, R. (2001). Emotional intelligence and self-actualization. In J. Ciarrochi, J. Forgas, and J. D. Mayer (Eds.), *Emotional intelligence in everyday life: A scientific inquiry* (p. 82–97). Philadelphia, PA: Taylor & Francis.

Brandon, T.H. (1994). Negative affect as a motivation to smoke. *Current Directions in Psychological Science, 3*, 33-37.

Brock, B.L., & Grady, M.L. (2002). *Avoiding burnout: A principals' guide to keeping the fire alive.* Thousand Oaks, CA: Corwin press.

Ciarrochi, J., Deane, F., & Anderson, S. (2002). Emotional intelligence moderates, the relationship between stress and mental health. *Personality and Individual Differences, 32,* 197-209.

Cochran-Smith, M. & Lytle, S.L. (1992). Communities for teacher research: fringe or forefront. *American Journal of Education, May,* 298-324.

Cooper, L., & Bright, J. (2001). Individual differences in reactions to stress. In Jones, F.I., & Bright, J. (Eds), *Stress: Myth, theory and research.* Harlow, UK: Prentice Hall.

Cooper, M.L., Frone, M.R., Russell, M., & Mudar, P. (1995). Drinking to regulate positive and negative emotions: A motivational model of alcohol use. *Journal of Personality and Social Psychology, 69,* 990-1005.

Dollard, M.F. (2003). Introduction: context theories and intervention. In M.F. Dollard, A.H. Winefield, & H.R. Winefield (Eds.). *Occupational stress in the service professions.* New York: Taylor & Francis.

Dorman, J.P. (2003). Relationship between school and classroom environment and teacher burnout. *Social Psychology of Education, 6,* 107-127.

Dulewicz, V., Higgs, M., & Slaski, M. (2003). Measuring emotional intelligence: content, construct, and criterion related validity. *Journal of Managerial Psychology, 18,* 405-420.

Elkin, A.J., & Rosch, P.J. (1990). The person-environment fit approach to stress, recurring problems, and some suggested solutions. *Journal of organizational behavior , 11,* 293-307.

Farber, B.A. (1991). *Crisis in education: stress and burnout in the American teacher.* SanFrancisco: Jossey-Bass.

Fitness, J. (2001). Emotional intelligence and intimate relationships. In J. Ciarrochi, J.P. Forgas, & J.D. Mayer (Eds.), *Emotional intelligence in every day life: A scientific inquiry* (p.98-112). Philadelphia, PA: Psychology press.

Fletcher, B. (1993). *Occupational stress, disease and life expect ancy.* Chichester, England: Willey.

Folkman, S., & Moskowitz, J.T. (2000). Positive affect and the other side of coping. *American Psychologist, 55*, 647-654.

Fredrickson, B.L., & Levenson, R.W. (1998). Positive emotions speed recovery from the cardiovascular sequel of negative emotions. *Cognition and Emotion, 12,* 191-220.

Friedman, H.S. (Eds.) (1992). *Hostility, coping and health***.** Washington, DC: American Psychological Association.

Ganster, D.C., & Schaubroeck, J. (1991). Work stress and employee health. *Journal of Management, 17*, 235-271.

Hart, P.M. (1994). Teacher quality of work life. Integrating work experiences, psychological distress and morale. *Journal of occupational and organizational psychology, 67,* 109-132.

Headey, B., & Wearing, A.J., (1992). *Understanding happiness: a theory of subjective well-being.* Melbourne: Longman Cheshire.

Herbert, T.B., & Cohen, S. (1993). Depression and immunity: A meta-analytic review. *Psychological Bulletin, 113*, 472-486.

Hodge, G.M., Jupp, J.J., & Taylor, A.J. (1994). Work stress, distress and burnout in music and mathematics teachers. *British Journal of Educational Psychology, 64*, 65-76.

Jenkins, S., & Calhoun, J.F. (1991). Teacher stress: Issues and intervention. *Psychology in the Schools*, *28,* 60-70.

Jex, S.M.; Beehr, T.A; & Roberts, C.K., (1992). The meaning of occupational stress items to survey respondents. *Journal of Applied Psychology. 77,* 623-628.

