

**SELF EFFICACY AND JOB STRESS AMONG TEACHERS:
A META-ANALYSIS**

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Abstract

As teachers are significant persons not only for the school, but also for the society; it is the need of whole society to study about the factors that influencing mental health of teachers. While going through the studies of last 10 years, maximum number of studies among the teachers were related to the topics 'self efficacy' and 'job stress'. Self-efficacy is a person's belief in his or her ability to succeed in a particular situation. Job stress is the harmful physical and emotional response that occurs when there is a poor match between job demands and the capabilities, resources, or needs of the worker. Thus in this study, the investigators analyzed the studies related to these two factors and find out that stress is the basic reason for the burnout of teachers. Teachers with self-efficacy can deal with their stress in a good level, which will surely give a positive mental health. Thus, by adopting strategies to empower self-efficacy of teachers, automatically their stress will decrease and can mould teachers with undamaged mental health.

Key words: Job stress, Mental health, Meta-analysis, Self efficacy, Teachers.

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According to WHO(2001), mental health includes subjective well being, perceived self-efficacy, autonomy, competence, inter generational dependence and self actualization of one's intellectual and emotional potential. The Sainsbury Centre for Mental Health estimated the total cost of mental health problems to employers to be nearly 26 billion per year (Waddell & Burton, 2006). In terms of absenteeism, it has calculated that in 2007, some 40% of all days lost due to sickness absence were as a result of mental ill health. Moreover, mental ill health also represents a growing concern for the benefits system as an increasing percentage of invalidity benefits claimants cite mental health problems, with figures rising from 26% in 1996 to 42% in 2007. There is increasing recognition that maintaining people in employment when they suffer a disability or period of ill health is the best way to prevent long-term disability and reduce the numbers moving onto benefits. More generally, and quite simply, work is beneficial for both physical and mental health and it is better for individuals to remain in employment whenever possible, particularly if the working environment provides a healthy element of emotional support (Smithers & Robinson, 2005). This concept has drawn attention to the role of employers in promoting not only physical health, but also mental wellbeing, with increasing recognition that the workplace is an effective site for interventions to improve health and reduce health inequalities (Angle et al., 2008; Smithers & Robinson, 2003).

Such initiatives appear sensible and right but they are also, strikingly, at variance with current policy on academic achievement, which appears to demand precedence over pupil and staff wellbeing. There is little evidence, beyond the anecdotal, that high-stakes accountability and inspection has significantly contributed to the mental health problems of pupils and staff, but that doesn't rule out a causal connection – epidemiological studies of this type have not been undertaken. Qualitative studies are unable to make this link but nevertheless offer the direct, unambiguous perceptions of teachers, supported by school leaders, that current educational policy and practice creates an undue and pathogenic burden on teachers and their mental health.

The teacher obviously is an important person in determining the ways of their pupils are affected by and react to their work. To a considerable extent, they can control the conditions of work and choose tasks and methods suitable for their pupils. They can very often help a youngster who is facing by problems. According to Skinner (1958), "it is extremely important that a teacher posses adequate adjustment to the mental health hazards inherent in teaching. Many teachers possess personality qualities that are serious handicaps in their work. They may be too sensitive to

warranted criticism or they may become sarcastic and unfriendly in their school relations.” As teachers are significant persons not only for the school, but also for the society; it’s the need of whole society to study about the mental health of teachers.

Meta-analysis is a type of research study in which the researcher compiles numerous previously published research studies on a particular research question and re-analyzes the results to find the general trend for results across the studies. By using meta-analysis, a wide variety of questions can be investigated, as long as a reasonable body of primary research studies exists. Thus, here a meta-analysis of the studies among teachers’ mental health is doing, in order to know the details about the factors influencing the mental health of teachers.