Kaplan, Louis (1959). *Mental Health and Human Relations in Education.* New York: Harper & Brothers.

Kyriacou, C. (2001). Teacher stress: Directions for future research. *Educational Review, 53,* 27-35.

Kyriacou, C., & Sutcliffe, J. (1978). Teacher stress: prevalence, sources, and symptoms. *British Journal of Educational Psychology, 48,* 159-167.

Le Fevre, M., Matheny, J., & Kort, G. (2003). Eustress, distress, interpretation in occupational stress. *Journal of Managerial Psychology, 18*, 726-744.

Manning, M.R., Jackson, C.N., & Fusilier, M.R. (1996). Occupational stress, social support, and the costs of health care. *Academy of Management Journal*, *39,* 738-750.

Maslach, C., & Jackson, S.E., (1981). The measurement of experienced burnout. *Journal of Occupational Behavior, 2,* 99-113.

Matthews, G., & Zeidner, M. (2000). Emotional intelligence, adaptation to stressful encounter, and health outcomes. In R. Bar-On, & J.D.A. Parker (Eds.), *The handbook of emotional intelligence***.** San Francisco, CA: Jossey-Bass.

Newton, T.J., (1989). Occupational stress and coping with stress: a critique. *Human Relations, 42*, 441-461.

Nikolaou, I., & Tsaousis, I. (2002). Emotional intelligence in the workplace: Exploring its effects on occupational stress and organizational commitment. *The International Journal of Organizational Analysis, 10*, 327-342.

Palmer, B., Donaldson, C., & Stough, C. (2002). Emotional intelligence and life satisfaction. *Personality and Individual Differences, 33,* 1091-1100.

Palmer, B., Walls, M., Burgess, Z., & Stough, C. (2000). Emotional intelligence and effective leadership. *Leadership and Organization Development Journal*, *22,* 5-11.

Pestonjee, D.M. (2003). *Third handbook of psychological and social instruments, Vol, 2,* New Delhi: Concept publishing company.

Quick, J.C.; Murphy, L.R.; & Hurrell, J.J., Jr. (1992). Stress and well-being at work: assessments and interventions for occupational mental health. Washington, DC: *American Psychological Association.*

Salovey, P. (2001). Applied emotional intelligence: Regulating emotions to become healthy, wealthy, and wise. In J. Ciarrochi, & J.P. Forgas (Eds.), *Emotional intelligence in every day life: A scientific enquiry* (p. 67-81). Philadelphia, PA: Taylor & Francis.

Salovey, P., Bedell, B.T., Detweiler, J.B., & Mayer, J.D., (1999). Coping intelligently: Emotional intelligence and the coping process. In C.R. Snyder (Eds.), *coping: the psychology of what woks* (p.141-164). New York: Oxford psychology press.

Salovey, P., Rothman, A.J., Detweiler, J.B., & Steward, W.T. (2000). Emotional states and physical health. *American Psychologist, 55,* 110-121.

Singh, S. (2004). Development of measure of emotional intelligence. *Psychological studies, 49,* 136-141.

Slaski, M., & Cartwright, S. (2002). Health, performance and emotional intelligence: An exploratory study of retail managers. *Stress and Health, 18,* 63-68.

Taylor, G.J. (2001). Low emotional intelligence and mental illness. In J. Ciarrochi, & J.P. Forgas (Eds.), *Emotional intelligence in every day life: A scientific enquiry* (p. 67-81). Philadelphia, PA: Taylor & Francis.

Vakola, M., Tsaousis, I., & Nikolaou, I. (2004). The effects of emotional intelligence and personality variables on attitudes toward organizational change. *Journal of Managerial Psychology, 19*, 88 -110.

Van Der Linde, C. (2000). The teachers' stress and its implications for the school as an organization: How can TQM help? *Education, 12,* 375-382.

Watson, D. (1988). Intraindividual and interindividual analyses of positive and negative affect: their relation to health complaints, perceived stress, and daily activities. *Journal of personality and social p sychology, 54,* 1020-1030.

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