While analyzing the studies of last 10 years, maximum number of studies were related to the topics ‘self efficacy of teachers’ and ‘job stress among teachers’. According to Bandura (1995), self-efficacy is “the belief in one’s capabilities to organize and execute the courses of action required to manage prospective situations”. In other words, self-efficacy is a person’s belief in his or her ability to succeed in a particular situation. Bandura (1994) described these beliefs as determinants of how people think, behave, and feel. Job stress is the harmful physical and emotional response that occurs when there is a poor match between job demands and the capabilities, resources, or needs of the worker. Evidence also suggests that stress is the major cause of turnover from the job. Thus in this study, the investigators are analyzing studies related to these two factors, which are directly influencing the mental health of teachers.

Method:

Literature search

Literature search was conducted for studies presenting quantitative and qualitative data on the role of self efficacy and stress among teachers. A computer based information search was conducted on the Infonet- a computer database, which provides abstracts and full paper of articles. The search covered studies from January 2000 up to December 2010. These steps produced a pool of 40 studies (20 studies related to self efficacy of teachers and the other 20 studies were related to job stress among teaching population), that met inclusion criteria.

Inclusion criteria

To be included, a study had to meet the following criteria: First- the study had to deal with teaching population, Second- the study examined the role of self efficacy or job stress of teachers,

Third- the study must have been written in English and finally the study must have been conducted between January 2000 and December 2010.

Table 1 and table 2 lists the details of the selected 40 studies.

Procedure:

First of all the selected studies were arranged according to the year of publishing (from 2010 to 2000), then extracted major findings of the studies and then each study was discussed qualitatively. Thus concluded with meta-analytic summary of the studies. The tables and discussions were given below.

Table 1

Studies on 'self efficacy'

SL NO.	AUTHORS	YEAR	TOPIC	FINDINGS
1	Ying Guo, Y. Justice, L.M. Sawyer, B. and Tompkins, V.	2010	Exploring factors related to preschool teachers' self-efficacy	Characteristics of teachers and classrooms are associated with teachers' self-efficacy.
2	Bruce, C. D., Indigo Esmonde, John Ross, Lesley Dookie and Beatty, R.	2010	The effects of sustained classroom-embedded teacher professional learning on teacher efficacy and related student achievement	Complexities of context, prior learning experiences, goal setting, and persistence of participants all factored into what and how teachers learned.
3	Takahashi, S.	2010	Co-constructing efficacy: A "communities of practice" perspective on teachers' efficacy beliefs	Teachers appeared to co-construct efficacy beliefs in their communities of practice.
4	Moè, A., Pazzaglia, F. and Lucia Ronconia	2009	When being able is not enough. The combined value of positive affect and self-efficacy for job satisfaction in teaching	Revealed the mediating role of both positive affect and self-efficacy beliefs in the relationship between teaching strategies and job satisfaction.
5	Skaalvik, E.M. and Skaalvika, S.	2009	Teacher self-efficacy and teacher burnout: A study of relations	Both related to school context variables and to teacher job satisfaction.
6	Klassen, R.M. and Ming Chiu, M.	2009	Effects on Teachers' Self-Efficacy and Job Satisfaction	Teachers self-efficacy had greater job satisfaction.
7	Klassen, R.M. Fosterb, R.Y. Rajani, S.	2009	Teaching in the Yukon: Exploring teachers' efficacy	Job stress and job satisfaction were influenced by physical

	and Bowman,C.		beliefs, stress, and job satisfaction in a remote setting	and human geography, level of connection with the community, and by the community's cultural transitions
8	Schwerdtfeger, A. Konermann, L. and Schönhofen, K.	2008	Self-Efficacy As a Health-Protective Resource in Teachers? A Biopsychological Approach	Teacher self-efficacy might act as a physiological agent with possibly favorable health outcomes.
9	Chan, D.W.	2007	General, collective, and domain-specific teacher self-efficacy among Chinese prospective and in-service teachers in Hong Kong	Suggesting that there could be a trend of rising teacher self-efficacy as a teacher went through preparation and teaching practice .
10	Salami, S.O.	2007	Relationships of Emotional Intelligence and Self-efficacy to Work Attitudes among Secondary School Teachers in Southwestern Nigeria	Emotional intelligence and self-efficacy had significant relationships with work attitudes
11	Skaalvik, E.M. and Skaalvik,S.	2006	Dimensions of Teacher Self-Efficacy and Relations With Strain Factors, Perceived Collective Teacher Efficacy, and Teacher Burnout	Teacher self-efficacy was strongly related to all these factors.
12	Betoret,F.D.	2006	Stressors, Self-Efficacy, Coping Resources, and Burnout among Secondary School Teachers in Spain	Teachers with a high level of self-efficacy and more coping resources reported suffering less stress and burnout.
13	Hoy, A.W. and Spero,R.B.	2005	Changes in teacher efficacy during the early years of teaching: A comparison of four measures	Significant increases in efficacy during student teaching, but significant declines from the first year of teaching.
14	Caprara, G.V., Barbaranelli,C., Stecab,P. and Malonec, P.S.	2005	Teachers' self-efficacy beliefs as determinants of job satisfaction and students' academic achievement: A study at the school level	Teachers' personal efficacy beliefs have affect in their job satisfaction and students' academic achievement
15	Tschannen Morana, M. and Woolfolk Hoyb,A.	2005	The differential antecedents of self-efficacy beliefs of novice and experienced teachers	Contextual factors were found to be much more salient in the self-efficacy beliefs of novice teachers. Among experienced

				teachers, vice versa.
16	Labone, E.	2002	Teacher efficacy: maturing the construct through research in alternative paradigms	The paper provides a theoretical grounding for the study of the development of teacher efficacy beliefs.
17	Will J. G. , Brouwers, A. and Tomic, W.	2002	Burnout and Self-efficacy: A Study on Teachers' Beliefs when Implementing an Innovative Educational System in the Netherlands	Teachers with strong self-efficacy beliefs seem to be more prepared to experiment with, and later also to implement new educational practices.
18	Caprara,G.V. Barbaranelli, C., Borgogni,L. and Steca,P.	2002	Efficacy Beliefs as Determinants of Teachers' Job Satisfaction	Efficacy beliefs have effect on their own job satisfaction.
19	Friedman,I.A. and Kass,E.	2001	Teacher self-efficacy: a classroom-organization conceptualization	Each factor possessed inter-relations.
20	Tschannen-Moran, M. and Hoyb, A.W.	2000	Teacher efficacy: capturing an elusive construct	Proposed a promising new measure of teacher efficacy.

Table 2
Studies on 'Job stress'

SL NO.	AUTHORS	YEAR	TOPIC	FINDINGS
1	Rui, O.A. Nuno, M. Ana Maria Baptista Da Costa,P and Ana Rita Baptista Da Costa,P.	2010	Occupational stress in teaching: a study with high school teachers	More occupational problems in the following groups: women, older teachers, professionals with more precarious contracts, teachers working more hours per week and teachers with more students in the classroom.
2	Crothers, L.M., Kanyongo, G.Y., Kolbert, J.B. ,Lipinski,J., Kachmar,S.P. and Koch, G.D.	2010	Job stress and locus of control in teachers: comparisons between samples from the United States and Zimbabwe	Significant differences between the two samples were noted. the Zimbabwean teachers were reported greater dissatisfaction, because of poor organizational support.
3	Arikewuyo, M.O.	2010	Stress management strategies of secondary school teachers in Nigeria	The findings indicate that teachers frequently use the active behavioural and inactive (escape) strategies in managing stress.

4	Yang, X. , Wang, L., Gea,C., Hua, B. and Chi, T.	2010	Factors associated with occupational strain among Chinese teachers: a cross-sectional study	Chronic disease, days of sick leave, recent experience of a stressful life event and divorced/separated/widowed status played prominent roles in occupational strain.
5	Tickle, B.R. Chang, M. and Kim,S.	2010	Administrative support and its mediating effect on US public school teachers	Administrative support mediated the effects of stress.
6	Yanga, X. , Gea,C. , Hua, B. Chia, T. and Wang, L.	2009	Relationship between quality of life and occupational stress among teachers	The quality of life of female teachers is worse than that of male teachers, and deteriorates with age and these 2 have an inverse relationship.
7	Klassen,R.M. Fosterb,R.Y. Rajani,S. and Bowman,C.	2009	Teaching in the Yukon: Exploring teachers' efficacy beliefs, stress, and job satisfaction in a remote setting	Results showed that job stress and job satisfaction were influenced by physical and human geography, level of connection with the community, and by the community's cultural transitions
8	Shirom, A., Oliver, E. and Stein, E.	2009	Teachers' Stressors and Strains: A Longitudinal Study of Their Relationships	The relationships between stressors and strains may depend on the intrinsic properties of the strain under consideration
9	Stoeber,J. and Rennert,D.	2008	Perfectionism in School Teachers: Relations with Stress Appraisals, Coping Styles, and Burnout	Negative reactions to imperfection and perceived pressure from students is a contributing factor.
10	Edward,G.J. , and Novaes, E.M.	2008	Stress in Teachers from Government Public Schools of Fundamental Education	Results show that 56.6% of teachers suffer from stress
11	Geving,A.M.	2007	Identifying the types of student and teacher behaviours associated with teacher stress	Results showed that student lack of effort in class was most strongly associated with teacher stress.
12	Gulwadi,G.B.	2006	Seeking Restorative Experiences: Elementary School Teachers' Choices for Places that Enable Coping with Stress	spontaneous place choices are related to sources of stress and that the restorative potential of a place was related to its ability to support teachers

13	Antoniou, A.S. , Polychroni, F. and Vlachakis, A.N.	2006	Gender and Age Differences in Occupational Stress and Professional Burnout between Primary and High- school Teachers in Greece	Female teachers experienced significantly higher levels of occupational stress and younger teachers experienced higher levels of burnout
14	Lewis,R.	2005	Teachers Coping with the Stress of Classroom Discipline	teachers who report more stress are those most interested in empowering their students in the decision making process
15	Howard, S. and Johnson,B.	2004	Resilient teachers: resisting stress and burnout	the failure of teachers to cope is because of personal problems rather than an institutional weakness
16	Ben-Ari,R. , Krole,R. and Har-Even, D.	2003	Differential Effects of Simple Frontal Versus Complex Teaching Strategy on Teachers' Stress, Burnout, and Satisfaction	the use of the complex strategy was connected to lower levels of stress and burnout and to higher levels of satisfaction.
17	Mearns, J.E. and Cain, J.	2003	Relationships between Teachers' Occupational Stress and their Burnout and Distress: Roles of Coping and Negative Mood Regulation Expectancies	Results argue for the value of examining individual difference variables in research on occupational stress, in particular negative mood regulation expectancies.
18	Chan, D.W.	2002	Hardiness and its role in the stress–burnout relationship among prospective Chinese teachers in Hong Kong	Symptoms of burnout were generally the effects of chronic stress
19	Forlin,C.	2001	Inclusion: identifying potential stressors for regular class teachers	Issues that related to a teacher's professional competence and the behaviour of the child with the intellectual disability were the most stressful for teachers.
20	Shernoff,E.S., Mehta,T.G., Atkins,M.S. Torf ,R. and	2000	A Qualitative Study of the Sources and Impact of Stress Among Urban Teachers	Occupational stress significantly impacted their personal relationships and physical health.

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Results & Discussion

Selected studies from 2000 to 2010 are given in table 1 and table 2. Studies related to 'self-efficacy of teachers' is given in table 1, in which the details about authors, year and findings are given, along with the topic. While analyzing these studies, it can be seen that the variable 'self-efficacy' plays a major role in managing almost all the mental health issues of teachers of preschool level to University level.

When starting from the studies of 2000, Tschannen-Moran and Hoyb suggested that, the efficacy of teachers is an elusive construct and promising new measures are an inevitable need in this field. In 2001, Friedman and Kass, find out the inter relation between classroom organization conceptualization to the self-efficacy of teachers. In 2002, Caprara, Barbaranelli, Borgogni, and Steca find out the relationship between efficacy beliefs and job satisfaction. From these three findings, it is clear that it is a factor, which has both internal and external influences. Will, Brouwers and Tomic (2002), revealed the fact that, teachers with strong self-efficacy beliefs seem to be stronger enough to face factors that lead to burnout and they are ready to implement new educational practices. Labone (2002) provided a theoretical grounding too for teacher efficacy beliefs. When Tschannen-Morana and Hoyb (2005) checked out the self-efficacy beliefs of novice and experienced teachers, it is found that novice teachers were disturbed by contextual factors, while experienced teachers were found to be more stable. In another study conducted by Caprara, Barbaranelli, Stecab and Malonec (2005), it is found that, self-efficacy of teachers not only have role in job satisfaction, but also have role in academic achievement of students. Hoy and Spero (2005) reported another result that the efficacy declines from the first year of teaching.

The stress and burnout issues were found to be high among teachers with low self-efficacy (Betoret, 2006). Salami (2007) suggested that self- efficacy has significant relationship with work attitudes. Thus, these studies revealed the role of self-efficacy in related areas of job. Chan (2007) found out that there could be a trend of rising teacher self-efficacy as a teacher went through preparation in teaching practice. Thus, as the studies were advanced with new findings, the importance of self-efficacy also increased; previous study is a clear cut evidence for the same. Schwerdtfeger, Konermann and Schönhofen (2008) came forward with a variety of results that, self-efficacy as a health-protective resource among teachers, which have a direct relationship with favorable health outcomes. Klassen, Fosterb, Rajani and Bowman (2009) found out that there is

an influence of community and culture too in self-efficacy of teachers. Takahashi (2010) also supported this study. Investigation of Klassen and Chiu (2009) supported other studies, which found out the relationship between self-efficacy and job satisfaction. Moe, Pazzaglia and Ronconia (2009) again supported the previous result and they added the value of positive affect too along with self-efficacy. According to Takahashi (2010), teachers appeared to construct efficacy beliefs in their communities of practice. Study of Bruce, Esmonde, Ross, Dookie and Beatty (2010) listed out the factors influencing self-efficacy, such as the complexities of context, prior learning experiences, goal setting and persistence of participants. In a recent study of Ying Guo, Justice, Sawye and Tompkins (2010) among preschool teachers, revealed that the characteristic of teachers and class room are also associated with teachers' self-efficacy.

After going through all these studies, it is clear that 'self-efficacy' has a direct relationship with 'job satisfaction'. The factors influencing are complexities of context, prior learning experiences, goal setting, workload, characteristics of other teachers and class rooms, organizations, community, culture, etc. Among the reports, one study concluded that experienced teachers are less influenced by external factors; another study suggested that efficacy declines with teaching years. Health related studies revealed that; self-efficacy could be act as a favorable health factor. Studies related to stress reported that, stress will be less among the teachers with high level of self-efficacy.

Table 2 gives the details about the topics studied, year, authors and findings of the studies conducted for the last 10 years in the topic, 'job stress among teachers'. Stress is another critical factor which cunningly affects mental health of every individual. A qualitative study by Shernoff, Mehta, Atkins, Torf, and Spencer (2000) found that stress has direct impact on their physical health. Forlin (2001) tried to identify the potential stressors for regular class teachers and find out that, the lack of competence to deal with disabled children as the most stressful factor. According to him, regular class teachers were highly troubled with such kind of disability dealings. Chan (2002) in a study concluded that stress is the basic factor for the burnout of teachers. Mearns and Cain (2003) also found out stress as the factor for the burnout, but they also put forward the chance of individual difference in this case, according to their ability for negative mood regulation expectancies and coping criterias. Ben-Ari, Krole, and Har-Even (2003) reported that complex teaching strategy can stimulate lower level of stress. In 2004, Howard and Johnson reported that the resilient teachers can resist stress, but they fail to cope with because of personal

problems, rather than problems from the institution. According to Lewis (2005), teachers who are most interested in empowering students' decision making were reported more stress. Antonious, Polychroni and Vlachakis (2006) reported that female teachers have more stress than that of males and younger teachers experienced higher level of burnouts and primary teachers were more troubled than high school teachers. Galwadi (2006) found out that spontaneous place choices are related to sources of stress and that the restorative potential of place was related to support teachers. Geving (2007) investigated the teacher–student behaviours associated with teacher stress. Results revealed that, student's lack of effort in class was most strongly associated with teacher stress.

Edward and Novaes (2008), investigated the stress among teachers from both Government and Public Schools, 56.6% of teachers were reported high level of stress. Stoeber and Rennert (2008) studied perfectionism and its reactions to stress and concluded that negative reactions to imperfection and perceived pressure from students increase the stress level of teachers. According to Shirom, Oliver and Stein (2009), the relationship between stressors and strains are depending upon the intrinsic properties of strain. Study of Klassen, Fosterb, Rajani and Bowman (2009) commended the influence of culture and community in the job stress of teachers. Relationship between quality of life and occupational stress were investigated by Yanga, Gea, Hua, Chia, and Wang (2009). According to their study, the quality of life of female teachers is worse than that of male teachers and deteriorates with age, and stress has an inverse relationship with it. Tickle, Chang and Kim (2010) studied the effect of administrative support and find out that it has a meditational role with stress. Yang, Wang, Gea, Hua and Chi (2010) found out factors associated with occupational stress and strain of teachers. These are chronic diseases, days of sick leave, recent experience of a stressful life events and divorced/separated/widowed status. Arikewuyo (2010) investigated the strategies teachers adopted for stress management and the findings indicated that teachers frequently use the active behavioural and inactive strategies in managing stress. Crothers, et. al. (2010) conducted a comparative study of teachers from United States and Zimbabwe and found that Zimbabwean teachers are of greater dissatisfaction, because of poor organizational support. Rui, et. al. (2010) find out occupational stress are more among women, older teachers, professionals with more precious contracts, teachers working more hours per week and teachers with more students in the class room.

To sum up, the studies revealed the fact that, stress is the basic reason for the burnout of teachers. The problems are more among female teachers, role of community, culture, reaction to irresponsibility from the part of students, lack of administrative support, teachers with chronic diseases, with disturbed personal life, complex teaching strategies, inability to cope with stress, lack of professional competence are the major influencing factors. Findings also revealed that stress have significant adverse impact on health and use of stress management techniques is inevitable among teachers.

Conclusion:

Thus the analyses of studies related to self-efficacy and stress, revealed that these two are the factors influencing mental health of teachers in a high level. Both internal and external influences were discussed in the studies among the group of teachers from primary level to college level. Teachers with self-efficacy can deal with their stress in a good level, which will surely give a positive mental health. According to the studies, these successive teachers are ready to implement new educational practices, which make educational process simpler for all groups of students. Another interesting fact found that novice teachers were disturbed by contextual factors, while experienced teachers were found to be more stable. One of the important finding noticed is that, self-efficacy of teachers not only have role in job satisfaction, but also have role in academic achievement of students. One of the study suggested that self-efficacy has a direct relationship with favorable health outcomes. Thus, self efficacy has a major role in both mental and physical health of teachers.

Almost all studies about stress repeatedly concluded that stress is able to spread intense negative impacts on almost all areas of life. Many studies found out stress as the factor for burnout, but some studies put forward the chance of individual difference in this case, according to their ability for negative mood regulation expectancies and coping criterias. Some studies revealed out interesting facts that, teachers who are most interested in empowering students' decision making were reported more stress and that female teacher have more stress than that of males. Report of another study concluded that younger teachers experiencing higher level of burnouts and primary teachers were more troubled than high school teachers. Lack of effort from the part of students and perfectionism of teachers were other strongly associated factors for teacher stress in some studies.

Both self-efficacy and stress studies highlighted the influence of family, community and culture in the management of daily life happenings. Thus, society also wants to be aware of these things and want to support them along with the support from the Government or other administrative and organizations. By adopting strategies to empower self- efficacy of teachers, automatically their stress will decrease and thus we can mould teachers with complete mental health.

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